

CELEBRATING CENTENARY

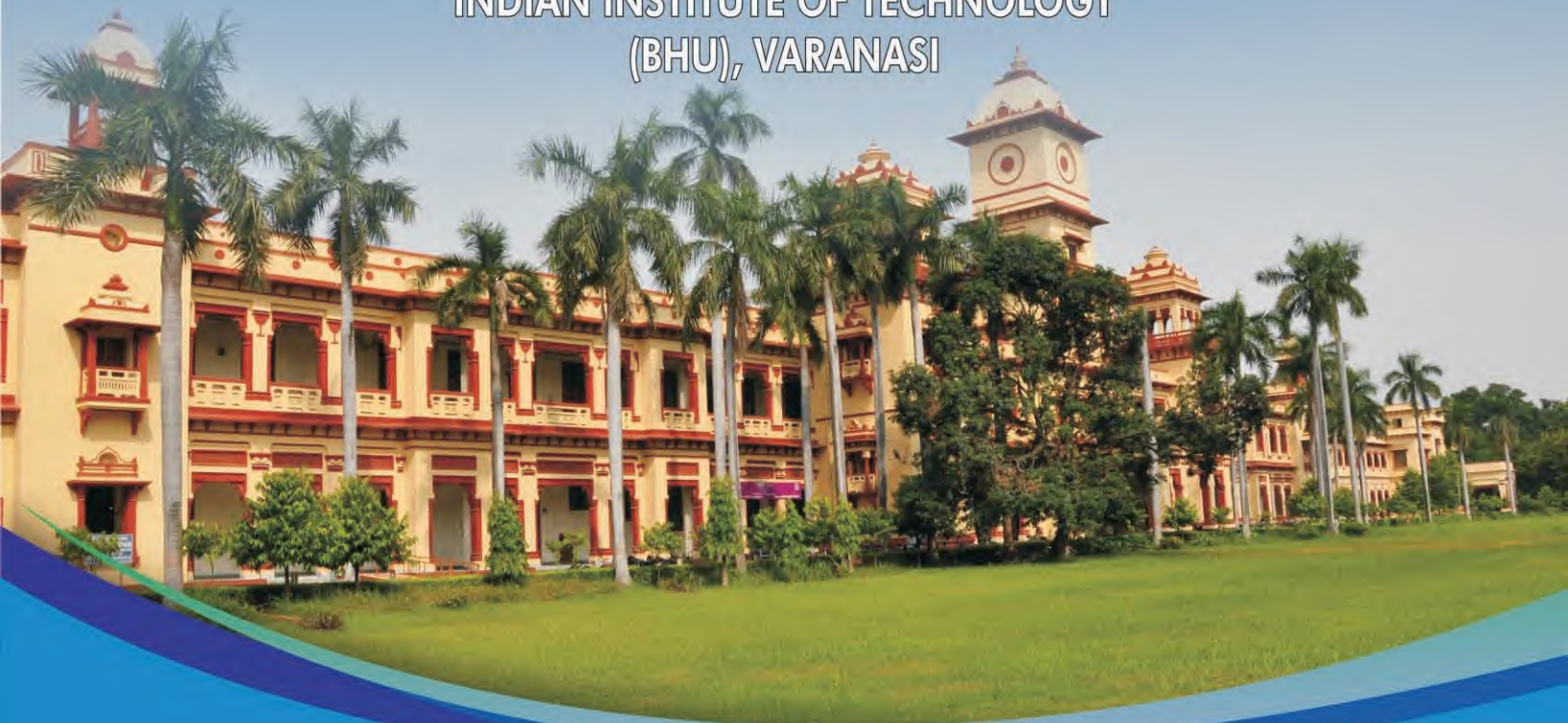


# ANNUAL REPORT

## 2017-2018



INDIAN INSTITUTE OF TECHNOLOGY  
(BHU), VARANASI



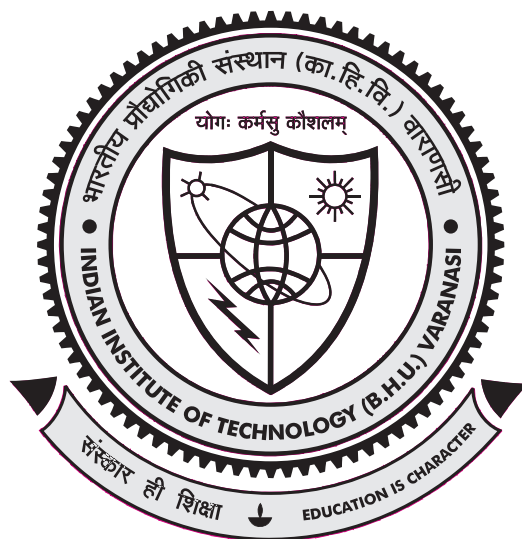
भारतीय  
प्रौद्योगिकी  
संस्थान  
काशी हिन्दू विश्वविद्यालय



INDIAN  
INSTITUTE OF  
TECHNOLOGY  
BANARAS HINDU UNIVERSITY

# ANNUAL REPORT

## 2017-18



**INDIAN INSTITUTE OF TECHNOLOGY (BHU), VARANASI**



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# 1. Director's Report

The Indian Institute of Technology (Banaras Hindu University) owes its existence to Mahamana Pandit Madan Mohan Malviya, Bharat Ratna-the founder of the first residential university of modern India, the Banaras Hindu University, who could foresee the important role of technical education in strengthening independent India.

The three of the erstwhile engineering colleges of BHU, namely BENCO, MINMET and TECHNO, were merged to form the Institute of Technology (IT-BHU) in 1968 to provide an integrated educational base. The IT-BHU has been admitting students through the JEE conducted by the IIT's since 1972, and has been consistently ranked amongst the top few engineering institutions of the country. IT-BHU became IIT (BHU) in June 29, 2012 by an Act of Parliament.

Following conversion to IIT, the Institute engaged itself in taking up the mammoth task of putting many of the procedures and practices similar to those of IITs. Recently the new statutes of IIT (BHU), passed in IIT Council have come into force.

The Institute has maintained high academic standard since its inception. It has turned out luminary engineers and administrators who served the nation with great distinction. The current student strength is 5722 with 4183 UGs, 675 M.Techs and 864 PhD students. The current faculty strength of the Institute is 273 (as against a sanctioned strength of about 502) while the number of technical & non-technical staff is 536. At present, the Institute comprises 14 Departments and 3 interdisciplinary schools. Central facilities in the Institute include Central Instrumentation Facility, Main Workshop, Centre for Computing and Information Services (CCIS), Centre for Energy Resource and Development (CERD), Institute Library and Industrial Consultancy & Testing Services.

## Academic Activities

The new curriculum for undergraduate programs has completed its 4<sup>th</sup> year. It has choice based credit system; it is project oriented and learner centric. The exploratory projects are introduced in the 2<sup>nd</sup> year to conform to layered learning through Practice-Theory-Practice Model. The implementation of UG stream projects & courses as part of UG research & innovation are also in place from this year. Humanities, Management courses and open electives are being offered across Departments.

A notable achievement of the Institute pertains to a three-week Induction Program conducted for the new entrants of JEE (Advanced). This program has been successfully conducted for about 1054 UG students admitted in the session 2017-18. In addition to credit courses like Physical Education, Creative Practice, and Human Values, newly admitted students are made aware of specialties of Campus, City, and intellectual accomplishments of Varanasi-the city of light besides familiarisation with Gymkhana activities by senior students.

Teaching Learning Cell (set up in December 2013) continues to cover all aspects of teaching, pedagogy, course delivery, laboratory projects, assessment, and is facilitating online courses.

Our students have been hired by some of the best companies. IIT(BHU) students have bagged 101 pre-placement offers. Also, the Institute boasts of its student grabbing highest placement packages of 1.38 Crore per annum which is one of the highest package offered among all IIT's. Lowest package was of 3.20 lakh per annum while average package was 13.30 Lakh per annum.

## Research & Development activities

Highly qualified faculty and talented research scholars are active in frontier areas of research and their efforts are supported by Govt. research sponsoring agencies and many reputed industries such as TISCO, HINDALCO, ONGC, SAIL, BHEL, MECON, UPSEB, FCI, Coal India etc. The total financial support for the 85 ongoing projects in the Departments and Schools and 27 fellowships is nearly Rs. 17.35 Crore including FIST/UGC-SAP funding/ Steel Technology Centre. Madan Mohan Malviya Railway Chair was established in June 2015 to undertake work related to Metallurgy & Materials. Workshop for the Railway Officers and Brain Storming Session on designing light weight smart passenger coaches was arranged. Some research projects have been awarded to us under IMPRINT.



Design and Innovation Hub has been in operation through which teachers and students can initiate projects and express their creativity. Project Varanasi and Unnat Bharat Abhiyan aim at solving technological problems dealing with issues of common man. The design and Innovation Hub (DIH) also sponsored students to participate in Shell Eco Marathon and SAE-BAJA technical competitive events. DIH also funded 120 one year extended project and 400 two months summer projects. Total students who worked on extended project during summer are 600.

Extension of our expertise and laboratory facilities to the industries of this region is an important service activity of the Institute. All the major departments of the Institute have been actively engaged in providing industrial consultancy and testing services to a large number of industries and entrepreneurs of the region and also to large industrial houses. During this year several consultancy and testing projects valued at over approximately Rs.6.45 crores were completed successfully.

The Department and Schools of the Institute have also been active in organizing seminars and symposia, summer/winter schools and co-curricular and extra-curricular activities of the students, etc.

Alumni have also come forward to support scholarships for needy students and supporting projects that have social relevance. We record our gratefulness to them.

### **Infrastructure Development**

Infrastructure development is the need of the hour for us. Renovation of hostels is an ongoing process and was done this past summer also. Construction work of a 728 seater girls hostel and 36 3BHK Apartments is near its completion.

The Computer Unit of the Institute hosts high end servers with GPUs, storage server, etc. Various campus wide scientific and research software solutions are installed on these servers which are accessible to students and faculty members of the institute through newly set up intranet network of the Institute. A High Performance Computing facility of 650 teraflops is getting set up in the Institute.

### **Students' Activities**

The Institute nurtures social, cultural and sporting activities pursued by the Students' Gymkhana and other student groups. Besides games and sports, the artistic and creative talents of students are encouraged through various activities like dramatics, debates, music, visual arts etc. and clubs like Radio, Audio, Photography, Automobile, Aero-Modelling, Cine and Computer Club. Students Gymkhana organized its annual techno-management festival Technex, cultural festival Kashi Yatra & games event Spardha. IIT(BHU) regularly participate in IIT meet.

The Institute strongly believes that an abiding social and human engagement is the hallmark of its student body. Students are involved in social service with underprivileged sections of society through the newly formed Council for Social Service which includes Kashi Utkarsh and other erstwhile informal initiatives. The other clubs are Sahyog for extending a helping hand for sharing knowledge with the darkest parts of the society, Social Projects Club to contribute to the community, Health and Hygiene Club for sanitation, health, hygiene and cleanliness among fellow human beings.

### **Conclusion**

It was a fruitful year for IIT (BHU) in terms of academics, research as well as Infrastructure. The Institute is planning ahead for excellence and developing state of the art facilities as the Institute will be celebrating its Centenary year next year. In addition, we have to also contribute to ensure full value addition of our available resources. I am sure we shall be ever more innovative and ever more active in pursuing and meeting our goals.

## 2. Apex Committees

### I. IIT Council

**Shri Prakash Javadekar**

(Chairperson, IIT Council)

Minister of Human Resource Development

#### Members

**Shri Ninong Ering**

Member of Parliament, Lok Sabha

Delhi Address:- 92, South Avenue, New Delhi-110 011

e-mail:-ninong2ering@gmail.com,

ninong.ering@sansad.nic.in

Arunachal Pradesh Address:- Mirku Dapi Village, P.O.

Pasighat, Distt. East Siang Arunachal Pradesh

**Shri Prabhat Jha**

Member of Parliament, Rajya Sabha

Delhi Address:- 28, Meena Bagh, New Delhi-110 011

e-mail :- prabhat.jha@sansad.nic.in

Madhya Pradesh Address:- 5 Ashoka Apartments,

Madhya Bharat Khadi Sangh, Near Hanuman Mandir,

Jivajiganj, Lashkur, Gwalior, Madhya Pradesh

**Shri Kumar Mangalam Birla**

(Chairman, BOG IIT Delhi) Chairman,

Aditya Birla Group, Aditya Birla Centre,

3<sup>rd</sup> Floor, S.K. Ahire Marg, Worli, Mumbai-400 030,

e-mail: chmo@adityabirla.com

**Shri R.C. Bhargava**

(Chairperson, BoG, IIT Kanpur) Chairman,

Maruti Udyog Ltd. 220, Sector 15A Noida-201 301

e-mail: rcbhargava@maruti.co.in

**Dr. Srikumar Banerjee**

Chairman, BoG, IIT Kharagpur, and

DAE Homi Bhabha Chair Professor, BARC Central

Complex Bhabha Atomic Research Centre, Trombay,

Mumbai. Tel. 25505333 M: 09833602494,

e-mail : sbanerjee1946@gmail.com

**Shri Pankaj Ramanbhai Patel**

(Chairperson, BoG, IIT Bhubaneswar)

Chairman & Managing Director Cadila Healthcare

Limited, Zydus Tower, Satellite Cross Roads,

Ahmedabad-380015, Gujarat

e-mail: pankaj@zyduscadila.com,

cmdoffice@zyduscadila.com

**Dr. B. V. R. Mohan Reddy**

Chairman, Board of Governors, Indian Institute of

Technology-Hyderabad (A.P.). and Chairman and

Managing Director, Infotech Enterprises Ltd. Plot No.

11, Software Unit Layout, Infocity, Madhapur,

Hyderabad-500081, Ph:040-23112871, (M) 9849022686

e-mail: mohan.reddy@infotech-enterprises.com

**VACANT**

Chairman, BoG,

Indian Institute of Technology-Indore,

Indore (M.P.)

**Shri Ajai Chowdhry**

Chairman, BOG, IIT Patna

Board of Governors,

Indian Institute of Technology- Patna,

Pataliputra Colony, (Bihar) and Founder HCL, 10,

Ishwar Nagar, New Delhi-110065.

Ph: 011-26848440/26849264 (M) 9810245008,

e-mail: ajai@ajaichowdhry.in

**Prof. Girish Chandra Tripathi**

Chairman, BoG, IIT(BHU), Varanasi and

Vice-Chancellor, Banaras Hindu University,

Varanasi -221 005 (U.P)

Tel: 0542-2368938, 2368339

Fax: 0542-2369100, 2369951,

e-mail: vcbhu1@gmail.com, vc\_bhu@sify.com

**Shri Abhishek Singh**

Member of Parliament, Lok Sabha

Delhi Address:- Chhattisgarh Sadan,

Near Safdarjung Hospital, New Delhi

Chhattisgarh Address:- House No.5,

Raipur-Nandgaon Road,

Kavardha P.O./Distt. Kabirdham, Chhattisgarh

09993388777 (M)

e-mail: bhishek.singh19@sansad.nic.in

**Shri Dilip Shanghvi**

(Chairperson, BOG IIT Bombay)

Managing Director, Sun Pharmaceutical Industries Ltd.,

Sun House, CTS No. 201 B/1, Western Express Highway,

Goregaon (E), Mumbai, 400063,

e-mail: piedade.dsouza@sunpharma.com

**Dr. Rajiv I. Modi**

(Chairperson, BOG, IIT Guwahati)

Chairman & Managing Director

Cadila Pharmaceuticals Limited,

Cadila Corporation Campus,

Sarkhej-Dholka Road, Bhat,

Ahmedabad-382 210, Gujarat

e-mail: rimodi@cadilapharma.co.in,

dev.mukherjee@cadilapharma.co.in



**Dr. Pawan Goenka**

Chairman, BoG, IIT Madras, Chennai-600036  
and Executive Director and President, Mahindra &  
Mahindra, Mahindra Towers, GM Bhosale Marg,  
Worli, Mumbai. Tel: 022-24970162 (Worli),  
Tel: 022-28852904 (Kandivli) M.: 09892080035  
e-mail: goenka.pawan@mahindra.com

**Chairman, BoG, IIT Roorkee**

To be appointed.  
Currently functions are being discharged by the  
Director, IIT Roorkee.

**VACANT**

Chairman, Board of Governors,  
Indian Institute of Technology, Gandhinagar

**VACANT**

Chairman, Board of Governors,  
Indian Institute of Technology-Jodhpur

**Prof. Devang V. Khakhar, Director**

Indian Institute of Technology, Bombay,  
IIT-Powai, Mumbai – 400 076  
Tel: 022-25723488/25767001  
Fax No. : 022-2572 3546, Mobile: 9820605351  
e-mail : director@iitb.ac.in

**Prof. Indranil Manna**

Director, Indian Institute of Technology, Kanpur,  
Kanpur – 208016  
Tel : 0512-2590763 (M) 8127884422  
Fax : 0512-2590260  
e-mail : director@iitk.ac.in

**Prof. Bhaskar Ramamurthi**

Director, Indian Institute of Technology, Madras,  
Madras.  
Tel : 044-2257 8001 (M): 9444008001  
Fax : 044-22578003  
e-mail : director@iitm.ac.in, bhaskar@iitm.ac.in

**Prof. Ajit Kumar Chaturvedi**

Director, Indian Institute of Technology, Roorkee,  
Roorkee – 247667. (Uttarakhand)  
Tel : 01332-285221, 285500  
Fax : 01332-273560, 282815  
e-mail : director@iitr.ernet.in

**Prof. C.V.R. Murty**

Director, Indian Institute of Technology, Jodhpur Old  
Residency Road, Ratanada, Jodhpur – 342 011  
Tele : 0291-2512141, (M) 09445567653  
Fax No. : 0291-251 6823,  
e-mail : director@iitj.ac.in

**Prof. Pushpak Bhattacharyya**

Director, Indian Institute of Technology- Patna,  
Govt. Polytechnic, Pataliputra's Colony,  
Patna – 800 013.  
Tel : 0612-2277380 / 2552001,  
Fax: 0612-2277384/383  
e-mail : director@iitp.ac.in

**Shri Subodh Bhargava**

(Chairperson, BOG, IIT Mandi) Chairman,  
TATA Communications Ltd. New Delhi A-15/1, DLF  
City, Phase I, Gurgaon 122002,  
Telephone - +91124 4063146, +91124 2563146  
Mobile +9811030342  
e-mail: S Bhargava <s.bhargava@vsnl.net

**Mrs. Lila Poonawalla**

Chairperson, Board of Governors, Indian Institute of  
Technology, Ropar (Punjab) and Padmashree  
Mrs. Lila Poonawalla, Former CMD Alfa  
Laval-Tetra Pak India,  
Chairperson Lila Poonawalla Foundation,  
Fili Villa, 101/102 Survey No.23, Balewadi,  
Baner, Pune 411 045  
Ph: 020-27224264/5/6/7, M: 09373311949  
e-mail:lila@lilapoonawalla.com,  
lilapoonawalla@hotmail.com

**Prof. Sarit Kumar Das**

Director, Indian Institute of Technology - Ropar,  
Nangal Road, Rupnagar, Punjab – 140 001.  
Fax No. : 01881-223393, Tel: 01881-223394  
(M) 09478100300  
e-mail: director\_rpr@admin.iitd.ac.in,  
mirle@materials.iisc.ernet.in

**Prof. Timothy Gonsalves**

Director, Indian Institute of Technology, Mandi,  
PWD Rest House, 2nd Floor, Near Bus Stand,  
Mandi – 175 001. (Himachal Pradesh)  
Tel: 01905-237943, (M): 9418047732,  
(F) 01905-237945,  
e-mail : director@iitmandi.ac.in

**Prof. D.C. Panigrahi**

Officiating Director,  
IIT(ISM) Dhanbad, Mob. No. 09431711056  
e-mail: dc\_panigrahi@yahoo.co.in

**Prof. P.B. Sunil Kumar**

Director, Indian Institute of Technology,  
Palakkad Palakkad(Kerala)  
Mobile No.9840329487  
e-mail: sunil@iitm.ac.in, sunil.kumarpb@gmail.com

**Prof. Rajat Moona,**

Director- IIT Bhilai-Durg  
Director, IIT Jammu (J&K) - Vacant

**Dr. Girish Sahni**

Director General (DG) of Council of Scientific  
and Industrial Research (CSIR), Anusandhan  
Bhawan, 2 Rafi Marg, New Delhi – 110 001.  
Tel : 23710472/ 23717053 , Fax : 23710618  
e-mail : dgcsir@csir.res.in, dg@csir.res.in

**Prof. Anurag Kumar,**

Director, Indian Institute of Science, Bangalore,  
Bangalore.  
Ph.: 080-23600960/3600411, Fax : 080-23600936,  
e-mail : diroff@admin.iisc.ernet.in,  
anurag@ece.iisc.ernet.in





**Secretary, Department of Information Technology,**  
Electronics Niketan, CGO Complex, Lodhi Road,  
New Delhi-11003. Phone : 24364041, Fax : 24363134,  
e-mail : secretary@mit.gov.in, secyoffice@mit.gov.in

**Prof. Ashok Jhunjunwala**  
Professor, Department of Elect. Engineering  
(Te Ne T) Group, Indian Institute of  
Technology – Madras, Chennai – 600 036 (T.N.),  
FAX: 044 – 22570120  
e-mail: ashok@nimbus.ee.iitm.ernet.in,  
ashok@tenet.res.in

**Dr. (Mrs.) Tessy Thomas**  
Outstanding Scientist' & Director Advanced  
Systems Laboratory (ASL) Hyderabad.  
(Office) : 040-24188004  
Phone (Fax) : 040-24343779 (M): 09441208877  
e-mail : director@asl.drdo.in, tessy\_1963@yahoo.com

**Prof. R.C. Budhani**  
Indian Institute of Technology, Kanpur  
Kanpur – 208016 (UP) e-mail : rcb@iitk.ac.in

**Shri R. Subrahmanayam,**  
Additional Secretary(TE) Secretary (IIT Council)  
Ministry of Human Resource Development  
Department of Higher Education, New Delhi.  
e-mail:- subrahdy@gmail.com

**Prof. V. Ramgopal Rao**  
Indian Institute of Technology, Delhi, Hauz Khas,  
New Delhi – 1100 16  
Tel : 011-26591701 (M): 9818001702  
Fax No. : 011-2658 2659  
e-mail : director@admin.iitd.ac.in

**Prof. Partha P. Chakrabarti**  
Director, Indian Institute of Technology,  
Kharagpur, Kharagpur – 721302.  
Tel: 03222-282002 Fax : 03222-282000  
(M): 9434013691  
e-mail: ppchak\_99@yahoo.com,  
ppchak@adm.iitkgp.ernet.in

**Prof. Gautam Biswas**  
Director  
Indian Institute of Technology, Guwahati,  
Guwahati – 781039.  
Phone:0361-2690401(O) (M) 8811086524  
Fax:0361-26923211, e-mail: gtm@iitg.ernet.in

**Prof. Rajeev Sangal**  
Director,  
Indian Institute of Technology (BHU),  
Varanasi – 221005 (UP)  
Phone: +91 542 2368106, 2368427, 2307000,  
6702078, Fax: +91 542 2368428, (M) 8004927336,  
e-mail: director@iitbhu.ac.in, director\_it@bhu.ac.in

**Prof. Sudhir K. Jain**  
Director,  
Indian Institute of Technology, Gandhinagar,  
Vishwakarma Govt. Engg. College (VGEC)  
Campus, Chandkheda, Visat-Gandhinagar  
Highway, Ahmedabad – 382424  
Fax : 079-2397 2583, (M): 9687600342  
e-mail : director@iitgn.ac.in, skjain@iitk.ac.in

**Prof. U.B. Desai**  
Director, Indian Institute of Technology- Hyderabad,  
Ordnance Factory Estate, Yeddumailaram – 502205,  
Andhra Pradesh  
Tele : 040-2301 6002 Fax: 040-2301 6003  
Mobile:-9491040801,  
e-mail : ubdesai@iith.ac.in  
dir@iith.ac.in, director@iith.ac.in

**Prof. R.V. Raja Kumar**  
Director,  
Indian Institute of Technology, Bhubaneswar,  
Samantapuri (Rear side of Hotel Swosti Plaza),  
Jaydev Vihar, Bhubaneswar – 751 013, Odisha  
Tele: 0674-230 6200/1291/1292  
Fax No. : 0674-230 6203,  
e-mail : director@iitbbs.ac.in

**Prof. Pradeep Mathur**  
Director, Indian Institute of Technology Indore,  
Institute of Engineering and Technology, DAVV  
Campus, Khandwa Road, Indore – 452 017.  
(M): 9820153234 Fax : 0731-236 8282, 2361482,  
e-mail : director@iiti.ac.in

**Prof. K.N. Satyanarayana**  
Director, Indian Institute of Technology, Tirupati  
Tirupati(AP) Mob. No.09444019311  
e-mail: satyakn@iitm.ac.in

**Prof. B.K. Mishra**  
Director- IIT Goa  
e-mail: bk@iitgoa.ac.in

**Prof. Seshu Pasumarthy,**  
Director, IIT Dharwad (Karnataka)

**Prof. Ved Prakash**  
Chairman University Grants Commission,  
Bahadurshah Zafar Marg, New Delhi – 110002.  
Tel : 2323 4019/6350 Fax : 2323 9659  
e-mail : cm.ugc@nic.in

**Dr. P. Rama Rao**  
Chairman, Governing Council of Indian Institute of  
Science, Bangalore and Former Vice Chancellor,  
University of Hyderabad, Balapur, Hyderabad-50005.  
(M) 09849765123  
e-mail: pallerama\_rao@yahoo.co.in



**Secretary (Expenditure)**

Ministry of Finance, Department of Expenditure, North  
Block, New Delhi – 1. Tel : 23092929, 23092663  
Fax : 23092546, e-mail : secyexp@nic.in

**Prof. Anil D. Sahasrabudhe**

Chairman,

All India Council for Technical Education (AICTE),  
7th Floor, Chanderlok Building, Janpath,  
New Delhi-110 001.

Phone No. 23724188, Fax No. 23724189,  
e-mail : chairman@aicte.ernet.in,  
chairman@aicte-india.org,  
anil.sahasrabudhe@gmail.com

**Prof. Vijayalakshmi Ravindranath**

Professor & Chair, Centre For Neuroscience,  
Indian Institute of Science, C.V. Raman Avenue,  
Bangalore-560012.

Ph.080-2293 3433, Fax.No:080-23603323  
e-mail: viji@cns.iisc.ernet.in

**Prof. S.K. Joshi,**

National Physical Laboratory,  
Dr. K S Krishnan Marg, South Patel Nagar, Pusa,  
New Delhi – 110012  
e-mail: skjoshinpl@gmail.com

**Sh. K.K. Sharma**

Secretary (Higher Education), & the current  
Chairperson, BOG of six new IITs at Tirupati,  
Jammu, Goa, Dharwad, Bhilai-Durg and Palakkad.  
Ministry of Human Resource Development New Delhi.  
e-mail:- secy.dhe@nic.in

**Ms. Darshana M. Dabral**

Joint Secretary & Financial Advisor (JS&FA),  
Ministry of Human Resource Development,  
Department of Higher Education, New Delhi.  
e-mail: jsfa.edu@gov.in

## II. Board of Governors

**1. Chairman**

**Prof. Girish Chandra Tripathi**

Vice-Chancellor (ex-officio)  
Banaras Hindu University  
Varanasi-221 005.

01.04.2017 - continuing

**2. Director (ex-officio) Member**

**Prof. Rajeev Sangal**

Director  
IIT (BHU), Varanasi - 221 005

01.04.2017 - continuing

**3. Council Nominees (Members)**

**(a) Prof. Narendra Ahuja**

Room No.3299, Electronic Niketan  
(ITRA, Media Lab Asia),  
6-CGO Complex New Delhi-110003

1.4.2017 - continuing

**(b) Shri Ganesh Bagaria**

Manviya Shiksha Sanskar Sansthan  
Opp. Vanakhandeshwar Mandi, Mandhana,  
Kanpur-209217

1.4.2017- continuing

**4. Executive Council, BHU Nominees from amongst its members**

**(a) Prof. Jagmohan Singh Rajput**

A-16, Sector P-7, Mitra Enclave  
(Opp. Greater Valley School)  
Greater Noida-201 310, Uttar Pradesh

21.04.2017 - 23.03.2018

**(b) Prof. Dhananjai Pandey**

School of Material Sciences &  
Technology, IIT (BHU)

21.04.2017 - 23.03.2018



5. **State Government Nominee (Member) (Uttar Pradesh Government Nominee)**
  - (a) **Professor Onkar Singh** 1.4.2017 - 3.7.2017  
Vice Chancellor  
Madan Mohan Malaviya University of  
Technology, Deoria Road,  
Gorakhpur - 273 010, Uttar Pradesh.
  - (b) **Shri Nitin Malhotra** 4.7.2017 - continuing  
Shree Ganga Keramos P. Ltd.  
Next to Hyundai Showroom, Shivdaspur,  
Manduadih Varanasi - 221 103
6. **Senate Nominees (Members)**
  - (a) **Prof. Nilay Krishna Mukhopadhyay,** 1.4.2017 - continuing  
Dept. of Metallurgical Engg, IIT (BHU)
  - (b) **Prof. Prabhakar Singh** 1.4.2017 - continuing  
Dept. of Physics, IIT (BHU)
7. **Registrar (ex-officio) Secretary**  
**Dr. S.P. Mathur**  
Registrar, IIT (BHU)

### III. The Senate

1. Dr. R.K. Dube, Former Professor, Dept. of Materials Science & Engg., IIT Kanpur
2. Dr. C.L. Khetrapal, Distinguished Professor, Centre of Biomedical Research, Sanjay Gandhi PGI Campus, Lucknow
3. Dr. R.C. Tripathi, Former Director & Professor, GB Pant Social Science Institute, Allahabad

#### Department of Ceramic Engineering

4. Prof. Devendra Kumar
5. Prof. Ram Pyare
6. Prof. Vinay Kumar Singh

#### Department of Chemical Engineering and Technology

7. Prof. A.K. Verma
8. Prof. A.S.K. Sinha
9. Prof. B.N. Rai
10. Prof. Pradeep Kumar Mishra
11. Prof. Pradeep Ahuja
12. Prof. Manoj Kumar Mondal
13. Prof. Ram Saran Singh
14. Prof. (Mrs.) Vijaya L. Yadava
15. Prof. Satya Vir Singh

#### Department of Civil Engineering

16. Prof. Veerendra Kumar
17. Prof. Goutam Banerjee (On Sabbatical Leave w.e.f. 26.07.2017 for one year)
18. Prof. Devendra Mohan
19. Prof. Prabhat Kumar Singh
20. Prof. Prabhat Kumar Singh Dixit
21. Prof. Sasankasekhar Mandal
22. Prof. Rajesh Kumar
23. Prof. Shyam Bihari Dwivedi



- 24. Prof. K.K. Pathak
- 25. Prof. Arun Prasad

**Department of Computer Science and Engineering**

- 26. Prof. A.K. Tripathi
- 27. Prof. K.K. Shukla
- 28. Prof. Rajeev Srivastava
- 29. Prof. S.K. Singh

**Department of Electrical Engineering**

- 30. Prof. Shiva Pujan Singh
- 31. Prof. S.K. Nagar
- 32. Prof. R.K. Pandey (On Deputation w.e.f. 11.07.2016)
- 33. Prof. Rakesh Kumar Srivastava
- 34. Prof. Rakesh Kumar Mishra
- 35. Prof. Ranjeet Mahanty
- 36. Prof. Devender Singh
- 37. Prof. Mitresh Kumar Verma
- 38. Prof. Ram Khelawan Saket

**Department of Electronics Engineering**

- 39. Prof. P. Chakrabarti (On Deputation w.e.f. 10.05.2018)
- 40. Prof. P.K. Jain (On Deputation w.e.f. 21.11.2017)
- 41. Prof. V.N. Mishra
- 42. Prof. Satyabrata Jit

**Department of Mechanical Engineering**

- 43. Prof. Virendra Pratap Singh
- 44. Prof. A.K. Agrawal
- 45. Prof. A.K. Jha
- 46. Prof. V.K. Srivastava
- 47. Prof. Santosh Kumar
- 48. Prof. S.P. Tewari
- 49. Prof. K.S. Tripathi
- 50. Prof. A.P. Harsha
- 51. Prof. Sanjay Kumar Sinha
- 52. Prof. Sandeep Kumar (On Sabbatical Leave w.e.f. 01.01.2018 to 01.07.2018)
- 53. Prof. Rajesh Kumar
- 54. Prof. Prashant Shukla
- 55. Prof. Pradumna Ghosh
- 56. Prof. Shailendra K. Shukla
- 57. Prof. Rajnesh Tyagi (On leave w.e.f. 01.02.2018 to 31.12.2018)
- 58. Prof. Saroja Kanta Panda
- 59. Prof. Prabhash Bhardwaj

**Department of Metallurgical Engineering**

- 60. Prof. R.K. Mandal
- 61. Prof. N.K. Mukhopadhyay
- 62. Prof. Sunil Mohan
- 63. Prof. (Mrs.) N.C. Shanti Srinivas
- 64. Prof. B. Nageshwar Sarma
- 65. Prof. Kamlesh Kumar Singh
- 66. Prof. Om Prakash Sinha
- 67. Prof. Indrajit Chakraborty

**Department of Mining Engineering**

- 68. Prof. B. K. Shrivastava
- 69. Prof. Netai Chandra Karmakar
- 70. Prof. Aarif Jamal
- 71. Prof. Piyush Rai
- 72. Prof. Sanjay Kumar Sharma
- 73. Prof. Suprakash Gupta

**Department of Pharmaceutics**

- 74. Prof. B. Mishra
- 75. Prof. S.K. Singh
- 76. Prof. Sanjay Singh
- 77. Prof. S.K. Shrivastava
- 78. Prof. (Mrs.) S. Hemalatha
- 79. Prof. Sairam Krishnamurthy

**Department of Chemistry**

- 80. Prof. (Mrs.) R. B. Rastogi
- 81. Prof. Prem Chandra Pandey
- 82. Prof. A.K. Mukherjee
- 83. Prof. Syed Hadi Hasan
- 84. Prof. (Mrs.) Vandana Srivastava
- 85. Prof. Yogesh Chandra Sharma
- 86. Prof. D. Tiwary
- 87. Prof. K.D. Mandal

**Department of Mathematical Sciences**

- 88. Prof. Tanmoy Som
- 89. Prof. (Mrs.) Rekha Srivastava
- 90. Prof. Lal Pratap Singh
- 91. Prof. Sanjay Kr. Pandey
- 92. Prof. (Mrs.) S. Mukhopadhyay
- 93. Prof. S.K. Upadhyay
- 94. Prof. Subir Das
- 95. Prof. Murali Krishna Vemuri

**Department of Humanistic Studies**

- 96. Prof. Prasant Kumar Panda

**Department of Physics**

- 97. Prof. D. Giri
- 98. Prof. Prabhakar Singh
- 99. Prof. Sandeep Chatterjee
- 100. Prof. Rajendra Prasad

**School of Bio-chemical Engineering**

- 101. Prof. Subir Kundu
- 102. Prof. (Mrs.) Mira Debnath (Das)
- 103. Prof. R.M. Banik
- 104. Prof. Pradeep Srivastava

**School of Bio-medical Engineering**

- 105. Prof. (Mrs.) Ranjana Patnaik
- 106. Prof. (Ms.) Nira Misra
- 107. Prof. P.K. Roy
- 108. Prof. Neeraj Sharma





### School of Materials Science & Technology

- 109. Prof. Rajiv Prakash
- 110. Prof. Pralay Maiti
- 111. Dr. Akhilesh Kumar Singh

## IV. Finance Committee

### 1. Chairman

**Prof. Girish Chandra Tripathi**  
Vice-Chancellor (ex-officio)  
Banaras Hindu University, Varanasi

01.04.2017 - continuing

### 2. Director (ex-officio) Member

**Prof. Rajeev Sangal**  
Director  
IIT (BHU)

01.04.2017 - continuing

### 3 Members nominated by the Central Government

(a) Additional Secretary (TE) (ex-officio) Member  
MHRD

(b) Joint Secretary & Financial Advisor (ex-officio) Member  
Integrated Finance Division, MHRD

### 4. Board's Nominees (members)

(a) **Professor Onkar Singh**  
[Ex-VC MMMUT, Gorakhpur],  
Dept. of Mechanical Engineering  
Harcourt Butler Technical University (HBTU)  
Nawabganj, Kanpur, U.P. - 208 002.

1.4.2017 - 4.1.2018

(b) **Prof. Rajiv Prakash**  
School of Materials Science & Technology, IIT (BHU)  
1.4.2017 - continuing

(c) **Prof. Prabhakar Singh**  
Department of Physics, IIT (BHU)  
5.1.2018 - continuing

### 5. Registrar (ex-officio) Secretary

**Dr. S.P. Mathur**  
Registrar, IIT (BHU)

## V. Building & Works Committee

1 **Prof. Rajeev Sangal,**  
Director, IIT (BHU)

**Chairman**

2 **Prof. A. K. Jain**  
Head, Department of Civil Engg.  
IIT Delhi, New Delhi- 110016

**Member**

3 **Prof. Pradeep Bhargawa**  
Department of Civil Engg.,  
IIT Roorkee, Roorkee-247667

**Member**



- |   |  |                         |
|---|--|-------------------------|
| 4 | <b>Prof. Manoj Mathur</b><br>Head Industrial Design SPA and Architect<br>(Nominee of Director, School of Planning & Architecture),<br>4 - Block - B, Indraprastha Estate, New Delhi - 110002 | <b>Member</b>           |
| 5 | <b>Sri N. Nanjappa</b><br>(Ex-Senior Superintending Engineer, CCMB, Hyderabad) Flat No. 202<br>"Grand Residency", No. 4-7-102/18<br>Lane No. 2, Sai Enclave, Habsiguda, Hyderabad - 500007   | <b>Member</b>           |
| 6 | <b>Prof. Veerendra Kumar</b><br>Chairman, IWC, IIT (BHU)   | <b>Member</b>           |
| 7 | <b>Prof.R.Mahanty</b><br>Dept. of Electrical Engg., IIT (BHU)  | <b>Member</b>           |
| 8 | <b>Dr. S.P. Mathur</b><br>Registrar, IIT (BHU)   | <b>Member-Secretary</b> |

### 3. Faculty Administration

#### Faculty Position as on 31.03.2018

Faculty Members	273
Visiting Faculty/Institute Professor/Emeritus Professor	15+24+12=51

#### Faculty Members appointed during 2017-18

Professors	02
Associate Professors	05
Assistant Professors	22
Visiting Faculty/Institute Professor	04+08=12
Contractual Faculty	07

#### List of Faculty Members appointed during 1st April 2017-31st March 2018

Sl.No.	ID No.	Name of Faculty	Designation	Department/Section	Date of Joining
1	50167	Dr. Murali Krishna Vemuri	Professor	Math. Sci.	04.10.2017
2	50143	Dr. Prasun Kumar Roy	Professor	Bio-Medical Engg.	04.07.2017
3	17533	Dr. Anil Thakur	Associate Professor	Humanistic Studies	15.02.2018
4	17532	Dr. Sanjukta Ghosh	Associate Professor	Humanistic Studies	15.02.2018
5	50196	Dr. Ajit Kumar Mishra	Associate Professor	Humanistic Studies	14.03.2018
6	50152	Dr. Marshal	Associate Professor	Bio-Medical Engg.	04.07.2017
7	50168	Dr. Pradip Paik	Associate Professor	Bio-Medical Engg.	15.11.2017
8	50171	Dr. Shinde Vijay Maruti	Assistant Professor	Chemical Engg.	12.01.2018
9	50122	Dr. Nikhil Saboo	Assistant Professor	Civil Engineering	29.05.2017
10	50130	Dr. Rosalin Sahoo	Assistant Professor	Civil Engineering	27.06.2017
11	50144	Dr. Manas Chakraboarty	Assistant Professor	Civil Engineering	14.07.2017
12	50129	Dr. Shishir Gaur	Assistant Professor	Civil Engineering	19.05.2017 (AN)
13	50183	Dr. Abhishek Mudgal	Assistant Professor	Civil Engineering	14.02.2018
14	50145	Dr. Supriya Mohanty	Assistant Professor	Civil Engineering	14.07.2017
15	50137	Dr. L. Kailasam	Assistant Professor	Com. Sci. & Engg.	05.06.2017
16	50125	Dr. Amrita Chaturvedi	Assistant Professor	Com. Sci. & Engg.	30.05.2017
17	50075	Dr. Tanima Dutta	Assistant Professor	Com. Sci. & Engg.	19.04.2017 (AN)
18	50126	Dr. Ruchir Gupta	Assistant Professor	Com. Sci. & Engg.	05.06.2017
19	50151	Dr. Pratik Chattopadhyay	Assistant Professor	Com. Sci. & Engg.	27.07.2017
20	50128	Dr. Ashish Mathur	Assistant Professor	Electronics Engg.	01.06.2017
21	50101	Dr. Smrity Dwivedi	Assistant Professor	Electronics Engg.	09.05.2017 (AN)
22	50169	Dr. Asha Gupta	Assistant Professor	Chemistry	07.12.2017
23	50172	Dr. Arindam Indra	Assistant Professor	Chemistry	01.02.2018
24	50181	Dr. Manhar Charan	Assistant Professor	Humanistic Studies	22.02.2018
25	50204	Dr. Kavya Krishna	Assistant Professor	Humanistic Studies	19.03.2018



26	50179	Dr. Puneet Kumar Bindlish	Assistant Professor	Humanistic Studies	24.02.2018
27	50178	Dr. Sukhada	Assistant Professor	Humanistic Studies	20.02.2018
28	50176	Dr. Swasti Mishra	Assistant Professor	Humanistic Studies	08.02.2018
29	50177	Dr. Amrita Dwivedi	Assistant Professor	Humanistic Studies	08.02.2018
30	50203	Dr. Vishwanath Dhittal	Assistant Professor	Humanistic Studies	26.03.2018
31	50173	Dr. Somnath Nag	Assistant Professor	Physics	27.01.2018
32	50170	Dr. Rajeev Singh	Assistant Professor	Physics	20.12.2017 (AN)
33	50199	Dr. Gauhar Abbas	Assistant Professor	Physics	15.03.2018
34	50182	Dr. Sunil Kumar Singh	Assistant Professor	Physics	19.02.2018 (AN)
35	50180	Dr. Bratindranath Mukherjee	Assistant Professor	Metallurgical Engg	09.02.2018
36	50200	Dr. Shreyansh Kumar Jain	Assistant Professor	Pharmaceutical Engg. & Tech.	15.03.2018

#### List of internal faculty members who joined during the period from April 2017-March 2018

Sl.No.	ID No.	Name of Faculty	Designation	Department/ Section	Date of Joining with (FN/AN)
1	19771	Dr. Abhishek Srivastava	Assistant Prof. to Associate Prof.	Physics	20.12.2017 (AN)
2	18210	Dr. Satya Vir Singh	Associate Professor to Professor	Chemical Engg	04.12.2017
3	13745	Dr. Vijay Laxmi Yadav	Associate Professor to Professor	Chemical Engg	04.12.2017
4	18152	Dr. Bhawna Verma	Assistant Prof. to Associate Prof.	Chemical Engg	04.12.2017
5	18479	Dr. Pradeep Kumar	Assistant Prof. to Associate Prof.	Chemical Engg	04.12.2017
6	16832	Dr. Bhaskar Biswas	Assistant Prof. to Associate Pro.	CSE	19.04.2017 (AN)
7	17184	Dr. R S Singh	Assistant Prof. to Associate Prof.	CSE	19.04.2017 (AN)
8	50014	Dr. Anil Kumar Singh	Assistant Prof. to Associate Prof.	CSE	19.04.2017 (AN)
9	18362	Dr. S. K. Singh	Associate Professor to Professor	CSE	18.07.2017
10	18188	Dr. Kamlesh Kumar Singh	Associate Professor to Professor	Met. Engg.	06.02.2018 (AN)
11	18242	Dr. Indrajit Chakraborty	Associate Professor to Professor	Met. Engg.	06.02.2018 (AN)
12	18218	Dr. Om Prakash Sinha	Associate Professor to Professor	Met. Engg.	06.02.2018 (AN)
13	18221	Dr. Nand Kishore Prasad	Assistant Prof. to Associate Prof.	Met. Engg.	06.02.2018 (AN)
14	18194	Dr. Jayant Kumar Singh	Assistant Prof. to Associate Prof.	Met. Engg.	06.02.2018 (AN)
15	16827	Dr. S. Hemalatha	Associate Professor to Professor	Pharma. Engg. & Tech.	19.02.2018
16	17684	Dr. Sairam Krishnamurthy	Associate Professor to Professor	Pharma. Engg. & Tech.	19.02.2018
17	50034	Dr. M S Muthu	Assistant Prof. to Associate Prof.	Pharma. Engg. & Tech.	19.02.2018
18	18548	Dr. Ruchi Chawla	Assistant Prof. to Associate Prof.	Pharma. Engg. & Tech.	19.02.2018
19	17514	Dr. Alakh Niranjana Sahu	Assistant Prof. to Associate Prof.	Pharma. Engg. & Tech.	19.02.2018
20	16800	Dr. N. S. Rajput	Assistant Prof. to Associate Prof.	Electronics Engg	18.07.2017 (AN)
21	18358	Dr. M. Thottappan	Assistant Prof. to Associate Prof.	Electronics Engg	18.07.2017 (AN)
22	18300	Dr. Amritanshu Pandey	Assistant Prof. to Associate Prof.	Electronics Engg	18.07.2017 (AN)
23	18299	Dr. Amit Kumar Singh	Assistant Prof. to Associate Prof.	Electronics Engg	18.07.2017 (AN)
24	17390	Dr. Saroj Kanta Panda	Associate Professor to Professor	Mech. Engg	19.02.2018 (AN)



25	16720	Dr. Prabhas Bhardwaj	Associate Professor to Professor	Mech. Engg	19.02.2018 (AN)
26	16798	Dr. Cherian Samuel	Assistant Prof. to Associate Prof.	Mech. Engg	19.02.2018 (AN)
27	17335	Dr. Rashmi Rekha Sahoo	Assistant Prof. to Associate Prof.	Mech. Engg	19.02.2018 (AN)
28	17268	Dr. Amit Tyagi	Assistant Prof. to Associate Prof.	Mech. Engg	19.02.2018 (AN)
29	16724	Dr. Jivan Vachan Tirkey	Assistant Prof. to Associate Prof.	Mech. Engg	19.02.2018 (AN)
30	17253	Dr. Nilanjan Mallik	Assistant Prof. to Associate Prof.	Mech. Engg	19.02.2018 (AN)
31	17269	Dr. Uppo Srinivas Rao	Assistant Prof. to Associate Prof.	Mech. Engg	19.02.2018 (AN)
32	17548	Dr. Ram Khelawan Saket	Associate Professor to Professor	Electrical Engg	06.02.2018
33	17549	Dr. Vivek Nandan Lal	Assistant Prof. to Associate Prof.	Electrical Engg	06.02.2018
34	18409	Dr. S. K. Upadhyay	Associate Professor to Professor	Math. Sci.	18.07.2017 (AN)
35	18363	Dr. Subir Das	Associate Professor to Professor	Math. Sci.	18.07.2017 (AN)
36	17180	Dr. Santwana Mukhopadhyay	Associate Professor to Professor	Math. Sci.	24.07.2017
37	17179	Dr. Ashokji Gupta	Assistant Prof. to Associate Prof.	Math. Sci.	18.07.2017 (AN)
38	17846	Dr. Rajesh Kumar Pandey	Assistant Prof. to Associate Prof.	Math. Sci.	18.07.2017 (AN)
39	17745	Dr. Rajeev	Assistant Prof. to Associate Prof.	Math. Sci.	18.07.2017 (AN)
40	19772	Dr. Vineet Kumar Singh	Assistant Prof. to Associate Prof.	Math. Sci.	18.07.2017 (AN)
41	16812	Dr. Neeraj Sharma	Associate Professor to Professor	Bio-Medical	29.06.2017
42	16829	Dr. Shiru Sharma	Assistant Prof. to Associate Prof.	Bio-Medical	29.06.2017
43	18117	Dr. Sanjay Kumar Rai	Assistant Prof. to Associate Prof.	Bio-Medical	29.06.2017

#### Faculty members who resigned/were relieved

S. No.	ID No.	Name of Faculty	Designation	Department/Section	Date of Relief (with FN/AN)
1	50128	Dr. Ashish Mathur	Assistant Professor	Electronics Engg	23.12.2017 (AN)

#### Faculty members who retired between April 2017-March 2018

S. No.	ID No.	Name of Faculty	Designation	Department	Date of Birth	Date of Retirement (with FN/AN)
1	13847	Dr. G V S Sastry	Professor	Met. Engg	21.04.1952	30.04.2017
2	13815	Dr. J P Dwivedi	Professor	Mech. Engg	01.07.1952	30.06.2017
3	13890	Dr. S K Srivastava	Professor	Bio-Chemical	02.07.1952	31.07.2017
4	16785	Dr. A K Kapoor	Professor	Electrical Engg	30.09.1952	30.09.2017
5	13769	Dr. R B Mishra	Professor	Com. Sci. & Engg	14.01.1953	31.01.2018

#### Faculty members/officers/staff members on long leave (Study Leave)

S. No.	Name	Designation	Department	From	To	Details
1	Dr. R K Pandey	Professor	Electrical Engineering	11.07.2016	10.07.2021	On Deputation for 5 yrs.
2	Dr. P K Jain	Professor	Electronics Engineering	21.11.2017	20.11.2022	On Deputation for 5 yrs.



**Faculty members on extraordinary leave**

S.No.	Name	Designation	Department	From	To	Details
1	Dr. Rajnesh Tyagi	Professor	Mechanical Engineering	01.02.2018	31.01.2019	EOL

**Faculty members on sabbatical leave**

S.No.	Name	Designation	Department	From To	DetailsRemarks
1	Dr. Goutam Banerjee	Professor	Civil Engg	26.07.2017	25.07.2018
2	Dr. M. Thottappan	Associate Professor	Electronics Engg	27.02.2017	05.08.2017
3	Dr. Sandeep Kumar	Professor	Mechanical Engg	01.01.2018	31.07.2018

## 4. Non-Faculty Administration

### Staff members in Position

Group A Staff	28
Scientific Officers	08
Technical Staff	263
Administrative Staff	159

### Staff Members appointed during 2017-18

Administrative Staff	78
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### List of Staff Members appointed during 1st April 2017-31st March 2018

S. No.	ID No.	Name of Staff	Designation	Department/Section	Date of Joining
1.	18545	Sri Shashank Shekhar Prasad Singh	Security Officer	Proctor's Office	18.02.2016
2.	50201	Sri Aman Kumar	Assistant Security	Proctor's Office	23.03.2018
3.	50194	Sri Rituraj Singh	Junior Engineer (Civil)		IWD06.03.2018
4.	50198	Sri Dilip Kumar Singh	Junior Engineer (Electrical)		IWD21.03.2018
5.	19521	Sri Abhishek Kumar Verma	Junior Superintendent	Establishment Section	15.03.2018
6.	50202	Sri Bhagwat Kumar Azad	Junior Superintendent	R.O. Finance	31.03.2018
7.	50184	Sri Kanu Chakraborty	Assistant Librarian	Main Library	05.03.2018
8.	50088	Ms. Rakhi Mukherji	Junior Assistant	R & D	08.05.2017
9.	50077	Sri Abhishek Shukla	Junior Assistant	Main Library	08.05.2017
10.	50095	Sri Shivang Trivedi	Junior Assistant	Accounts	08.05.2017
11.	50096	Sri Sujeet Kumar	Junior Assistant	Hostel	08.05.2017
12.	50091	Ms. Ravisha Raghuvanshi	Junior Assistant	Faculty Affairs	08.05.2017
13.	50078	Sri Ajit Kr. Yadav	Junior Assistant	GAD	08.05.2017
14.	50082	Sri Ashish Shankar Gupta	Junior Assistant	Mining Engineering	08.05.2017
15.	50093	Sri Shailendra Kumar	Junior Assistant	Ceramic Engg.	08.05.2017
16.	50098	Sri Tej Bahadur	Junior Assistant	Diary & Dispatch	08.05.2017
17.	50089	Sri Ramesh Giri	Junior Assistant	Hostel	08.05.2017
18.	50116	Sri Deepak Kr. Sinha	Junior Assistant	Bio-Chemical Engg.	15.05.2017
19.	50121	Sri Aadarsh Kr. Srivastava	Junior Assistant	Secretariat	23.05.2017
20.	50140	Sri Ankit Jain	Junior Assistant	IWD	07.06.2017
21.	50087	Ms. Poonam Yadaw	Junior Assistant	Accounts	08.05.2017
22.	50110	Sri Gaurav Kumar	Junior Assistant	GAD	12.05.2017
23.	50079	Sri Akash Mishra	Junior Assistant	Mechanical Engg.	08.05.2017
24.	50106	Sri Jasvinder Singh	Junior Assistant	NFRC	11.05.2017
25.	50113	Sri Vaibhav Tripathi	Junior Assistant	Accounts	13.05.2017



26.	50108	Sri Vikky Vishwakarma	Junior Assistant	Accounts	11.05.2017
27.	--	Sri Kumar Anand	Junior Assistant	Faculty Affairs	13.05.2017
28.	50092	Sri Rishabh Tiwari	Junior Assistant	Metallurgical Engineering	08.05.2017
29.	50076	Sri Amritesh Tripathi	Junior Assistant	Accounts	08.05.2017
30.	50118	Sri Navneet Kr. Pandey	Junior Assistant	Hostel	15.05.2017
31.	50117	Sri Kamlesh Kumar	Junior Assistant	Accounts	15.05.2017
32.	50115	Sri Ashutosh	Junior Assistant	Accounts	15.05.2017
33.	50109	Sri Atul Kr. Gupta	Junior Assistant	Pharma. Engg. & Technology	12.05.2017
34.	50114	Sri Amit Kr. Srivastava	Junior Assistant	Research & Development	15.05.2017
35.	50104	Sri Zishan Ahmed	Junior Assistant	Chemical Engg. & Tech.	09.05.2017
36.	50102	Sri Siddharth Kr. Gupta	Junior Assistant	Scholarship Section	09.05.2017
37.	50123	Sri Sagar Singh	Junior Assistant	Hostel	26.05.2017
38.	50161	Sri Vikas Prajapati	Junior Assistant	Accounts	01.08.2017
39.	50103	Sri Vipin Kr. Verma	Junior Assistant	Bio-Medical Engg.	09.05.2017
40.	50105	Sri Indrajeet Gupta	Junior Assistant	Accounts	11.05.2017
41.	50097	Sri Sunni Kr. Singh	Junior Assistant	Research & Development	08.05.2017
42.	50094	Sri Shashank Verma	Junior Assistant	Establishment Section	08.05.2017
43.	50081	Sri Ashish Kr. Vishwakarma	Junior Assistant	Electronics Engg.	08.05.2017
44.	50141	Sri Amit Kr. Kannaujia	Junior Assistant	Establishment Section	29.06.2017
45.	50112	Sri Rahul Kant Chaudhary	Junior Assistant	Physics	13.05.2017
46.	50086	Sri Manish Kr. Sonker	Junior Assistant	Accounts	08.05.2017
47.	50099	Sri Vinay Prakash Singh	Junior Assistant	Humanistic Studies	08.05.2017
48.	50120	Ms. Neha Gautam	Junior Assistant	Mining Engg.	17.05.2017
49.	50107	Sri Satish Chandra Lal	Junior Assistant	Hostel	11.05.2017
50.	50080	Ms. Anshu Kaushal	Junior Assistant	Chemistry	08.05.2017
51.	50083	Sri Atul Kr. Verma	Junior Assistant	Accounts	08.05.2017
52.	50091	Sri Ravi Kr. Sonker	Junior Assistant	Main Workshop	08.05.2017
53.	50085	Ms. Josita Sarvan	Junior Assistant	Establishment Section	08.05.2017
54.	--	Sri Mukesh Kr. Meena	Junior Assistant	Hostel	
55.	50084	Sri Indrajeet Kr. Singh	Junior Assistant	Resource & Alumni	08.05.2017
56.	50019	Sri Abhishek Kr. Sharma	Junior Assistant	Hostel	17.05.2017
57.	50100	Sri Divyanshu Singh	Junior Assistant	Bio-Medical Engg.	09.05.2017
58.	50124	Sri Vivek Kr. Jaiswal	Junior Assistant	Gymkhana	29.05.2017
59.	50137	Sri Sonu Kumar	Junior Assistant	Faculty Affairs	09.06.2017
60.	50132	Sri Prakhar Kumar	Junior Assistant	Computer Science & Engg.	07.06.2017
61.	50131	Sri Aditya Prakash Gupta	Junior Assistant	Academic (UG-CRC)	07.06.2017
62.	50139	Sri Mukesh Mondal	Junior Assistant	Institute Newsletter & Faculty Forum	13.06.2017 (AN)
63.	50133	Sri Ashwani Kumar Sonker	Junior Assistant	SMST	07.06.2017



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64.	50152	Sri Robin Kumar	Junior Assistant	Medical Reimbursement Cell	11.07.2017
65.	50135	Sri Rahul Chaudhary	Junior Assistant	QIP	08.06.2017
66.	50136	Sri Ritehs Singh	Junior Assistant	Computer Sc. & Engg. (computer Unit)	08.06.2017
67.	50134	Sri Rambish Gond	Junior Assistant	Chemistry	07.06.2017
68.	50138	Ms. Parul	Junior Assistant	Institute Data Cell	09.06.2017
69.	50147	Sri Pintu Kumar	Junior Assistant	Cafeteria	20.07.2017
70.	50185	Ms. Yadav Veena Paramahans	Junior Assistant	GAD (Diary & Dispatch)	06.03.2018
71.	50192	Ms. Pragati Gupta	Junior Assistant	Establishment Section	12.03.2018
72.	50186	Sri Rajeev Ratan Sahaya	Junior Assistant	Electronics Engg.	06.03.2018
73.	50187	Sri Ratnesh Kumar	Junior Assistant	GTAC	06.03.2018
74.	50188	Sri Dheeraj Kumar	Junior Assistant	Academic Affairs	07.03.2018
75.	50189	Sri Shubham Pandey	Junior Assistant	Computer Sc. & Engg.	08.03.2018
76.	50193	Sri Pradeep Kumar Dhanwade	Junior Assistant	Establishment Section	12.03.2018
77.	50190	Sri Mrityunjay Kumar Dubey	Junior Assistant	R.O. (Finance)	08.03.2018
78.	50197	Sri Sanjay Dangi	Junior Assistant	Academic Affairs	20.03.2018
79.	50191	Sri Lokesh Singh	Junior Assistant	Vivekanand Hostel	09.03.2018
80.	50195	Sri Arun Kumar Yadav	Trainee (Junior Asst.)	S.B. & Pension	12.03.2018

### Staff members who resigned/were relieved during 1st April 2017-31st March 2018

S. No.	ID No.	Name of Staff	Designation	Department/Section	Date of Relief (with FN/AN)
1.	50201	Sri Aman Kumar	Assistant Security	Proctor's Office	03.08.2018 (AN)
2.	50032	Sri Aditya Kaushik	Junior Superintendent	Institute Purchase Cell	30.11.2017 (AN)
3.	19521	Sri Abhishek Kumar Verma	Junior Superintendent	Establishment Section	30.06.2018 (AN)
4.	50095	Sri Shivang Trivedi	Junior Assistant	Accounts	02.01.2018 (AN)
5.	50116	Sri Deepak Kr. Sinha	Junior Assistant	Bio-Chemical Engg.	04.05.2018 (AN)
6.	--	Sri Kumar Anand	Junior Assistant	Faculty Affairs	28.05.2017 (AN)
7.	50086	Sri Manish Kr. Sonker	Junior Assistant	Accounts	04.08.2017 (AN)
8.	50085	Ms. Josita Sarvan	Junior Assistant	Establishment Section	05.09.2017 (AN)
9.	--	Sri Mukesh Kr. Meena	Junior Assistant	Hostel	30.11.2017 (AN)

### Staff member who retired between 1st April 2017-31st March 2018.

S.No.	ID No.	Name of the Staff	Designation	Department	Date of Birth	Date of Retirement (with FN/AN)
1.	17667	Sri Chhanannu Lal Kashyap	Sr. Technician	Mechanical	02.04.1957	30.04.2017



2.	16005	Sri Vinod Kumar Srivastava	Tech. Superintendent	Electronics	10.05.1957	31.05.2017
3.	13933	Sri Arun Kishor Verma	Tech. Superintendent	Electronics	20.05.1957	31.05.2017
4.	13685	Sri Daya Shankar Singh	Tech. Superintendent	Chemistry	01.08.1957	31.07.2017
5.	16166	Sri Gaya Baksh Singh	Jr. Technician	Director' Office	08.08.1957	31.08.2017
6.	14119	Sri Amar Nath Sharma	Jr. Tech. Superintendent	Smst	01.11.1957	31.10.2017
7.	13605	Sri Bachcha Lal	Tech. Superintendent	Main Workshop	05.10.1957	31.10.2017
8.	14114	Sri Ashok Kumar	Sr. Technician	Metallurgical	01.01.1958	31.12.2017
9.	14146	Sri Daya Ram Singh Yadava	Sr. Technician	Chemical	07.03.1958	31.03.2018

### Annual Report Data of General Administration Section

#### Staff Welfare

#### Human resource development

##### (a) External training

S.No	No. of Persons who attended	Course Title	Duration	Section/ Department	Organization where attended
1	1	Workshop on "The Sexual harassment of women at workplace (Prevention, Prohibition and Redressal) Act-2013"	28.04.2017		K.N.Uduppa Hall, BHU
2	2	Filling of Master data & related works in Universities and Institutes	01.06.2017		Bhagidaari Bhawan, Lucknow
3	1	National Academic Depository (NAD) Awareness	30.06.2017		BSSS College, Near Habibganj Railway Station, Bhopal (M.P).
4	1	Administrative Vigilance: Role of IO/PO	07.08.2017 to 11.08.2017		ISTM, New Delhi
5	1	Record Management-Right to Information	16.08.2017 to 18.08.2017		ISTM, New Delhi
6	2	Government e-Marketplace (GeM) and GFRs 2017	21.08.2017 to 22.08.2017		NIFM, Faridabad
7	2	Goods and Services Tax (GST)	23.08.2017 to 25.08.2017		NIFM, Faridabad
8	2	Goods and Services Tax (GST)	06.09.2017 to 08.09.2017		NIFM, Faridabad
9	2	PFMS EAT Module	29.09.2017		INGAF, Delhi
10	1	Training Programme for the users of UGC Scholarship/Fellowship web portal	03.10.2017		Mata Sundari College, Near Bal Bhawan, ITO, New Delhi.
11	2	Advance Public Procurement	23.10.2017 to 27.10.2017		NIFM, Faridabad
12	1	Short Term Translation Training Programme	27.11.2017 to 01.12.2017		BHU, Varanasi





13	2	Advance Public Procurement	08.01.2018 to 13.01.2018	NIFM, Faridabad
14	1	Implementation of 7th Pay Commission	13.01.2018	IIT Kanpur
15	1	Asia Steel International Conference	06.02.2018 to 09.02.2018	Bhubaneswar
16	1	MHRD Higher Education Leadership Development Programme for Group-II Officers	26.02.2018 to 28.02.2018	National University of Educational Planning and Administration (NUEPA), New Delhi

#### (b) Internal training

S. no.	No. of Persons who attended	Course Title	Duration	Section/ Department	Organization where attended
1.	82	Purchase Procedure & Processing of Bills	19.04.2017		ABLT, IIT(BHU)
2.	59	Work Shop on Noting & Drafting	24-25 August, 2017 & 26-27 August, 2017 (in 2 batches)		ABLT, IIT(BHU)
3.	78	Two days training Programme of E- Procurement	09-10 September, 2017		Committee Room, Ground Floor, Department of Mechanical Engineering, IIT (BHU)
4.	17	Workshop on Noting & Drafting, Office Procedures, Communication Skill and Conduct Rules,	07th - 08th December, 2017		ABLT, IIT(BHU)

#### Hindi Promotion Activities

##### हिन्दी पखवाड़ा ( सितम्बर 1 - 15 , 2017 )

संस्थान में हिन्दी पखवाड़ा का आयोजन दिनांक 01.09.2017 से दिनांक 15.09.2017 तक किया गया। हिन्दी पखवाड़ा के दौरान निम्नलिखित आयोजन किये गए.

2017 से दिनांक 15.09.2017 तक किया गया। हिन्दी पखवाड़ा के दौरान निम्नलिखित आयोजन किये गए.

##### 1. हिन्दी पखवाड़ा का उद्घाटन

संस्थान में हिन्दी पखवाड़ा (सितंबर 1 से 15, 2017) के अंतर्गत दिनांक 01.09.2017 को एनी बेसेंट व्याख्यान कक्ष संकुल में हिन्दी पखवाड़ा के उद्घाटन समारोह का आयोजन किया गया। समारोह का उद्घाटन संस्थान के निदेशक आचार्य राजीव संगल द्वारा किया गया। इस कार्यक्रम में संस्थान के कुलसचिव ने वर्ष 2016-17 के दौरान हिन्दी में किए गये कार्यों की आख्या प्रस्तुत की। इस अवसर पर निदेशक महोदय द्वारा संस्थान कर्मचारियों को कार्यालयी कार्य अधिकाधिक हिन्दी में करने हेतु अपील जारी की गयी। साथ ही श्री जगदीश नारायण राय, संयोजक, केंद्रीय सचिवालय हिन्दी परिषद, वाराणसी द्वारा प्रतिभागियों को संघ की राजभाषा नीति एवं उसके कार्यान्वयन के बारे में बताया गया।

2017 को एनी बेसेंट व्याख्यान कक्ष संकुल में हिन्दी पखवाड़ा के उद्घाटन समारोह का आयोजन किया गया। समारोह का उद्घाटन संस्थान के निदेशक आचार्य राजीव संगल द्वारा किया गया। इस कार्यक्रम में संस्थान के कुलसचिव ने वर्ष 2016.17 के दौरान हिन्दी में किए गये कार्यों की आख्या प्रस्तुत की। इस अवसर पर निदेशक महोदय द्वारा संस्थान कर्मचारियों को कार्यालयी कार्य अधिकाधिक हिन्दी में करने हेतु अपील जारी की गयी। साथ ही श्री जगदीश नारायण राय संयोजक केंद्रीय सचिवालय हिन्दी परिषद वाराणसी द्वारा प्रतिभागियों को संघ की राजभाषा नीति एवं उसके कार्यान्वयन के बारे में बताया गया।



2. “उच्च शिक्षा के गुणात्मक विकास में राजभाषा हिन्दी का योगदान एवं चुनौतियाँ” विषय पर निबंध प्रतियोगिता  
दिनांक 01.09.2017 से 08.09.2017 के मध्य “उच्च शिक्षा के गुणात्मक विकास में राजभाषा हिन्दी का योगदान एवं चुनौतियाँ” विषय पर निबंध प्रतियोगिता का आयोजन निम्नलिखित चार वर्गों में किया गया –  
(क) पूर्व छात्र  
(ख) शैक्षणिक  
(ग) गैर-शैक्षणिक  
(घ) विद्यार्थी  
पूर्व छात्र हेतु निबंध प्रतियोगिता हेतु अधिष्ठाता (पूर्व छात्र) शैक्षणिक एवं गैर-शैक्षणिक कर्मचारियों के लिये प्रतियोगिता हेतु समस्त विभाग व अनुभाग तथा विद्यार्थी के लिए अधिष्ठाता (छात्र कार्य) से अनुरोध किया गया। उक्त प्रतियोगिता हेतु 3 छात्रों एवं 7 गैर-शैक्षणिक कर्मचारियों के निबंध प्राप्त हुए।
3. हिन्दी की पुस्तकों की प्रदर्शनी  
दिनांक 04.09.2017 को संस्थान के मुख्य पुस्तकालय में हिन्दी की पुस्तकों की प्रदर्शनी का आयोजन किया गया। उक्त प्रदर्शनी संस्थान के छात्र-छात्राओं और कर्मचारियों के लिए बहुत उपयोगी साबित हुई।
4. हिन्दी टिप्पण लेखन एवं पत्राचार प्रतियोगिता  
दिनांक 06.09.2017 को हिन्दी टिप्पण लेखन एवं पत्राचार प्रतियोगिता का आयोजन एनी बेसेंट व्याख्यान कक्ष संकुल में किया गया, जिसमें कुल 19 गैर-शैक्षणिक कर्मचारियों ने भाग लिया।
5. कंप्यूटर पर हिन्दी में कार्य करने हेतु एक दिवसीय तकनीकी कार्यशाला का आयोजन  
दिनांक 08.09.2017 को कंप्यूटर पर हिन्दी में कार्य करने हेतु एक दिवसीय तकनीकी कार्यशाला का आयोजन किया गया। उक्त कार्यशाला में श्री राजेन्द्र प्रसाद वर्मा, सहायक निदेशक, हिन्दी शिक्षण योजना, राजभाषा विभाग, गृह मंत्रालय द्वारा प्रशिक्षण दिया गया। कार्यशाला में श्री राजेन्द्र प्रसाद वर्मा जी ने संस्थान के अधिकारियों/कर्मचारियों को कंप्यूटरों में यूनिकोड सक्रिय करना, मंत्र- राजभाषा अंग्रेजी से हिन्दी अनुवाद सॉफ्टवेयर का परिचय, अनुवाद के संदर्भ में एमएस वर्ड में वर्तनी की शुद्धता की जाँच करने की सुविधाएँ श्रुतलेखन-राजभाषा स्पीच टू टेक्स्ट सॉफ्टवेयर का परिचय, मोबाइल फोन में बोलकर टाइप करने, स्कैन डाक्यूमेंट का अनुवाद करने, स्क्रीन पर हाथ से लिखने, मोबाइल में बोलकर डाक्यूमेंट रूप में कंप्यूटर में टाइप करने की सुविधाएँ टेक्स्ट टू स्पीच सॉफ्टवेयर का परिचय आदि के बारे में बताया। इस कार्यशाला में संस्थान के कुल 69 अधिकारी/कर्मचारीगण ने प्रशिक्षण प्राप्त किया।
6. यूनिकोड के माध्यम से हिन्दी टंकण प्रतियोगिता  
दिनांक 11.09.2017 को संस्थान के प्रथम वर्ष संगणक प्रयोगशाला, यांत्रिक अभियांत्रिक विभाग में यूनिकोड के माध्यम से हिन्दी टंकण प्रतियोगिता का आयोजन किया गया। इसमें कुल 22 गैर-शिक्षण कर्मचारियों ने भाग लिया।
7. हिन्दी दिवस समारोह  
दिनांक 14.09.2017 को संस्थान में हिन्दी दिवस समारोह का आयोजन एनी बेसेंट व्याख्यान कक्ष संकुल में किया गया। कार्यक्रम का आयोजन पं० मदन मोहन मालवीय जी की प्रतिमा पर माल्यार्पण एवं दीप प्रज्ज्वलन के साथ हुआ। आचार्य सुशांत कुमार श्रीवास्तव, भेषजकीय अभियांत्रिकी एवं प्रौद्योगिकी विभाग एवं अध्यक्ष, हिन्दी पखवाड़ा समिति ने कार्यक्रम में आए सभी अतिथियों एवं सहभागियों के लिए स्वागत संबोधन प्रस्तुत किया।  
कुलसचिव महोदय ने हिन्दी पखवाड़ा की अवधि में संस्थान में दिनांक 01.09.2017 से 14.09.2017 के मध्य आयोजित कार्यक्रम व प्रतियोगिताओं की आख्या प्रस्तुत की। तत्पश्चात् आचार्य सुशांत कुमार श्रीवास्तव ने माननीय गृह मंत्री का हिन्दी दिवस के अवसर पर जारी संदेश का पठन किया।

#### प्रशासनिक शब्दावली ऐप की लांचिंग



संस्थान के संगणक विज्ञान एवं अभियांत्रिकी विभाग द्वारा विकसित 'प्रशासनिक शब्दावली' का एंड्रायड शब्दकोश ऐप की लांचिंग की गयी। इस ऐप का उद्देश्य कार्यालयों में हिन्दी के प्रयोग को बढ़ावा देना, इंटरनेट पर निर्भरता को कम करना एवं अंग्रेजी शब्दों के हिन्दी अनुवाद तथा उच्चारण की जानकारी उपलब्ध कराना है।

### पुरस्कार वितरण

निदेशक महोदय ने दिनांक 01.09.2017 से दिनांक 11.09.2017 के मध्य आयोजित सभी प्रतियोगिताओं के प्रथम, द्वितीय एवं तृतीय निम्नलिखित विजेता कर्मचारियों/विद्यार्थियों को पुरस्कृत किया-

- दिनांक 06.09.2017 को आयोजित हिन्दी टिप्पण लेखन एवं पत्राचार प्रतियोगिता में प्रथम श्री संदीप प्रजापति, द्वितीय श्री आदर्श कुमार श्रीवास्तव एवं तृतीय श्री आशीष कुमार श्रीवास्तव को पुरस्कृत किया गया।
- दिनांक 11.09.2017 को आयोजित यूनिकोड के माध्यम से हिन्दी टंकण प्रतियोगिता में प्रथम श्री जी जगन मोहन, द्वितीय श्री संदीप प्रजापति एवं तृतीय श्री अंकित जैन को पुरस्कृत किया गया।
- दिनांक 01.09.2017 से दिनांक 08.09.2017 के मध्य आयोजित "उच्च शिक्षा के गुणात्मक विकास में राजभाषा हिन्दी का योगदान एवं चुनौतियाँ" विषय पर निबंध प्रतियोगिता के विद्यार्थी वर्ग में प्रथम श्री अनिकेत सचान, तृतीय वर्ष, विद्युतीय अभियांत्रिकी विभाग, द्वितीय सुश्री रूपाली घरात, प्रथम वर्ष, सिरामिक अभियांत्रिकी विभाग एवं तृतीय श्री विकास पाण्डेय, चतुर्थ वर्ष, सिविल अभियांत्रिकी विभाग को पुरस्कृत किया गया।
- उक्त प्रतियोगिता के गैर-शैक्षणिक कर्मचारी वर्ग में प्रथम श्री ओंकार, द्वितीय श्री सिद्धार्थ कुमार गुप्ता एवं तृतीय श्री संदीप प्रजापति को पुरस्कृत किया गया।

इस अवसर पर संस्थान के निदेशक महोदय ने अपना संबोधन प्रस्तुत किया, जिसमें उन्होंने हिन्दी भाषा को सरल एवं सक्षम बताया तथा हिन्दी भाषा के व्याकरण के महत्व पर प्रकाश डाला। उन्होंने कर्मचारियों को हिन्दी में कार्य करने की अपील की।

हिन्दी दिवस समारोह के अवसर पर विज्ञान एवं प्रौद्योगिकी से जुड़े दो आमंत्रित अतिथि वक्ताओं डॉ. सुरेश प्रसाद व्यास, पूर्व कुलपति, डा. हरि सिंह गौर विश्वविद्यालय, सागर, मध्यप्रदेश व प्रो. रमाशंकर दुबे, पूर्व कुलपति, तिलका मांझी विश्वविद्यालय, भागलपुर, बिहार तथा गुरु घासीदास विश्वविद्यालय, बिलासपुर, छत्तीसगढ़ द्वारा हिन्दी में व्याख्यान प्रस्तुत किया गया। डॉ. सुरेश प्रसाद व्यास ने हिन्दी को एक सशक्त भाषा बताया तथा चिंतन व दर्शन के क्षेत्र में हिन्दी की महत्ता बतायी। उन्होंने विज्ञान से जुड़े कई तथ्यों को हिन्दी में प्रस्तुत किया एवं उपस्थित लोगों को उन तथ्यों से अवगत कराया। प्रो. रमाशंकर दुबे ने बताया कि हिन्दी का प्रचलन विदेशों में काफी बढ़ा है। हिन्दी बोलचाल, व्यापार एवं शिक्षा की भाषा है। चूंकि मौलिक चिंतन अपनी भाषा में ही होता है अतः ज्ञान, विज्ञान एवं न्यायालय की भाषा हिन्दी हो। हिन्दी एक ऐसी भाषा है जो जैसी बोली जाती है वैसी लिखी जाती है।

कार्यक्रम का समापन संस्थान के संयुक्त कुलसचिव (प्रशासन) श्री राजन श्रीवास्तव के धन्यवाद ज्ञापन से हुआ।

## 5. Academic Programmes and Award of Degrees

The Institute offered Ph.D. programmes in all 17 departments (Department of Humanistic Studies established in 2015-16), M.Tech. programme in 13 streams/specializations, M.Pharm. programme in one stream/specialization, B.Tech. programmes in 10 engineering departments, Dual Degree (B.Tech. and M.Tech.) programmes in 14 engineering departments/schools/science departments, besides a preparatory course for SC/ST students during the year under report.

### Admissions 2017–2018

Candidates for admission to the 4-Year B.Tech. and 5-Year Dual Degree programmes were selected through JEE(Advanced) and on the basis of the All India Rank. 2-Year M.Tech./M.Pharm. programmes, candidates get admitted on the basis of GATE/GPAT score. Quite a few candidates were also selected for the M.Tech. programme under the Sponsored and Q.I.P. programmes through interviews and/or written tests. Selection for the Ph.D. programmes was done through tests/interviews, they must qualify the GATE or GPAT or UGC/CSIR-NET.

The number of students and scholars admitted to the various programmes in July 2017 and in January 2018 are listed in Table as shown below.

**Table Fresh admissions**

Sl. No.	Department/School	B.Tech.	Dual Degree (B.Tech. & M.Tech.)	M.Tech.	M.Pharm.	Ph.D.	Total
1.	Biochemical Engineering	---	16	9	---	8	33
2.	Biomedical Engineering	---	17	7	---	9	33
3.	Ceramic Engineering	54	17	11	---	20	102
4.	Chemical Engineering	118	---	47	---	14	179
5.	Chemistry	---	21	---	---	18	39
6.	Civil Engineering	80	20	57	---	15	172
7.	Computer Science and Engineering	59	16	---	---	36	111
8.	Electrical Engineering	79	20	40	---	10	149
9.	Electronics Engineering	80	---	40	---	27	147
10.	Humanistic Studies	---	---	---	---	1	1
11.	Industrial Management	---	---	8	---	3	11
12.	Materials Science and Technology	---	21	11	---	17	49
13.	Mathematical Sciences	---	19	---	---	25	44
14.	Mechanical Engineering	98	19	46	---	18	181
15.	Metallurgical Engineering	67	21	22	---	15	125
16.	Mining Engineering	95	21	23	---	15	154
17.	Pharmaceutical Engineering and Technology	58	20	---	33	8	119
18.	Physics	---	18	---	---	31	49
19.	Systems Engineering	---	---	5	---	2	7
<b>Total</b>		<b>788</b>	<b>266</b>	<b>326</b>	<b>33</b>	<b>292</b>	<b>1705</b>

In addition, 6 students (OBCPD – 2; GEPR – 4) joined the preparatory course.



### Category/Gender-wise students among fresh admissions

Sl. No.	Programme	General		OBC		SC		ST		PD		Total		Total
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
1.	B.Tech.	344	32	207	09	111	8	57	6	14	---	733	55	788
2.	Dual Degree (B.Tech. & M.Tech.)	107	16	60	3	37	3	30	7	3	---	237	29	266
3.	M.Tech.	131	21	95	4	41	10	16	5	3	---	286	40	326
4.	M.Pharm.	10	2	12	2	5	1	1	---	---	---	28	5	33
5.	Ph.D.	112	35	80	22	28	7	5	1	2	---	227	65	292
<b>Total</b>		<b>704</b>	<b>106</b>	<b>454</b>	<b>40</b>	<b>222</b>	<b>29</b>	<b>109</b>	<b>19</b>	<b>22</b>	<b>---</b>	<b>1511</b>	<b>194</b>	<b>1705</b>

### The students admitted during the year included the following

Foreign National	Nil.	Q.I.P.	Nil.	Nil.
OBC	494	Sponsored	M.Tech. Ph.D.	--- 01
Scheduled Castes	251	Project		---
Scheduled Tribes	128	External registration	Ph.D.	---
Physically handicapped	22			
Women Students	194			

### Enrolment of Students/Scholars

The total numbers of students on roll in various programmes of the Institute in the academic year 2017–2018 are provided in Table.

**Table: Students on roll**

Sl. No.	Department/School	B.Tech.	Dual Degree (B.Tech. & M.Tech.)	M.Tech.	M.Pharm.	Ph.D.	Total
1.	Biochemical Engineering	---	65	15	---	24	104
2.	Biomedical Engineering	---	69	13	---	25	107
3.	Ceramic Engineering	177	67	26	---	44	314
4.	Chemical Engineering	433	---	93	---	62	588
5.	Chemistry	---	72	---	---	59	131
6.	Civil Engineering	314	101	84	---	57	556
7.	Computer Science and Engineering	254	82	---	---	46	382
8.	Electrical Engineering	343	109	80	---	53	585
9.	Electronics Engineering	343	---	75	---	61	479
10.	Humanistic Studies		---	---		8	8



11.	Industrial Management	---	---	13	---	15	28
12.	Materials Science and Technology	---	77	22	---	62	161
13.	Mathematical Sciences	---	108	---	---	62	170
14.	Mechanical Engineering	428	106	89	---	75	698
15.	Metallurgical Engineering	237	91	46	---	44	418
16.	Mining Engineering	338	78	41	---	51	508
17.	Pharmaceutical Engineering and Technology	148	59	---	68	53	328
18.	Physics	---	84	---	---	55	139
19.	Systems Engineering	---	---	10	---	8	18
<b>Total</b>		<b>3015</b>	<b>1168</b>	<b>607</b>	<b>68</b>	<b>864</b>	<b>5722</b>

### Category/Gender-wise students on roll

Sl. No.	Programme	General		OBC		SC		ST		PD		Total		Total
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
1.	B.Tech.	1349	99	794	41	425	30	204	17	53	3	2825	190	3015
2.	Dual Degree (B.Tech. & M.Tech.)	486	57	281	18	172	14	98	17	23	2	1060	108	1168
3.	M.Tech.	236	37	187	11	76	15	36	6	3	0	538	69	607
4.	M.Pharm.	19	8	19	7	12	2	1	0	0	0	51	17	68
5.	Ph.D.	336	85	221	45	108	33	28	7	1	0	694	170	864
<b>Total</b>		<b>2426</b>	<b>286</b>	<b>1502</b>	<b>122</b>	<b>793</b>	<b>94</b>	<b>367</b>	<b>47</b>	<b>80</b>	<b>5</b>	<b>5168</b>	<b>554</b>	<b>5722</b>

### The students on roll including the following

Foreign National	---	Q.I.P.	7
OBC	1624	Sponsored	M.Tech. 4 Ph.D. 9
Scheduled Castes	887	Project	4
Scheduled Tribes	414	External registration	Ph.D. 5
Physically handicapped	85		
Women Students	554		

The branch-/discipline-wise and year-wise details of students enrolled in the 4-Year B.Tech., 5-Year Dual Degree B.Tech.-M.Tech. programmes are provided here:





#### 4-Year B.Tech. students on roll

Sl. No.	Branch	2017	2016	2015	2014 and earlier batches	Total
1.	Ceramic Engineering	54	49	44	30	177
2.	Chemical Engineering	118	107	105	103	433
3.	Civil Engineering	80	81	76	77	314
4.	Computer Science and Engineering	59	65	65	65	254
5.	Electrical Engineering	79	88	88	88	343
6.	Electronics Engineering	79	88	88	88	343
7.	Mechanical Engineering	98	110	110	110	428
8.	Metallurgical Engineering	67	59	56	55	237
9.	Mining Engineering	95	87	85	71	338
10.	Pharmaceutical Engineering and Technology	58	44	39	7	148
<b>Total</b>		<b>787</b>	<b>778</b>	<b>756</b>	<b>694</b>	<b>3015</b>

#### 5-Year Dual Degree (B.Tech. and M.Tech.) students on roll

Sl.	Branch	2017	2016	2015	2014	2013 and earlier batches	Total
1.	Biochemical Engineering	16	14	13	11	11	65
2.	Biomedical Engineering	17	19	13	10	10	69
3.	Ceramic Engineering	17	15	15	8	12	67
4.	Chemistry	21	17	12	13	9	72
5.	Civil Engineering	20	22	21	18	20	101
6.	Computer Science and Engineering	16	17	17	17	15	82
7.	Electrical Engineering	20	22	22	22	23	109
8.	Materials Science and Technology	11	11	20	20	15	77
9.	Mathematical Sciences	19	22	22	22	23	108
10.	Mechanical Engineering	19	22	22	22	21	106
11.	Metallurgical Engineering	21	18	16	21	15	91
12.	Mining Engineering	21	18	19	8	12	78
13.	Pharmaceutical Engineering and Technology	20	13	9	6	11	59
14.	Physics	18	19	21	13	13	84
<b>Total</b>		<b>256</b>	<b>249</b>	<b>242</b>	<b>211</b>	<b>210</b>	<b>1168</b>

**2-Years M.Tech. students on roll**

Sl. No.	Branch	2017	2016	Extended students	Total
1.	Biochemical Engineering	8	7	---	15
2.	Biomedical Engineering	6	7	---	13
3.	Ceramic Engineering	11	15	---	26
4.	Chemical Engineering	47	46	---	93
5.	Civil Engineering	54	30	---	84
6.	Electrical Engineering	40	40	---	80
7.	Electronics Engineering	40	35	---	75
8.	Industrial Management	7	6	---	13
9.	Materials Science and Technology	11	11	---	22
10.	Mechanical Engineering	45	44	---	89
11.	Metallurgical Engineering	22	24	---	46
12.	Mining Engineering	21	20	---	41
13.	Systems Engineering	5	5	---	10
<b>Total</b>		<b>317</b>	<b>290</b>	<b>---</b>	<b>607</b>

**2-Years M.Pharm. students on roll**

Sl. No.	Branch	2017	2015	Extended students	Total
1.	Pharmaceutical Engineering & Technology	33	35	---	68
<b>Total</b>		<b>33</b>	<b>35</b>	<b>---</b>	<b>68</b>

**Ph.D. scholars on roll**

Sl. No.	Branch	a2017	a2016	a2015	a2014	2013 and previous years	Total
1.	Biochemical Engineering	8	4	3	0	9	24
2.	Biomedical Engineering	9	8	5	1	2	25
3.	Ceramic Engineering	20	10	7	3	4	44
4.	Chemical Engineering	14	13	14	9	12	62
5.	Chemistry	18	14	12	7	8	59
6.	Civil Engineering	15	19	13	6	4	57
7.	Computer Science and Engineering	29	10	3	4	0	46
8.	Electrical Engineering	10	12	11	11	9	53
9.	Electronics Engineering	27	5	14	10	5	61



10. Humanistic Studies	1	0	5	2	0	8
11. Industrial Management	3	4	2	3	3	15
12. Materials Science and Technology	17	13	11	12	9	62
13. Mathematical Sciences	23	14	11	10	4	62
14. Mechanical Engineering	19	16	20	4	16	75
15. Metallurgical Engineering	15	8	10	3	8	44
16. Mining Engineering	15	9	12	8	7	51
17. Pharmaceutical Engineering and Technology	8	12	19	10	4	53
18. Physics	30	11	9	4	1	55
19. Systems Engineering	2	2	1	2	1	8
<b>Total</b>	<b>283</b>	<b>184</b>	<b>182</b>	<b>109</b>	<b>106</b>	<b>864</b>

### Students Intake in different programmes

The Institute offered the following programmes in various departments/school. The Department/School-wise Intake is given below:

### Department/Programme-wise Intake capacity

COURSES		Students Intake				
		GE	SC	ST	OBC	PC#
Four-Years B.Tech. Programmes						
1.	Ceramic Engineering	30	9	4	16	(2)
2.	Chemical Engineering	60	18	9	32	(4)
3.	Civil Engineering	40	12	6	22	(2)
4.	Computer Science & Engg.	30	9	4	16	(2)
5.	Electrical Engineering	40	12	6	22	(2)
6.	Electronics Engineering	40	12	6	22	(2)
7.	Mechanical Engineering	50	15	8	27	(3)
8.	Metallurgical Engineering	35	10	5	19	(2)
9.	Mining Engineering	50	15	8	27	(3)
10.	Pharmaceutical Engineering and Technology	35	10	5	19	(2)
<b>Total in 4 year B.Tech. / B.Pharm</b>		<b>410</b>	<b>122</b>	<b>61</b>	<b>222</b>	<b>(24)</b>
Five-Years Integrated M.Tech. Dual Degree Programmes						
11.	Engineering Physics	10	3	2	5	(1)
12.	Industrial Chemistry	10	3	2	5	(1)
13.	Mathematics & Computing	10	3	2	5	(1)



14.	Biochemical Engineering	10	3	2	5	(1)	20
15.	Bioengineering with M.Tech. in Biomedical Technology	10	3	2	5	(1)	20
16.	Ceramic Engineering	10	3	2	5	(1)	20
17.	Civil Engineering with M.Tech. in Structural Engg.	10	3	2	5	(1)	20
18.	Computer Science & Engineering	8	2	1	4	(1)	15
19.	Electrical Engineering with M.Tech. in Power Electronics	10	3	2	5	(1)	20
20.	Materials Science & Technology	10	3	2	5	(1)	20
21.	Mechanical Engineering	10	3	2	5	(1)	20
22.	Metallurgical Engineering	10	3	2	5	(1)	20
23.	Mining Engineering	10	3	2	5	(1)	20
24.	Pharmaceutical Engineering and Technology	10	3	2	5	(1)	20
<b>Total in 5 year Integrated M.Tech./M. Pharm. Dual Degree</b>		<b>138</b>	<b>41</b>	<b>27</b>	<b>69</b>	<b>(14)</b>	<b>275</b>
<b>Grand Total of UGD/IDD/IMD Courses</b>		<b>548</b>	<b>163</b>	<b>88</b>	<b>291</b>	<b>(38)</b>	<b>1090</b>
<b>Two-Years M.Tech. Programmes</b>							
25.	Ceramic Engineering	10	3	1	5	(1)	19
26.	Chemical Engineering	25	7	3	12	(1)	47
27.	Civil Engineering	33	10	5	17	(2)	65
28.	Electrical Engineering	25	7	3	12	(1)	47
29.	Electronics Engineering	25	7	3	12	(1)	47
30.	Mechanical Engineering	25	7	3	12	(1)	47
31.	Metallurgical Engineering	25	7	3	12	(1)	47
32.	Mining Engineering	15	4	2	8	(1)	29
33.	Biochemical Engineering	5	1	1	2	(0)	09
34.	Biomedical Engineering	5	1	1	2	(0)	09
35.	Materials Science & Technology	10	3	1	5	(1)	19
36.	Industrial Management	5	1	1	2	(0)	09
37.	Systems Engineering	5	1	1	2	(0)	09
<b>Two-Years M.Pharm. Programme</b>							
38.	Pharmaceutical Engineering and Technology	20	6	3	11	(1)	40
<b>Grand Total of 2-Years M.Tech. Courses</b>		<b>233</b>	<b>65</b>	<b>31</b>	<b>114</b>	<b>(11)</b>	<b>443</b>

# Student intake numbers for PC category has not been added in calculating total number of seats, as provision for the physically challenged candidate will be made from within the respective category.



### Convocation

The 6<sup>th</sup> Convocation was held on October 07, 2017. Shri Kiran Karnik, Director, Central Board of Directors, RBI Chairman, Board of Directors, Indraprastha Institute of Information Technology, Delhi (IIIT-Delhi) and Shri Som Dev Tyagi, Educationist and Social Worker were delivered the convocation address. A total of 1437 various degrees were awarded in 5<sup>th</sup> Convocation of the Institute. During Convocation, approximately 800 candidates received degrees in person. The department-wise details of the degrees awarded are provided in Table.

### Degrees awarded

S. No.	Department/School	Ph.D.	M.Tech	M.Pharm.	I.M.D.	B.Tech.	M.Tech.	B.Pharm.	M.Pharm.	B.Tech.	B.Pharm.	Total
	Biochemical Engineering	1	8	---	---	12	12	---	---	---	---	33
	Biomedical Engineering	4	6	---	---	13	13	---	---	---	---	36
	Ceramic Engineering	6	13	---	---	12	12	---	---	43	---	86
	Chemical Engineering	5	36	---	---	---	---	---	---	105	---	146
	Chemistry	17	---	---	13	---	---	---	---	---	---	30
	Civil Engineering	---	20	---	---	19	19	---	---	73	---	131
	Computer Science & Engineering	5	---	---	---	19	19	---	---	62	---	105
	Electrical Engineering	3	20	---	---	21	21	---	---	81	---	146
	Electronics Engineering	8	29	---	---	---	---	---	---	89	---	126
	Industrial Management	---	9	---	---	---	---	---	---	---	---	9
	Materials Science & Tech.	2	13	---	---	17	17	---	---	---	---	49
	Mathematical Sciences	9	---	---	19	---	---	---	---	---	---	28
	Mechanical Engineering	2	17	---	---	20	20	---	---	109	---	168
	Metallurgical Engineering	4	24	---	---	16	16	---	---	53	---	113
	Mining Engineering	---	23	---	---	20	20	---	---	73	---	136
	Pharmaceutics	7	---	26	---	---	---	13	13	---	14	73
	Physics 7	---	---	13	---	---	---	---	---	---	20	
	Systems Engineering	1	1	---	---	---	---	---	---	---	---	2
	<b>TOTAL</b>	<b>81</b>	<b>219</b>	<b>26</b>	<b>45</b>	<b>169</b>	<b>169</b>	<b>13</b>	<b>13</b>	<b>688</b>	<b>14</b>	<b>1437</b>

With this convocation, the total number of degrees awarded so far by the Institute is **36,458**. Total 7,795 degrees awarded by IIT(BHU) and before conversion of IT-BHU into IIT(BHU), the IT-BHU was awarded total number of degrees is 28,663:



S. No.	Programme	No. of degrees awarded		
		After conversion	Before conversion	Total
1.	Ph.D.	424	854	1,278
2.	M.Tech.	1,790	3,119	4,909
3.	M.Pharm.	315	653	968
4.	I.M.D.	225	0	225
5.	Dual Degree B.Tech.	868	0	868
	M.Tech.	868	0	868
6.	Dual Degree B.Pharm.	63	0	63
	M.Pharm.	63	0	63
7.	B.Tech.	4,593	22,947	27,540
8.	B.Pharm.	123	1,090	1,213
<b>Total</b>		<b>9,332</b>	<b>28,663</b>	<b>37,995</b>

### Award of Medals and Prizes to Students

#### Convocation prizes

Medals and Prizes awarded to students at the 6<sup>th</sup> Convocation:

**1. Ms. Shweta Tripathi**

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Biochemical Engineering Examination, 2017.

**2. Ms. Parul Yadav**

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Biomedical Engineering Examination, 2017.

**3. Shri Lakshya Mathur**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Ceramic Engineering Examination, 2017.

**4. Ms. Himshella**

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Chemical Engineering Examination, 2017.

**5. Shri Harsh Goyal**

He is awarded

(a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Civil Engineering Examination, 2017.

(b) R.P. Singh, IRSE (Retired) Gold Medal for securing highest marks at the M.Tech. in Civil Engineering Examination, 2017.

**6. Shri Somdut Dey**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Electrical Engineering Examination, 2017.

**7. Ms. Akanksha Pandey**

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Electronics Engineering Examination, 2017.

**8. Ms. Shreyasi Chakraborty**

She is awarded Sanjeev Memorial Gold Medal for securing First position at the M.Tech. in Electronics Engineering (Digital Technology and Instrumentation) Examination, 2017.





**9. Shri Pratyush Mohan**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Industrial Management Examination, 2017.

**10. Shri Shivam Tiwari**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Materials Science and Technology Examination, 2017.

**11. Shri Sandeep**

He is awarded

(a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Mechanical Engineering Examination, 2017.

(b) Prof. (Dr.) Mahendra Kumar Jain Nyayacharya Gold Medal for securing highest CPI at the M.Tech. in Mechanical Engineering Examination, 2017.

(c) S.K. Memorial Gold Medal for standing First position at the M.Tech. in Mechanical Engineering (Machine Design) Examination, 2017.

(d) BENCO-64 Gold Medal for best thesis at the M.Tech. in Mechanical Engineering Examination, 2017

(e) BENCO-64 Cash Prize Rs. 25000/- for best thesis at the M.Tech. in Mechanical Engineering Examination, 2017

**12. Ms. Bandla Divya Sri**

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Metallurgical Engineering Examination, 2017.

**13. Shri Ankush Galav**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Mining Engineering Examination, 2017.

**14. Ms. Shreyasi Majumdar**

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Pharm. Examination, 2017.

**15. Shri Korde Rishi Sanjay**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year Integrated M.Tech. in Industrial Chemistry Examination, 2017.

**16. Shri Dhruba Jyoti Roy Karmakar**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year Integrated M.Tech. in Mathematics and Computing Examination, 2017.

**17. Ms. Nandini Sahu**

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year Integrated M.Tech. in Engineering Physics Examination, 2017.

**18. Ms. Kanta Maru**

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Biochemical Engineering (Biochemical Engineering and Biotechnology) Examination, 2017.

**19. Shri Rohandeep Singh Chawla**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Bioengineering (Biomedical Technology) Examination, 2017.

**20. Shri Amitesh Kumar Maurya**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Ceramic Engineering Examination, 2017.

**21. Ms. Ayushi Singhal**

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Civil Engineering (Structural Engineering) Examination, 2017.

**22. Shri Amitosh Anand**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Computer Science & Engineering Examination, 2017.

**23. Shri Gaurav Raju Yengera**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Electrical Engineering (Power Electronics) Examination, 2017.

**24. Ms. Prerna Khullar**

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Materials Science & Technology Examination, 2017.

**25. Shri Animesh Jain**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Mechanical Engineering Examination, 2017.

**26. Shri Rajat Arora**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Metallurgical Engineering Examination, 2017.

**27. Shri Gyan Prakash Kumar**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Mining Engineering Examination, 2017.

**28. Shri Anurag Kumar**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Pharm.-M.Pharm.) Examination, 2017.

**29. Shri Ayush Singh**

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Ceramic Engineering Examination, 2017.

**30. Shri Deepankar Sri Gyan**

He is awarded Harbans Gokul Memorial Gold Medal for standing first at the B.Tech. among the Electrical, Electronics and Ceramics Engg. Exam. 2017 and Best Project work in the area of Electrical, Electronics and Ceramics.

**31. Ms. Mrinali Modi**

She is awarded:-

- (a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Chemical Engineering Examination, 2017.
- (b) The R.B.G. Modi Medal for standing First at the B.Tech. in Chemical Engineering Examination, 2017.
- (c) Manishi Sharma Memorial Gold Medal for securing First position at B.Tech. Chemical Engineering Examination, 2017.
- (d) Mrs. Gargi Devi Trivedi Memorial Gold Medal for securing highest marks in B.Tech. Chemical Engineering Examination, 2017.
- (e) Smt. Indira Tripathi Gold Medal for securing highest CPI among the girl students at the B.Tech. in Chemical Engineering Examination, 2017.
- (f) Prof. Y.D. Upadhya Memorial Gold Medal for securing highest CPI at B.Tech. Chemical Engineering Examination, 2017
- (g) Dr. R.J. Rathi Financial Award Rs. 1000/= cash for standing First at the B.Tech. in Chemical Engineering Examination, 2017.
- (h) Manishi Sharma Memorial Cash Prize Rs. 2000/= for securing First position at the B.Tech. in Chemical Engineering Examination, 2017.

**32. Shri Ranveer Singh**

He is awarded:-

- (a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Civil Engineering Examination, 2017.
- (b) CRS Iyengar Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Civil Engineering Examination, 2017.



- (c) Smt. Indira Tripathi Gold Medal for securing highest CPI at the B.Tech. in Civil Engineering Examination, 2017.
- (d) Rai Bahadur Taracharan Gue Memorial Award Rs. 500/= cash for standing First at the B.Tech. in Civil Engineering Examination, 2017.
- (e) Late Prof. Manoranjan Sengupta Platinum Jubilee Merit Award Rs. 1000/= cash for securing highest marks in B.Tech. in Civil Engineering Examination, 2017.
- (f) Meenakshamma Shankaranaramappa Prize Rs. 500/= cash for securing highest marks in Environmental Engineering (Theory) at the B.Tech. Civil Engineering Examination, 2017.

**33. Shri Manu Agrawal**

He is awarded:-

- (a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Computer Science & Engineering Examination, 2017.
- (b) Late Shri Shyam Sunder Lal Razdan Memorial Gold Medal for securing highest percentage of marks in B.Tech. Examination, 2017.
- (c) Prof. Gopal Tripathi Memorial Gold Medal for securing highest marks at the B.Tech./B.Pharm. Examination, 2017.
- (d) Smt. Arati Paul and Prof. Binod Bihari Paul Gold Medal for securing highest marks in IV Year Examination among all the students of B.Tech./B.Pharm. Examination, 2017.
- (e) C. Raja Gopal Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Computer Science & Engineering Examination, 2017.
- (f) Umesh Pratap Singh Gold Medal for First Rank at the B.Tech. Examination, 2017 among all the branches.
- (g) Shri Raj Kishore Kapoor Silver Medal for securing highest marks at the B.Tech./B.Pharm. Examination, 2017.
- (h) Dr. Annie Besant Prize (in the forms of books by Dr. Annie Besant including copy of the 'Bhagavadgita') for standing First position among all the branches of B.Tech. Examination, 2017.

**34. Shri Anurag Lal**

He is awarded Prof. V.V. Chalam Prize (The Prize shall be in the form of books by Mr. J. Krishnamurti) for standing Second position among all the branches of B.Tech. Examination, 2017.

**35. Ms. Akshita Agarwal**

She is awarded Smt. Indira Tripathi Gold Medal for securing highest CPI among the girl students at the B.Tech. in Computer Science & Engineering Examination, 2017.

**36. Shri Harsh Kumar Kedia**

He is awarded:-

- (a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Electrical Engineering Examination, 2017.
- (b) The R.B.G. Modi Medal for standing First at the B.Tech. in Electrical Engineering Examination, 2017.
- (c) Himmat Narayan Singh Memorial Gold Medal for securing the First position and First Division in B.Tech. Electrical Engineering Examination, 2017.
- (d) CRS Iyengar Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Electrical Engineering Examination, 2017.
- (e) N.V.R. Nageshwar Iyer (Prize Rs. 100/= in the form of books) for standing First in B.Tech. in Electrical Engineering Examination, 2017.
- (f) Late Prof. Manoranjan Sengupta Platinum Jubilee Merit Award Rs. 1000/= cash for securing highest marks in the B.Tech. in Electrical Engineering Examination, 2017.

**37. Ms. Nisha Kumari**

She is awarded Smt. Indira Tripathi Gold Medal for securing highest CPI among the girl students at the B.Tech. in Electrical Engineering Examination, 2017.

**38. Shri Vaibhav Goel**

He is awarded:-

- (a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Electronics Engineering Examination, 2017.
- (b) Late Prof. Nagesh Chandra Vaidya Gold Medal for standing First at the B.Tech. in Electronics Engineering Examination, 2017.
- (c) Dr. (Late) Nandita Saha Roy Memorial Gold Medal for securing First position in B.Tech. Electronics Engineering Examination, 2017.
- (d) C. Raja Gopal Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Electronics Engineering Examination, 2017.
- (e) Dr. Ayyagari Sambasiva Rao Prize Rs. 1000/= cash for standing First at the B.Tech. in Electronics Engineering Examination, 2017.
- (f) Late Prof. Manoranjan Sengupta Platinum Jubilee Merit Award Rs. 1000/= cash for securing highest marks in B.Tech. in Electronics Engineering Examination, 2017.

**39. Ms. Tanu Hari Dixit**

She is awarded Prof. A.K. Ghosh Silver Medal for standing Second Position in B.Tech. in Electronics Engineering Examination, 2017.

**40. Shri Akash Rai**

He is awarded:-

- (a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Mechanical Engineering Examination, 2017.
- (b) The Prince of Wales Medal for standing First at the B.Tech. in Mechanical Engineering Examination, 2017.
- (c) Lala Balak Ramji Kohinoor Memorial Gold Medal for securing highest marks at the B.Tech. Examination, 2017 among the branches of Civil, Mechanical, Electrical and Electronics Engineering.
- (d) Sudhir Kumar Sharma Memorial Gold Medal for securing highest marks in B.Tech. Mechanical Engineering Examination, 2017.
- (e) CRS Iyengar Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Mechanical Engineering Examination, 2017.
- (f) Late Prof. Manoranjan Sengupta Platinum Jubilee Merit Award Rs. 1000/= cash for securing highest marks in B.Tech. in Mechanical Engineering Examination, 2017.

**41. Ms. Neha Gupta**

She is awarded Smt. Indira Tripathi Gold Medal for securing highest CPI among the girl students at the B.Tech. in Mechanical Engineering Examination, 2017.

**42. Shri Prabhutosh Kumar**

He is awarded:-

- (a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Metallurgical Engineering Examination, 2017.
- (b) The Bishan Das Basil Medal for securing First position among B.Tech. in Mining and Metallurgical Engineering Examination 2017.
- (c) Swarnamma Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Metallurgical Engineering Examination, 2017.

**43. Ms. Karamvir Kaur**

She is awarded Smt. Indira Tripathi Gold Medal for securing highest CPI among the girl students at the B.Tech. in Metallurgical Engineering Examination, 2017.

**44. Ms. Khushi Sahu**

She is awarded:-



- (a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Mining Engineering Examination, 2017.
- (b) Dr. B.S. Verma Memorial Gold Medal for securing highest marks in B.Tech. Mining Engineering Examination, 2017.

**45. Shri Abhyuday Paliwal**

He is awarded Prof. B.B. Bansal Memorial Gold Medal for being involved in Social Services/Co-curricular activities and having highest CPI at the undergraduate engineering Examination, 2017 among such students.

**46. Shri Nikhil Kumar**

He is awarded:-

- (a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Pharm. Examination, 2017.
- (b) Aruna and Malviya Medal for standing First at the B.Pharm. Examination, 2017.
- (c) Late Prof. G.P. Srivastava (Prize Rs. 200/= in the form of books) for standing First at the B.Pharm. Examination, 2017.

**47. Shri Gopal Garg**

He is awarded Director's Gold Medal for outstanding all-round performance and excellent organizational abilities and leadership qualities at the B. Tech./B.Pharm. among all disciplines Examination, 2017.



## 6. Department of Ceramic Engineering

Year of Establishment : 1924

**Head of the Department :** Prof. Devendra Kumar

### **Brief outline and history of the Department**

The founder of Banaras Hindu University, Pandit Mandan Mohan Malviyaji instituted courses in Glass and Ceramic Technology as early as 1924 with the noble objective of advancing glass and ceramic technology in India. The Department offers B. Tech, B. Tech - M. Tech. (Dual Degree), M. Tech. and Ph. D. degrees in Ceramic Engineering. M. Tech. and Ph. D. programs are interdisciplinary and are also open to those students of allied branches of Engineering and Sciences, who qualify GATE or NET-Sponsored candidates from industries and R&D organization are also admitted in the PG Programs. The Department is pursuing active research in the emerging areas of glass, glass ceramics, bio-glass and bio-glass ceramics, refractories, ceramic white-ware, pottery & porcelain, cement, electrical and electronic ceramics. Research papers are being published in reputed national and international Journals regularly.

The Department regularly works in collaboration with Academic and Research institutions, National Laboratories and various Ceramic industries through regular contacts, visits, seminars, symposia, workshops and conferences. The Department has also been rendering technical advice and consultancy to the industries under Industrial Consultancy and Testing Services of the Institute from time to time. The contribution of this very Department of Ceramic Engineering during past is unparalleled to the entire industrial, research and development and educational areas in the country. The Department is having number of projects funded by different government and private organization. For enhancing collaboration with Academic and Research Institutions globally, the Department has **MOU with University of Connecticut and Oklahoma USA, to create research and testing facilities for industrial development established IIT (BHU) – IRMA Centre of Excellence for Refractory** with participation of Industrial Organizations and to work for technology up-gradation and support for Small and Medium sized ceramic and glass industries created **Mahamana Glass and Ceramic Technology Skill Development Centre**.

### **Teaching programs**

**4 Years B. Tech. - Ceramic Engineering**

**5 Years B. Tech. - M. Tech. Dual Degree (IDD), Ceramic Engineering**

**2 Years M. Tech. - Ceramic Engineering**

**Ph.D., Ceramic Engineering**

### **Publications**

#### **Research Papers published in peer-reviewed Journals**

1. Preeti Kumari, Pankaj Tripathi, Bhagirath Sahu, S P Singh, Devendra Kumar,  
Four element composite triangular dielectric resonator antenna using Li<sub>2</sub>O-1.94MgO-  
0.02Al<sub>2</sub>O<sub>3</sub>-P<sub>2</sub>O<sub>5</sub> ceramic for wideband applications  
Journal of Electronic Materials 47(3) · May 2018
2. Neera Singh, Om Parkash, Devendra Kumar?  
Phase evolution, mechanical and corrosion behavior of Fe<sub>2</sub>(100-x) Ni<sub>2</sub>(x) alloys synthesized by powder metallurgy  
Journal of Physics and Chemistry of Solids 113 (2018) 8-20; doi.org/10.1016/j.jpcs.2017.10.045
3. Preeti Kumari, Pankaj Tripathi, Bhagirath Sahu, S.P. Singh, Om Parkash, Devendra Kumar  
Synthesis and characterization of novel low temperature ceramic and its  
implementation as substrate in dual segment CDRA  
Journal of Physics and Chemistry of Solids 113 (2018) 177-185; doi.org/10.1016/j.jpcs.2017.10.028
4. Khagesh Tanwar, Deepankar Sri Gyan, Prashant Gupta, Shukdev Pandey, Om Parkash and Devendra Kumar  
Investigation of crystal structure, microstructure and low temperature magnetic behavior of Ce<sup>4+</sup> and Zn<sup>2+</sup>-  
co-doped barium hexaferrites (BaFe<sub>12</sub>O<sub>19</sub>)





- RSC Advances 8, (2018), 19600 DOI: 10.1039/c8ra02455c
5. B. Singh, R.A. Doong, D. S. Chauhan, Ashutosh K. Dubey, Anshumali, Synthesis and Characterization of Fe<sub>3</sub>O<sub>4</sub>/Polythiophene Hybrid Nanocomposites for Electroanalytical Application, Materials Chemistry and Physics, 205, 2018 462-469.
  6. Khagesh Tanwar, Nandini Jaiswal, Pulkit Sharma, Devendra Kumar, Om Parkash Structural analysis of Ce<sub>0.83</sub>Dy<sub>0.14</sub>Ca<sub>0.03</sub>O<sub>1.90</sub> (CDC) and enhanced electrical conductivity of its composites with alkali carbonates for LT-SOFCs Journal of Alloys and Compounds 741 (2018) 532-541: doi.org/10.1016/j.jallcom.2018.01.128
  7. Sunil Meti, M R Rahman, Md. Imteyaz Ahmad, Udaya Bhat K, Chemicals free synthesis of graphene oxide in the preparation of reduced graphene oxide-zinc oxide nanocomposite with improved photocatalytic properties, Applied Surface Science, 45(2018) 67-75
  8. S. Sahoo, S. Hazra, M. De, K. Mohanta, R.N.P. Choudhary "Processing, dielectric and impedance spectroscopy of lead free BaTiO<sub>3</sub>-BiFeO<sub>3</sub>-CaSnO<sub>3</sub>" Journal of Alloys and Compounds 766 (2018) 25-32
  9. A. Pattanayak, N. Madhu, A. Panda, M. K. Sahoo, K. Mohanta . A Comparative study on mechanical properties of Al-SiO<sub>2</sub> composites fabricated using rice husk silica in crystalline and amorphous form as reinforcement" Materials today proceedings 5 2 (2018) 8181-8192
  10. Sk. S. Hossain, P. K. Roy, " Studies on physical and dielectric properties of bio-wastes derived synthetic wollastonite" Journal of Asian Ceramic Societies, 6(3), 2018, 289-298.
  11. Pankaj Paliwal, Arepalli Sampath Kumar, Himanshu Tripathi, S.P. Singh, Shashikant C.U. Patne, Sairam Krishnamurthy, Pharmacological application of barium containing bioactive glass in gastro-duodenal ulcers, Materials Science and Engineering: C 92, (2018), 424-434.
  12. Sampath Kumar Arepalli, Himanshu Tripathi, Partha Pratim Manna, Paliwal Pankaj, Sairam Krishnamurthy, Shashikant C.U. Patne, Ram Pyare, S. P. Singh. "Enhanced in vivo biocompatibility of magnesia-contained bioactive glasses". J Aust Ceram Soc (2018). <https://doi.org/10.1007/s41779-018-0239-7>.
  13. Shyam Sharma, Rupal Jain, Vineet Rawat, Prateek Rajeev Hundekar, Neera Singh, Devendra Kumar, Pallav Gupta Structural and mechanical characterization of re-pressed and annealed iron-alumina metal matrix nanocomposites Journal of Composite Materials, 52 (2018) 1541-1556 doi.org/10.1177/0021998317726589
  14. Shukdev Pandey, Devendra Kumar, Om Parkash & Lakshman Pandey Equivalent circuit models using CPE for impedance spectroscopy of electronic ceramics Integrated Ferroelectrics, 183 (2017) on line 11 December 2017
  15. Piyush Khosla, Himanshu K Singh, Vishal Katoch, Anmol Dubey, Neera Singh, Devendra Kumar and Pallav Gupta Synthesis, mechanical and corrosion behaviour of iron-silicon carbide metal matrix nanocomposites Journal of Composite Materials (2017) 1-7
  16. V. Jaiswal, R. B. Rastogi, Devendra Kumar The investigation of different particle size magnesium-doped zinc oxide (Zn<sub>0.92</sub>Mg<sub>0.08</sub>O) nanoparticles on the lubrication behavior of paraffin oil Applied Nanoscience 7 (6), (2017) 275-281
  17. Bhupendra Singh, Aman Bhardwaj, Sandeep K gautam, Devendra Kumar, Om Parkash



- Synthesis and Characterization of MnO-doped Titanium Pyrophosphate ( $\text{Ti}_{1-x}\text{Mn}_x\text{P}_2\text{O}_7$ ;  $x = 0-0.2$ ) for Intermediate-temperature Proton conducting Ceramic-Electrolyte Fuel Cells  
Ionics Online (2017) DOI: 10.1007/s11581-017-2024-y
18. Kalyani, Vinay Jaiswal, Rashmi B. Rastogi, Devendra Kumar & Praveen Singh  
Evaluation of Tribological Properties of Sulfur- and Phosphorous-Free Quinolinium Salts and Their Correlation with Quantum Chemical Parameters  
Tribology Transactions 60 (2), (2017) 349-361, DOI:10.1080/10402004.2016.1168899
  19. Sunil Prasad, Vikas Kumar Vyas, Pappu Kumar Harijan, Md. Ershad and Ram Pyare,  
Investigating in vitro bioactivity, magnetic and mechanical properties of iron and cobalt oxide reinforced (45S5-HA) biocomposite.  
Australian Ceramic Society 2017, 1-11. (Springer)
  20. Sunil Prasad, Vikas Kumar Vyas, Kumari Deepa Mani, Md. Ershad and Ram Pyare,  
Preparation, In-Vitro Bioactivity and Mechanical Properties of Reinforced 45S5 Bioglass Composite With HA-ZrO<sub>2</sub> Powders.  
Orient J Chem 33(3)(2017).
  21. Sunil Prasad, Vikas Kumar Vyas, Md. Ershad and Ram Pyare, CRYSTALLIZATION AND Mechanical Properties Of (45s5-Ha) Biocomposite For Biomedical Implantation.  
Ceramics-Silikáty 61 (4) (2017), 378-384
  22. Kumar Saurav, Vinay Kumar Singh and Manas Ranjan Majhi  
fractal and thermal diffusivity of porous spinel develop by ex-potato starch  
RAS?YAN Journal of Chemistry, RJC, 10, .1, (2017) 92-98
  23. S.K..Hossain?, L. Mathur, P Singh, M. R. Majhi  
Preparation of forsterite refractory using highly abundant amorphous rice husk silica for thermal insulation  
Journal of Asian Ceramic Society ,5 (2017) 82-87
  24. A. Bhardwaj, S.K..Hossain, M. R. Majhi?  
Preparation and characterization of clay bonded high strength silica refractory by utilizing agriculture waste  
Boletín de la asociación española de cerámica y vidrio xx (2017) xxx-xxx( in press)
  25. Ashutosh Kumar Dubey,  
Electroactive Piezo-Bioceramics as a New Generation Implants for Orthopaedic Applications,  
EC Orthopaedics 7.5 (2017), 195-196 (Editorial).
  26. Vikash Kumar Vyas, Arepalli Sampath Kumar, S. P. Singh, Ram Pyare."  
Destructive and non-destructive behavior of nickel oxide doped bioactive glass and glass-ceramic"  
J Aust Ceram Soc. 53(2017), 939-951.
  27. SK Saddam Hossain, P. K. Roy,  
"Structural and electro-magnetic properties of low temperature co-fired BaSrTiO<sub>3</sub> and NiCuZn ferrite composites for EMI filter applications",  
Journal of Materials Science: Materials in Electronics, (2017) 28: 18136-18144
  28. P. K. Roy, P. Bharathi, K. B. R. Varma,  
"Dielectric, ferroelectric and piezoelectric properties of (Ba<sub>0.98</sub>-xSrxCa<sub>0.02</sub>) (Ti<sub>0.95</sub>Zr<sub>0.05</sub>)O<sub>3</sub> Lead -free ceramics",  
Ceramics International 43 (2017) 15762-15768.

#### Research Papers published in conference proceedings

1. Pallav Gupta, Devendra Kumar, Om Parkash, and A. K. Jha  
Tribo-evaluation of iron based metal matrix nanocomposites for heavy duty applications  
AIP Conference Proceedings 1877, 030002 (2017); <http://dx.doi.org/10.1063/1.4999858>
2. Preeti Kumari, Pankaj Tripathi, Om Parkash, Devendra Kumar. Bhagirath Sahu, and S.P.Singh  
An aperture coupled dual segment RDRA on glassceramicLTCC substrate  
International Conference on Computer, Communications and Electronics (Comptelix),



Malaviya National Institute of Technology Jaipur, July 01-02, 2017 doi.978-1-5090-4708-6/17

### Research papers presented in Conferences

1. Maurya Sandeep Pradeep kumar, Joysurya Basu, Md. Imteyaz Ahmad,  
"Chalcopyrite CIGS absorber layer phase transformation assisted grain growth", 81st annual session of Indian ceramic society and international conference on expanding horizons of technological applications of ceramic and glass, College of Engineering Pune,  
December 14-16, 2017, Pune, India, pp.105 in book of abstract.
2. Sooraj Kumar, Md. Imteyaz Ahmad,  
"Synthesis of Formamidinium Lead Iodide (FAPbI<sub>3</sub>) solar cell", 81st annual session of Indian ceramic society and international conference on expanding horizons of technological applications of ceramic and glass, College of Engineering Pune,  
December 14-16, 2017, Pune, India.(Poster presentation)
3. P. K. Roy, SK Saddam Hossain, Deepshikha Shekhawat,  
"Low temperature co-fired nano magnetic and dielectric based composites for EMI filter application" 9th International Conference on Materials for Advanced Technologies (ICMAT 2017),  
18 - 23rd June 2017 at Suntec Singapore Convention & Exhibition Centre, 1 Raffles Boulevard, Suntec City-039593, Singapore.
4. SK S Hossain, Ram Pyare, P. K Roy,  
"Fabrication of ceramic tiles by incorporation of different waste materials" 81st Annual session of Indian Ceramic Society and International conference on "Expanding Horizons of Technological Applications of Ceramics and Glasses",  
14-16th December 2017 at College of Engineering, Pune, INDIA.
5. Priyanka Verma, P. K Roy,  
"Influence of Gd on the magnetic, electric and structural properties of BiFeO<sub>3</sub> synthesized by solid state reaction method" 81st Annual session of Indian Ceramic Society and International conference on "Expanding Horizons of Technological Applications of Ceramics and Glasses",  
14-16th December 2017 at College of Engineering, Pune, INDIA.

### Invited Talks/ Lectures delivered

1. Dr. Ashutosh Kumar Dubey  
Ferroelectric Ceramics as Next Generation Implants for Orthopedic Applications, The 19th International Symposium on Eco-materials Processing and Design (ISEPD-2018) and International Expo on Surface Coatings held during Feb. 21-25, 2018 in Marriot, Jaipur.
2. Dr. Ashutosh Kumar Dubey  
Biocompatible Ferroelectrics as a New Generation Implants for Biomedical Applications, Japan-India YNU Symposium during Dec. 13-14, 2017 at Yokohama National University, Yokohama, Japan.
3. Dr. Imteyaz Ahmad  
Additive Manufacturing of Ceramics, February 08, 2018, One Week Faculty Development Program On Additive Manufacturing: Theory & Practice, IIT (BHU), Varanasi
4. Dr. Imteyaz Ahmad  
Lecture 1 (10:30-11:50 am) Introduction to X-Ray Diffraction  
Lecture 2 (12:00-1:30 pm) Material Characterization by XRD  
24 March, 2018 Short Term Training Program on Characterization of Materials, Department of Metallurgical & Materials Engineering, Visvesvaraya National Institute of Technology (VNIT), Nagpur Sponsored by TEQIP III
5. Coupling of living cells with external electrical stimulation, International Conference on Crystal Ball Vision on Science & Engineering for Societal upliftment, held during Aug. 07-08, 2017 at CSIR- NIO, Goa, India.



### Conferences Attended

1. Dr. Akansha Dwivedi  
International Meeting on Ferroelectrics 2017 (IMF-2017), San Antonio Texas, USA, American Ceramic Society, September 2017.
2. Md Ershad  
Jointly organized by (ICME 2017) IIT Kanpur and IIM during June 02nd -04th 2017.  
Poster presentation on International conference on material Engineering in the topic of "Effect of Samarium Oxide Substitution on Mechanical Behavior and Biological Properties of Bioactive Glass and Glass-Ceramics"
3. Md Ershad,  
Pune University, Pune July 11th -15th , 2017 AMDP 2017  
Poster presentation on 8th International conference on Advance Material Development & Performance (AMDP 2017) in the topic of "Effect of Sm<sub>2</sub>O<sub>3</sub> substitution on mechanical and biological properties of 45S5 bioactive glass and glass-ceramics" Organized by Department of Physics, , India during.
4. Niraj Singh Mehta, Pune University campus, Pune, 11th to 15th July, 2017 AMDP 2017  
The sintering effect on mechanical and dielectric behaviour after addition of zirconia on ceramic porcelain bodies.
5. Niraj singh Mehta, IIT Kanpur, 2nd -4th June 2017, ICME 2017  
Effect of sintering on mechanical and electrical properties after addition of silica in aluminous based porcelain insulator.
6. Niraj Singh Mehta, BIT Goa, 11-14 Nov 17, NMD - ATM 2017  
To analysis the strength & Dielectric behavior of Ceramic Prodclain insulator
7. Md. Ershad, BIT Goa, 11-14 Nov 17, NMD - ATM 2017  
Effect of LA<sub>3</sub>+ /A<sub>3</sub>+ doping on Mechanic & Biological properties of 4555 based bioactive glass & Glass ceramics  
Awarded Second Prize for best short Oral & Poster Presentation
8. Dhiraj Kumar, BIT Goa 11-14 Nov 17 NMD - ATM 2017  
Drying & Analysis of Mechanical Behaviour of Kaolin as Ceramic Material.
9. Rajesh Suthar , BIT Goa, 11-14 Nov 17, NMD - ATM 2017  
Microwave Sintering of ZRB<sub>2</sub> Based Ceramic Matrix Composite.
10. Neeraj Pandey, BIT Goa, 11-14 Nov 17, NMD - ATM 2017  
Rate of Hena Celsion Phase in Alumina Vich sprit refractory for Steel ladle application
11. Maurya Sandeep Pradeep Kumar, Pune, 12-16 Dec 2017, EHTACAG 2017  
Chalcopyritc CIGS absorber layer by transformation assisted grain growth
12. Amrendra Rai, Pune, 12-16 Dec 201, 7 EHTACAG 2017  
Physico Mechanical & Corrosion Properties of newly developed biodegradable Zn.Mg.Sn.
13. Pooja Rai, Pune, 14-16 December, "EH-TACAG 2017"  
Study on physic mech properties & corrosion behaviour of Mg.Zn.Al based alloy reinforced with bioactive glass.
14. Sushma Yadav, Pune, 14-16 December, "EH-TACAG 2017"  
Effect of Zinc oxide on structure degradability in vitro bioactivity & Mechanical Property of Zirconia Containing 1393 bioactive glass
15. Priyanka Verma, Pune, 14-16 December, "EH-TACAG 2017"  
Influence of Gd on the magnetic electric & structural property of B, FeO<sub>3</sub> synthesized by solid state reaction method.
16. Angaraj Singh, Pune, 14-16 December, "EH-TACAG 2017"  
Internatiuonal Conference on ploarisation induced antibacterial response of hydroxypatite.
17. Aman Singh, Pune, 14-16 December, "EH-TACAG 2017"





- Synthesis and choretonisation of cobalt Zinc doped soft & hard ferrite & its nano composite.
18. Akanksha Yadav, Puducherry, 06-09 Sep 2017,  
1st world conference on solid electrolytes Development of superior oxide ion electrodes for SOFC
  19. Neeraj Kumar Mishra, Puducherry, 06-09 Sep 2017,  
1st world conference Development of glass & glass ceramic based on NASICON structure solid Li Na ion conductor
  20. Deepshikha Shekhawat, IIT Roorkee, 30.11.17 to 02.12.17 ,  
International conference on AMPCO 2017 Effect of Yttrium substitution on electromagnetic properties of nano crystalline SR hexoferroite for motor application.
  21. S. K. Saddam Hossain, Pune, 14-16 Dec 2017, EHTACAG  
Fabrication of ceramic tiles by incorporation of different waste material.
  22. B. B Nath Anchal, IIT Roorkee, 06-08 Dec 2017 ,ICN 31-2017  
Methane gas sensor based on thin film using barium starmate.
  23. Vikash Ranjan, Lucknow, 24-25 Feb 18, ICMSEE 2018  
Fabricatin of synthesis walls ferrite from work charecterisation of physical and dielectric property.
  24. Soujaynya Madasu, Chicago USA, 05-08 March 18,  
HRI Vacoma Voice controlled wheelchair autonomous.
  25. Prem Parkash Seth, Noida, 15-17 March 2018, National Conference on advance material and Nanotechnology  
Formation of line irregular shaped solid state diffusion by powder metallurgy route
  26. Preeti Kumari, Pankaj Tripathi, Bhagirath Sahu, Om Parkash, S. P. Singh, Devendra Kumar, IIT(ISM) Dhanbad, Feb 9-11, 2018 ICMAP-2018.  
Four element composite Triangular DRA for X-Band Applications, IEEE International Conference on Microwaves and Photonics
  27. Pankaj Tripathi, Preeti Kumari, Bhagirath Sahu, Om Parkash, S. P. Singh, Devendra Kumar, IIT(ISM) Dhanbad, Feb 9-11, 2018 ICMAP-2018.  
Dual segment cylindrical dielectric resonator antenna excited by a novel composite feed, IEEE International Conference on Microwaves and Photonics
  28. Preeti Kumari, Pankaj Tripathi, Om Parkash, Devendra Kumar, Global Ceramic Leadership Roundtable at CDGI, Firozabad  
Aperture couple Dual segment Cylindrical Dielectric Resonator antenna on prepared novel LTCC material, conducted by Indian Ceramic Society, Western Uttar Pradesh Chapter, on 27th Feb. 2018. (Best Poster Presentation).
  29. B. N. Bhattacharjee , M. Singh , Om Parkash , Devendra Kumar Hawaii USA, 6-10 December 2017 5th Nano Today Conference Elsevier  
Effect of pH on structural, electrical and antibacterial behavior of hydroxyapatite synthesized via hydrothermal route.
  30. B. N. Bhattacharjee , V. K. Mishra , S. B. Rai , Om Parkash , Devendra Kumar, Toulouse, France 29, 25-27 OCT 2017 Bioceramics  
Effect of pH on Structural and Spectroscopic Properties of Nano Hydroxyapatite formed via Hydrothermal Synthesis Route: Bone Mimetic Materials for removal of oral chronic infection.
  31. B. N. Bhattacharjee , V. K. Mishra , S. B. Rai , Om Parkash , Devendra. Kumar Babasaheb Bhimrao Ambedkar University, Lucknow, U.P., 22-24 September 2017, International Conference on Nanoscience & Nanotechnology (ICNN- 2017 ).  
Role of EDTA and pH in Surface Morphology of Microwave Synthesized nano-Hydroxyapatite: A Substitute for Bone.
  32. Preeti Kumari, Bhagirath Sahu, Pankaj Tripathi, Om Parkash, S. P. Singh, Devendra Kumar, Jaipur, July 01-02, 2017, IEEE conference COMPTHELIX



"An aperture coupled dual segment RDRA on glass-ceramic LTCC substrate".

33. Sandeep Kumar Gautam, Bhupendra Singh, Devendra Kumar, Department Of Physics, Pondicherry University, 6th -9th Sep 2017, Indian Association Energy Science Society Of India 1stWorld Conference on Solid Electrolytes for Advanced Applications Garnets and Competitors

"Synthesis and characterization of Mn doped titanium pyrophosphates (Ti<sub>1-x</sub>Mn<sub>x</sub> XP207, x=0-0.2), for intermediate temperature protonconducting ceramic-electrolyte fuel cells."

#### Awards/ Honors / Chair Positions

Sl. No	Name	Title of Awards	Place	Year
1	Prof. Devendra Kumar	<b>Chairman, Advisory Committee,</b> CSIR-Central Glass & Ceramic Research Institute, Kurja (U.P.) <b>Convener,</b> Flat And Coated Glass Subcommittee, CHD 10:6 of Glass, Glassware And Laboratory ware Sectional Committee, Bureau of Indian Standards (BIS), New Delhi. <b>Member, Expert Committee;</b> Mining, Minerals, Metals and Materials (4M), Council of Scientific and Industrial Research (CSIR), New Delhi. <b>Member, Executive Committee,</b> All India Glass Manufacturing Federation (AIGMF) <b>Member,</b> Ceramic Ware Sec. Committee CHD 9, BIS, New Delhi <b>Member,</b> Governing Council, Center for Development Glass Industries, Firojabad (U.P.), A MSME, Govt. of India Organization	–	2017
2	Prof. Ram Pyare	Chairman Examination Committee, Indian Institute of Ceramics Kolkata	–	2017
3	Dr. Ashutosh Kumar Dubey	MAHE Award for Young Scientist/ Academic Faculty - 2018 by Society for Biomaterials and Artificial Organs (India).	VIT, Vellore	2018
4	Mr. Md. Ershad	IIM-Springer award for best Oral & Poster presentation (2nd Prize) in Material science and Engineering at International conference NMD-ATM 2017.	BITS Pilani Goa Campus.	2017

#### Patents and Technologies

Sl. No	Name of Authors	Title of Patents	Patent File No.	Year
1	Sk .Hossain, L.Mathur, M.R.Majhi	A method for preparing tiles and composition thereof	201631039979	2016
2	Sk. Hossain, L.Mathur, M.R. Majhi	A composition for bricks from waste materials and method of manufacturing the same	201631030744	2016





3	S.K. Hossain, A.Bhardwaj, M.R.Majhi	A biomass composition for thermal insulation and method of manufacturing the same	201611024361	2017
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### Sponsored Projects

S. No	Name of Investigators	Title of Projects	Funding Agency	Amount (Rs. in Lakh)	Year
1.	Dr. Md. Imteyaz Ahmad	In situ electron microscopy at atomic scale for understanding nucleation growth & interfaces of omega phase	DST-SERB	82	2017-19
2.	Dr. Akansha Dwivedi	Cold sintering polymer ceramic nanocomposited for energy storage	DST SERB	54	2017-20
3.	Dr. Santanu Das	Seamless synthesis of Large area 2 D transition metal dichalcogenide semiconductors and their applications in next generation high performance optoelectronic devices	Science & Energy Research Board	49.8	2016-18
4.	Dr. M.R. Majhi	To design develop of low cost fly ash brick with waste glass & blast furnace slag used as building & construction material	DST (SERB)	48.28	2017-19
5.	Dr. Md. Imteyaz Ahmad	Development of a high through put processing for CIGS PV absorber films by spray pyrolysis of presynthesised monoparticle ink	DST-SERB	47	2016-18
6.	Dr. Santanu Das	Development of a high throughput processing for CIGS PV absorber films by spray pyrolysis of Pre synthesised nano particle ink	Science & Energy Research Board	47	2016-19
7.	Dr. P. K. Roy	Development of Rare earth free ceramic magnet with high energy and curie temperature for motor applications	DST early career react award scheme	45.22	2017-19
8.	Prof. Ram Pyare	Development of plant glasses as plant nutrients	SERB	42.05	2018-20
9.	Dr. Md. Imteyaz Ahmad	Towards development next generation grinding tools for low power machines	IMPRINT-II	41	2017
10.	Dr. Md. Imteyaz Ahmad	One step vapour phase processing of tunable mesoporous titania for perovskite solar cells.	Institute Research project grant IIT(BHU)	15	2017-19
11.	Dr. Kalyani Mohanta	Fabrication of Low cost ceramic foam with wide range of porosity and micro structure for high temperature applications	Institute research project grant	14.06	2017-18
12.	Dr. Santanu Das	Amplifying charge transfer mechanism at the hybrid grapheme intrafaces for developing ultra high energy density supercapacitor devices	CERD Project	11.5	2017-19



13.	Dr. Akansha Dwivedi	Environment friendly dielectrics for energy storage applications	IIT(BHU)	10	2017-19
14.	Dr. Akansha Dwivedi	Hybrid Ceramic and carbon gelbased supercapacitors for electrical energy storage	CERD IIT (BHU)	09	2017-19
15.	Dr. Md. Imteyaz Ahmad	Modular Setup for I-V Characteristics measurement of solar cells	CERD IIT (BHU)	7	2016-18
16.	Dr. Santanu Das	Fabrication of an all transparent flexible 2D graphene based phototransistor device	DIC	4	2017-19
17.	Dr. Md. Imteyaz Ahmad	Design & Setup of Rapid thermal processing set up for fast processing of solar cells.	DIC, IIT (BHU)	3	2018
18.	Dr. P. K. Roy	Development of High strength Ceramic magnet for rotating machine application	IMPRINT 1	Project approved fund not allotted	2017

#### Other Activities (Ph.D./ M.Tech.) Supervision, viva-voce conducted)

Sl. No.	Roll No.	Name
<b>Ph. D.</b>		
1.	13031001	Mr. Kumar Saurav, Dr. M. R. Majhi, "Preparation and Characterisation of High Strength Porous Spinel and ZrO <sub>2</sub> Spinel by Potato Starch
<b>M. Tech.</b>		
1	16032002	Mr. Akshay Varshney
2.	16032003	Mr. Ashish Rai
3.	16032004	Mr. Avinash Kumar Pandey
4.	16032005	Mr. Debajyoti Mahapatra
5.	16032006	Mr. Mayank Agarwal
6.	16032008	Mr. P. Kameshwara Rao
7.	16032009	Mr. Sandeep Kumar Singh
8.	16032010	Mr. Shailendra Kumar Singh
9.	16032011	Mr. Shete Ganesh Diliprao
10.	16032012	Mr. Shubham Jaiswal
11	16032014	Mr. Sumit Kumar
<b>IDD Part V (Sem X)</b>		
1	13034001	Ms. Deveshi
2.	13034002	Miss. Kuppili Reshma
3.	13034003	Mr. Kushagra Jaiswal



4.	13034004	Mr. Lakshya Narula
5.	13034005	Mr. Nitin Choudhary
6.	13034006	Mr. Pradhan Singh Meena
7.	13034008	Mr. Srinath C
8.	13034009	Miss. Sunita Udai
9.	13034010	Mr. Vaghela Neel Bharatkumar
10.	13034011	Mr. Vikash Ranjan

#### List of Ph.D. Research Scholars (2017-18)

Sl. No.	Roll. No.	Name of Studnets
1	17031001	Mr. Abhishek Kumar Singh
2	17031002	Ms. Akanksha Singh
3	17031003	Mr. Anurag Kumar
4	17031004	Mr. Asim Aftab
5	17031006	Mr. Kovid Saini
6	17031007	Mr. Lakshya Mathur
7	17031008	Mr. Neeraj Gupta
8	17031009	Mr. Neeraj Singh
9	17031010	Mr. Pankaj Chaurashiya
10	17031011	Mr. Rahul Singh
11	17031012	Mr. Sanjay Kumar
12	17031013	Mr. Sk Saddam Hossain
13	17031014	Mr. Vaibhav Singh
14	17031501	Mr. Ashutosh Gupta
15	17031502	Mr. Harsh Jain
16	17031503	Mr. Satyendra Kumar Satyarthi
17	17031504	Mr. Vaibhav Pandey
18	17031505	Mr. Vishwa Pratap Singh

#### List of M.Tech. Students (2017-18)

Sl. No.	Roll. No.	Name of Student
1	17032001	Ms. Akanksha
2	17032002	Mr. Aman Sharma
3	17032003	Mr. Arijit Jana



4	17032004	Mr. Bipin Singh
5	17032006	Ms Kalpana Barkane
6	17032007	Mr. Nitin Rai
7	17032008	Mr. Nitin Sugathan
8	17032009	Mr. Pankaj Maurya
9	17032010	Mr. Rajneesh Kumar Singh
10	17032011	Mr. Ranjeeth R

### Equipment purchased

Sl. No.	Equipments	Amount (Rs.)
1.	Steno Graph and PMT with accessories	13,60,734/-
2.	Hot Modules of Rupture (HMOR) temp - 1550 0C	12,86,250/-
3.	Thermal Evaporator with trubo molecular pumping system model BC - 300	9,40,045/-
4.	Glass softening point determination system (by labina method) 195P-3A-240V	9,05,011/-,
5.	Digital Rotational Viscometer Make - Labman Model LMDV - 200	1,89,525/-
6.	Digital Ultrasonic thickness Gauge Model 38 DLP Plus Olampus make	5,73,300/-
7.	Particle size analyser zeta size nano S90 with 633 nm, He Ne laser zen - 1690 with all accessories	GBP 17442/-
8.	Projector Panasonic PT - VX425 ND (2Nos)	1,66,032/-
9.	NIR Diode laser Model no.SDL-975-LM-3000T	1,10,671/-
10.	Ceiling mountain kit (3 Nos) for projector	51,033/-
11.	Electric lawn mover 2HP, Make crompton greave with all accessories	45,514/-
12.	High prescion balance make wensar makep - HPB 220 cap .001 Gm (1Mg)	41,300/-
13.	Oxygen + Nitrogen cylinder (with gas) with both regulator	39,100/-
14.	Vicat apparatus AM - 394AIM - 394 with all accessories	32,639/-
15.	Ph meter cyber scan make - Thermo Scientific	23,199/-

## 7. Department of Civil Engineering

Year of Establishment : 1949

**Head of the Department :** Prof. Prabhat Kumar Singh

### Brief Introduction of the Department/School

The Department of Civil Engineering was established in the year 1949 (the then referred to as Civil and Municipal Engineering) in BENCO (Banaras Engineering College) as a part of Banaras Hindu University. The formal sanction of the Visitor of the University to elevate this unit as a full fledged department was received in the year 1956, and degree of the B.Sc. Engineering (Civil & Municipal) was subsequently recognized by the Govt. of India in 1958. The department was rechristened to the present name in the year 1975. The department runs bachelor's degree program in Civil Engineering along with postgraduate study programs (MTech and PhD) in seven specializations, namely, Environmental Engineering, Geotechnical Engineering, Hydraulic and Water Resources Engineering, Structural Engineering, Transportation Engineering, Geoinformatics, and Geosciences Engineering. Apart from regular teaching and affiliated innovative endeavours, faculty members of the department often remain engaged in activities related to sponsored research projects from various funding agencies such as CSIR, UGC, SAP, HUDCO, DST and AICTE etc. Nevertheless, the department has earned a huge name for the consultancy services in Uttar Pradesh and adjoining states by virtue of providing technical solutions to the various problems brought by government, semi-government, and private agencies that involve hydraulic design, design/ vetting of structures, pavement design, operational and design problems pertaining to waste water treatment plants, environmental impact assessment, and testing of materials as well. Short-term courses, on-hand technical trainings, seminars, workshops and conferences are frequent sessions that department undertakes to enrich the knowledge base and improve technical skills of the students and participating engineers/ entrepreneurs. The department aptly cares the inherent leadership/ managerial traits of the students and nurtures the same vide Civil Engineering Society, an internally constituted forum primarily led by students, that conducts programmes such as expert lectures, debates, group discussions, sports and cultural events, and associated extra-curricular activities for holistic development of the students. This society also hosts a technical annual fest, known as Shilp, for the Civil Engineering students from various institutions of India.

### Major Areas of Research:

**Group A** : Structural Engg., Geotechnical Engg., Transportation Engg. and Engg. Geoscience:

**Thrust Areas** : Development and characterization of Smart materials and construction technologies for sustainable infrastructure.

**Group B** : Hydraulics & Water Resource Engg., Env. Engg., Geoinformatics Engg.

**Thrust Areas** : Water Resources Management, River Modelling, Water quality monitoring and treatment, River Health Restoration, Waste Management and Pollution Control

### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	08
2	No. of Lecture Halls	Nil
3	No. of Laboratory	10
4	No. of Computers available for students in the Department/School/ School	60

### New facilities added

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	Humidity Chamber and thermal furnace upto 10000C	8.64



2	Electronic Weighing Machine	0.73
3	Resin Infusion Stater kit with pump	0.60
4	Dynamic Shear Rheometer	18.00
5	Shear Mixer	0.70
6	Rock Cutter	1.20
7	Bender Element Testing Facility for Soil	11.47
8	Triaxial Cell for Cyclic Triaxial Test	1.89
9	Relative Density Apparatus	0.95
10	Pneumatic Control Panel	0.84

### Academic Programmes offered

#### New Courses Introduced

S. No.	Course Code	Course name	Course credit
1	CE 567	Mechanics of Composite Materials	9
2	CE 322	Introduction to FEM in Civil Engineering Applications	8
3	CE 423	Introduction to Geotechnical Earthquake Engineering	8

#### Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech/B. Pharm	88	74	80	76	05
2	Dual Degree	21	23	20	22	20
3	M. Tech/ M. Pharm	58	37	---	---	---
4	Ph. D (Under Institute Fellowship)	13	11	19	12	05
5	Ph. D (Under Project Fellowship)	---	---	---	---	---
6	Ph. D (Under Sponsored Category)	---	---	01	---	---





**Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India**

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From
<b>INDIA</b>					
1	Manish Ranjan	15061010	ASCE India conference	13-14Dec, 2017, IIT Delhi	Rs 3500 from Civil Engg. Dept and Rs 3500 from R&D IIT (BHU)
2	Gaurav Verma	16061007	Developments in Pavement Engineering	12-14 Feb 2018, IIT Kharagpur	Research Support Grant
3	Jayvant Choudhary	15061008	Developments in Pavement Engineering	12-14 Feb 2018, IIT Kharagpur	Research Support Grant
4	Rahul Karkhanis	13064025	ASCE India Conference, 2017	12-14 December, 2017, IIT Delhi	Self
5	Arpit Bhardwaj	14064004	GIAN Course-Recent Advances in Structural Dynamics for Protection of Bridges against Extreme Hazards	1 November 2017, IIT BHU	Self
6	Akash Kumar Bharti	14064002	Advanced mechanics	27 December 2017, Jaipur	Self
7	Aman Gupta	14065010	5 day Short Term course by VK Raina	20 March 2018, IIT BHU	Self
8	Nishant Raj Vibhu	14065052	GIAN course on Recent Advances in Structural Dynamics for the protection of Bridges against extreme hazards	1 November 2017, IIT (BHU)	Self
9	Parth Sharma	15065045	ASCE India Conference, 2017	12-14 Dec. 2017, IIT Delhi	Self
10	Jayant Srivastava	14065034	NDE 2017	14 Dec. 2017, Chennai	Self

**Names of students/scholars who got prizes and awards outside the Institute**

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Arpit Bhardwaj	14064004	DAAD Scholarship	15 May 2017, Bundeswehr University, Munich	DAAD (German Academic Exchange Service)
2	Akash Kumar Bharti	14064002	Road safety campaign	16 March 2018, IIT Delhi	MHRD
3	Parth Sharma	15065045	Hult Prize Top 20 Campus Directors Globally	January 31, 2018	UN, Hult and Clinton Foundation



### Names of scholars/students who won Convocation/Institute Day prizes

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Parth Sharma	15065045	Institute Day Gold Medal and Best Project Award	Director IIT BHU

### Names of Students/Scholars who went for foreign Internship

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Rahul Karkhanis	13064025	University of Natural Resources and Life Science, (BOKU), Vienna	Vienna	Austria	15th May to 31st July 2017
2	Arpit Bhardwaj	14064004	DAAD (German Academic Exchange Service)	Bundeswehr University, Munich	Germany	15th May to 31st July 2017
3	Kuljeet Keshav	14065039	Mitacs	University of Saskatchewan Canada	Canada	May 2017 August 2017

### Faculty & their Activity

#### Faculty and their areas of specialisation

S. No.	Name	Major Areas of Specialization
<b>PROFESSORS</b>		
1	Dr. Arun Prasad	Geotechnical Engineering
2	Dr. Devendra Mohan	Environmental Engineering
3	Dr. Gautam Banerjee	Environmental Engineering
4	Dr. Krishna Kant Pathak	Structural Engineering
5	Dr. Prabhat Kumar Singh	Environmental Engineering
6	Dr. Prabhat Kumar Singh Dikshit	Hydraulics & Water Resources Engineering
7	Dr. Rajesh Kumar	Structural Engineering
8	Dr. Sasankasekhar Mandal	Structural Engineering
9	Dr. Shyam Bihari Dwivedi	Engineering Geosciences
10	Dr. Veerendra Kumar	Structural Engineering
<b>ASSOCIATE PROFESSORS</b>		
1	Dr. Anurag Ohri	Geoinformatics
2	Dr. Brind Kumar	Transportation Engineering
3	Dr. Kamlesh Kumar Pandey	Hydraulics & Water Resources Engineering



4	Dr. Medha Jha	Engineering Geosciences
5	Dr. P. Bala Ramudu	Geotechnical Engineering
6	Dr. Pabitra Ranjan Maiti	Structural Engineering
7	Dr. Sanjay Kumar Gupta	Hydraulics & Water Resources Engineering

#### ASSISTANT PROFESSORS

1	Dr. Abhisek Mudgal	Transportation Engineering
2	Dr. Ankit Gupta	Transportation Engineering
3	Dr. Kesheo Prasad	Hydraulics & Water Resources Engineering
4	Dr. Manash Chakraborty	Geotechnical Engineering
5	Dr. Nikhil Saboo	Transportation Engineering
6	Dr. Rosalin Sahoo	Structural Engineering
7	Dr. Shishir Gaur	Geoinformatics
8	Dr. Supriya Mohanty	Geotechnical Engineering
9	Dr. Suresh Kumar	Geotechnical Engineering

#### Institute Professors

1	Dr. Pramod Kumar Singh	Structural Engineering
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#### Emeritus Professors

1	Dr. Ramji Agarwal	Structural Engineering
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#### Guest Faculty

1	Dr. R.K. Agarwal	Geotechnical Engineering
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#### Visiting Faculty

1	Dr. P.K. Basudhar	Geotechnical Engineering
2.	Shri Ramesh Singh	Environmental Engineering

#### Technical and Non-Teaching Staff

Sl. No.	Name, Qualifications	Designation	Date of Appointment in the department
1.	Shri Kamlesh Kumar	Junior Superintendent	31/07/2017
2	Shri Kamelsh Kumar	Junior Assistant	16/02/2016
3	Shri Ajit Kumar	Skilled Clerical Staff (Ex-Cadre)	16/04/2015
4	Shri L. S. Yadav	Technical Superintendent	19/08/1992
5	Shri Lalji	Technical Superintendent	30/05/1987
6	Shri Sharada Prasad	Technical Superintendent	12/01/1989
7	Shri Dinesh Singh	Jr. Technical Superintendent	21/12/1990



8	Shri Basanta Prasad	Jr. Technical Superintendent	28/12/1990
9	Shri Vinod Kumar Singh	Senior Technician	14/10/1993
10	Shri Raman Jee Jha	Senior Technician	07/01/1997
11	Shri A. K. Jaiswar	Senior Technician	22/02/2007
12	Shri R. B. Bhandari	Senior Technician	16/05/2007
13	Shri Yashwant Singh	Senior Technician	06/06/2007
14	Shri Amit Kumar Singh	Senior Technician	11/11/2011
15	Shri Shankar Ram	Junior Technician	13/06/2012
16	Shri Netrapal	Junior Technician	13/06/2012
17	Shri Rama Shankar Singh	Skilled Worker	01/01/2010
18	Shri Jai Singh Yadav	MTS-Skilled Worker	01/01/2015
19	Shri Deepak Kharwar	Unskilled Worker	22/01/2015
20	Shri Mintoo Lal Srivastava	MTS-Skilled Worker	13/12/2016
21	Shri Nitin Srivastava	MTS-Skilled Worker	13/12/2016
22	Shri Amar Srivastava	MTS-Skilled Worker	19/01/2017

#### Short-term courses/workshops/seminars/symposia/conferences organised by faculty members

S. No.	Coordinator	Title	Period
1	Dr. Supriya Mohanty	Site-Specific Geotechnical Investigations for Buildings & Critical Structures	Dec 7-9, 2017
2	Dr. Rosalin Sahoo	Development of Mathematical Model for Advance Composites	Dec 12-14, 2017
3	Dr. Brind Kumar	Workshop of resource persons on traffic noise for the IMPRINT India Project	13-14 November, 2017
4	Dr. Prabhat Kr. Singh	India Canada IC_IMPACTS Workshop on Ganga Rejuvenation at Varanasi	21-22 February, 2018

#### Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

S. No.	Name of Faculty Member	Title	Period and Venue
<b>Seminars/Symposia/Conferences</b>			
1.	Dr. Rajesh Kumar	ASCE Convention-2017	October, 8-11, 2017, New Orleans, Louisiana, USA
2.	Dr. Ankit Gupta	National Conference on Roads and Transport (NCORT-2017)	14-15 October, 2017, IIT Roorkee
3.	Dr. Ankit Gupta	Lucknow Conference on "New Technologies for Roads Construction" by UPPWD.	08-09 December, 2018, Lucknow



4.	Dr. Brind Kumar	Keynote address in National Conference on Roads and Transport (NCORT-2017).	October 14-15, 2017, IIT Roorkee.
5.	Dr. Brind Kumar	Expert Lecture in National Conference on New Technology For Road Construction	December 8-9, 2017, Govt. of Uttar Pradesh, Lucknow.

#### Meetings

1	Prof. S. B. Dwivedi	Academic Council Meeting, Central University of South Bihar	14 March 2018, Gaya
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#### Special lectures delivered by faculty members in other institutions

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Prof. Rajesh Kumar	Design of Multi-Storey Building under Earthquake loading using ETABS	Krishna Institute of Engineering and Technology (KIET)	May 2017, Ghaziabad, Delhi.
2	Dr. Nikhil Saboo	Studying the Rutting and Fatigue Properties of Conventional asphalt binders	IIT, Roorkee	October 13-16 2017
3	Dr. Nikhil Saboo	Studying the rutting and fatigue properties of conventional asphalt binders	UP PWD, Lucknow	December 8-9, 2017
4	Dr. Ankit Gupta	Performance Evaluation of Low Volume Roads	University of Moratuwa at Negombo, Sri Lanka	21-22 July 2017
5	Dr. Ankit Gupta	Role of Intelligent Transportation Systems for Smart City Development	Swami Keshvanand Institute of Technology and Engineering, Jaipur	18-19 Aug. 2017
6	Dr. Ankit Gupta	Use of Waste Products as Fillers for Improving the Bituminous Mix Performance	UP Public Works Department (PWD) at Lucknow	08-09 Dec. 2017
7	Dr. S. K. Gupta	Safety Analysis of Buried Mazza AC Pipes under Shallow and Deep Laying Conditions	U P Jal Nigam Office, Deenapur Sewerage Treatment Plant, Varanasi	May 19, 2017
8	Dr. S. K. Gupta	Design and development of a flow measurement system for waste water passing through Assi- Nagwa Nalah, Varanasi	CSIR-National Environmental Engineering Research Institute, Nagpur, Maharashtra	June 07, 2017
9	Dr. Anurag Ohri	Data and network Analysis using QGIS	NIT Warangal	March 14, 2018 to March 18, 2018
12	Prof. Devendra Mohan	Water Supply: Comparative view on field and lab testing	IEI Local Centre, Varanasi	October 2, 2017.

**Visits abroad by faculty members**

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Prof. Rajesh Kumar	USA	October 5, 2017	October 14, 2017	To attend the Convention of ASCE-2017	IIT(BHU), Varanasi
2	Dr. Supriya Mohanty	Japan	November 5, 2017	November 26, 2017	KCC Program for Young Leaders (Disaster Reduction course)	Japan International Cooperation Agency in association with Ministry of External Affairs, India
3	Dr. Nikhil Saboo	Japan	November 5, 2017	November 26, 2017	KCC Program for Young Leaders (Disaster Reduction course)	Japan International Cooperation Agency in association with Ministry of External Affairs, India
4	Dr. Nikhil Saboo	USA	January 6, 2017	January 12, 2017	TRB conference	Science and Engineering Research Board, India
5	Dr. Ankit Gupta	Vietnam (Ho Chi Minh City)	September 18, 2017	September 21, 2017	Conference	IIT(BHU), Varanasi
6	Dr. Anurag Ohri	Athens, Greece	July 5, 2017	July 9, 2017	10th World Congress on Water Resources	European Water Resources Association
7	Prof. Prabhat Kumar Singh	Thailand	8 March, 2018	11 March, 2018	Expert Workshop	AIT, Thailand
8	Prof. Prabhat Kumar Singh	Italy	9 June, 2017	10 June, 2017	Conference	IIT(BHU), Varanasi
9	Prof. Prabhat Kumar Singh	Finland	11 June, 2017	13 June, 2017	Expert Meeting	IIT(BHU), Varanasi
10	Prof. Prabhat Kumar Singh	France	15 June, 2017	18 June, 2017	Expert Meeting	IIT(BHU), Varanasi
11	Prof. KK Pathak	UAE	05 March, 2017	10 March, 2017	Conference	IIT(BHU), Varanasi
12	Dr PR Maiti	UAE	05 March, 2017	10 March, 2017	Conference	IIT(BHU), Varanasi





### Books, monographs authored/co-authored

S. No.	Name of Author/Co- Author	Title	Publisher
1	Singh, A.N., Gautam, D.K., Kumar, P., Mohan, D.	Impacts Assessment of Municipal Solid Squander Dumping in Riparian Corridor Using Multivariate Statistical Techniques	Springer-Nature
2	Mishra M., Mohan, D.	Bioremediation of Soils: An Overview	Springer-Nature
3	Singh, A.N., Mohan, D., Bhushan, P., Gautam, D., Kumar, P	Emerging Contaminants - A Concise Overview, Emerging Issues in Environmental Science: Concerns and Management	New Delhi Publishers, New Delhi
4.	Shivhare, N., Rahul, A. K., Gaur, S., Chauhan, M. S., Dikshit, P. K., Dwivedi, S. B., & Ojha, C. S. (2017).	Development of Water Resources in India	Springer

### Editorial boards of journals

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Dr. S. K. Gupta	Editorial Board Member	Flow Measurement and Instrumentation, Elsevier Sciences

### Research Activities

#### Publication in Referred Journals

1. Dwivedi, S.B. and K.Thenuo (2017) Occurrence of wagnerite in Mg-Al granulites of Sonapahar, Meghalaya, Journal of Earth System Science 126(4) 52.
2. Shivhare, N., Rahul, A. K., Gaur, S., Chauhan, M. S., Dikshit, P. K. S., Dwivedi, S. B. and Ojha, C. S. P. (2017) Hydrological Planning of Watershed of RGSC, Mirzapur, UP, Using GIS Techniques, Development of Water Resources of India (Springer) V.75 pp.3-18.
3. Chauhan, M. S., Kumar, V., Rahul, A. K., Dikshit, P. K. S. and Dwivedi, S. B. (2017) Spatial distribution of the suspended sediments in river Ganga at Varanasi, Uttar Pradesh, India" International Journal of Earth Sciences and Engineering. Vol.10 No.03 pp 30-42
4. S. Gaur, A. Dave, A. Gupta, A. Ohri, P. K. S. Dikshit and S. B. Dwivedi (2017). Artificial neural networks and particle swarm optimization based model for the solution of groundwater management problem. European Water 57: 345-352, 2017.
5. Vinay Sharma, Satyajit Mondal and Ankit Gupta. (2017). A Comparison of Critical Gap of UTurning Vehicles at Uncontrolled Median Opening Based on Different Methods. Journal of Eastern Asia Society of Transportation Studies. 12 (1728-1739).
6. Ankit Gupta, Satyajit Mondal and Vinay K. Sharma. (2017). "Modelling UTurning Behaviour of Vehicles at MidBlock Median Opening in Multilane Urban Roads". Current Science, Indian Academy of Sciences 114(7), 1461-1473.
7. Nikhil Saboo, Rajiv Kumar, Praveen Kumar and Ankit Gupta. (2018) "Ranking the Rheological Response of SBS and EVA Modified Bitumen using MSCR and LAS Test". Journal of Materials in Civil Engineering, ASCE, 30(8), 1-8.
8. Mishra, S., Tiwary, D., Ohri, A., Agnihotri, A. K. (2018). "Assessment of groundwater quality using WQI and GIS near the Karsara municipal landfill site, Varanasi, India." Arabian Journal of Geosciences, 11(11), 252.



9. Maurya, S.P., Ohri, A., Singh, P.K., Debnath, A.(2018).” Development of a decision making tool for selection of waste water treatment technology based on urban water reuse.” *International Journal of Civil Engineering and Technology*. 9(2), 497-506.
10. Mishra, S., Tiwary, D. Ohri, A. and Agnihotri, A. (2018). “Spatial Analysis of Groundwater Quality around MSW landfill site.” *Spatial Analysis of Groundwater Quality around MSW landfill site*. 17(3), 963-971.
11. Mishra, S., Akhtar, J., Agnihotri, A.K., Tiwari, D., Ohri, A. (2018). “Assessment of Water Quality of River Assi by using WQI, Varanasi, India.” *International Journal of Environment and Sustainability*, 7(2), 114-121.
12. Grover, N., Sahoo, R., Singh, B.N., and Maiti, D. K. (2017). “Influence of Parametric Uncertainties on the Deflection Statistics of General Laminated Composite and Sandwich Plates.” *Composite Structures*, Elsevier, 171, 158-169.
13. Sahoo, R., Singh, BN. (2018). “Assessment of dynamic instability of laminated composite-sandwich plates.” *Aerospace Science and Technology*, Elsevier. 81, 41-52.
14. Sumeet Chakraborty, Hora M.S and Pathak K.K. (2017). “Buckling behaviour of steel column having an intermediate support.” *ARPJ Journal of Engineering and Applied Sciences*, 12(15).
15. Sharma A., Singh P.K., Pathak K.K. (2017). “Under slung steel truss bridge with composite RCC deck.” *IJERMCE*, 2(11), 43-47.
16. Mohanty, S., and Patra, N. R. (2018) “Liquefaction and Ground Response Analysis of Indian Pond Ash using Shear Wave Velocity Measurements.” *ASCE Geotechnical Special Publication*. 291 (504-513).
17. Nitesh Singh Bonal, Bala Ramudu Paramkusam, and Prabir Kumar Basudhar (2018). “Enhancement of surfactant efficacy during the cleanup of engine oil contaminated soil using salt and multi-walled carbon nanotubes.” *Journal of Hazardous Materials*, 351 (2018) 54–62.
18. AK Mandal, Bala Ramudu Paramkusam and OP Sinha (2018). “Fluidized bed combustion bottom ash: A better and alternative geo-material resource for construction.” *Waste Management & Research*, Vol. 36(4).
19. Kumar, P., Saboo, N., Pratim Das, B. (2017) “A Comparative Study of Dense and Gap Graded Mixes prepared using Modified binders”, *Indian Highways (discussion paper)*, Indian Roads Congress (accepted).
20. Kumar, P., Tiwari S., and Saboo, N. (2017) “Effect of Temperature on Response of Falling Weight Deflectometer (FWD)” *Highway Research Journal*, Indian Roads Congress, Vol. 8, No. 1, pp 1-8.
21. Singh, B., Saboo, N., and Kumar, P. “Effect of Short Term Ageing on Creep and Recovery Response of Asphalt Binders” *Journal of Transportation Engineering, Part B, ASCE*, Vol 143, No. 4, pp 1-10.
22. Singh, B., Saboo, N., and Kumar, P. (2017) “Use of Fourier Transform Infrared Spectroscopy to study ageing characteristics of the asphalt binders” *Petroleum Science and Technology*, Taylor & Francis, Vol. 35, No. 16, pp 1648-1654.
23. Kumar, P., Saboo, N., Radhika (2017) “Effect of Sulphur Mixing on Storage Modulus of SBS Modified Bitumen”, *Indian Highways*, Indian Roads Congress, Vol. 45, No. 6, pp 39-50.
24. Vikram, D. and Saboo, N. (2017) “An Effective Technique to Estimate Cross Model Parameters”, *Journal of Materials in Civil Engineering, ASCE*, Vol. 29, No. 11, pp 1-8.
25. Kumar, R., Saboo, N., Kumar, P. and Chandra, S. (2017) “Effect of Warm Mix Additives on Creep and Recovery Response of Conventional and Polymer Modified Asphalt Binders” *Construction and Building Materials*, Elsevier, Vol 138, pp 352-362.
26. Saboo, N., Singh, B., Kumar, P., and Vikram, D. (2018) “Study on Viscosity of Conventional and Polymer Modified Asphalt Binders in Steady and Dynamic Shear Domain” *Mechanics of Time Dependent Materials*, Springer, Vol 22, No. 1, pp 67-78.
27. Saboo, N., Kumar, P. (2018) “Equivalent Slope Method for Construction of Master Curves”, *Indian Highways*, Indian Roads Congress, Vol. 46, No. 2, pp 19-28.
28. Saboo, N., Kumar, P. (2018) “Analysis of Creep and Recovery for Modified Binder”, *Indian Highways*, Indian Roads Congress, Vol. 46, No. 6, pp 1-9.



29. Gupta, A., Mohan, D., Saxena, R.K., Singh, S. 2018, Phototrophic cultivation of NaCl-tolerant mutant of *Spirulina platensis* for enhanced C-phycoerythrin production under optimized culture conditions and its dynamic modeling, *Journal of Phycology*, 54, 44–55.
30. Dhal, G.C., Mohan, D., Prasad, R., Dey, S., 2018, Simultaneous abatement of diesel soot and NO<sub>x</sub> emissions by effective catalysts at low temperature: An overview, *Catalysis Reviews - Science and Engineering*, 60, 437-496.
31. Dhal, G.C., Dey, S., Mohan, D., Prasad, R., 2018, Simultaneous Control of NO<sub>x</sub>-Soot by substitutions of Ag and K on perovskite (LaMnO<sub>3</sub>) catalyst, *Bulletin of Chemical Reaction Engineering & Catalysis*, 13, 144-154.
32. Singh, A.N., Shrivastava, R., Mohan, D., Kumar, P., 2018, Assessment of spatial and temporal variations in water quality dynamics of River Ganga in Varanasi, *Pollution*, 4, 239-250.
33. Markandeya, Dhiman, N., Shukla, S.P., Mohan, D., Kisku, G.C., Patnaik, S., 2018, Comprehensive remediation study of disperse dyes containing wastewater by using environmental benign, low cost cenospheres nanosyntactic foam, *Journal of Cleaner Production*, 182, 206-216.
34. Yadav D., Kavaiya, A.R., Mohan, D., Prasad, R., 2018, Transition metals cobaltites spinel for depollution of NO<sub>x</sub> emissions using SCR Technology, *The Canadian Journal of Chemical Engineering*, 96, 1345–1351.
35. Yadav D., Kavaiya, A.R., Mohan, D., Prasad, R., 2017, Low temperature selective catalytic reduction (SCR) of NO<sub>x</sub> emissions by Mn-doped Cu/Al<sub>2</sub>O<sub>3</sub> catalysts, *Bulletin of Chemical Reaction Engineering & Catalysis*, 12, 415-429.
36. Dey, S., Dhal, G.C., Prasad, R. and Mohan, D., 2017, Effect of nitrate metal (Ce, Cu, Mn and Co) precursors for the total oxidation of carbon monoxide, *Resource-Efficient Technologies*, 3, 293-302.
37. Dey, S., Dhal, G.C., Prasad, R., Mohan, D., 2017, Effects of doping on the performance of CuMnO<sub>x</sub> catalyst for CO oxidation, *Bulletin of Chemical Reaction Engineering & Catalysis*.
38. Dey, S., Dhal, G.C., Prasad, R., Mohan, D., 2017, Study of hopcalite (CuMnO<sub>x</sub>) catalysts for CO oxidation at low temperature *Bulletin of Chemical Reaction Engineering & Catalysis*.
39. Dhal, G.C., Mohan, D., Prasad, R., 2017, Preparation and application of effective different catalysts for simultaneous control of diesel soot and NO<sub>x</sub> emissions: An overview, *Catalysis Science and Technology*.
40. Dhal, G.C., Dey, S., Mohan, D., Prasad, R., 2017, Solution combustion synthesis of perovskite-type catalysts for diesel engine exhaust gas purification, *Materials Today: Proceedings*, 4, 10489-10493.
41. Dhal, G.C., Mohan, D., Prasad, R., 2017, Simultaneous elimination of soot and NO<sub>x</sub> through Silver-Barium based catalytic materials, *Bulletin of Chemical Reaction Engineering & Catalysis*, 12, 71-80.
42. Dhal, G.C., Mohan, D., Prasad, R., 2017, Study of Fe, Co, and Mn-based perovskite-type catalysts for the simultaneous control of soot and NO<sub>x</sub> from diesel engine exhaust, *Materials Discovery*, 10, 37-42.
43. Jhariya, G., Mohan, D., Singh, R.M., 2017, Effluent quality assessment at sewage treatment plant (STP) Bagwanpur, Varanasi, *Environment and Ecology*, 35, 994-996.
44. Markandeya, Shukla, S.P., Mohan, D., 2017, Toxicity of disperse dyes and its removal from wastewater using various adsorbents: A review, *Research Journal of Environmental Toxicology*, 9, 1-18.
45. Markandeya, Shukla, S.P., Dhiman, N., Mohan, D., Kisku, G.C., Roy, S., 2017, An efficient removal of disperse dye from wastewater using zeolite synthesized from cenospheres, *Journal of Hazardous, Toxic, and Radioactive Waste*, 21, 040177017.
46. Shukla, S.P., Sonam, Markandeya, Mohan, D., Pandey, G., 2017, Removal of fluoride from aqueous solution using Psidium guajava leaves, *Desalination and Water Treatment*, 62, 418-425.
47. Singh, A.N., Mohan, D., Shukla, A., Kumara, P., 2017, Trace metals in vegetables and cereals - A case study of Indian market – 2016, *Archives of Hygiene Sciences*, 6, 160-170.
48. Singh, A.N., Shrivastava, R., Mohan, D., Singh, S.K., Kumar, P., 2017, Studies on bacterial species and Physicochemical parameters of water from River Varuna, *World Journal of Pharmacy and Pharmaceutical Sciences*, 6, 1154-116.
49. Srivastava A., Singh P.K. 2017, Adsorption of Nitrate from Groundwater using Indian Bentonite: Fixed Bed



- Column Study, International Journal of Engineering Research & Technology, 6(5), 390-394.
50. Singh P.K. and Saxena Sonali, 2018, Towards Developing a River Health Index, Ecological Indicators, 85, 999-1011.
  51. S. K. Gupta, U. Mishra, V. P. Singh, 2017, Design of minimum cost earthen channels having side slopes riveted with different types of riprap stones and unlined bed by using particle swarm optimization, Irrigation and Drainage (John Wiley), Vol. 65(3), pp. 319-333.
  52. S. K. Gupta, Free surface flow measurements, Flow Measurement and Instrumentation (Elsevier Science), Vol. 54, 273.

### Proceedings of International Conferences

1. Saboo, N., Reddy, A., Pandey, B.B. (2018) "Five year performance of gap-graded mixes with crumb rubber modified asphalt binder", Transportation Research Board, Walter E. Washington Convention Centre, Washington D.C.
2. Sahoo, R. and Singh, B. N., Grover, N. (2017) "Parametric Resonance of Laminated Composite-Sandwich Plates: A Finite Element Approach", The 9th Asian-Pacific Conference on Aerospace Technology and Science & The 2nd Asian Joint Symposium on Aerospace Engineering (APCATS & AJSAAE 2017) Beijing, China.
3. Gaur, S., Dave, A., Gupta, A., Ohri, A., Dikshit, P.K.S., Diwedi, S.B. (2017) "Artificial Neural Networks and Particle Swarm Optimization based Model for the Solution of Groundwater Management Problem". 10th World Congress on Water Resources and Environment. Athens, Greece, 1819-1826.
4. Jayvant Choudhary, Brind Kumar and Ankit Gupta. (2017) "Investigation of Marshall Characteristics & Durability of Glass Powder Incorporated Dense Graded Asphalt." International Conference on Advances in Highway Engineering & Transportation Systems, Negombo, Sri Lanka.
5. Jayvant Choudhary, Brind Kumar and Ankit Gupta. (2017). "A Preliminary Investigation into the Physical and Chemical Properties of Industrial Wastes used as Mineral Fillers in Asphalt Mixes." 10th International Conference on Pavement Technology, Hong Kong.
6. Jayvant Choudhary, Brind Kumar and Ankit Gupta (2018) "Potential of Bauxite Residue as Filler in Asphalt Concrete." 97th Annual Meeting of Transportation Research Board, Washington D.C.
7. Jayvant Choudhary, Brind Kumar and Ankit Gupta (2018). "Investigation of using Dimension Limestone Slurry Waste as Filler in Asphalt." 97th Annual Meeting of Transportation Research Board, Washington D.C.
8. C. Nidhi, B. Sharma, P.K. Singh (2017). "Energy value in biomass and plastic components of municipal solid waste." 18th International Conference on Envirotech, Cleantech & Greentech (ECG). Rome, Italy.
9. P.K. Singh and S. Saxena (2017). "Perspectives of River Health in India." International Conference on Recent Trends in Civil Engineering and Water Resource Engineering, Hyderabad, India.
10. P.K. Singh, S. Saxena and M. Ranjan (2017). "A synoptic view of Ganga River Basin Management Plan (GRBMP) 2015 with special reference to Middle and Lower Segments." International Conference on Incessant Ganga, Patna, India.
11. N. Shivhare, P. Omar, A. Rahul, P. Dikshit, S. Dwivedi. (2017). "Modeling Best Management Practices for Runoff and Sediment Yield Management Using SWAT." ICOGEL. Denpasar Bali, Indonesia
12. Rahul Verma, Devendra Mohan and Prashant Bhushan. (2018) "Phage Applications for Environmental Control: An Overview." Abstract Proceedings of IEEE International Conference on Recent Advances in Engineering, Technology and Computational Sciences (RAETCS-2018), SAM Higginbottom University of Agriculture, Technology & Science, Allahabad.
13. Shiva Shankar Y, Sumit Gandhi, N. K. Samaiya and Devendra Mohan. (2018) "Electricity Based Approaches for Defluoridation." Abstract Proceedings of IEEE International Conference on Recent Advances in Engineering, Technology and Computational Sciences (RAETCS-2018), SAM Higginbottom University of Agriculture, Technology & Science, Allahabad.
14. Markandeya, S. P. Shukla and Devendra Mohan. (2018) "Leaching Behavior of Heavy Metals, Distribution of PAHs and Pesticides in Coal and related Ashes." Abstract Proceedings of IEEE International Conference on Recent Advances in Engineering, Technology and Computational Sciences (RAETCS-2018), SAM





Higginbottom University of Agriculture, Technology & Science, Allahabad.

### Proceedings of National Conferences

1. Saboo, N., Singh, B. and Kumar, P. (2017) "Studying the Rutting and Fatigue Properties of Conventional asphalt binders", National Conference on Roads and Transport, October 13- October 16, IIT Roorkee. (Key Note)
2. Singh, B., Saboo, N. and Kumar, P. (2017) "Morphological Study of Polymer Modified Binders Ageing", National Conference on Roads and Transport, October 13- October 16, IIT Roorkee, 2017.
3. Sahoo, R. and Singh, B. N., Grover, N. (2017) "Non-polynomial zigzag theory for the static and buckling analysis of laminated composite and sandwich plates". International Conference on Theoretical, Applied, Computational and Experimental Mechanics (ICTACEM), IIT Kharagpur.
4. Deepak Prasad and Brind Kumar. (2017) "Beneficiation of Recycled Coarse Aggregates by Grinding and Lime Treatment for M20 Grade Concrete." National Conference on Roads and Transport (NCORT-2017), October 14-15, Transportation Engineering Group, Civil Engineering Department, IIT Roorkee.
5. Brind Kumar (keynote). (2017). "Industry-Institute Partnership: A key to infrastructure development and management." National Conference on Roads and Transport (NCORT-2017), October 14-15, Transportation Engineering Group, Civil Engineering Department, IIT Roorkee.
6. Brind Kumar (2017). "CRCP-EJ: A viable option for roads in Uttar Pradesh." National Conference on New Technology for Road Construction, December 8-9 Govt. of Uttar Pradesh.
7. Saxena, A.K., and Mohanty, S. (2017). "An Overview of Use of Underground Space and Its Application to Tunneling." Workshop on Sustainable Geotechnics. IIT Kanpur.
9. Reddy, M.V.R.K., Mohanty, S., and Pradeep Kumar, R. (2017) "Parametric Study on Behavior of Foundation Resting on Reinforced Pond Ash Deposit." Indian Geotechnical Conference- IIT Guwahati.
10. Reddy, C.S., and Mohanty, S. (2017). "Parametric Study on Seismic Behavior of Black Cotton Soil Reinforced With Granular Column" Indian Geotechnical Conference- IIT Guwahati.
11. Ram, A.K., and Mohanty, S. (2017) "Numerical Analysis of Sheet Pile Wall with Pond Ash as Backfill Material." Workshop on Sustainable Geotechnics. IIT Kanpur.
12. N. Shivhare, P. Omar, A. Rahul, P. Dikshit, S. Dwivedi (2018). "SWAT based Runoff Modeling: a case study of Varanasi region watershed" International Conference on Sustainable Technologies for Intelligent Water Management. IIT Roorkee.
13. N. Shivhare, P. Omar, A. Rahul, P. Dikshit, S. Dwivedi. (2017). "Comparison Of Soil Erosion Models For Applications In Ganga Region" In Recent Trend in Engineering and Water Resources Engineering. Hyderabad.

### Other activities

#### Distinguished visits in the Department/School from India

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. N R Patra	Short Term Course	7-9 Dec, 2017
2	Prof. B. Umashankar	Short Term Course	7-9 Dec, 2017
3	Prof. Pradeep Kumar Ramancharla	Short Term Course	7-9 Dec, 2017
4	Prof.Chandan Ghosh	Short Term Course	
5	Prof. N.R. Rawal	IC IMPACT	21 Feb.,2018
6	Dr. V.K. Raina	Workshop on Bridge	19 Mar, 2018
7	Prof. Manoj Mathur	New Proposed Department of Architecture & Planning	16 Mar, 2018
8	Dr. Subrmanya Karakatti	Expert Lecture	03 Aug,2017

**Distinguished Visits in the Department/School from abroad**

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. Anil Agarwal	GIAN Course	1-5 Nov, 2017
2	Dr. Shiv O. Prasher	IC-IMPACT	21-22 Feb, 2018
3	Dr. Damase Khasa	IC-IMPACT	21-22 Feb, 2018
4	Dr. Madjid Mohseni	IC-IMPACT	21-22 Feb, 2018
5	Dr. Ramesh Rudra	IC-IMPACT	21-22 Feb, 2018

**Glimpses of Deptt. events and its equipments.**

**Short Term Course (7-9 Dec. 2017) : Site Specific Geotechnical Investigation for Buildings and Critical Structures**



**Short Term Course (12-14 Dec. 2017): Advanced Composites: Mechanics & Applications**





IC- IMPACTS (21-22 Feb. 2018): Program on Ganga Rejuvenation Project

Some Instruments/Test Facilities of Civil Engineering Department



Theodolite



GPS



Total Station



Arsenic Determination System

### Some Instruments/Test Facilities of Civil Engineering Department



**Atomic Absorption Spectrophotometer**



**Jar Test Apparatus**



**Total Station**



**Arsenic Determination System**



**Water Distillation Plant**



**COD Digester**

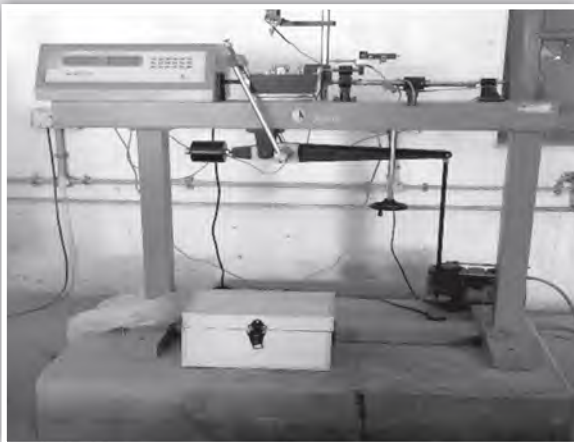
**Some Instruments/Test Facilities of Civil Engineering Department**



**Flume for Open Channel Flows**



**Automated Triaxial Apparatus**



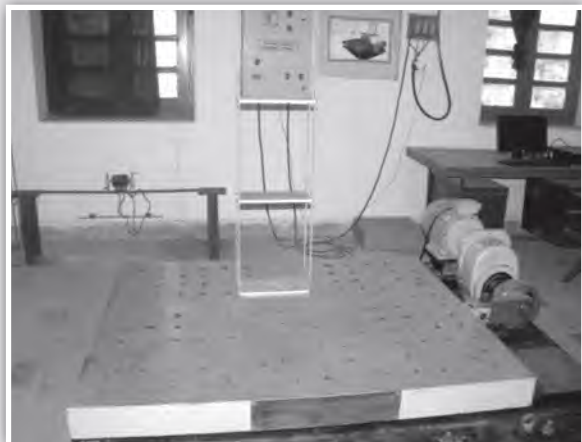
**Digital Direct Shear Test Apparatus**



**Conventional TX Apparatus**



**Conventional DST Test Apparatus**



**Shake Table**



**Some Instruments/Test Facilities of Civil Engineering Department**



**Compressor**



**Ductility Test Apparatus**



**Uniaxial Testing Machine**



**Automatic Bituminous Compactor**



**Cyclic Triaxial Apparatus**



**Wheel Rut Tester**



**Some Instruments/Test Facilities of Civil Engineering Department**



**Wheel Rut Shaper**



**Compression Testing Machine**

## 8. Department of Chemical Engineering & Technology

Year of Establishment : 1921

**Head of the Department :** Prof. Pradeep Kumar Mishra

### Brief Introduction of the Department

Department of Industrial Chemistry was established in 1921 at Banaras Hindu University. Subsequently, it was renamed as the Department of Chemical Engineering and Technology in 1956. The Department has established several benchmarks of achievements in teaching and research. It modernizes its programmes to impart education in upcoming areas of chemical engineering.

The Department presently offers courses leading to B. Tech., M. Tech. and Ph. D. degrees in Chemical Engineering. The Department also offers courses to IIT(BHU) and Banaras Hindu University. In the new undergraduate curriculum, the department has been entrusted to offer a number of institute level courses either independently or jointly with other departments. The research facilities of the department are utilized not only by other departments of the institute and BHU but also by other teaching institutions and research laboratories.

The floor area of the department is 4,002 sq. meter. The department has 18 laboratories, a workshop, 7 lecture theatres, a 250 seat auditorium, a library having over 11,000 volumes of text and reference books and a textbook bank and internet facility. The Department also has a seminar room and a few instruction rooms and rooms for its faculty.

The University Grants Commission, New Delhi has granted the Department the Status of Centre of Advanced Study in Chemical Engineering. The Department also enjoys the status of DST – FIST Sponsored Department.

The Department enjoys an excellent rapport and professional interaction with various industrial organisations. Faculty members are engaged in high level consultancy work in industry, where as some others have projects funded by the industry. Besides these, the Department also provides know-how for process improvement/development, raw materials and products analysis, pollution monitoring facilities, etc. to the industries in and around Varanasi.

### Major areas of Research

Currently major areas of research in the department are waste water treatment, separation processes, catalysis, biotechnology and fuel cell. The department has identified three major thrust areas for future research as energy, environment and nanotechnology with emphasis on developing affordable solutions for the problems in the country such as drinking water, energy (harvesting, production and storage) and healthcare.

### Area of the Department/School (in square meters):

The floor area of the department is 4,002 sq. meter.

### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	07
2	No. of Lecture Halls	03
3	No. of Laboratory	18
4	No. of Computers available for students in the Department/School/ School	80

### Unique Achievement / Preposition of the Department

1921: Established as Department of Industrial Chemistry

1935: Two year M.Sc. (Tech.) Degree course started.

1949: Four year Bachelor Degree Course in Engineering started

1956: Renamed as the Department of Chemical Engineering and Technology

1963: Two year Master Degree in Chemical Engineering started

1993: Special Assistance under SAP/ COSIST Programmes of UGC

1997: IFFCO Chair was granted by IFFCO Ltd, New Delhi





1999: UGC - Centre of Advanced Study  
2004: DST-FIST (Level I)  
2005: UGC - Centre of Advanced Study Phase II  
2010: UGC – Centre of Advanced Study Phase III  
2013: DST – FIST (Level I further for next 5 years)

#### Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech/B. Pharm	108	117	105	104	---
2	Dual Degree	---	---	---	---	---
3	M. Tech/ M. Pharm	41	38	---	---	---
4	Ph. D (Under Institute Fellowship)	13	13	12	08	17

#### Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From
<b>INDIA</b>					
1.	Sweta Negi	15042038	Conference	1-3 March 2017 Allahabad	STGS
2.	Himshailla Sharma	15042019	Conference	1-3 March 2017 Allahabad	STGS
3.	Vineeta Gautam	12602EN003	Conference	2-3 March 2017 Babasaheb Bhimrao Ambedkar University, Lucknow (U.P.)	STGS
4.	Ravi Kr Sonwani	16041006	Conference	8-10 Oct. 2017 NEERI, Nagpur	STGS
5.	Sachin Prasad Gujjar	16042016	Conference	8-10 Oct. 2017 NEERI, Nagpur	STGS
6.	Sachin Prasad Geed	15041008	Conference	8-10 Oct. 2017 NEERI, Nagpur	STGS
7.	Vivek Kr Pandey	15041012	Conference	8-10 Oct. 2017 NEERI, Nagpur	STGS
8.	Himanshu Tiwari	18041002	Conference	8-10 Oct. 2017 NEERI, Nagpur	STGS
9.	Prabhat Kumar	15045064	Conference	8-10 Oct. 2017 NEERI, Nagpur	STGS
10.	Amrita Shahi	14041004	Conference	8-10 Oct. 2017 NEERI, Nagpur	STGS
11.	Sakshi Patil	14045082	Conference	8-10 Oct. 2017 NEERI, Nagpur	STGS
12.	Munna Kumar	13041503	Conference	8-10 Oct. 2017 NEERI, Nagpur	STGS
13.	Satyansh Singh	15041010	Conference	27-30 Dec. 2017 Haldia Institute of Technology, WB	STGS
14.	Rahul Jain	16042029	Conference	27-30 Dec. 2017 Haldia Institute of Technology, WB	STGS
15.	Shobhit Dixit	15041011	Conference	27-30 Dec. 2017 Haldia Institute of Technology, WB	STGS



16.	Abhay Kumar Chaudhary	15041001	Conference	27-30 Dec. 2017 Haldia Institute of Technology, WB	STGS
17.	Upendra Kumar	16041009	Conference	27-30 Dec. 2017 Haldia Institute of Technology, WB	STGS
18.	Deoashish Panjiara	15041004	Conference	27-30 Dec. 2017 Haldia Institute of Technology, WB	STGS
19.	Parmendra Gaurh	13041009	Conference	27-30 Dec. 2017 Haldia Institute of Technology, WB	STGS
20.	Goutam Kihore Gupta	15041006	Conference	27-30 Dec. 2017 Haldia Institute of Technology, WB	STGS
21.	Renu Bala	13041505	Conference	27-30 Dec. 2017 Haldia Institute of Technology, WB	STGS
22.	Mahendra Ram	13041005	Conference	27-30 Dec. 2017 Haldia Institute of Technology, WB	STGS
23.	Sudhakar Saroj	13041012	Conference	27-30 Dec. 2017 Haldia Institute of Technology, WB	STGS
24.	Kangkan Roy	15045047	Conference	8-10 Oct. 2017 NEERI, Nagpur	STGS
25.	Zeenat Arif	15041014	Conference	27-30 Dec. 2017 Haldia Institute of Technology, WB	STGS
26.	Surya Chandra Tiwari	16042043	Conference	27-30 Dec. 2017 Haldia Institute of Technology, WB	STGS
27.	Mohit Kumar	16041003	Conference	27-29 Dec. 2017 Hyderabad International Convention Centre (HICC)	STGS
28.	Vivek Kumar Patel	15041013	Conference	27-29 Dec. 2017 Hyderabad International Convention Centre (HICC)	STGS
29.	Vasu Chaudhary	16041010	Conference	27-29 Dec. 2017 Hyderabad International Convention Centre (HICC)	STGS
30.	Abhimanyu Soni	14045004	Conference	27-30 Dec. 2017 Haldia Institute of Technology, WB	STGS
<b>ABROAD</b>					
31.	Vineeta Gautam	12602EN003	Conference	23-25 May 2017 Guangzhou, China	STGS
32.	Prakhar Doorwar	14045066	Conference	27-30 Oct. 2017 Minneapolis, MN, USA	STGS



### Names of students/scholars who got prizes and awards outside the Institute

Sl. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1.	Md. Fadil	14045057	DAAD WISE fellowship	May-July 17 Max Planck Institute	Deutscher Akademischer Austauschdienst German Academic Axchange Service
2.	Abhimanyu Soni	14045004	DAAD WISE fellowship	May - July 17 Max Planck Institute	Deutscher Akademischer Austauschdienst German Academic Axchange Service

### Names of scholars/students who won Convocation/Institute Day prizes

Sl. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1.	Ms. Himshella Sharma	15042019	Awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Chemical Engineering Examination, 2017.	I.I.T. (B.H.U.)
2.	Ms. Mrinali Modi	13045056	Medal for standing First at the B.Tech. in Chemical Engineering Examination, 2017)	I.I.T. (B.H.U.)
3.	Ms. Mrinali Modi	13045056	The R.B.G. Modi Medal for standing First at the B.Tech. in Chemical Engineering Examination, 2017)	I.I.T. (B.H.U.)
4.	Ms. Mrinali Modi	13045056	Manishi Sharma Memorial Gold Medal for securing First position at B.Tech. Chemical Engineering Examination, 2017)	I.I.T. (B.H.U.)
5.	Ms. Mrinali Modi	13045056	Mrs. Gargi Devi Trivedi Memorial Gold Medal for securing highest marks in B.Tech. Chemical Engineering Examination, 2017)	I.I.T. (B.H.U.)
6.	Ms. Mrinali Modi	13045056	Smt. Indira Tripathi Gold Medal for securing highest CPI among the girl students at the B.Tech. in Chemical Engineering Examination, 2017)	I.I.T. (B.H.U.)
7.	Ms. Mrinali Modi	13045056	Prof. Y.D. Upadhyaya Memorial Gold Medal for securing highest CPI at B.Tech. Chemical Engineering Examination, 2017)	I.I.T. (B.H.U.)
8.	Ms. Mrinali Modi	13045056	Dr. R.J. Rathi Financial Award Rs. 1000/= cash for standing First at the B.Tech. in Chemical Engineering Examination, 2017)	I.I.T. (B.H.U.)
9.	Ms. Mrinali Modi	13045056	Manishi Sharma Memorial Cash Prize Rs. 2000/= for securing First position at the B.Tech. in Chemical Engineering Examination, 2017.	I.I.T. (B.H.U.)



### Names of Students/Scholars who went for foreign Internship

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1.	Kumar Vikrant	14045047	Hanyang University, Seoul	Seoul	South Korea	May - July 17
2.	Md. Fadil	14045057	Max Planck Institute for Dynamics of Complex Technical Systems, Magdeburg	Magdeburg	Germany DAADWISE fellowship	May - July 17
3.	Abhimanyu Soni	14045004	Max Planck Institute for Dynamics of Complex Technical Systems, Magdeburg	Magdeburg	Germany DAAD WISE fellowship	May - July 17

### Faculty & their Activity

#### Faculty and their areas of specialisation

S. No.	Name & Qualification	Major Areas of Specialization
<b>PROFESSORS</b>		
1.	A.K. Verma 13744	Modelling & Simulation, Multiphase Reactor Design & Artificial Intelligence
2.	A.S.K. Sinha 13741	Reaction Engg, Photocatalysis., Electrocatalysts, Process Development, Hydrogen Energy, Nanotechnology
3.	Ram Prasad 13737	Chemical reaction Engg. & Catalysis, Process Design & Development, renewable Energy
4.	B.N. Rai 13746	Bio-remediation, Water Pollution control, Air Pollution control and Environmental Biotechnology
5.	P.K. Mishra 13747	Separation Processes ( Extraction & Membrane Separation), Wastewater Treatment, Polymeric & Ceramic Nanofibers
6.	Pradeep Ahuja 13748	Modelling & Simulation Kinetics & Thermodynamics, Energy & Polymer Technology
7.	M.K. Mondal 13749	Industrial Pollution Control, Transfer Process, Chemical Reaction Engg., Modeling & Simulation Process Optimization
8.	R.S. Singh 16729	Environmental Biotechnology, Process Control, Bioremediation of Waste
<b>ASSOCIATE PROFESSORS</b>		
1.	V.L. Yadav 13745	Polymer Technology, Transfer Processes, Chem. Reaction Engg, Chemical Technology
2.	S.V. Singh 18210	Fruit and vegetable storage and processing, Adsorption
3.	H. Pramanik 17500	Fuel Cell Technology, Energy Engineering, Electrochemistry



### ASSISTANT PROFESSORS

1.	A.C. Mohan 13742	Process Control, Polymer Technology
2.	Bhawana Verma 18152	Heat Transfer, Liquid membrane separation, Biodiesel, Pyrolysis, Liquid-Liquid Extraction
3.	Durga Prasad A. 18151	Process modeling and simulation, Optimization techniques, Process dynamics and control, Process Equipment design.
4.	Pradeep Kumar 18479	Chemical Technology, Industrial Pollution Abatement.
5.	Sweta 19770	Environmental Catalysis, Reaction Kinetics, Polymer Blends, Diesel Exhaust Treatment
6.	Jyoti P. Chakraborty 19844	Pyrolysis, Gasification, Kinetics of Complex Reactions
7.	Ravi P. Jaiswal 50025	Interfacial Engineering, Particle Adhesion
8.	Ankur Verma 50026	Interfacial Science, Microfluidics, Nanotechnology
9.	Manoj Kumar 50027	Optical Nano System Design, Energy and Photocatalysis
10.	Dr. Vijay Shinde 50171	Solid state and material chemistry, Heterogeneous catalysis for energy application, sustainability and green chemistry

### EMERITUS PROFESSORS

Prof. S.N. Upadhyay	Bio Technology, Environmental Engineering, Fluidization, Transfer Operation
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### ANNUAL PROFESSORS

K.K. Srivastava 13736	Process Engg., Transfer Processes, Fluidization Engg.
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### Short-term courses/workshops/seminars/symposia/conferences organised by faculty members

S. No.	Coordinator	Title	Period
1.	Prof. P. K. Mishra	Entrepreneurship Awareness Camp	03rd to 05th Aug 2017
2.	Prof. P. K. Mishra	Start-up India Yatra	13th November, 2017
3.	Prof. P. K. Mishra	Entrepreneurship Awareness Camp	09th-11th December, 2017
4.	Prof. P. K. Mishra	Workshop on Innovation in Education: Learn with fun Hands on Maths and Science	19th - 21th December 2017
5.	Prof. P. K. Mishra	Start-up Fair 20182018 - An entrepreneurial workshop	16th - 18th February 2018
6.	Prof. P. K. Mishra	Mahamana's Vision for Excellence in Higher Education	23- 24, February 2018
7.	Prof. P. K. Mishra	Varanasi Innovation Summit	27-28 March, 2018
8.	Prof. P. K. Mishra	Aeris, IIT BHU Partner to Launch the 'Internet of Things - Centre of Excellence' for Making India an Innovation Destination	28-Mar-18



9.	Prof. P. K. Mishra	InSPIRE 2018, A workshop on "Renewable energy & Energy efficiency"	25 March 2018
10.	Prof. P. K. Mishra	Startup India Yatra Varanasi	13-Nov-17
11.	Prof. P. K. Mishra	Hult Prize 2018, Hult Prize BHU	11-Nov-17
12.	Prof. P. K. Mishra	Workshop on Zero Defect Zero Effect	23-Aug-17
13.	Prof. P. K. Mishra	An interactive session with Mr. Daniel Breitwieser, Co-Founder Fypster	30-Jul-17
14.	Prof. P. K. Mishra	Interaction with more than 200 Farmers in PM adopted Village Jayapur to promote Bioenergy	29-Jul-17
15.	Prof. P. K. Mishra	Institute - Industry-Society Conclave - 2018	31 Aug - 2 Sep-18
16.	Prof. P. K. Mishra	Start-ups Showcasing and Sensitization Programme for Students of Rajarshi School of Management & Technology	25-Aug-18
17.	Prof. P. K. Mishra	A workshop on Air Pollution and it's health impacts in association with CEED	16-Jul-18
18.	Prof. P. K. Mishra	12 days' Workshop cum training program on Biogas Technology Development, Implementation and Substrate Analysis	2 to 13 Jul-18
19.	Prof. P. K. Mishra	Collaboration with CISCO and NASSCOM Foundation to setup 'Cisco thingQbator' for IoT	18-May-18
20.	Prof. P. K. Mishra	Sustainable development solutions in the area of Battery Pack for EV through innovation and Collaboration	09-May-18

**Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings**

S. No.	Name of Faculty Member	Title	Period and Venue
<b>Seminars/Symposia/Conferences</b>			
1.	Dr. Ankur Verma	4th National Workshop on NEMS/MEMS and Theranostics Devices	February 26 - 28, 2018
2.	Prof. A. K. Verma	International conference in Advance Energy material (AEM-2017) university of Surrey, England	September 11-13, 2017
3.	Dr. H. Pramanik	International conference in Advance Energy material (AEM-2017) university of Surrey, England	September 10-14, 2017
4.	Prof. M.K. Mondal	International conference in Advance Energy material (AEM-2017) university of Surrey, England	September 10-14, 2017





### Special lectures delivered by faculty members in other institutions

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1.	Dr. Ankur Verma	Microscopy: Seeing is believing	IIT Guwahati, 4th NWNTD-2018.	February 27, 2018
2.	Dr. Ankur Verma	Nanofabrication: Doing it nature's way	DMSRDE Kanpur. CEP Talk	August 8, 2017
3.	Dr. J.P. Chakraborty	Scope of Engineers in the Energy Sector	Department of Chemical Engg, DIATM, Durgapur, West Bengal	24th May, 2017
4.	Dr. M.K. Mondal	Pre-treatment of Organic fraction for Municipal Solid Waste for anaerobic Digestion	University of Surrey, England	12th September 2017
5.	Dr. H. Pramanik	Electro-oxidation study of pure ethanol/methanol & their mixture for the direct alcohol alkaline fuel cells (DAAFCs)	University of Surrey, England	12th September 2017
6.	Dr. P.K. Mishra	Innovation to serve	Institute of agriculture and sciences, BHU, Varanasi	5th Feb. 2018
7.	Dr. P.K. Mishra	Entrepreneurship	Department of Ayurveda, BHU, Varanasi	5th Feb. 2018
8.	Dr. P.K. Mishra	Entrepreneurship	NCL, Singrouli	17th Feb. 2018
9.	Dr. P.K. Mishra	Leaf frog into advanced digital India	Shambhunath institute of technology Allahabad U.P	9th March 2018
10.	Dr. P.K. Mishra	Entrepreneurship/Start-up to build modern India	Academic staff college BHU, Varanasi	10th March 2018
11.	Dr. P.K. Mishra	Orientation courses	Bharat vikash parishad	11th Feb 2018
12.	Dr. P.K. Mishra	Be the change	Rajkiya Engineering College azamgarh U.P	17th March 2018
13.	Dr. P.K. Mishra	Basis of Entrepreneurship	Deen Dayal Upadhyaya kaushal Kendra BHU	24th March 2018
14.	Dr. P.K. Mishra	Food security through Sustainable agriculture	UGC human resource development center BHU	21th july to 17th Aug. 2018
15.	Dr. P.K. Mishra	80th orientation course	Ministry of drinking water and sanitation along with Ministry of skill development and entrepreneurship	30th July 2018
16.	Dr. P.K. Mishra	National workshop on skilling under gobardhan	IESD BHU	1-7th June 2018
17.	Dr. P.K. Mishra	Mentor in workshop entitled innovation in food and agriculture system	Educational FM 105.6MHz Gyaan Vani channel Varanasi	14th June



18.	Dr. P.K. Mishra	Radio interactive counselling	Ganga pollution prevention unit of U.P jal nigam bhagwanpur Varanasi	5th June
19.	Dr. P.K. Mishra	Entrepreneur opportunities and Technological Innovation in Pashmina manufacturing	Cluster University, Lal Chok, Shree Nagar, Kashmir	16-17 October, 2017
20.	Dr. P.K. Mishra	Be the Change	Bharat ko Jano, Bharat Vikas Parishad, Institute of Science, BHU	28 October, 2017
21.	Dr. P.K. Mishra	Discussion on Demonetization (talk on TV)	DD Uttar Pradesh	04 November, 2017
22.	Dr. P.K. Mishra	Startup Scenario in India (talk on TV)	DD Uttar Pradesh	15 September, 2017
23.	Dr. P.K. Mishra	Technical innovations in Food Sector (Training Programme)	Food Science, Institute of Agricultural Science, BHU	06 September, 2017

### Visits abroad by faculty members

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1.	Dr. M.K. Mondal	England	10-09-2017	14-09-2017	Invited Talk International conference in Advance Energy material (AEM-2017) university of Surrey, England	IIT(BHU) Varanasi
2.	Dr. A.K. Verma	England	07-09-2017	03-10-2017	Presented paper at International conference in Advance Energy material (AEM-2017) university of Surrey, England	IIT(BHU) Varanasi
3.	Dr. H. Pramanik	England	10-09-2017	14-09-2017	Invited Talk International conference in Advance Energy material (AEM-2017) university of Surrey, England	IIT(BHU) Varanasi

### Honours and awards

S. No.	Name of Faculty Member	Details of Award
1.	Prof. P.K. Mishra	Shirin Gadhia Memorial Sustainability Award June 2017, Eco center ICNEER (International Center for Networking, Ecology, Education and Re-Integration), Muni Seva Ashram, Goraj, waghodia, Vadodara.
2.	Prof. P.K. Mishra	Member Governing Council NISBUD, 2015 till date



3.	Prof. P.K. Mishra	Chairman, Committee for formulation of disposal standards for Textile Industries at Ganga Basin Central Pollution Control Board, Government of India
4.	Prof. P.K. Mishra	Member Executive Board, Children Emancipation Society, U.K., 2008-till date.
5.	Prof. P.K. Mishra	Member, Committee for formulation of disposal standards for Sugar Industries at Ganga Basin Central Pollution Control Board, Government of India.
6.	Prof. P.K. Mishra	Member, Committee for formulation of disposal standards for Distilleries at Ganga Basin Central Pollution Control Board, Government of India
7.	Dr. M.K. Mondal	Session Chair, International conference in Advance Energy material (AEM-2017) university of Surrey, England, September 11-13, 2017
8.	Dr. A.K. Verma	Session Chair, International conference in Advance Energy material (AEM-2017) university of Surrey, England, September 11-13, 2017
9.	Dr. H. Pramanik	Session Chair, International conference in Advance Energy material (AEM-2017) university of Surrey, England, September 11-13, 2017
10.	Dr. P.K. Mishra	Governing Board Member, Children Emancipation Society, UK,
11.	Dr. P.K. Mishra	Member, Draft committee for Gobardhan scheme of Ministry of Ground Water & Sanitation

#### Fellowships of academic and professional societies

Sl. No.	Name of Faculty Member	Details of Fellowship
1	Prof. S.N. Upadhyay	International Academy of Physical Sciences

#### Books, monographs authored/co-authored

S. No.	Name of Author/Co-Author	Title	Publisher
1.	Neha Srivastava, Manish Srivastava, P.K. Mishra, Himanshu Pandey and P.W. Ramteke	Green nanotechnology for biofuels production (BioFuel and Biorefinery Technologies, Vol. 5)	Springer, ISBN 978-3-319-75052-1
2.	Neha Srivastava, Manish Srivastava, P.K. Mishra, S.N. Upadhaya, P.W. Ramteke and Vijay Kumar Gupta	Sustainable Approaches for Biofuels Production Technologies (BioFuel and Biorefinery Technologies, Vol. 7)	Springer, ISBN 978-3-319-94796-9

#### Editorial boards of journals

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Dr. P.K. Mishra	Member	Combinatorial Chemistry & High Throughput Screening, International Journal (IF: 0.952)
2	Dr. P.K. Mishra	Member	International journal of Bioprocessing and Biotechniques, Gavin publisher, USA (open access)
3	Dr. P.K. Mishra	Member	Progress in Energy & Fuels, PiscoMed Publishing Pte. Ltd. from Singapore



4	Dr. P.K. Mishra	Member	Air, Soil & Water Research (ASW), open access, peer reviewed international journal (SAGE, Publisher)
5	Dr. P.K. Mishra	Member	International Journal of Green Chemistry, open access, peer reviewed international journal

### New facilities added

Sl. No.	Details (Infrastructure, Equipment, etc.)	Value (in Lakhs of Rupees)
1.	Orbital Shaking Incubator	4.49 Lakhs
2.	RTD Studies in Plug Flow, Isothermal Batch Reactor, Air Compressor	2.06 Lakhs
3.	Biogas Reactor	2.48 Lakhs
4.	Rotary Spray Dryer with Vacuum Pump	4.36 Lakhs
5.	Multi variable Level Control Trainer Conical, Spherical, Cylinder	4.48 Lakhs
6.	Pressure Drop, Spray Tower, Simple Steam Distillation, Aeration Unit and others.	20.65 Lakhs
7.	Dual Column Gas Chromatograph	8.75 Lakhs
8.	PC Based Sieve Plate Distillation Column Control Unit	9.49 Lakhs
9.	COD Analyser and Disaster (2)	2.29 Lakhs
10.	Online UPS(01), Battery SMF-100(40)	6.18 Lakhs
11.	Water Bath 12 Hole Double Wall	2.50 Lakhs
12.	Window AC (05)	2.09 Lakhs

### Patents filed

Sl. No.	Name of Faculty Member	Title of Patent
1.	Dr. P.K. Mishra	A composition and method to prepare naturally Preserved and uniformly cooking health food, P.K. Mishra, N. Srivastava, C.S. Mishra.,2017(Application No.: 201711031556)

### Research and Consultancy

#### Sponsored research projects

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-coordinator
1.	Development and Evaluation of IR NP for cellular wide sensitive E field mapping	2016-2019	DST Nano Mission	51.00	Dr. Manoj Kumar
2.	Aerosol and Black Carbon Monitoring in Indo-Gangatic Plane	2007 - continue	VSSC, ISRO	42.00	Prof. R.S. Singh



3.	NOx Removal from Diesel Exhaust by Combined Nox Storage Reduction and NH <sub>3</sub> SCR System	August 2015-July 2018	DST (under Fast Track Young Scientist Scheme)	30.00	Dr. Sweta
4.	Synthesis of Core Shell Nano Catalyst for High Temperature Reactions	2017-18	Institute Project for Individual Faculty	15.00	Dr. Sweta
5.	Pyrolysis of Biomass for the Production of Bio-oil: Experimental and Computational Study	Jan/2013-ongoing (delay due to my transfer from RGIPT to IIT (BHU))	SERB, Govt. of India	23.50	Dr. J.P. Chakraborty
6.	Energy Centre, Studies on Biofuel Cell	2017-18	IIT (BHU)	4.00	Prof. R.S. Singh
7.	Development of Hybrid System for Decolourization of Dye Containing Waste Water	2017-18	IIT(BHU)	8.00	Prof. R.S. Singh

## Industrial consultancy projects

Sl. No.	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1.	Prof. P.K. Mishra	Monitoring of GPIs along the Ganges with special emphasis on textiles and tanneries	Central Pollution Control Board	132.00
2.	Prof. P.K. Mishra	Lohiya corporation limited, Kanpur	Lohiya corporation limited, Kanpur	2,58,750
3.	Prof. P.K. Mishra	Surya woollen Pvt. Ltd., Aurai	Surya woollen Pvt. Ltd., Aurai	1,60000
4.	Prof. P.K. Mishra	Modinagar Paper mill, Modinagar, Gaziabad	Modinagar Paper mill, Modinagar, Ghaziabad	64800
5.	Prof. P.K. Mishra	Vineet plastic limited, Ramnagar, Varanasi	Vineet plastic limited, Ramnagar, Varanasi	7,163
6.	Prof. P.K. Mishra	Shobha woollen Pvt. Limited, Bhadohi	Shobha woollen Pvt. Limited, Bhadohi	5782
7.	Prof. P.K. Mishra	Arpit Srivastava, PhD, Inst. Ag. Sc., BHU	Arpit Srivastava, PhD, Inst. Ag. Sc., BHU	944
8.	Prof. P.K. Mishra	Vijay Prakash Yadav, Lohiya Co-corporation, Kanpur	Vijay Prakash Yadav, Lohiya Co-corporation, Kanpur	90,860
9.	Prof. P.K. Mishra	Kanchan Yadav, Department of Physics	Kanchan Yadav, Department of Physics	600



## Research Publications

Sl. No.	No.
1. Total Number of Papers Published in Refereed National Journals	09
2. Total Number of Papers Published in Refereed International Journals	85
3. Total Number of Papers Presented in National Conferences	28
4. Total Number of Papers Presented in International Conferences	00

## Refereed International Journals

- Kangkan Roy, Kapil Mohan Verma, Kumar Vikrant, Mandavi Goswami, Ravi Kumar Sonwani, Birendra Nath Rai, Kowsalya Vellingiri, Ki-Hyun Kim, Balendu Shekher Giri and Ram Sharan Singh, Removal of Patent Blue (V) Dye Using Indian Bael Shell Biochar: Characterization, Application and Kinetic Studies, Sustainability 2018, 10, 2669; doi:10.3390/su10082669 (Impact Factor – 2.177).
- M.K. Kureel, S.R. Geed, B.N. Rai, R.S. Singh, Novel investigation of the performance of continuous packed bed bioreactor (CPBBR) by isolated Bacillus sp. M4 and proteomic study, Bioresource Technology 266 (2018) 335–342 (Impact Factor – 5.65).
- Vikrant K, Kailasa SK, Tsang DCW, Lee SS, Kumar P, Giri BS, Singh RS, Kim K-H, Bio filtration of hydrogen sulphide: Trends and challenges, Journal of Cleaner Production (2018), doi:10.1016/j.jclepro.2018.03.188. (Impact Factor 6.20)
- Sachin Geed, Sachin Prasad, MK Kureel, RS Singh, BN Rai, Biodegradation of wastewater in alternating aerobic-anoxic lab scale pilot plant by Alcaligenes sp. S 3 isolated from agricultural field, Journal of Environmental Management, Volume 214, 15 May 2018, Pages 408-41. (Impact Factor – 4.01)
- K Vikrant, KH Kim, YS Ok, DCW Tsang, YF Tsang, BS Giri, RS Singh, Engineered/designer biochar for the removal of phosphate in water and wastewater, Science of the Total Environment 616, 1242-1260, 2018 (Impact Factor – 4.90)
- K Vikrant, BS Giri, N Raza, K Roy, KH Kim, BN Rai, RS Singh, Recent advancements in bioremediation of dye: Current status and challenges, Bioresource Technology, 2018 (Accepted). (Impact Factor – 5.65).
- Ravi Kumar Sonwani, Balendu Shekhar Giri, Sachin Ramesh Rao Geed, Anjney Sharma, Ram Sharan Singh, Birendra Nath Rai, Combination of UV–Fenton oxidation process with biological technique for treatment of PAHs using Pseudomonas pseudoalcaligenes NRSS3 isolated from petroleum contaminated site, Indian Journal of Experimental Biology, 56, 460-469, 2018 (Impact Factor – 1.115)
- Md. Abu Talha, Mandavi Goswami, B.S. Giri, Anjney Sharma, B.N. Rai, R.S. Singh, Bioremediation of Congo red dye in immobilized batch and continuous packed bed bioreactor by Brevibacillus parabrevis using coconut shell bio-char, Bioresource Technology, 252, 37-43, 2018. (Impact Factor – 5.65)
- S. Tiwari, R.K. Singh, A.K. Srivastava, V.K. Soni, Suresh Tiwari, R.S. Singh, M.K. Srivastava and A.K. Singh, Identification of Aerosol Sources and Its Characterization at Varanasi: An Air Mass Based Study, International Journal of Earth and Atmospheric Science, 5 (1), 19-35, 2018
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#### Proceedings of International Conferences

1. R.K. Singh, A. Sarkar, J.P. Chakraborty, A Review on Gasification of Torrefied Biomass, *International Conference on Challenges in Sustainable Development from Energy & Environment Perspective*, 2017
2. Zeenat Arif, P.K.Mishra, B.Verma, Correlation Between Silica Loading And Pervaporation Permeability of Pva/Silica Hybrid Membrane For Separation Of An Alcohol-Water Mixture, *International Journal of Research In Science & Engineering*, CHEMCON, India, 2018, 1-10

#### Proceedings of National Conferences

**Kindly Provide Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years**

1. Birla, A., Singh, B., Sharma, Y.C., and Upadhyay, S.N., Kinetics Studies of Synthesis of Biodiesel from Waste Frying Oil Using a Heterogeneous Catalyst Derived from Snail Shell, *Bioresource Technology*, 106, 95-100, (2012). (?Citations 170)
2. Sharma, Y.C., Uma, Upadhyay, S.N., Removal of a Cationic Dye from Wastewaters by Adsorption on Activated Carbon Developed from Coconut Coir, *Energy & Fuels*, 23, 2983-2988 (2009). (?Citations 103)



- Maya, K., Singh, R.S., Upadhyay, S.N., and Dube, S.K., Kinetic Analysis Reveals Bacterial Efficacy for Biodegradation of Chlorpyrifos and Its Hydrolyzed Metabolite TCP, *Process Biochemistry*, 46, 2130-2136 (2011). (?Citations 60)
- R. Prasad, V. R. Bella. A Review on Diesel Soot Emission, its Effect and Control. *Bull. Chem. React. Eng. & Catal.* 5(2) (2010) 69-86. (?Citations 45)
- Singh, K., Singh, R. S., Rai, B. N., and Upadhyay, S.N., Biofiltration of Toluene Using Wood Charcoal as the Biofilter Media, *Bioresource Technology*, 101(7), 3947-3951, (2010). (?Citations 48)

### Distinguished Visitors

Sl. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1.	Deepak Gadhia, Trustee Muni Seva Ashram, Vadodara (Solar man of India)	27-28 March, 2018	Varanasi Innovation Summit
2.	Padmashree Dr. Janak Palta McGilligan	27-28 March, 2018	Varanasi Innovation Summit
3.	Mr. P.S. Ojha, Chairman, Bio Energy Development Board	27-28 March, 2018	Varanasi Innovation Summit
4.	Mr. Gaurav Kedia, Chairman, Indian Bio Gas Association	27-28 March, 2018	Varanasi Innovation Summit
5.	Prof. Panjab Singh, Former Vice-Chancellor BHU	27-28 March, 2018	Varanasi Innovation Summit
6.	Students and Teachers from Think Global School, New York, USA	27 November, 2017	Interaction and Studies on Gages Water Quality
7.	Prof. Pradhan, IIT Kharagpur	05 November, 2017	Invited talk
8.	Prof. Dev Brat Das, IIT Kharagpur	05 November, 2017	Invited talk
9.	Prof. Nishit Verma, IIT Kanpur	05 November, 2017	Invited talk
10.	Shri Atul Kothari, Chairman, Sanskrit Shikha Nyas, New Delhi	30 October, 2017	Invited talk
11.	Late Prof. G.D. Agrawal, Ganga Activist and former Professor, IIT Kanpur	17 May, 2017	Discussion on Ganges with Social Activists of the region

### Foreign Faculty Visits in the Department/School/School

Sl. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Dr. Jagannadh Satyavolu, Theme Leader, Biomass and Biofuels, University of Louisville, Kentucky, U.S.A	Lecture and Collaboration	May 26, 2017

### Chapters in Books

- Neha Srivastava, Manish Srivastava, P.K. Mishra, Pradeep Singh, Himanshu Pandey and P.W. Ramteke, Nanoparticles for biofuels production from lignocellulosic waste, *Nanoscience in Food and Agriculture 4*, Sustainable Agriculture Reviews, Springer, 263- 278, 24, 2017, Book- Nanoscience in Food and Agriculture 4
- Neha Srivastava, Manish Srivastava, AmbepuManikant, P.W. Ramteke, P.K. Mishra and S.N. Upadhyay, Fungal Celluloses and their Role in Biodegradation of Agricultural Wastes" Book: Microorganisms for Green Revolution, pp.75-89 Springer, 2018 [DOI10.1007/978-981-10-7146-1\_4]
- DeepikaKushwaha, S.N. Upadhyay and P.K. Mishra, Nanotechnology in Bioethanol/Biobutanol Production, DOI: 10.1007/978-3-319-75052-1\_8, In book: Green Nanotechnology for Biofuel Production





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6. Neha Srivastava, Manish Srivastava, P.K. Mishra, Pradeep Singh, Himanshu Pandey, P.W. Ramteke, Nanoscience in Food and Agriculture 4, Springer International Publishing, 2017, 978-3-319-53112-0
7. Neha Srivastava, Manish Srivastava, Ambepu Manikant, P.W. Ramteke, P.K. Mishra, S.N. Upadhyay, Microorganisms for Green Revolution, Springer International Publishing, 2018, 978-981-10-7146-1
8. Neha Srivastava, Manish Srivastava, P.W. Ramteke, P.K. Mishra, New and Future Developments in Microbial Biotechnology and Bioengineering, Elsevier, 2018, 9780444635150
9. Neha Srivastava, Manish Srivastava, P.W. Ramteke, P.K. Mishra, New and Future Developments: Microbial Genes, Elsevier, 2018, 978-0-444-63507-5
10. Shilpa Narang, Zeenat Arif, P.K. Mishra, and S.N. Upadhyay and Rajeev Mehta, Encyclopaedia of Polymer Applications, Volume 3, Taylor and Francis group, CRC Press, 2018, 9781498729932
11. Zeenat Arif, P.K. Mishra and S.N. Upadhyay and Rajeev Mehta, Encyclopaedia of Polymer Applications, Volume 3, Taylor and Francis group, CRC Press, 2018, 9781498729932

## 9. Department of Computer Science & Engineering

Year of Establishment : 1983

**Head/Coordinator of the Department :** Prof. K.K. Shukla (1.4.2017 to 31.7.2018)

Prof. Rajeev Srivastava (01.08.2017-till date)

### Brief Introduction of the Department

The Department of Computer Science and Engineering was established in July 1983. The department offers a 4 year course, B.Tech. in Computer Sc. & Engineering, 5 year Integrated Dual Degree (B.Tech. and M.Tech.) in Computer Sc. & Engineering from 2005-2006, and Ph.D. degree in various specializations of Computer Sc. and Engineering. Computer Sc. & Engineering is the most sought- after branch for the JEE (Advanced) selected students that come to the Institute. Our graduates have distinguished themselves in higher studies at the top Universities. They also occupy positions of eminence in the computer industry. Our Alumni remain in constant touch with us and are contributing in the development of the department. Placements for our graduates are the best in the Institute. The faculty members of the department have international experience and training. The departmental research is focused in the areas of Artificial Intelligence, Parallel and Distributed Computing, Software Engineering, Image Processing and Computer Vision, Machine Learning, Deep Learning, Medical Image Processing, Pattern Recognition, Datamining and Web mining, semantic web, Computer Networks, Natural Language Processing (NLP) and Information Extraction. The department has all the facilities to carry out the related teaching and research work.

### Major areas of Research:

Image Processing, Computer Vision and Pattern Recognition

Artificial Intelligence, Natural Language Processing, and Information Retrieval

Software Engineering

Computer Networks

Machine Learning

High Performance Computing

**Area of the Department/School (in square meters): 1454.66 sqm**

### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	05
2	No. of Lecture Halls	03
3	No. of Laboratory	15
4	No. of Computers available for students in the Department/School/ School	200+

### New facilities added

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	Establishment of 09 New Laboratories	82.5 Lacs (Approx.)

Unique Achievement / Preposition of the Department/School

- Nine (09) new research laboratories are being established.

### Academic Programmes offered

#### New Courses Introduced

S. No.	Course Code	Course name	Course credit
1	CSE-372	Introduction to High Performance Computing	3-0-0 (9 credits)



### Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech/B. Pharm	66	65	65	67	---
2	Dual Degree	17	17	17	17	15
3	M. Tech/ M. Pharm	---	---	---	---	---
4	Ph. D (Under Institute Fellowship)	32	11	---	01	05
5	Ph. D (Under Project Fellowship)	---	---	---	---	---
6	Ph. D (Under Sponsored Category)	03	01	---	---	01
7	Ph. D (Under QIP)	03	---	---	---	---
8	Ph.D. (Under External Category)	01	---	---	---	---
9	Ph.D. (Under Internal Part-Time)	---	01	---	---	---

### Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From
<b>INDIA</b>					
1.	Gargi Srivastava	16071009	International Conference on Mathematics and Computing	Jan 9, 2018- Jan 11, 2018 Varanasi	Institute
2.	Gargi Srivastava	16071009	International Conference on Emerging Trends in Communication, Computing and Electronics	Apr 13, 2018 - Apr 15, 2018 Allahabad	Institute
3.	Anshul	16071502	Wavelet and their applications in signal and Image Processing (GIAN Course)	DEC 21-27, 2017, IIT-BHU	Research Grant
4.	Anshul	16071502	Machine learning Applications to internet of things (GIAN Course)	DEC 16-22, 2017, IIT-BHU	Research Grant
5.	Ashwini Kumar Singh	17071014	Second Workshop on Brain, Computation and Learning -2018	Jan 8-12, 2018 at IISc Bangalore	Department
6.	Udmale Sandeep Sambhaji	17071027	Topological Data Analysis (Workshop)	12/2/2018 to 24/2/2018 & IIT Bombay	IIT BHU, Varanasi



7.	Udmale Sandeep Sambhaji	17071027	Wavelets and Their Applications in Signal and Image Processing (Workshop)	21/12/2017 to 25/12/2017 & IIT BHU, Varanasi	IIT BHU, Varanasi
8.	Udmale Sandeep Sambhaji	17071027	Machine Learning Applications to Internet of Things (Workshop)	16/12/2017 to 22/12/2017 & IIT BHU, Varanasi	IIT BHU, Varanasi
9.	Parth Pahariya	13074008	ISBA-2017	22-24 Feb 2018, Delhi	IITBHU
10.	Harish Kumar Shakya	11600EN003	ICAICR 2017	17 to 18 March, 2017, Jalandhar	IIT(BHU)
11.	Shivam Gupta	13074011	SIGEM 2017	29 & 30 July, 2017, Chennai	IIT(BHU)
12.	Kuldeep Singh	13071010	ICAICR 2017	17 & 18 March, 2017, Jalandhar	IIT(BHU)
13.	Shri Prakash Dwivedi	16071004	ICACCI 2017	13 to 16 Sept, 2017, Manipal University, Karnataka	IIT(BHU) IIT(BHU)
14.	Ashish Kumar Maurya	14071001	ICCCT 2017	24 to 26 Nov. 2017, Allahabad	
15.	Vishal Agarwal	13074015	COMSNETS-2018	03 to 07 Jan, 2018, Bengaluru	IIT(BHU)
16.	Gargi Srivastava	16071009	ICMC-2018	09 to 11 Jan, 2018, IIT (BHU), Varanasi	IIT(BHU)
17.	Surbhi Saraswat	16071003	COMSNETS-2018	03 to 07 Jan, 2018, Bengaluru	IIT(BHU)
18.	Suraj Gupta	14075053	CISC-2017	20 to 21 Dec, 2017, Kadapa, A.P.	IIT(BHU)
19.	Dewanshu Pratihari	14075022	CISC-2017	20 to 21 Dec, 2017, Kadapa, A.P.	IIT(BHU)
20.	Kuldeep Singh	13071010	NEXTCOM-2017	25 & 26 Nov., 2017, Jalandhar	IIT(BHU)
21.	Harish Kumar Shakya	11600EN003	NEXTCOM-2017	25 & 26 Nov., 2017, Jalandhar	IIT(BHU)
22.	Manisha Singla	17071006	ICCCN 2018	29 & 30 March, 2018, Chandigarh	IIT(BHU)

**ABROAD**

1	Ayush Shrivastava, Arpit Chaudhary, Devang Kulshreshtha, Vibhav Prakash Singh		2017 2nd International Conference on Image, Vision and Computing (ICIVC)	2-4 June 2017, Chengdu, China	Presented Through Skype, Institute Assistantship
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2	Pranav Goel	14075039	European Association of Computational Linguistics (EACL) 2018	03 - 07 April, 2017, Valencia, Spain	CSE Department and the Institute (INR 25000 each)
3	Mridula Verma	13071002	ACM ICMR 2017	06 to 09 June, 2017, Bucharest, Romania	IIT(BHU)
4	Devang Kulshreshtha	14075021	IJCAI 2017	19 to 25 August, 2017, Melbourne, Australia	IIT(BHU)
5	Surbhi Saraswat	16071003	GLOBECOM 2017	04 to 08 Dec., 2017, Singapore	IIT(BHU)
6	Kartik Manchanda	13074005	PDCAT-2017	18 to 20 Dec., 2017, Taipei, Taiwan	IIT(BHU)
7	Vivek Saurabh	14075059	PDCAT-2017	18 to 20 Dec., 2017, Taipei, Taiwan	IIT(BHU)
8	Anubhav Gupta	14074002	IJCNLP-2017	27 Nov to 1 Dec, 2017, Taipei, Taiwan	IIT(BHU)
9	Ashish Kumar Maurya	14071001	HP3C-2018	15 to 17 March, 2018, Hong Kong, China	IIT(BHU)
10	Rajesh Kumar Mundotiya	16071001	CICLing 2018	18 to 24 March, 2018, Hanoi, Vietnam	IIT(BHU)

#### Names of scholars/students who won Convocation/Institute Day prizes

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Mr. Gopal Garg	13075063	Director's Gold Medal for outstanding all-round performance and excellent organizational abilities and leadership qualities at the B.Tech./B.Pharm. among all disciplines Examination, 2017	IIT (BHU) Convocation-2017
2	Mr. Manu Agrawal	13075059	He was awarded with following medals: (a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Computer Science & Engineering Examination, 2017. (b) Late Shri Shyam Sunder Lal Razdan Memorial Gold Medal for securing highest percentage of marks in B.Tech. Examination, 2017. (c) Prof. Gopal Tripathi Memorial Gold Medal for securing highest marks at the B.Tech./B.Pharm. Examination, 2017	IIT (BHU) Convocation-2017



			(d) Smt. Arati Paul and Prof. Binod Bihari Paul Gold Medal for securing highest marks in IV Year Examination among all the students of B.Tech./B.Pharm. Examination, 2017. (e) C. Raja Gopal Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Computer Science & Engineering Examination, 2017. (f) Umesh Pratap Singh Gold Medal for First Rank at the B.Tech. Examination, 2017 among all the branches. (g) Shri Raj Kishore Kapoor Silver Medal for securing highest marks at the B.Tech./B.Pharm. Examination, 2017. (h) Dr. Annie Besant Prize (in the forms of books by Dr. Annie Besant including copy of the 'Bhagavadgita') for standing First position among all the branches of B.Tech. Examination, 2017.	
3	Mr. Anurag Lal	13075064	He was awarded Prof. V.V. Chalam Prize (The Prize shall be in the form of books by Mr. J. Krishnamurti) for standing Second position among all the branches of B.Tech. Examination, 2017.	IIT (BHU) Convocation-2017
4.	Ms. Akshita Agarwal	13075060	She was awarded Smt. Indira Tripathi Gold Medal for securing highest CPI among the girl students at the B.Tech. in Computer Science & Engineering Examination, 2017.	IIT (BHU) Convocation-2017
5.	Mr. Trivikram Pradhan (Ph.D.)	16071505	Institute day (2018) Runner up prize for poster presentation on research topic "SNAVER: A social network analysis based scholarly venue recommender system."	IIT (BHU) Institute Day 2018
6.	Mr. Harsh Rangwani (B.Tech 3rd Yr)	15075018	Institute day (2018) Runner up prize for poster presentation on research topic "Question Answering system for tourism domain"	IIT (BHU) Institute Day 2018

## Faculty & their Activity

### Faculty and their areas of specialisation

S. No.	Name	Major Areas of Specialization
<b>PROFESSORS</b>		
1	Prof. Anil Kumar Tripathi	Parallel/Distributed Computing and Software Engineering
2	Prof. K.K. Shukla	Artificial Intelligence, Neural Networks, Data Mining
3	Prof. R.B. Mishra (Retired on 31.07.2018)	Artificial Intelligence, Multiagent Systems, Semantic Web, Robotics





4	Prof. Rajeev Srivastava	Image Processing, Computer Vision, Pattern Recognition, Machine Learning, Video Surveillance, Medical Image Analysis, and Design and Analysis of Algorithm
5.	Prof. S.K. Singh	Pattern Recognition, Machine Learning, Deep Learning, Data Science, Biometrics, Computer Vision, and Image and Video Processing

#### ASSOCIATE PROFESSORS

1	Dr. Bhaskar Biswas	Data Mining, Web Mining and Social Networks
2	Dr. Ravi Shankar Singh	Data Structures, Algorithms and High Performance Computing
3	Dr. Anil Kumar Singh	Natural Language Processing, Computational Linguistics, Information Retrieval

#### ASSISTANT PROFESSORS

1	Dr. Vinayak Srivastava	Software Engineering, Software Re-engineering
2	Dr. Ravindranath Chowdary C	Information Extraction, Text Summarization, Web Mining
3	Dr. Sukomal Pal	Information Retrieval, Recommender Systems, Text Mining, Data Science
4	Dr. Ruchir Gupta	Peer-to-peer network, Social Networks, Game Theory, NLP and Machine Learning
5	Dr. Lakshmanan Kailasam	Reinforcement Learning, Machine learning, Multi-armed Bandits
6	Dr. Hari Prabhat Gupta	Computer Networks, WSN, Ubiquitous Computing, and IoT
7	Dr. Tanim Dutta	Multimedia Forensics, Vision and Graphics, Machine / Deep Learning, Human Computer Interaction, Multimedia Sensor Networks
8	Dr. Amrita Chaturvedi	Software Architecture and Design Patterns, Ontologies, Artificial Intelligence, Semantic Web, Internet Technologies, Big Data Analytics and Machine Learning
9	Dr. Pratik Chattopadhyay	Image and Video Processing, Pattern Recognition, Machine Learning

#### Guest Faculty

1	Dr. Antariksh Goswami	Computer Networks
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#### Technical and Non-Teaching Staff

Sl. No.	Name, Qualifications	Designation	Date of Appointment in the department
1.	Shri Roshan Singh (M.Tech.)	System Analyst	27.06.2015 (F/N)
2.	Shri Mahesh Pandey (MCA)	System Analyst	27.08.2015 (F/N)
3.	Shri Ravi Kumar Bharti (Bachelor of Arts)	Junior Assistant	27.04.2015 (F/N)
4.	Shri Prakhar Kumar, (MA - Economics Honours)	Junior Assistant	10.07.2017 (A/N)
5.	Shri Ritehs Singh, (BA - Archaeology)	Junior Assistant	10.07.2017 (A/N)
6.	Shri Shubham Pandey (M.Sc.- Physics)	Junior Assistant	13.06.2018 (F/N)



7.	Dr. Ram Prasad Meena Ph.D. (Botany)	Technical Superintendent	06.01.2009 (A/N)
8.	Shri Raghuvir Sharan Tripathi M.Sc.(Tech.)- (Geophysics)	Technical Superintendent	03.01.2009 (F/N)
9.	Shri Dinesh Kumar Tiwari (M.A.-Economics)	Senior Technician	18.08.2008 (A/N)
10.	Shri Shashi Kant Singh (B.Sc.)	Senior Technician	18.08.2008 (F/N)
11.	Shri Manoj Kumar Singh (B.Sc.)	Senior Technician	18.08.2008 (A/N)
12.	Shri Pramod Kumar (B.Sc.)	Senior Technician	27.04.2011 (A/N)

#### Short-term courses/workshops/seminars/symposia/conferences organised by faculty members

S. No.	Coordinator	Title	Period
1	Prof. A.K. Tripathi, Dr. Amrita Chaturvedi	Brain Storming Workshop on Centre for Dependability Engineering	10-11 February 2018, at IIT (BHU), Varanasi.
2	Dr. Tanim Dutta, Dr. Hari Prabhat Gupta, and Prof. K. K. Shukla	QIP and CEP: Short term course on "Machine Learning"	18-23 September 2017, IIT (BHU) Varanasi.
3.	Dr. Hari Prabhat Gupta, Dr. Tanim Dutta, and Prof. K. K. Shukla	Global Initiative of Academic Networks (GIAN) course on "Machine Learning Applications to Internet of Thing"	16-22 December 2017, IIT (BHU) Varanasi

#### Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

S. No.	Name of Faculty Member	Title	Period and Venue
<b>Seminars/Symposia/Conferences (As resource person/expert)</b>			
1.	Prof. A.K. Tripathi	ICICCI-2017	12.08.2017 and United College of Engineering, Greater Noida
2.	Prof. A.K. Tripathi	Induction Program	06.11.2017 and RGTU, Bhopal
3.	Dr. R.S. Singh	Computer Algorithm TEQIP-III Workshop	06.11.2017 and RML Avadh University, Faizabad
4.	Dr. Ruchir Gupta	PRIA 2017	28.07.2017 and IIIT, Jabalpur
5.	Dr. Ruchir Gupta	Recent Advances in Software Engineering and Mechanics	21.02.2018 and FIET, Bareilly
6.	Dr. R.S. Singh	Big Data and High Performance Computing <b>In:</b> Faculty Development Programme	28-29/01/2018 and AITM, Varanasi
7.	Prof. Rajeev Srivastava	TEQIP-III FDP on 'Digital Image Processing and its applications'	December 21st, 2017 G.B. Pant Institute of Engineering and Technology, Uttarakhand



8.	Prof. Rajeev Srivastava	TEQIP-III Short Term Course (STC) on "Advances in Computing Technology (ACT-2018)	March 17-18, 2018 MMM University of Technology, Gorakhpur
9.	Prof. Rajeev Srivastava	Two Days National Workshop on Advances in Image & Video Processing (AIVP-2017)	29th-30th April, 2017, GLA Mathura

#### Meetings

1	Prof. Rajeev Srivastava	Malaviya Research Conclave-2017	July 11, 2017 MMMUT Gorakhpur
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#### Special lectures delivered by faculty members in other institutions.

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Prof. Rajeev Srivastava	Topic: Computer Vision and Machine Learning: Theory and Applications In "TEQIP-III Short Term Course (STC) on "Advances in Computing Technology (ACT-2018)"	Madan Mohan Malaviya University of Technology (MMMUT), Gorakhpur.	March 17th, 2018
2	Prof. Rajeev Srivastava	Topic: Automatic Image Captioning In "TEQIP-III Short Term Course (STC) on "Advances in Computing Technology (ACT-2018)"	Madan Mohan Malaviya University of Technology (MMMUT), Gorakhpur	March 18th, 2018
3	Prof. Rajeev Srivastava	Expert Lecture Series on topic "Design and Analysis of Algorithms"	Dept. of Computer Technology, YCCE Nagpur.	20-22 February 2018
4	Prof. Rajeev Srivastava	Topic: Vision and Learning and its medical applications In. "TEQIP-III FDP on 'Digital Image Processing and its applications'"	G.B. Pant Institute of Engineering and Technology, Uttarakhand.	December 21st, 2017
5	Prof. Rajeev Srivastava	Topic: Medical Image Analysis and Pattern Classification In: "Malaviya Research Conclave-2017"	MMM University of Technology, Gorakhpur.	July 11th, 2017
6	Prof. Rajeev Srivastava	Topic: Image Processing, Machine Learning Applications for cancer detection from digital images, In: "Two Days National Workshop on Advances in Image & Video Processing (AIVP-2017)".	GLA University Mathura.	29th-30th April, 2017
7	Dr Sukomal Pal	For the Students of KNCS	K N College School, Berhampore, WB	11.06.2018
8	Dr. Bhaskar Biswas	Advances in Data Mining & social Network Analysis	IIIT ALLAHABAD	26.06.2018



9	Prof. K.K. Shukla	Machine Learning Basics and Emerging Trends	SCSIT, DAVV, Indore	04-05th Sept. 2017
10	Prof. K.K. Shukla	Data Science Analytics	MIT Academy of Engg., Pune	06.12.2017
11	Prof. K.K. Shukla	<b>Topic:</b> Stream algorithms of Big Data Analysis <b>In:</b> "QIPSTC on Algebra, Analysis and Applications"	IIT(BHU), Varanasi (invited talk)	03-09, July, 2017
12	Prof. K.K. Shukla	<b>Topic:</b> Information Security Challenges-Is India Ready? <b>In:</b> "IEMIS-2018"	University of Engineering And Management, Kolkata	23-25, Feb 2018
13	Prof. A.K. Tripathi	Invited Talk in: ICICCI-2017	United College, Greater Noida	12.08.2017
14	Prof. A.K. Tripathi	Invited talk on "Induction"	RGTU, Bhopal	06.11.2017
15	Dr. R.S. Singh	<b>Topic:</b> Computer Algorithm <b>In:</b> TEQIP-III	RML Avadh University, Faizabad	06.11.2017
16	Dr. Ruchir Gupta	Invited Lecture in: PRIA 2017	IIIT, Jabalpur	28.07.2017
17	Dr. Ruchir Gupta	Lecture on "Recent Advances in Software Engineering and Mechanics"	FIET, Bareilly	21.02.2018
18	Dr. R.S. Singh	<b>Topic:</b> Big Data and High Performance Computing <b>In:</b> Faculty Development Programme	AITM, Varanasi	28-29/01/2018

### Visits abroad by faculty members

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Dr. Bhaskar Biswas	Republic of Mauritius	21.11.2017	27.11.2017	Attending IEEE 4th ISCM 2017	CPDA
2	Prof. K.K. Shukla	Hong Kong	24.01.2018	27.01.2018	Attending HKICEAS Conference	IIT(BHU)
3	Dr. Prateek Chattopadhyay	Singapore	28.12.2017	30.12.2017	Academic Visit at Nanyang Technological University, Singapore	IIT(BHU)

### Honours and awards

S. No.	Name of Faculty Member	Details of Award
1	Dr. Ravindranath Chowdary	Information Processing and Management (IPM) 2017, Honorable Mention for paper titled, "Recent developments in social spam detection and combating techniques: A survey", (Volume 52, Issue 6, p.1053-1073)



2	Dr. Sukomal Pal	IPM Best Paper Award 2017 - Honorable Mention for the research paper "Recent developments in social spam detection and combating techniques: A survey" by M Chakraborty, S Pal, R Pramanik, R N C Chaudary, IPM, 52(6), pp. 1053-73, 2016.
3	Dr. H.P. Gupta	Samsung Spot Award for outstanding contribution in research publication.

### Fellowships of academic and professional societies

S. No.	Name of Faculty Member	Details of Fellowship
1	Dr. R. S. Singh	Fellow, Institution of Electronics and Telecommunication Engineers, India (FIETE)

### Books, monographs authored/co-authored

S. No.	Name of Author/Co- Author	Title	Publisher
1	Nagendra Pratap Singh, Rajeev Srivastava	Intensity Based Medical image Registration	LAMBERT Academic Publishing, Germany
2	Santosh Kumar, Sanjay Kumar Singh, Rishav Singh, and Amit Kumar Singh	Animal Biometrics Techniques and Applications, Springer	Animal Biometrics Techniques and Applications, Springer
3	Abhishek Tripathi, Hari Prabhat Gupta, Tanima Dutta, Durgesh Kumar, K. K. Shukla, and S. Jit	A Target Tracking System using Directional nodes in Wireless Sensor Networks	IEEE System Journal
4	Abhishek Tripathi, Hari Prabhat Gupta, Tanima Dutta, Rahul Mishra, K. K. Shukla, and S. Jit	Coverage and Connectivity in WSNs: A Survey, Research Issues and Challenges	IEEE Access, Volume 6, pp. 26971-26992
5	P. K. Gupta, Vipin Tyagi, and Sanjay Kumar Singh	Predictive Computing and Information Security	Springer

### Editorial boards of journals

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1.	Prof. Rajeev Srivastava	Reviewer	<ul style="list-style-type: none"> <li>International Journals published by Elsevier, Springer, DRDO etc.</li> <li>Research Project proposals submitted to SERB, Govt. of India</li> </ul>
2	Dr. Amrita Chaturvedi	Research paper Reviewer	<ul style="list-style-type: none"> <li>ICICCT 2018,</li> <li>INDICON 2017, ICIIT 2017</li> <li>Springer Journal, Proceedings of the National Academy of Sciences, India Section A: Physical Sciences</li> </ul>



3	Dr. Tanim Dutta	Reviewer	<ul style="list-style-type: none"> <li>• IEEE Transaction on Multimedia</li> <li>• IEEE Transaction on Computers</li> <li>• IEEE System Journal</li> <li>• IEEE Sensors Journal</li> <li>• Elsevier Journal of Pattern Recognition</li> <li>• ACM Transaction on Intelligent Systems and Technology (TIST)</li> <li>• ACM Transactions on Multimedia Computing Communications and Applications (TOMM)</li> <li>• Elsevier Journal of Visual Communication and Image Representation</li> </ul>
3	Dr. Hari Prabhat Gupta	Project Reviewer	<ul style="list-style-type: none"> <li>• SERB, Government of India</li> <li>• IEEE Transaction on Multimedia</li> <li>• IEEE Transaction on Computers</li> <li>• IEEE System Journal</li> <li>• IEEE Sensors Journal</li> </ul>

## Research Activities

### Proceedings of International Conferences

1. Gargi Srivastava, Rajeev Srivastava, "A Survey on Automatic Image Captioning", International Conference on Mathematics and Computing (ICMC-2018), IIT (BHU), Varanasi, In Proc. Mathematics and Computing, Springer, pp. 74-83.
2. Singh V.P., Srivastava R. (2018) Improved Content-Based Image Classification Using a Random Forest Classifier. In: Bhatia S., Mishra K., Tiwari S., Singh V. (eds) Advances in Computer and Computational Sciences. Advances in Intelligent Systems and Computing, vol 554. Springer, Singapore.
3. Singh N.P., Srivastava R. (2017) Weibull Probability Distribution Function-Based Matched Filter Approach for Retinal Blood Vessels Segmentation. In: Sahana S., Saha S. (eds) Advances in Computational Intelligence. Advances in Intelligent Systems and Computing, vol 509. Springer, Singapore.
4. Ayush Shrivastava, Arpit Chaudhary, Devang Kulshreshtha, Vibhav Prakash Singh and Rajeev Srivastava, "Content-Based Mammogram Retrieval Using k-means Clustering and Local Binary Pattern", 2017 2nd International Conference on Image, Vision and Computing (ICIVC), Chengdu, China, 2-4 June 2017, IEEE Xplore. DOI: 10.1109/ICIVC.2017.7984633
5. Ayush Shrivastava, Arpit Chaudhary, Devang Kulshreshtha, Vibhav Prakash Singh and Rajeev Srivastava, "Automated Digital Mammogram Segmentation using Dispersed Region Growing and Sliding Window Algorithm", 2017 2nd International Conference on Image, Vision and Computing (ICIVC), Chengdu, China, 2-4 June 2017, IEEE Xplore. DOI: 10.1109/ICIVC.2017.7984579.
6. Anurag Lal, Apoorve Tomer, and C. Ravindranath Chowdary. 2017. SANE: System for Fine Grained Named Entity Typing on Textual Data. In Proceedings of the 26th International Conference on World Wide Web Companion (WWW '17 Companion). International World Wide Web Conferences Steering Committee, Republic and Canton of Geneva, Switzerland, 227-230. DOI: <https://doi.org/10.1145/3041021.3054724>
7. Manu Agrawal, Kartik Manchanda, Ribhav Soni, Anurag Lal, C. Ravindranath Chowdary, "Parallel Implementation of Local Similarity Search for Unstructured Text using Prefix Filtering", Proceedings of the 18th International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT), 98-103, Taiwan, IEEE 2017
8. Vivek Sourabh, Parth Pahariya, Isha Agarwal, Ankit Gautam, C. Ravindranath Chowdary, "Parallel Implementation of Dynamic Programming Problems using Wavefront and Rank Convergence with Full Resource Utilization", Proceedings of the 18th International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT), 151-155, Taiwan, IEEE 2017





9. Deepanwita Datta, Prasad Suresh Nakhate, Sanjay K. Singh and C. Ravindranath Chowdary, "Why stop there? A novel Hill Climbing based approach towards multimodal classification", Proceedings of the 14th ACS/IEEE International Conference on Computer Systems and Applications AICCSA, 835-839, Tunisia, IEEE 2017
10. R Soni, S Pal, Microblog Retrieval for Disaster Relief: How to Create Ground Truths? SMERP@ ECIR, 42-51
11. R Soni, S Pal, Gold Standard Creation for Microblog Retrieval: Challenges of Completeness in IRMiDis 2017 Companion of the The Web Conference 2018 on The Web Conference 2018, 1639-1642,
12. A Kanapala, S Pal, R Pamula, Design of a meta search system for legal domain Advanced Computing and Communication Systems (ICACCS), 2017
13. Sabyasachi Mohanty, Tanima Dutta, Hari Prabhat Gupta, "Recurrent Global Convolutional Network for Scene Text Detection", In IEEE International Conference on Image Processing (IEEE ICIP), Athens, Greece, 2018 (Accepted).
14. Sabyasachi Mohanty, Tanima Dutta, Hari Prabhat Gupta, "An Efficient System for Hazy Scene Text Detection using a Deep CNN and Patch-NMS", In International Conference on Pattern Recognition (ICPR), Beijing, China, 2018 (Accepted).
15. Sabyasachi Mohanty, Tanima Dutta, Hari Prabhat Gupta, "Robust Scene Text Detection with Deep Feature Pyramid Network and CNN based NMS Model", In International Conference on Pattern Recognition (ICPR), Beijing, China, 2018 (Accepted).
16. Sabyasachi Mohanty, Tanima Dutta, and Hari Prabhat Gupta, "Text Preserving Animation Generation using Smart Device", In IEEE International Conference on Multimedia and Expo (IEEE ICME), Hong Kong, China, 2017, pp. 1039-1044.
17. Prakhar Gupta, Rishabh Agarwal, Surbhi Saraswat, Hari Prabhat Gupta, and Tanima Dutta, "S-Pencil: A Smart Pencil Grip Monitoring System for Kids using Sensors", in IEEE Global Communication Conference (IEEE Globecom), Singapore, 2017.
18. Abhishek Tripathi, Hari Prabhat Gupta, K.K Shukla, Satyabrata Jit, and Tanima Dutta, "Real Time Implementation of Energy Optimization Technique in Multimodal Surveillance Wireless Sensor Network", In 30th International Conference on Computer Applications in Industry and Engineering (CAINE 2017), USA, 2017.
19. Chaitanya Animesh, Sabyasachi Mohanty, Tanima Dutta, and Hari Prabhat Gupta, "Fast Text Detection from Single Hazy Image using Smart Device", In IEEE International Conference on Multimedia and Expo Workshop (ICMEW), Hong Kong, China 2017, pp. 423-428.
20. Akhilesh Sudhakar and Anil Kumar Singh, "Experiments on Morphological Reinflection", CoNLL-2017 Shared Task. Proceedings of the Twenty First Conference on Computational Natural Language Learning - Shared Task. Vancouver, Canada. August, 2017.

#### Proceedings of National Conferences

1. K. Lakshmanan "Accelerated Reinforcement Learning" IEEE INDICON 2017 IIT Roorkee.
2. Pranay Jain, Shubham Varma, Ankit, Hari Prabhat Gupta, Tanima Dutta, "A Supervised Approach Towards Network Control System Modelling", International Conference on COMMunication Systems & NETWORKS (COMSNETS), Bangalore 2017 (Accepted).
4. Surbhi Saraswat, Hari Prabhat Gupta, and Tanima Dutta, "Fog based Energy Efficient Ubiquitous System", in proc. of 10th International Conference on COMMunication Systems & NETWORKS (COMSNETS 2018), Bangalore, January 04 - 08, 2018. (Poster)
5. Diksha Shrivastava, Rishabh Sinha, Surbhi Saraswat, Hari Prabhat Gupta, and Tanima Dutta, "A Mathematical Equation Solving System using Accelerometer Sensor", in proc. of 10th International Conference on COMMunication Systems & NETWORKS (COMSNETS 2018), Bangalore, January 04 - 08, 2018. (Poster)
6. Surbhi Saraswat, Hari Prabhat Gupta, and Tanima Dutta, "An Interactive Writing Monitoring System for



- Kids", in proc. of 10th International Conference on COMMunication Systems & NETworkS (COMSNETS 2018), Bangalore, January 04 - 08, 2018. (Doctoral Symposium)
7. Vishal Agarwal, Surbhi Saraswat, Hari Prabhat Gupta, and Tanima Dutta, "A Traffic Engineering Framework for Maximizing Network Revenue in Software Defined Network", in proc. of 10th International Conference on COMMunication Systems & NETworkS (COMSNETS 2018), Bangalore, January 04 - 08, 2018. (Doctoral Symposium)
  8. Surbhi Saraswat, Hari Prabhat Gupta, and Tanima Dutta, "Timely Identification of Distributed Denial of Service Attack in Software-Defined Networking", in proc. of 19th International Conference on Distributed Computing and Networking (ICDCN 2018), Varanasi, January 04 - 07, 2018. (Doctoral Symposium)
  9. Prnay Jain, Shubham Varma, Ankit, Hari Prabhat Gupta, Tanima Dutta, "A Supervised Approach Towards Network Control System Modelling", In 9th International Conference on COMMunication Systems & NETworkS (COMSNETS), Bangalore 2017. (Accepted).
  10. Aditya Vardhan, Amrita Chaturvedi: Ontology driven shopping cart: A comparative analysis. In: International Conference on Information Communication and Computing Technology, Springer LNCS Communications in Computer and Information Science (CCIS 2017), New Delhi, India. (May 2017).

### Research Publications in International Journals

1. Nagendra Pratap Singh, Rajeev Srivastava, "Extraction of Retinal Blood Vessels by Using an Extended Matched Filter Based on Second Derivative of Gaussian", Proceedings of the National Academy of Sciences, India Section A: Physical Sciences, Springer, pp. 1-9, February 2018. (SCI IF: 0.425).
2. Vibhav Prakash Singh, Subodh Srivastava, Rajeev Srivastava, "Effective Mammogram Classification Based on Center Symmetric-LBP features in Wavelet Domain Using Random Forest Classifier", Technology and Healthcare, official journal of the European Society for Engineering and Medicine, Vol. 25 (4), pp. 709-727, 2017. DOI: 10.3233/THC-170851, 2018 (SCI IF: 0.724).
3. Vibhav Prakash Singh, Rajeev Srivastava, "Improved CBIR System Using Fusion of Fast Features with Varying Weighted Similarity Measure and Random Forest Classifier", Multimedia Tools and Applications, Springer, 1-26, DOI: 10.1007/s11042-017-5036-8, 2018. (SCI IF: 1.53).
4. Vibhav Prakash Singh, Rajeev Srivastava, "Automated and Effective Content-Based Mammogram Retrieval Using Wavelet Based CS-LBP Feature and Self-Organizing Map", Biocybernetics and Biomedical Engineering, Elsevier, 2018 (SCI-1.03, Accepted under press).
5. Vibhav Prakash Singh, Subodh Srivastava, Rajeev Srivastava, "An Efficient and Automated Content Based Image Retrieval for Digital Mammography", Journal of X-Ray science and Technology, Vol. (Preprint), pp.1-20, IOS Press, UK, DOI:10.3233/XST-17306 (SCI-1.11)
6. Singh, Vibhav Prakash, Ashim Gupta, and Rajeev Srivastava. "Fast and effective image retrieval using colour and texture features with self-organising map." International Journal of Computational System Engineering, Vol. 3, no. 3 (2017): 133-143., Inderscience UK.
7. Vibhav Prakash Singh\*, Yashankit Shikhar\* and Rajeev Srivastava, "Comparative Analysis of Distance Metrics for Designing an Effective Content-Based Image Retrieval System Using Colour and Texture Features", International Journal of Image, Graphics and Signal Processing, MECS press Hong Kong. (Accepted, Google scholar, DBLP index)
8. Vibhav Prakash Singh, Rajeev Srivastava, "Content-Based Mammogram Retrieval Using Wavelet based Complete-LBP and K-means Clustering for the Diagnosis of Breast Cancer", International Journal of Hybrid Intelligent System, (<http://www.softcomputing.net/ijhis/>) (Scopus, ACM, DBLP Index), Accepted on 29 Sep, 2017.
9. Rajesh Kuamr, Subodh Srivastava, Rajeev Srivastava, A Fourth order PDE based Fuzzy C- Means approach for Segmentation of Microscopic biopsy images in presence of Poisson noise for cancer detection, Computer Methods and Programs in Biomedicine, Elsevier, Vol. 146, July 2017, Pages 59–68. (SCI IF: 1.862)
10. Deepak Yadav, C. Ravindranath Chowdary, "OOIMASP: Origin based association rule mining with order independent mostly associated sequential patterns", Expert Systems with Applications, 93: 62-71, Elsevier, March 2018



11. Akshita Agarwal, Manajit Chakraborty, C. Ravindranath Chowdary, "Does Order Matter?: Effect of order in Group Recommendation", *Expert Systems with Applications*, 82: 115-127, Elsevier, October 2017
12. Vinay Kumar, Lalit Singh, and Anil K. Tripathi, "Reliability Analysis of safety-critical and control systems: A state-of-the-art review", *IET Software*, Vol. 12, No. 1, February 2018, pp. 1-18.
13. Dharmendra Prasad Mahato, Ravi Shankar Singh, Anil Kumar Tripathi, and Ashish Kumar Maurya. "On scheduling transactions in a grid processing system considering load through Ant Colony Optimization." *Applied Soft Computing*, Elsevier, Vol. 61, December 2017, pp. 875-891.
14. Vinay Kumar, Lalit Singh, Anil Kumar Tripathi and Pooja Singh, "Safety Analysis of Safety-Critical Systems Using State-Space Models", *IEEE Software*, Vol. 34, No. 4, July 2017, pp. 38-47.
15. Vinay Kumar, Lalit Singh, and A.K. Tripathi, "Transformation of deterministic models into state space models for safety analysis of safety critical systems: A case study of NPP", *Annals of Nuclear Energy*, Elsevier, Vol. 105, July 2017, pp. 133-143.
16. Santosh Kumar, Amit Pandey, K. Sai Ram Satwik, Sunil Kumar, Sanjay Kumar Singh, Amit Kumar Singh, and Anand Mohan, "Deep learning framework for recognition of cattle using muzzle point image pattern", *Measurement*, Volume 116, Pages 1-17, February 2018.
17. Santosh Kumar and Sanjay Kumar Singh, "Automatic identification of cattle using muzzle point pattern: a hybrid feature extraction and classification paradigm", *Multimedia Tools and Applications*, Volume 76, Issue 24, Pages 26551-26580, December 2017.
18. Santosh Kumar, Sanjay Kumar Singh, Ravi Shankar Singh, Amit Kumar Singh and Shrikant Tiwari, "Real-time recognition of cattle using animal biometrics", *Journal of Real-Time Image Processing*, Volume 13, Issue 3, Pages 505-526, September 2017.
19. Debanjan Sadhya and Sanjay Kumar Singh, "Providing robust security measures to Bloom filter based biometric template protection schemes", *Computers & Security*, Volume 67, Pages 59-72, June 2017.
20. Durgesh Singh, and Sanjay Kumar Singh, "DWT-SVD and DCT based robust and blind watermarking scheme for copyright protection", *Multimedia Tools and Applications*, Volume 76, Issue 11, Pages 13001-13024, June 2017.
21. Santosh Kumar and Sanjay Kumar Singh, "Visual Animal Biometrics: Survey", *IET Biometrics*, Volume 6, Issue 3, Pages 139-156, May 2017.
22. Amit Kumar Singh, Basant Kumar, Sanjay Kumar Singh et al., "Guest Editorial: Robust and Secure Data Hiding Techniques for Telemedicine Applications", *Multimedia Tools and Applications*, Volume 76, Issue 5, Pages 7563-7573, March 2017.
23. Overview of the IJCNLP-2017 Shared Task on Review Opinion Diversification (RevOpiD-2017). Anil Kumar Singh, Avijit Thawani, Mayank Panchal, Anubhav Gupta and Julian McAuley. *Proceedings of the IJCNLP-2017 Shared Tasks*. Taipei, Taiwan. December, 2017.
24. Evaluating Opinion Summarization in Ranking. Anil Kumar Singh, Avijit Thawani, Anubhav Gupta and Rajesh Kumar Mundotiya. *Proceedings of the 13th Asia Information Retrieval Societies Conference (AIRS-2017)*. Jeju island, Korea. November, 2017.
25. Word Transduction for Addressing the OOV Problem in Machine Translation for Similar Resource-Scarce Languages. Shashikant Sharma and Anil Kumar Singh. *Proceedings of the 13th International Conference on Finite State Methods and Natural Language Processing*. Umeå, Sweden. September, 2017.
26. Ranjan A., Mishra R.B., Singh A.K., "Intelligent Computing Methods in Language Processing by Brain". In: Singh D., Raman B., Luhach A., Lingras P. (eds) *Advanced Informatics for Computing Research. Communications in Computer and Information Science*. Vol 712. Springer, Singapore. 2017.
27. IIT (BHU): System Description for LSDSem'17 Shared Task. Pranav Goel and Anil Kumar Singh. *Proceedings of the 2nd Workshop on Linking Models of Lexical, Sentential and Discourse-level Semantics at the EACL Conference*. Valencia, Spain. April, 2017.
28. A. Goswami, G. S. Parashari and R. Gupta, "Evolutionary Stability of Reputation Based Incentive Mechanisms in P2P Systems," in *IEEE Communications Letters*, vol. PP, no. 99, pp. 1-1. doi: 10.1109/LCOMM.2017.2777854.



29. A. Goswami, R. Gupta and G. S. Parashari, "Reputation-Based Resource Allocation in P2P Systems: A Game Theoretic Perspective," in IEEE Communications Letters, vol. 21, no. 6, pp. 1273-1276, June 2017.
30. Aditya Vardhan, Amrita Chaturvedi: Ontology driven shopping cart: A comparative analysis. In: Springer LNCS Communications in Computer and Information Science (CCIS 2017), vol 750, pp 156-167, 2017.

#### International collaboration/achievements by the Department/School

1. Samsung R&D Institute – Bangalore, India, Smart IoT, May 2017- July 2017,  
Dr. Hari Prabhat Gupta, PI

#### Distinguished visits in the Department/School from India

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr. Mayank Pandey Associate Professor Dept. of CSE, MNNIT Allahabad, UP, India	To deliver talk on the topic "Software Defined Networks"	6th Jan 2018 Department of Computer Science and Engineering, IIT (BHU)

#### Distinguished Visits in the Department/School from abroad

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr. Thomas Mandli Professor, University of Hildesheim, Germany	To deliver talk on topic "Challenges for accessing Information in a Digital Society" and interaction with Faculty members and students of CSE Department	13th December 2017, Department of Computer Science and Engineering, IIT (BHU)
2	Dr. Krishna Ratakonda IBM Fellow and CTO Blockchain Solutions, Greater New York City Area, U.S.A.	To deliver talk on the topic "Databases, Analytics, Operation Research, Cryptography and Blockchain" and interaction with Faculty members and students of CSE Department	4th August 2017, Department of Computer Science and Engineering, IIT (BHU)
3	Sh. Ashok Mago, Member, Board of Regents, UNT System, Prof. Costas Tsatsoulis, Dean, College of Engineering, Prof. Kinshuk, Dean College of Information University of North Texas, USA	Interaction with faculty members of the CSE Dept. for possible research collaboration	14th September 2017, Department of Computer Science and Engineering, IIT (BHU)





### Activities:



Felicitations of Prof. Thomas Mandli, University of Hildesheim, Germany by Prof. Rajeev Srivastava, Head, Department of Computer Science and Engineering, IIT (BHU) on December 13, 2017, after his talk.

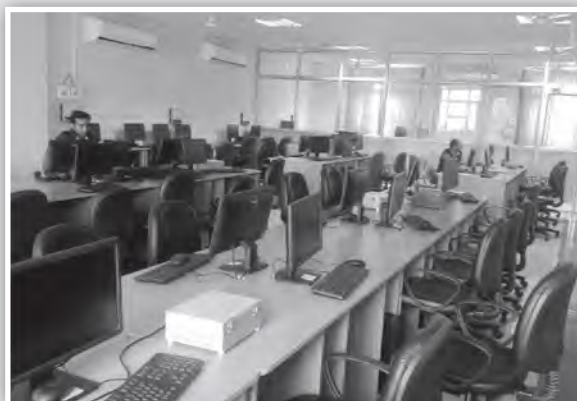


Interaction of Dr. Krishna Ratakonda, IBM Fellow and CTO Blockchain Solutions, Greater New York City Area, U.S.A. with faculty members of the CSE Department on 4th August 2017.

### Pictures of few Labs of the Department



Undergraduate Lab-1 of CSE Department



Undergraduate Lab-2 of CSE Department

## 10. Department of Electrical Engineering

Year of Establishment : 1919

**Head of the Department :** Prof. R. Mahanty

### **Brief Introduction of the Department**

Mahamana Pt. Madan Mohan Malviya founded BHU in the year 1916, with benevolent and magnanimous contributions of the then maharajas and other persons of eminence. The University was nurtured by Sir Sunderlal, as the 1<sup>st</sup> V.C. of the university, followed by the great visionaries, such as Pt. Madan Mohan Malviya, Acharya Narendradev, Sir S. Radhakrishnan and many other eminent personalities.

The Benaras Engineering College (BENCO) was started in the year 1919, with its strong foundation laid by revered Prof. Charles A. King, Prof. H. P. Philpot and Prof. M. Sengupta. With the passage of time, College of Mining and Metallurgy (MINMET) and College of Technology (TECHNO) were included, expanding its horizon. These three colleges were merged and named as Institute of Technology in the year 1968 with a view to give more autonomy for its better perspective in terms of academic as well as administrative decisions. Its undergraduate students are admitted through Joint Entrance Examination (JEE) being conducted for all IITs.

Since the inception of BENCO in 1919, combined Bachelor's degree in Mechanical and Electrical Engineering was awarded till 1952. Department of Mechanical Engineering and Department of Electrical Engineering were separated in 1953 and conferred separate degrees in respective disciplines.

Presently, Department of Electrical Engineering runs five post graduate (M. Tech.) programmes in Electrical Machines and Drives (started in 1956), Power Systems (started in 1964), Control Systems (started in 1964), Power Electronics (started in 1982) and Interdisciplinary Systems Engineering (started in, 1982) and Ph. D. programme in all disciplines of Electrical Engineering. The department has also a five year Integrated Dual Degree Program (started in 2006) leading to Masters degree with specialization in Power Electronics.

The department has been sanctioned Special Assistance Programme (SAP) of UGC since 1988 and COSIST program of UGC from 1995 to 2000. Apart from these, the department has been conducting research projects funded by DST, AICTE, CPRI and other R&D organizations of Govt. of India.

Department has very good placement records over the years. The students of this department are joining core companies such as PGCIL, IOCL, HPCL, Trident, Reliance, Maruti, etc. Electronics companies such as Broadcom, Sony, etc are also regularly recruiting students of this department. Our students are also regularly joining software companies such as Morgan Stanley, Goldman Sachs, Citrix, Oracle, SISO, etc. The vast number of job offers is mainly due to the versatility of the branch which ensures that students are allowed to sit for interviews in software, core electrical, electronic as well as non technical companies.

Some of the department's famous alumni includes, Mr. Nimesh Arora: Senior Vice President and Chief Business Officer at Google, Mr. Rajiv Dogra: Indian diplomat, Ex- Consul General to Karachi, Pakistan, Mr. Gyanesh Pandey: Co-founder, CEO and CTO of Husk Power Systems and Mr. Narla Tata Rao: Winner of Padma Shree, a doyen of power sector in India.

The department is pursuing academic activities with the following goals and objectives:

- Further up-gradation and technological modernization of infrastructural facilities.
- Encouraging teaching innovations through audio visual and multimedia aids.
- Channelizing expertise of faculty in the frontier areas of electrical engineering.
- Research, testing and consultancy.
- Training the undergraduate and post graduate students towards entrepreneurship in consonance with liberalization and privatization policies of the Government.
- Development of energy efficient, environment-friendly electrical technologies as per the norms set by various planning, regulatory and other statutory bodies





**Major areas of Research :** Power System, Power Electronics, Machines and Drives, Control System

**Area of the Department/School (in square meters)**

**Infrastructure**

S. No.	Particulars	Number
1	No. of Classrooms	07
2	No. of Lecture Halls	(Classrooms and Lecture Halls are same)
3	No. of Laboratory	5
4	No. of Computers available for students in the Department/School/ School	120

**New facilities added**

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	Quanser 2DOF Helicopter Experimental Setup Includes: 2 DOF Helicopter Experiment Volt PAQ-X2 Amplifier Q2-USB Data Acquisition Board QUARC for Windows- Single User License	Rs. 16,02,192.90 (Rupee Sixteen Lakh Two Thousand One Hundred Ninety two and ninety paisa only)
2	(a) Quanser Coupled Tank Workstation (Q2-USB) Includes: Coupled Tanks Experiment VoltPAQ-X1 Amplifier Q2-USB Data Acquisition Board QUARC for Windows- Single User License (b) NI Lab View Interface card & cable	Rs. 10,53,216.15 (Rupees ten Lakh Fifty Three Thousand Two Hundred Sixteen and Fifteen Paisa Only)

**Unique Achievement / Preposition of the Department/School**

In the last five years, the department has produced 500 graduates and 200 post-graduates. Apart from this, the department has to its credit 20 Ph.D.s awarded during the last five years.

**Academic Programmes offered**

**New Courses Introduced**

S. No.	Course Code	Course name	Course credit
1	EE-510	Solar and Wind Energy Technology	9

**Students on Roll**

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech/B. Pharm	NA	89	89	84	NA
2	Dual Degree	NA	22	22	22	23
3	M. Tech/ M. Pharm	47	45	NA	NA	NA
4	Ph. D (Under Institute Fellowship)	65 (Total)	11	---	01	05


**Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India**

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From
<b>INDIA</b>					
1.	Anil Kumar Pal	15181003	Short-term course on "Modern Techniques in Non-Linear Robust Control"	7-10 August, 2017 at IIT Roorkee, Uttarakhand	IIT (BHU)
2.	Ankit Sachan	15081006	Short-term course on "Modern Techniques in Non-Linear Robust Control"	7-10 August, 2017 at IIT Roorkee, Uttarakhand	IIT (BHU)
3.	Jitendra Kumar Goyal	16181001	Short-term course on "Modern Techniques in Non-Linear Robust Control"	7-10 August, 2017 at IIT Roorkee, Uttarakhand	IIT (BHU)
4.	Rahul Kumar Sharma	16181002	Short-term course on "Modern Techniques in Non-Linear Robust Control"	7-10 August, 2017 at IIT Roorkee, Uttarakhand	IIT (BHU)
5.	Rahul Kumar Sharma	16181002	"2nd National Workshop on Hydrogen Energy and Fuel Cells"	22-23 November 2017 at National Institute of Solar Energy, Gurugram, Haryana	IIT (BHU)
6.	Jitendra Kumar Goyal	16181001	Short-term course on "Non-Linear Control and Applications - 2018"	26-28 January, 2018 at IIT Gandhinagar, Gujarat	IIT (BHU)
7.	Ankit Sachan	15081006	GIAN course on "Fractional Derivatives and its Applications"	30 January-3 February, 2018 at Department of Mathematical Sciences, IIT (BHU), Varanasi, Uttar Pradesh	IIT (BHU)
8.	Rahul Kumar Sharma	16181002	GIAN course on "Fractional Derivatives and its Applications"	30 January-3 February, 2018 at Department of Mathematical Sciences, IIT (BHU), Varanasi, Uttar Pradesh	IIT (BHU)
9.	Anil Kumar Pal	15181003	Training programme on "Tools for Scientific Documentation"	5-16 March, 2018 at DST CIMS, BHU, Varanasi, Uttar Pradesh	IIT (BHU)



10.	Ankit Sachan	15081006	Training programme on "Tools for Scientific Documentation"	5-16 March, 2018 at DST CIMS, BHU, Varanasi, Uttar Pradesh	IIT (BHU)
11.	Jitendra Kumar Goyal	16181001	Training programme on "Tools for Scientific Documentation"	5-16 March, 2018 at DST CIMS, BHU, Varanasi, Uttar Pradesh	IIT (BHU)
12.	Avneet Kumar	13081011	ITEC INDIA, Pune	11-13 Dec & Pune, India	IIT (BHU)
13.	M Raghuram	14081007	ITEC INDIA, Pune	11-13 Dec & Pune, India	IIT (BHU)
14.	Anish Ahmad	13081007	IEEE International Transportation Electrification Conference India (ITEC INDIA-2017)	11-13 Dec & Pune, India	IIT (BHU)
15.	Bussa Vinod Kumar	14081005	IEEE International Transportation Electrification Conference India (ITEC INDIA-2017)	11-13 Dec & Pune, India	IIT (BHU)
<b>ABROAD</b>					
1.	O.P. Bharati	13081010	Symposia <b>SICE</b> on control technology, TOKYO City University JAPAN	9 to 11 March 2018, JAPAN	IIT, CSIR
2.	Amit Chaudhary	11604EN001	Symposia <b>SICE</b> on control technology, TOKYO City University JAPAN	9 to 11 March 2018, JAPAN	IIT, CSIR
3.	S.K.Verma	13081010	Symposia <b>SICE</b> on control technology, TOKYO City University JAPAN	9 to 11 March 2018, JAPAN	IIT, CSIR
4.	Bhanu Teja Vankayalapati	12404EN009	IEEE International Conference on Industrial Technology (IEEE ICIT 2017)	Lyon, France	IIT
5.	Avneet Kumar	13081011	IAS Annual Meeting, Cincinnati, USA	1-5 Oct & Cincinnati, USA	IEEE IAS and IIT (BHU)
6.	M Raghuram	14081007	ECCE, Cincinnati, USA	1-5 Oct & Cincinnati, USA	IEEE ECCE and IIT (BHU)
7.	Pilli Naresh Kumar	13081008	IAS Annual Meeting, Cincinnati, USA	1-5 Oct & Cincinnati, USA	IEEE IAS and IIT (BHU)
8.	Raja Ram Kumar	12604EN003	IAS Annual Meeting, Cincinnati, USA	1-5 Oct & Cincinnati, USA	IEEE IAS and IIT (BHU)
9.	Abhinandan Routray		IAS Annual Meeting, Cincinnati, USA	1-5 Oct & Cincinnati, USA	IEEE IAS and IIT (BHU)



### Names of students/scholars who got prizes and awards outside the Institute

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Avneet Kumar	13081011	Second best Paper Award	1-5 October, Cincinnati	IEEE IAS Annual Meeting, USA

### Names of scholars/students who won Convocation/Institute Day prizes

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Avneet Kumar	13081011	Keshar Devi Kantilal Deora Memorial Gold Medal	IIT (BHU)

### Names of Students/Scholars who went for foreign Internship

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Abhinav Dangi	14085086	Technical University of Munich	Munich	Germany	Summer 2017

### Faculty & their Activity

#### Faculty and their areas of specialisation

S. No.	Name	Major Areas of Specialization
<b>PROFESSORS</b>		
1.	Prof. S. P. Singh	Power System, Electricity Markets and Deregulation, Operation and Dynamics, Distribution System Automation.
2.	Prof. S. K. Nagar	Control Systems, AI Applications
3.	Prof. A. K. Kapoor	Power Electronics, Microcomputer Applications, Control systems
4.	Prof. D. N. Vishwakarma	Power Systems, Digital Protection, Microprocessor, Microcontroller AI Applications
5.	Prof. R. K. Pandey	EHV AC & DC Transmission, FACTS Controllers Design & Analysis, Integrated Large Power System Operation & Control, Intelligent Grid Control, High Voltage DC Transmission Technology, Electricity Policy and Planning, Distribution System Planning & Automation, Distributed Energy Resources & Management
6.	Prof. R. K. Srivastava	Electrical Machines & Drives - Linear Induction Motors, Special Machines, Permanent Magnets Motors & Generators. CAD / FEM analysis of Electrical Machines. Electromagnetic Fields
7.	Prof. R. K. Mishra	Power Distribution Systems, AI and its application in Power Systems
8.	Prof. R. Mahanty	Power Electronics
9.	Prof. D. Singh	Power Systems, AI applications to Power Systems, Load Forecasting
10.	Prof. R. K. Saket	Reliability Engineering, Power System Reliability, Electrical Machines and Drives, Renewable Sources of Electrical Energy



#### ASSOCIATE PROFESSORS

1.	Dr. (Mrs.) Kalpana Chaudhary	Power Electronics Electrical Machines & Drives
2.	Dr. S. K. Singh	Power Electronics, Renewable Energy, Electric Drives
3.	Dr. R. K. Singh	Power Electronics, Energy Storage System and Optimal Bidirectional Battery Chargers, Modeling, simulation, and control of Power Electronics System, Power Electronics for the Hybrid Renewable AC/DC micro-grid, Modeling and control for Point-of-load's, EV/PHEV interface with renewable energy and grid.
4.	Dr. V. N. Lal	Design and Control of Grid Connected Solar PV system, Renewable Energy, ANN application in Power Electronics and Power Forecasting,

#### ASSISTANT PROFESSORS

1.	Dr. Manish Kumar	Renewable Energy Technologies Plasma Physics Coherent Radiation Generation, Terahertz Radiation Generation
2.	Dr. J. C. Pandey	Electromagnetic, Finite Element Finite Element Analysis of Electrical machines and Devices High Voltage Engineering.
3.	Ms. Sobhita Meher	Computer Science
4.	Dr. Sandeep Ghosh	Control System
5.	Dr. Shyam Kamal	Control System

#### Technical and Non-Teaching Staff

Sl. No.	Name	Qualifications	Designation	Date of appointment In IT (BHU)/IIT	In Department
1	Mr. Sanjeev Kumar Maurya	B.Sc.	Junior Superintendent	21.07.2017	25.07.2017
2	Mr. Sunil Kumar Sonkar	MBA (BHU)	Junior Assistant	19.02.2015	27.04.2015
3	Mr. A.N.Singh	M.A., B.Sc., CIC	Technical Superintendent	16.06.1988	16.06.1988
4	Mr. R. C. Sharma	B.A.	Technical Superintendent	26.04.1991	26.04.1991
5	Mr. Radhe Shyam Patel	Intermediate, Polytechnic in EE	Technical Superintendent	05.08.2008	05.08.2008
6	Mr. B. L. Singh	B.A., Diploma in E.E., DBM	Technical Superintendent	06.08.2008	06.08.2008
7	Mr. Umesh Mishra	B.Sc.	Senior Technician	05.08.2008	05.08.2008
8	Mr. Satish Kumar Singh	B.A.	Senior Technician	06.08.2008	06.08.2008
9	Mr. Dharmendra Kumar Singh	High School + ITI	Senior Technician	07.08.2008	07.08.2008
10	Mr. Sanjay Kumar Bharti	B.Sc., B.Ed.	Senior Technician	11.08.2008	11.08.2008
11	Mrs. Ranjana Singh	Postgraduate	Senior Technician	16.05.1996	13.04.2012
12	Mr. Anjneya Kumar	M.Sc., B.Ed.	Senior Technician	03.08.2012	21.09.2012





### Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

S. No.	Name of Faculty Member	Title	Period and Venue
<b>Seminars/Symposia/Conferences</b>			
1.	Prof. R.K.Saket	Controller Design of Doubly Fed Induction Generator Based Wind Turbine by Using DE-Optimization Technique.	Tokyo City University, Tokyo, Japan 10.03.2018
2.	S.K.Nagar	Symposia SICE on control technology, TOKYO City University JAPAN	9 to 11 March 2018, JAPAN
3	S.K.Nagar	IFAC International conference ACDOS	18th Feb to 22, 2018, Dr. APJ Abdul Kalam Missile Complex (DRDO) Hyderabad

### Visits abroad by faculty members

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	S.K.Nagar	JAPAN	6th march-2018	13th March 2018	Conference	IIT(BHU)
2	Prof. R. K. Saket	Tokto, Japan	06.03.2018	12.03.2018	Conference	CPDA
3	Dr. Santosh Kumar Singh	USA	30 Sep 2017	6 Oct 2017	Conference	IIT (BHU)

### Honours and awards

S. No.	Name of Faculty Member	Details of Award
1	Prof. R. K. Saket	Gandhian Young Technological Innovation Award - 2018 : Awarded by Honorable President of India at Rastrapati Bhavan, New Dehli, India : March 19, 2018.
2	Prof. R. K. Saket	Design Impact Award - 2018 : Awarded by Padma Vibhushan Ratan Tata for Innovation and Social Entrepreneurship, Titan Company in collaboration with Tata trusts, Vivanta President, Mumbai, India : July 24, 2018.
3	S.K.Nagar	Session Chairman since 2018 Tokyo City University JAPAN
4	Dr. Santosh Kumar Singh	Second best Paper Award, IEEE IAS Annual Meeting, Cincinnati, USA
5	Dr. Santosh Kumar Singh	Senior Member, IEEE

### Fellowships of academic and professional societies

S. No.	Name of Faculty Member	Details of Fellowship
1	S.K.Nagar	Fellow, Institutions of Engineers INDIA, Life member system society of India.



## Editorial boards of journals

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Prof. R. K. Saket	Editorial Board member	Engineering, Technology and Applied Science Research (Web of Science <sup>TM</sup> Thomson Reuters), GREECE, ISSN: 1792-8036, Web Site: <a href="http://www.etasr.com">http://www.etasr.com</a>

## Research Activities

### Proceedings of International Conferences

1. Bhanu Teja Vankayalapati and **Rajeev Kumar Singh**, "Two Stage Integrated On-Board Charger for EVs" accepted for publication in *IEEE International Conference on Industrial Technology (IEEE ICIT 2017)* Lyon, France, 20-22 Feb. **2018**
2. Anish Ahmad and **Rajeev Kumar Singh**, "Multiple Output Based Quasi-Z-Source Inverters for Microgrid Application" accepted for publication in *IEEE International Conference on Industrial Technology (IEEE ICIT 2017)* Lyon, France, 20-22 Feb. **2018**
3. Bussa Vinod Kumar, **Rajeev Kumar Singh**, and R. Mahanty "Modified L-Z-source inverter with high gain inversion and inductive load compatibility" accepted for publication in *IEEE International Conference on Industrial Technology (IEEE ICIT 2017)* Lyon, France, 20-22 Feb. **2018**
4. Abhinandan Routray, **Rajeev Kumar Singh**, R. Mahanty, "A Novel GA Optimized SHE PWM Hybrid Cascaded Multilevel Inverter with Capacitor Voltage Balancing," in *IEEE-ECCE 2017*, Cincinnati, OH, pp 714-721, 1-5 Oct. **2017**
5. Om Prakash Bharti, R. K. Saket and S. K. Nagar (2018), "Controller Design of Doubly Fed Induction Generator Based Wind Turbine by Using DE-Optimization Techniques". Tokyo City University, **Tokyo, Japan**, March 10, 2018, pp: 01-06, Web-site: <http://www.sice.com>
6. M Raghuram, Avneet K Chauhan and Santosh K Singh, "Switched capacitor impedance matrix converter", *IEEE ECCE-2017*, Sep 30-Oct 5, 2017, Cincinnati USA
7. Naresh K Pilli, Rahul K Meena, Santosh K Singh "A Simplified Gate Pulse Generation Technique For Modified Multilevel DC-Link Inverter", *IEEE IAS annual meeting-2017*, Sep 30-Oct 5, 2017, Cincinnati USA
8. Avneet K. Chauhan, Mayank Jain and Santosh K. Singh "Modified Hybrid L-Z Source Inverter- A Closed Loop Perspective" *IEEE IAS annual meeting-2017*, Sep 30-Oct 5, 2017, Cincinnati USA
9. Avneet K. Chauhan, M Raghuram, Raja Ram kumar and Santosh K. Singh "Extended Buck-Boost Derived Hybrid Converter" *IEEE IAS annual meeting-2017*, Sep 30-Oct 5, 2017, Cincinnati USA
10. Avneet K. Chauhan, M Raghuram and Santosh K. Singh "Generalized Switched Inductor Cell Multi Level Inverter" *IEEE Transportation Electrification Conference*, 2017, Pune, India
11. Avneet K. Chauhan, M Raghuram and Santosh K. Singh "Quasi Mutually Coupled Impedance Source Converter- Auto transformer type turns ratio" *IEEE Transportation Electrification Conference*, 2017, Pune, India
12. Rajaram Kumar, Santosh K. Singh and R. K. Srivastava "Thermal Modeling of Dual Stator Five Phase Permanent Magnet Synchronous Generator" *IEEE Transportation Electrification Conference*, 2017, Pune, India
13. Satyendra P. Singh and S.P. Singh, "A Novel Multi-objective PMU Placement Method for Power System State Estimation", *IEEECON2018*, 7-9 March, Krabi, Thailand
14. Shailendra Singh, S.P. Singh, 'Peak Load Relief in MV/LV Distribution Network Through Smart Grid Enabled CVR With Droop Control EV2G Reactive Power Support', *IEEE International conference on Power, Instrumentation, Computing and Control*, GEC Trichur, India, Jan. 18- 20, 2018



15. Devesh Shukla, Sri Lakshmi E. and S.P. Singh, 'Estimation of ATC using PS-NR', 6<sup>th</sup> IEEE International Conference on Computer Application in Electrical Engineering-Recent Advances (CERA), IIT Roorkee. Oct 5-7 2017
16. Vijay Babu P., Shailendra Singh, S.P. Singh, "Distributed Generators allocation in Distribution System" 2017 IEEE PES General Meeting, July 16- 20, 2017, Chicago, IL USA

#### Proceedings of National Conferences

1. **Anish Ahmad** and **Rajeev Kumar Singh** "Single-Phase Modified Continuous Input Current Switched Boost Inverter for High Voltage Gain" accepted for publication *IEEE International Transportation Electrification Conference India (ITEC INDIA-2017)*, Pune, 13-15 Dec. 2017
2. Bussa Vinod Kumar, **Rajeev Kumar Singh**, and R. Mahanty "Minimum Phase Hybrid Boost Converter for Smart Residential Uninterruptible Power Supply System" accepted for publication *IEEE International Transportation Electrification Conference India (ITEC INDIA-2017)*, Pune, 13-15 Dec. 2017
3. Bussa Vinod Kumar, **Rajeev Kumar Singh**, and R. Mahanty "Extendable Multicell Improved L-Z-Source Inverter" accepted for publication *IEEE International Transportation Electrification Conference India (ITEC INDIA-2017)*, Pune, 13-15 Dec. 2017

#### Proceedings of International Journals

1. **J. C. Pandey** and Nandini Gupta, "Charge Behavior at Interfaces involving Nanocomposites", *IEEE Transactions on Dielectrics and Electrical Insulation*, vol 25, no 1, Feb 2018.
2. Deepak Kumar, **Kalpana Chaudhary**, "Design of an Improved Differentially Fed Antenna Array for RF Energy Harvesting", *IETE Journal of Research (Taylor and Francis)*, 2018, <https://doi.org/10.1080/03772063.2018.1488628>, if 6.9
3. **K. Chaudhary**, D. Kumar, "Satellite Solar Wireless Power Transfer for Baseload Ground Supply: Clean Energy for the Future", *European Journal of Futures Research*, 2018, <https://doi.org/10.1186/s40309-018-0139-7>
4. Deepak Kumar, **Kalpana Chaudhary**, "Cost Minimization Strategy for Satellite Solar Power Station", *International Journal of Renewable Energy Research*, Vol 8, No. 1, 2018, pp. 488-494, 2018.
5. D Kumar, **K. Chaudhary**, "High Frequency Harmonic Harvester Rectenna for Energy Storage Application", *International Journal of Power Electronics and Drive Systems*, Vol 9, Issue 1, 2018. pp. 252-259.
6. D Kumar, **K. Chaudhary**, "Design of Differential Source Fed Circularly Polarized Rectenna with Embedded Slots for Harmonics Suppression", *Progress in Electromagnetics Research C*, 2018, pp. 175-187, 2018
7. Anish Ahmad, B. Vinod Kumar, **Rajeev Kumar Singh** and R. Mahanty "Switched-Boost Modified Z-Source Inverter Topologies with Improved Voltage Gain Capability" *IEEE Journal Emerging and Selected Topics in Power Electronics*, (Early Access) (In Press), DOI: 10.1109/JESTPE.2018.2823379
8. **B. Vinod Kumar**, **Anish Ahmad**, **Rajeev Kumar Singh** and **R. Mahanty**, "Interleaved Hybrid Converter with Simultaneous DC and AC Outputs for DC Microgrid Applications," accepted for publication in *IEEE Trans. Ind. Appl.* 2017.
9. **B. Vinod Kumar**, **Anish Ahmad**, **Rajeev Kumar Singh** and **R. Mahanty**, "Single-phase high voltage gain switched LC Z-source inverters," accepted for publication in *IET Power Electron.* 2017.
10. **Anish Ahmad**, **B. Vinod Kumar**, **Rajeev Kumar Singh** and **R. Mahanty**, "Quadratic boost derived hybrid multi-output converter," *IET Power Electron.*, Vol. 10, Issue. 15, pp. 2034–2041, Dec. 2017
11. Om Prakash Bharti, R. K. Saket and S. K. Nagar (2017), "Controller Design for Doubly Fed Induction Generator Using Particle Swarm Optimization Technique", *Renewable Energy*, an International Journal of Elsevier (SCI Journal); **Impact Factor: 4.90**, Volume: 114, Part: B, pp: 1394 - 1406, Web-site: <http://www.sciencedirect.com>.
12. Om Prakash Bharti, R. K. Saket and S. K. Nagar (2017), "Controller Design for DFIG Based Wind Turbine



- by Using Evolutionary Soft Computational Techniques”, Engineering, Technology & Applied Science Research (ESCI Journal), Greece, volume: 7, issue: 3, pp: 1732-1736, June 2017, Web-site: <http://www.etasr.com>
13. Ankita Dwivedi, S K Singh and R K Srivastava “Analysis and Performance Evaluation of Axial Flux Permanent Magnet Motors”, IEEE Transactions on Industry Applications, vol. 54, no. 2, pp. 1765-1772, March/April 2018
  14. Avneet K. Chauhan, Venkata R Vakacharla, M. M. Reza, M Raghuram and Santosh K. Singh, “Modified Boost Derived Hybrid Converter: Redemption using FCM”, IEEE Transactions on Industry Applications, vol. 53, no. 6, pp. 5893-5904, Nov/Dec 2017
  15. Brijesh Singh, R. Mahanty and **S.P. Singh**, “Social welfare maximization for congestion management in multi-utility market using improved PSO incorporating transmission loss cost allocation”, accepted for publication in International Transactions on Electrical Energy Systems. (In press)
  16. Shailendra Singh, and **S.P. Singh**, "Energy Saving Estimation in Distribution Network with Smart Grid enabled CVR and Solar PV Inverter." IET Generation, Transmission & Distribution, Vol. 12, No. 6, pp. 1346-1358, 2018 (doi: 10.1049/iet-gtd.2017.0973)
  17. E. Purwar, D. N. Vishwakarma and **S. P. Singh**, "A Novel Constraints Reduction Based Optimal Relay Coordination Method Considering Variable Operational Status of Distribution System with DGs," to appear in future issue of *IEEE Transactions on Smart Grid*, vol. PP, no. 99, pp. 1-1. DOI: 10.1109/TSG.2017.2754399
  18. Satyendra Pratap Singh, **S.P. Singh**, “A Multi-objective PMU Placement Method in Power System via Binary Gravitational Search Algorithm”, *Electric Power Components and Systems*, USA, 45(16):1832-1845, 2017 (DOI: 10.1080/15325008.2017.1378775)
  19. S. P. Singh and **S. P. Singh**, “On-line Assessment of Voltage Stability using Synchrophasor Technology”, Indonesian Journal of Electrical Engineering and Computer Science, Vol. 8, No. 1, Oct. 2017, pp. 1-8.( DOI: <http://doi.org/10.11591/ijeecs.v8.i1.pp%25p>).

# 11. Department of Electronics Engineering

Year of Establishment : 1971

**Head of the Department :** Prof. V. N. Mishra

## Brief Introduction of the Department

The Department of Electronics Engineering came into existence as an offshoot of Electrical Engineering Department in the year 1971 with a great effort from Prof. S.S. Banerjee. In the same year the erstwhile Banaras Engineering College (BENCO), College of Mining and Metallurgy and College of Technology were amalgamated to form the Institute of Technology-Banaras Hindu University (IT-BHU). The Department offers Bachelor, Master and Doctoral programs in Electronics Engineering with the major thrust areas of Microelectronics, Microwave Engineering, Digital Techniques & Instrumentations and Communication Systems. The Department has been actively engaged in research since its inception as evidenced by the research publications. The first major financial support from the Department of Electronics (DoE), Govt. of India in the tune of Rs.1.0 Crore was received by the Department in 1980 to carry out research for development of High Power Microwave Tubes. Subsequently, in recognition of excellent research contribution, the University Grants Commission (UGC) identified the Department to provide financial support under Special Assistance Program (SAP) in 1983 for five years. During this period, the department established three independent research centers e.g., Centre of Research in Microwave Tubes (CRMT), Centre for Research in Microelectronics (CRME) and Centre for Research in Microprocessor Applications (CRMA) supported by UGC/MHRD. The Department was further recognized as a Centre of Advanced Studies (CAS) by the UGC in 1989. The Department successfully completed three phases of CAS in the year 2009. The Department is also one of the DRDO centers for M.Tech. in Electronics Engineering. In addition to this, the Department has been actively pursuing manpower training and collaborative research programs in specialized areas to meet the national manpower requirement in R&D laboratories, academic institutions and industries. The Department has a close interaction with many reputed national R&D laboratories such as DRDO, CSIR, Bharat Electronics Ltd. and leading software companies as well as foreign Universities.

## Major areas of Research

- Communication System Engineering
- Digital Techniques & Instrumentation
- Microwave Engineering
- Microelectronics Engineering

**Area of the Department/School (in square meters):** 77.25 m x 46.10 m = 3561.22 m<sup>2</sup>

## Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	08
2	No. of Lecture Halls	01
3	No. of Laboratory	16
4	No. of Computers available for students in the Department/School/ School	25

## Unique Achievement / Preposition of the Department/School

### Academic Programmes offered

### New Courses Introduced

S. No.	Course Code	Course name	Course credit
1	EC 584	Radar System	9
2	EC 571	Heterojunction Devices & Technology	9





### Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech/B. Pharm	88	88	88	87	---
2	Dual Degree	---	---	---	---	---
3	M. Tech/ M. Pharm	26	30	---	---	---
4	Ph. D (Under Institute Fellowship)	18	02	09	06	01
5	Ph. D (Under Project Fellowship)	---	01	---	02	---
6	Ph. D (Under Sponsored Category)	06	---	---	02	02

### Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From
<b>INDIA</b>					
1	Sudhir Bhaskar	14091004	IEEE Applied Electromagnetics Conference (AEMC)	19-22 Dec, 2017 Aurangabad, India	Institute
2	Purnendu Mishra	16091004	Machine learning: Concepts, Applications & Challenges	18-23 Sept, 2017 IIT (BHU)	Institute
3	Gourav Modanwal	14091006	Machine learning: Concepts, Applications & Challenges	18-23 Sept, 2017 IIT (BHU)	Institute
4	Bhagirath Sahu	13091002	IEEE Applied Electromagnetics Conference (AEMC)	19-22 Dec, 2017 Aurangabad, India	Institute
5	Bhagirath Sahu	13091002	IEEE MTT-S International Microwave and RF Conference (IMaRC)	11-13 Dec, 2017 Ahmedabad, India	Institute
<b>ABROAD</b>					
1	Sudhir Bhaskar	14091004	International Symposium on Antennas and Propagation (ISAP)	30 Oct-2 Nov, 2017 Phuket, Thailand	Institute
2	Bhagirath Sahu	13091002	International Symposium on Antennas and Propagation (ISAP)	30 Oct-2 Nov, 2017 Phuket, Thailand	Institute
3	Gourav Modanwal	14091006	International Conference on Image and Graphics Processing (ICIGP)	February 24-26, 2018 Hong Kong	Student Travel Grant



### Names of Students/Scholars who went for foreign Internship

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Mayank Agarwal	14091011	Raman-Charpak Fellowship 2016 Funded by Indo-French Center for the Promotion of Advanced Research (IFCPAR/CEFIPRA), New Delhi	Department of Electromagnetics, EXPOSE Research Group PIEM/ GEEPS, Centrale Supélec, Gif-sur-Yvette Cedex	France	9/2/2017 to 24/7/2017
2	Rajan Agrahari	14091010	Pennsylvania State University	Department of Engineering Science and Mechanics	USA	27/5/2017 to 31/7/2017

### Faculty & their Activity

#### Faculty and their areas of specialisation

S. No.	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
<b>PROFESSORS</b>		
1	Prof. S.P. Singh (Institute Professor)	Bioelectromagnetics, Antennas, Microwave Circuits and Measurements
2	Dr. Anand Mohan (Institute Professor)	Digital Techniques & Instrumentation
3	Dr. K. P. Singh (Institute Professor)	Microwave Engineering
4	Prof. P. Chakrabarti	High Speed Semiconductor Devices Optoelectronic Devices Optical Communication
5	Prof. P. K. Jain	Microwave Engineering
6	Prof. Satyabrata Jit	Advanced CMOS Devices Thin Film Based Nanoelectronic Devices for Electronic, Gas Sensing and Optoelectronic Applications
7	Prof. V. N. Mishra	Microelectronics
<b>ASSOCIATE PROFESSORS</b>		
1	Dr. R. Dwivedi (Institute Associate Professor)	Microelectronics
2	Dr. R. U. Khan (Institute Associate Professor)	Microelectronics
3	Dr. Manoj Kumar Meshram	Microwave antennas, Artificial materials, Microwave passive devices
4	Dr. N. S. Rajput	Digital Techniques & Instrumentation
5	Dr. Amit Kumar Singh	Microwave Engineering
6	Dr. Amritanshu Pandey	Communication System Engineering, Microelectronics



7	Dr. M. Thottappan	Microwave Engineering
<b>ASSISTANT PROFESSORS</b>		
1	Dr. Kishor P. Sarawadekar	Algorithms and architectures for image/video signal processing, Image coding systems, VLSI based signal processing
2	Dr. K.V. Srinivas	Communication System Engineering
3	Mr. M. K. Singh	Communication System Engineering
4	Dr. Somak Bhattacharyya	RF & Microwave Engineering, Metasurfaces, Terahertz Modelling
5	Dr. Smrity Dwivedi	RF & Microwave Engineering

**Short-term courses/workshops/seminars/symposia/conferences organised by faculty members**

S. No.	Coordinator	Title	Period
1	Prof. Satyabrata Jit	Modeling and Simulation of Advanced Semiconductor Devices	17-22 July, 2017
2	Dr. Kishor Sarawadekar	HDL for Signal, Image and Video Processing (HSIVP)	21-26 August, 2017
3	Anritsu & IEEE Microwave Theory & techniques Society Student Branch Chapter (Faculty Advisor: Dr. Somak Bhattacharyya)	Active and Passive device characterization using Anritsu VNA	14 October, 2017
4	Keysight & IEEE Microwave Theory & techniques Society Student Branch Chapter (Faculty Advisor: Dr. Somak Bhattacharyya)	Working on Advanced Design System (ADS)	1-2 February, 2018

**Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings**

S. No.	Name of Faculty Member	Title	Period and Venue
<b>Seminars/Symposia/Conferences</b>			
1.	Dr. N S Rajput	3rd International Conference on Sensors and Electronic Instrumentation Advances (SEIA' 2017)	Sep. 20 - 22, 2017
2.	Dr. N S Rajput	IEEE 4th World Forum on Internet of Things, 05-08 February 2018	Feb. 5-8, 2018 Singapore
3.	Dr. Kishor Sarawadekar	International Conference on Image and Graphics Processing (ICIGP 2018)	Hong Kong February 24-26, 2018
4.	Dr. Kishor Sarawadekar	11th world Congress of Regenerative Medicine and Stem Cell (RMSC-2017),	Singapore November 14-16, 2017
5.	Dr. Kishor Sarawadekar	SMDP-C2SD 3rd ZOPP Workshop	IIT Guwahati, October 27-28th, 2017



6.	Dr. Kishor Sarawadekar	4th Annual Global Congress of Knowledge Economy-2017	Qingdao, China September 19-21, 2017
7.	Dr. Somak Bhattacharyya	International Symposium on Antennas and Propagation (ISAP)	30 Oct-2 Nov, 2017 Phuket, Thailand
8.	Dr. Somak Bhattacharyya	IEEE Applied Electromagnetics Conference (AEMC)	19-22 Dec, 2017 Aurangabad, India

**Meetings**

1.	Dr. Kishor Sarawadekar	SMDP C2SD Project Review and Steering Group meeting	IIT Bhubaneswar April 4-5, 2017
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**Special lectures delivered by faculty members in other institutions**

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Dr. N. S. Rajput	Smart Sensor & Systems: From simple sensing to IoT and CPS	Dr. Vithalrao Vikhe Patil College Of Engineering, Ahmednagar, Maharashtra	Jan 12-13, 2017
2	Dr. Kishor Sarawadekar	Cognitive Informatics and Soft Computing	VBIT, Ghatkesar, Hyderabad,	December 20-21 2017
3	Dr. Somak Bhattacharyya	Microwave Communication	IEEE Computer Society Kolkata Section	16-18 March, 2018
4	Prof. Satyabrata Jit	Electrical and Optical Properties of ZnO Nanostructure Based Schottky and Heterojunction Diodes Fabricated on Si Substrates	Dept. of Electronics Engineering, IIT (ISM) Dhanbad	24 July, 2017
5	Prof. Satyabrata Jit	Fabrication and Characterization of Colloidal Quantum Dots Based Photodetectors	IEEE international conference on Telecommunication and Networks (TEL-NET 2017) organized by the Amity University, Noida	11 August, 2017
6	Prof. Satyabrata Jit	Terahertz Technology: An Overview	Department of Electronics and Communication Engineering, NIT Jamshedpur	10 November, 2017
7	Prof. Satyabrata Jit	Metal Oxide Nanostructure Materials and Devices for Electronic, Optoelectronic and Gas Sensing Applications	3rd International Conference on Nano-electronics, Circuits & Communication Systems (NCCS-2017)	11-12 November, 2017
8	Prof. Satyabrata Jit	Metal Oxide Nanostructures: Materials, Devices and Applications	Dept. of Electrical Engineering, IIT Indore	22 February, 2018
9	Prof. Satyabrata Jit	Terahertz Technology and Its Applications	International Conference on Signal Processing and Communication (ICSC-2018)	22 March, 2018



### Visits abroad by faculty members

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Kishor Sarawadekar	People's of China	September 18, 2017	September 22, 2017	To attend 4th Annual Global Congress of Knowledge Economy-2017	MeitY, New Delhi
2	Kishor Sarawadekar	Republic of Singapore	November 13, 2017	November 17, 2017	To attend 11th world Congress of Regenerative Medicine and Stem Cell (RMSC-2017)	MeitY, New Delhi
3	Kishor Sarawadekar	People's Republic of China, SAR	February 24, 2018	February 26, 2018	To attend International Conference on Image and Graphics Processing (ICIGP 2018)	MeitY, New Delhi
4	Dr. N. S. Rajput	Moscow, Russia	18 September, 2017	27 September, 2017	To attend 3rd International Conference on Sensors and Electronic Instrumentation Advances (SEIA' 2017) & Institutional visit	IBM Faculty Award
5	Dr. N. S. Rajput	Singapore	03 February 2018	10 February 2018	To attend IEEE 4th World Forum on Internet of Things 05-08 February 2018-Singapore	IBM Faculty Award
6	Dr Somak Bhattacharyya	Thailand	29 October 2017	4 November 2018	To attend International Symposium on Antennas and Propagation (ISAP)	CPDA Grant
7	Dr. M. K. Meshram	Germany	29 May 2017	28 August 2017	To carry out research activities in Germany under INSA-DFG Fellowship 2017	German Research Foundation

### Honours and awards

S. No.	Name of Faculty Member	Details of Award
1	Dr. N. S. Rajput	NVIDIA Hardware Support Grant, NVIDIA, USA, received NVIDIA Tesla K 40 GPU worth \$5000
2	Dr. Somak Bhattacharyya	Lifetime Honorary Membership by International Union of Radio Sciences (URSI)





### Fellowships of academic and professional societies

S. No.	Name of Faculty Member	Details of Fellowship
1	Dr. Kishor Sarawadekar	LMISTE
2	Dr. Kishor Sarawadekar	IEEE
3	Dr. M. K. Meshram	INSA-DGF Fellowship

### Design and Development Activities

#### New facilities added

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	GPU based Work Station (for deep learning)	1.7 Lakh
2	IoT gadgets and variety of sensors have been procured for real-time monitoring of various processes, under funding from Design & Innovation Hub (DIH), IIT (BHU)	0.5 Lakh
3	Advanced Design System (ADS) Software for High Frequency Circuit Simulation	6.5 Lakh

### Research and Consultancy

#### Sponsored research projects

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-coordinator
1	Design and Development of Miniaturized Pattern/Frequency Reconfigurable MIMO Antennas and its Performance Improvement using Artificial electromagnetic Material	3 years	Science and Engineering Research Board (SERB)	42.5	Dr. M. K. Meshram
2	Dr. M. Thottappan	Electromagnetic Analysis, Design and Simulation of an X-band Gyro-Twyston Amplifier, Young Scientist Scheme	Science and Engineering Research Board (SERB)		
3	Prof. S. Jit	Development of Polymer and Doped Quantum Dots Blended Tandem Solar Cells Using Low-Cost Solution Processed Method	DST		



4	Prof. S. Jit & Dr. K. P. Sarawadekar	Special Manpower Development Project for System to Chip Design (SMDP-C2SD)	DeiTY	
5	Prof. P. K. Jain	Design Investi- gations of High Power mm-Wave W-Band Gyrotron	DRDO	9.9

## Research Publications

Sl. No.		No.
1	Total Number of Papers Published in Refereed International Journals	39
2	Total Number of Papers Presented in International Conferences	30

### (a) Refereed International Journals

- Subiman Chatterjee, and **K. Sarawadekar**, "An Optimized Architecture of HEVC Core Transform using Real-Valued DCT Coefficients," *IEEE Transactions on Circuits and Systems--II: Express Briefs*, Accepted for publication, Early Access, DOI: 10.1109/TCSII.2018.2815532
- Gourav Modanwal, and **Kishor Sarawadekar**, "A Robust Wrist Point Detection Algorithm using Geometric Features," *Pattern Recognition Letters*, vol. 110, pp. 72–78, July 2018
- Sarthak Singhal, and **Amit Kumar Singh**, "Asymmetrically CPW-Fed Ladder-Shaped Fractal Antenna For UWB Applications," *Springer Analog Integrated Circuits and Signal Processing*, vol. 92, pp. 91-101, July 2017.
- Amritanshu Pandey** and Aditya Bansod, Pd/ZnO Schottky Ultraviolet Photodiode Fabricated on ITO Using rGO Seed Layer, *IEEE Photonics Technology Letters*, vol. 29, no. 14, pp. 1191, July 2017.
- Rahul Pal, **K. V. Srinivas** and A. Krishna Chaitanya, "A Beamselection Algorithm for Millimeter-Wave Multi-user MIMO Systems", *IEEE Communications Letters*, Accepted.
- Mumtaz Ali Ansari and **M. Thottappan**, "Analysis, Design, and 3D-Simulation of a High Efficiency Overmoded Non-uniform Relativistic Backward Wave Oscillator," *IEEE Transactions on Electron Devices*, vol. 65, no. 3, pp. 1158-1163, March 2018.
- B. Sahu, S. Singh, **M. K. Meshram**, and **S.P. Singh**, "Super-Compact Ultra-Wideband Microstrip Band-Pass Filter with Improved Performance using Defected Ground Structure-Based Low-Pass Filter," *Journal of Electromagnetic Waves and Applications*, vol. 32, pp. 635-650, Feb. 2018.
- B. Sahu, S. Singh, **M. K. Meshram**, and **S.P. Singh**, "Study of compact microstrip lowpass filter with improved performance using defected ground structure," *International Journal of RF and Microwave Computer-Aided Engineering*, Dec. 2017.
- M. Agarwal, A. Kumar Behera, **M. K. Meshram**, "MIMO-Configured WLAN Access Point Antenna With High Port Isolation," *Journal of Electromagnetic Waves and Applications*, vol. 31, no. 10, pp. 1007-1019, 2017.
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- L. Agarwal, S. Tripathi and **P. Chakrabarti**, "Effects of Copper Concentration on Structural and Optical Properties of Copper Doped ZnO Prepared by Sol-Gel Spin Coating Method," *Materials Focus*, vol. 7, pp. 18-25, 2018.



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13. Aditi Srivastava and **P Chakrabarti**, "Experimental characterization of electrochemically polymerized polycarbazole film and study of its behavior with different metals contacts," *Applied Physics A*, vol.123, pp 784, 2017.
14. Shaivalini Singh, Y. Kumar, H. Kumar, Sumit Vyas, C..Periasamy, **P. Chakrabarti**, **S. Jit**, and Si-Hyun Park, "A Study of Hydrothermally Grown ZnO Nanorod-Based Metal-Semiconductor-Metal UV Detectors on Glass Substrates," *Nanomaterials and Nanotechnology*, vol.7, p1847980417702144, 2017.
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16. M. Mahto and **P. K. Jain**, "Study of Virtual Cathodes Formation during Beam-Wave Interaction in the Reltron Oscillator," *Physics of Plasmas (AIP)*, vol. 24, p. 93107, August 2017.
17. M. Mahto and **P. K. Jain**, "PIC Simulation Study of the Formation Mechanism of Periodic Virtual Cathodes in the Reltron," *IEEE Transactions on Plasma Science*, vol. 46, no. 3, 2018.
18. Sanjay Kumar, Kunal Singh, Sweta Chander, Ekta Goel, Prince Kumar Singh, Kamalaksha Baral, Balraj Singh, and **S. Jit**, "2-D Analytical Drain Current Model of Double-Gate Heterojunction TFETs with a SiO<sub>2</sub>/HfO<sub>2</sub> Stacked Gate-Oxide Structure," *IEEE Trans. Electron Devices*, Vol. 65, pp. 331-338, 2018.
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20. H. Kumar, Y. Kumar, B. Mukherjee, G. Rawat, C. Kumar, B. N. Pal and **S. Jit**, "Colloidal CdSe Quantum Dots and PQT-12 Based Low-Temperature Self-Powered Hybrid Photodetector," *IEEE Photonics Technology Letters*, Vol. 29, No. 20, pp. 1715 - 1718, 2017.
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  2. Aman Sikri, **K. V. Srinivas**, "Precoding for Generalized Frequency Division Multiplexing with Linear Receivers", Workshop on New Radio, IEEE PIMRC 2017, Montreal, QC, Canada.
  3. Rajanish Kumar Singh and **M. Thottappan**, “Design and Simulation of CW Tunable Gyrotron using PBG Cavity as its RF Circuit,” German Microwave Conference (GeMiC)-2018, Freiburg, Germany, March 12-14th, 2018.
  4. Akash and **M. Thottappan**, “PIC Simulation of Uniformly Loaded Gyro-TWT,” National Symposium on Vacuum Electronic Devices & Applications (VEDA), IIT, Roorkee, India, 17-19th Nov., 2017.
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- Relativistic Backward Wave Oscillator,” National Symposium on Vacuum Electronic Devices & Applications (VEDA), IIT, Roorkee, India, 17-19th Nov., 2017.
6. Rajanish Kumar Singh and **M.Thottappan**, “Design and Cold Simulation of Metal PBGCavity for THz Gyrotron,” National Symposium on Vacuum Electronic Devices & Applications (VEDA), IIT, Roorkee, India, 17-19th Nov., 2017.
  7. Anshu Sharan Singh and **M.Thottappan**, “Multimode Analysis of Periodically Loaded Gyro-twystroon Amplifier,” National Symposium on Vacuum Electronic Devices & Applications (VEDA), IIT, Roorkee, India, 17-19th Nov., 2017.
  8. Mumtaz Ali Ansari and **M.Thottappan**, “Design and Simulation of a High efficiency Relativistic Backward Wave Oscillator,” 18th International Vacuum Electronic Conference (IVEC) 2017, IEEE International, London, UK, 24-26th Apr., 2017.
  9. Rajanish Kumar Singh and **M.Thottappan**, “Design and Cold Simulation of a Metal PBG Cavity for Sub-millimeter Wave Gyrotron,” 18th International Vacuum Electronic Conference (IVEC) 2017, IEEE International, London, UK, 24-26th Apr., 2017.
  10. Vineet Singh, **Somak Bhattacharyya**, and **P.K. Jain**, “Experimental Study on Heartbeat Detection using Microwave Stepped Frequency Radar”, National Conference on Emerging Trends in Vacuum Electronic Devices & Applications (VEDA-2017), IIT Roorkee 17-19 November, 2017.
  11. Prabhakar Tripathi, Manpuran Mahto, M. Thottappan, and **P.K. Jain**, “Studies of a Megawatt-Class Gridless Reltron Oscillator”, National Conference on Emerging Trends in Vacuum Electronic Devices & Applications (VEDA-2017), IIT Roorkee 17-19 November, 2017.
  12. Ekta Goel, Sanjay Kumar, Kunal Singh, Balraj Singh and **S. Jit**, “An Analytical Model for Threshold Voltage Roll-off of Graded-Channel Dual-Material Double-Gate MOSFETs” International Conference On Nanoscience and Nanotechnology (ICNN 2017) organized by Babasaheb Bhimrao Ambedkar University, Lucknow India during 22 – 24 September, 2017.
  13. Hemant Kumar, Yogesh Kumar, Gopal Rawat, Chandan Kumar, Bratindranath Mukherjee, Bhola Nath Pal, **Satyabrata Jit**, “Solution processed MoO<sub>2</sub> and ZnO Heterojunction Electrical and Optical Characteristics”, Materials Research Society (MRS) SPRING MEETING & EXHIBIT, held in Phoenix, Arizona, U.S.A, April 17-21, 2017.
  14. Yogesh Kumar, Hemant Kumar, Gopal Rawat, Chandan Kumar, Bratindranath Mukherjee, Bhola Nath Pal, **Satyabrata Jit**, “Mg Doping Effects on Optical and Electrical Properties of Solution-Processed ZnO Quantum Dots Based Thin Film Devices”, Materials Research Society (MRS) SPRING MEETING & EXHIBIT, held in Phoenix, Arizona, U.S.A, April 17-21, 2017.
  15. Chandan Kumar, Gopal Rawat, Hemant Kumar, Yogesh Kumar, Rajiv Prakash and **Satyabrata Jit**, “Poly (3,3"- dialkylquaterthiophene) Based Organic Thin Film Transistor Under Green Light Illumination”, 12th IEEE Nanotechnology Materials and Devices Conference (NMDC 2017), Singapore, 2nd – 4th October 2017.
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  17. **Smrity Dwivedi**, “Effect of Thickness of Substrate over Antenna Design for Advance Communication,” 7th International conference on cloud computing, data science and engineering (Confluence), IEEE conference, pp.770-774,2017.
  18. Lavesh Nama, **Somak Bhattacharyya**, and **Pradeep Kumar Jain**, “Ultra-thin wideband reflective polarization converter using elliptical split ring structures,” in Eleventh Annual Conference, Antenna Test and Measurement Society, Pune, India, 5-7 February, 2018.
  19. Vinit Singh Yadav, Sambit Kumar Ghosh, **Somak Bhattacharyya**, and Santanu Das, “Graphene based





- metasurface with tunable dual band mid-infrared cross polarization converter,” in Eleventh Annual Conference, Antenna Test and Measurement Society, Pune, India, 5-7 February, 2018.
20. Vineet Singh, **Somak Bhattacharyya**, and **Pradeep Kumar Jain**, “Improvement of human lifesign containing signal behind the wall using PCA,” in Eleventh Annual Conference, Antenna Test and Measurement Society, Pune, India, 5-7 February, 2018.
  21. Rajarshi Bhattacharyya, Dhiraj Kumar Jha, Om Prakash, Akhilendra Pratap Singh, **Somak Bhattacharyya**, and Santanu Das, “Ultra-thin Ferrite Nanocomposite Coating as Broadband Microwave Absorber,” in IEEE Applied Electromagnetics Conference 2017 (AEMC 2017), Aurangabad, India, 19-22 December, 2017.
  22. Ram Narayan Mishra, Ankit Arora, Shivam Singh, and **Somak Bhattacharyya**, “A Split Ring Resonator (SRR) based Metamaterial Structure for Bandstop Filter Applications,” presented in IEEE Applied Electromagnetics Conference 2017 (AEMC 2017), Aurangabad, India, 19-22 December, 2017.
  23. **Somak Bhattacharyya**, “An Ultra-thin Wide-Angle Cross Polarization Conversion Metasurface with Enhanced Bandwidth,” presented in IEEE 2017 International Symposium on Antennas and Propagation (ISAP 2017), Phuket, Thailand, 30 October - 2 November, 2017.
  24. P. Kumar Sahu, L. Chandra, R. K. Pandey, R. Prakash, and **V. N. Mishra**, “Enhanced Performance of Polymer TFTs Based Vapour Phase Sensing of Ammonia.” 2017.
  25. P. Kumari, P. Tripathi, O. Parkash, D. Kumar, B. Sahu and **S. P. Singh**, “An aperture coupled dual segment RDRA on glassceramic LTCC substrate,” 2017 International Conference on Computer, Communications and Electronics (Comptelix), Jaipur, 2017, pp. 63-66.
  26. Ashwin P, Allen V Miranda, Preeta Sharan, V. S. Gangwar, A. K. Singh, and **S. P. Singh**, “Improvement in the Design of Randomly Spaced Linear Antenna Arrays in terms of Peak Side Lobe Level,” IEEE International Conference on Antenna Innovations and Modern Technologies (iAIM-2017), 24-26 Nov, 2017, Bangalore, India.
  27. Jijenth M, K. K. Suman, V. S. Gangwar, A. K. Singh, and **S. P. Singh**, “A Novel Technique based on Modified Genetic Algorithm for the Synthesis of Thinned Planar Antenna Array with Low Peak Side Lobe Level over Desired Scan Volume,” IEEE International Microwave and RF Conf. (IMaRC-2017), 11-13 Dec, 2017, Ahmedabad, India.
  28. Bhagirath Sahu, S. Singh, **M. K. Meshram** and **S. P. Singh**, “Simulation study of ultra-compact microstrip UWB bandpass filter with wide stopband using DGS based lowpass filter,” 2017 IEEE MTT-S International Microwave and RF Conference (IMaRC), Ahmedabad, 2017.
  29. Bhagirath Sahu, S. Singh, **M. K. Meshram** and **S. P. Singh**, “Defected ground structure based compact microstrip lowpass filter with wide stopband,” 2017 IEEE Applied Electromagnetics Conference (AEMC), Aurangabad, 2017.
  30. Bhagirath Sahu, S. Singh, **M. K. Meshram** and **S. P. Singh**, “Ultra-compact Microstrip UWB bandpass filter with improved performance,” 2017 International Symposium on Antennas and Propagation (ISAP), Phuket, Thailand, 2017, pp. 1-2.

#### Other activities

- Prof. P. Chakrabarti has been appointed as the director of IEST, Shibpur (formerly B.E. College, Howrah, one the oldest Engineering Institution in India) since May 2018.
- Prof. P. K. Jain has been appointed as the Director of NIT Patna since November 2017.
- IEEE Microwave Theory & Techniques Society Student Branch Chapter has been formed under the founding faculty advise of Dr. Somak Bhattacharyya (Mr. Bhagirath Sahu was the founding Chairperson) on 18 July 2017.

**Indian Faculty visits in the Department/School/School**

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. Alope Dutta (IIT Kanpur)	Institute Talk at QIP Program	17/07/2018 Electronics Engineering
2	Prof. Santanu Mahapatra (IISc Bangalore)		18/07/2018 Electronics Engineering
3	Prof. A. Biswas (Radio Physics & Electronics, Calcutta University)		19/07/2018 Electronics Engineering
4	Dr. Sudeb Dasgupta (IIT Roorkee)		20/07/2018 Electronics Engineering
5	Prof. Subir Kumar Sarkar (Jadavpur University, Kolkata)		21/07/2018 Electronics Engineering
6	Dr. Yogesh Singh Chauhan (IIT Kanpur)		21/07/2018 Electronics Engineering
7	Dr. S. P. Tiwari (IIT Jodhpur)		20/07/2018 Electronics Engineering
8	Prof. N. K. Bhat (IISc, Bangalore)		22/07/2018 Electronics Engineering
9	Dr. Pramod Tiwari (IIT Patna)		22/07/2018 Electronics Engineering
10	Prof. Bhargab Bhattacharya (ISI Kolkata)	Institute Talk at QIP Program	23/08/2018 Electronics Engineering
11	Dr. Kailash Chandra Ray (IIT Patna)		25/08/2018 Electronics Engineering



◀ Photoluminescence (PL) measurement setup (F980) from Edinburgh Photonics, UK. This setup can provide PL from 200-800 nm.



◀ Vaccum evaporation and deposition systems (FL 300 and BC 300) from Hind High vac, Bangalore, India. These setup works with e-beam evaporation (FL 300) and thermal evaporation (FL 300 and BC 300) for depositing thin films.



◀ An "anechoic chamber" ("an-echoic" meaning non-reflective, non-echoing or echo-free) is a room designed to completely absorb reflections of either sound or electromagnetic waves. They are also often isolated from waves entering from their surroundings.  
**(Anechoic Chamber with 6 axis position for RF Characterization (upto 20GHz))**

## 12. Department of Humanistic Studies

Year of Establishment : 2015

**Head of the Department :** Prof. Rakesh Kumar Mishra

### **Brief Introduction of the Department**

The Department of Humanistic Studies is an academic entity envisaged to enhance the power of science and technology with an inspiring touch of human sensibility that our world urgently needs in the present civilizational crisis pertaining to the mindless development in the form of three dimensional projections as the hallmarks of growth.

It is an interdisciplinary platform to develop finer sensibilities in the students of engineering and technology to creatively engage themselves in the development of a society which upholds values our heritage has provided us with its multifarious sources.

Department of Humanistic Studies offers various compulsory courses like Universal Human Values-1, Universal Human Values-2, Development of Society, History of Civilization, Introductory Philosophy Education and Self, along with many elective courses in Psychology, Sociology, Philosophy, Language and Linguistics. This Department is also running Ph D program in different disciplines.

### **Major areas of Research**

1. Education
2. Human Values
3. History
4. Language, Literature and Culture
5. Linguistics
6. Philosophy
7. Psychology
8. Sociology
9. Logic
10. Semantics
11. Gandhian Peace studies & Nonviolence communication
12. Environmental Studies

The Department has 18 faculty members of different disciplines including two visiting faculties and four adjunct faculty members.

### **Area of the Department/School (in square meters)**

#### **Infrastructure**

S. No.	Particulars	Number
1	No. of Classrooms	00
2	No. of Lecture Halls	00
3	No. of Laboratory	00
4	No. of Computers available for students in the Department/School/ School	09



### Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	Ph. D (Under Institute Fellowship)	1 (Mr. Prashant Priyadarshi)		4 (Mr. Ashish Ranjan Mr. Veeru Rajbhar Ms. Samapika Roy Ms. Shubhra Apurve)		
2	Ph. D (Under Project Fellowship)		2 (Ms. Vandana Dwivedi Mr. Prabhat Ranjan Rai)	1 (Mr. Satyam Dwivedi)		
3	Ph. D (Under Sponsored Category)	1 (Dr. Dhruv Kumar Singh)				

### Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From
<b>INDIA</b>					
1	Samapika Roy	15191003	Attended a 15-day internship on 'Anusaaraka'	23.12.17 to 5.01.17, IIIT-Hyderabad	IIT-BHU
2	Prashant Priyadarshi	17191002	1. Attended a 15-day internship on 'Anusaaraka'. 2. Attended a 6 day workshop on 'Laboratory Phonetics and Phonology'.	23.12.17 to 5.01.17 IIIT-Hyderabad 25.09.2017 to 30.09.2017, CIIL- Mysore. IIT-BHU	CIIL-Mysore
3	Vandana Dwivedi	16191501	Attended a 15-day internship on 'Anusaaraka'	23.12.17 to 5.01.17, IIIT-Hyderabad	IIT-BHU
4	Satyam Dwivedi	15191502	1. Worked on Hindi Speech and Text corpus as a Resource Person in Short Term Goal Oriented Project by LDC-IL	24.07.17 to 22.09.17, LDC-IL, CIIL, Mysore	CIIL-Mysore





2. Attended 'An advanced workshop cum Training program on Laboratory Phonetics and Phonology'	25.09.17 to 30.09.17, NTS, CIIL, Mysore	CIIL-Mysore
3. Presented a paper entitled 'Abh?va: Cognizing Presence Through Absence' in 'Paradigm shift in Linguistics and its implications for Applied Disciplines'	30.10.17 to 01.11.17	Indian Institute of Advanced Study, Rashtrapati Nivas, Shimla

### Names of students/scholars who got prizes and awards outside the Institute

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Satyam Dwivedi	15191502	First prize: Translation and Note writing, First prize: Essay writing, First prize: Singing (Solo), First prize: Speech	14.09.17, CIIL, Mysore	CIIL, Mysore

### Faculty & their Activity

#### Faculty and their areas of specialisation

S. No.	Name	Major Areas of Specialization
<b>PROFESSORS</b>		
1	Prasanta Kumar Panda	Literary Theory, Professional Communication, Creative Writing
<b>ASSOCIATE PROFESSORS</b>		
1	Dr. Ajit Kumar Mishra	Critical Narrative Studies, Visual Culture, Precarity Studies (Gerontology, Ecosophy, Grievable Life), Humanistic Communication
2	Dr. Sanjukta Ghosh	Syntax and its interface with Semantics and Pragmatics, Cognitive Linguistics, Historical Linguistics, Grammar Formalism, Natural Language Processing
3	Dr. Anil Kumar Thakur	Universal Grammar, Applied Computational Linguistics, Education
<b>ASSISTANT PROFESSORS</b>		
1	Dr. Puneet Kumar Bindlish	Integrative Intelligence, Organizational behaviour, Research Methodology
2	Dr. Swasti Mishra	Lexicon and Lexicography, lexical semantics, Computational Lexicography, Sociolinguistics, Language Culture & Society, Applied Linguistics, Computational Linguistics



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3	Dr. Amrita Dwivedi	Environmental Sociology, Sanitation & Human Health, Solid Waste Management, Drainage & Sewerage System, Socio-Economic conditions of Slum dwellers, Yoga & Meditation	Joined on 08th February, 2018
4	Dr. Manhar Charan	Humanistic Philosophy & Research, Universal Human Conduct, Gandhian Philosophy, Peace & Non-violence	Joined on 22th February, 2018
5	Dr. Vishwanath Dhital	Bharatiya Tarka, Philosophy, Navya Nyaya & पारम्परिक शास्त्राध्ययन	Joined on 26th March, 2018
6	Dr. Kavya Krishna K. R.	Gender Studies, Cultural Studies, Postcolonial Literature, Regional Indian Literatures, Film and Media Studies	Joined on 19th March, 2018
7	Dr. Satish Kanaujia	Physical-Education	Joined on 19th July, 2018 (earlier he was in Gymkhana, IIT (BHU) and joined on 07th February 1997)
8	Dr. Sukhada	Computational Linguistics, Machine Translation, Natural Language Processing, Sanskrit Grammar	Joined on 20th February, 2018

## Visiting Faculty

1	Prof. Kamal Sheel	History & Chinese Language	Joined on 01st December, 2017
2	Dr. Sanjay Lenka	Morphosyntax, Language & Communication, Academic Writing & Speaking	Joined on 09th August, 2016

## Adjunct Faculty

1	Dr. Yogesh Velankar	Science, Technology, Engineering, and Mathematics Education	Joined on 08th May, 2017
2	Prof. Sanjay Kumar	American Literature, Translation Studies, Comparative Literary and Cultural Studies (Folk and Vernacular Literary and Cultural Traditions)	Joined on 20th February, 2017
3	Prof. Rajaram Shukla	Vedic Darshan.	Joined on 16th November, 2017
4	Prof. A. K. Rai	Philosophy of Nagarjuna and Kant, Navya-Nyaya, Philosophy of Science.	Joined on 01st February, 2018

## Technical and Non-Teaching Staff

Sl. No.	Name, Qualifications	Designation	Date of Appointment in the department
1	Vinay Prakash Singh, Graduation	Junior Assistant	22.05.2017
2	Ajay Kumar Pandey, Graduation	Skilled Clerical Staff	
3	Amit Kumar Prajapati	Multi Tasking Staff	

**Short-term courses/workshops/seminars/symposia/conferences organised by faculty members**

S. No.	Coordinator	Title	Period
1	Yogesh Velankar	Promoting Co-operative and Active Learning in the Classroom	June 8-9, 2017

**Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings**

S. No.	Name of Faculty Member	Title	Period and Venue
<b>Seminars/Symposia/Conferences</b>			
1.	Yogesh Velankar	ICTIEE 2018	January 4-6, 2018 at Bennett University, Greater Noida
2.	Prasanta Kumar Panda	National Workshop on Improving Synergy Between Teaching and Research in Indian Academia (ISTERIA-2018)	March 26-27 2018 BITS Pilani
3.	Kamal Sheel	International Conference on Chinese Studies International Conference on India-China Connections	Visva-Bharati, Santi Niketan Nov. 2017 Fudan University and New York University - Shanghai, Dec. 2017
<b>Meetings</b>			
1	Yogesh Velankar	PMMMNTT National Meeting	September 14-15, 2017 at IGNTU, Amarkantak

**Special lectures delivered by faculty members in other institutions**

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Yogesh Velankar	Introduction to TPACK Model for Technology Enhanced Teaching and Learning	IIT Madras	July 7, 2017
2	Yogesh Velankar	Fostering Reform in Engineering Education	Terna Engineering College, Navi Mumbai	July 26, 2017
3	Yogesh Velankar	Scientific understanding of learning and instructional methodologies	C.M. International School, Pune	October 7, 2017
4	Yogesh Velankar	Lifelong Learning through Graduate Education	University of Santo Tomas, Tomas, Manila, Philippines	October 26, 2017
5	Yogesh Velankar	The Landscape of Science, Technology, Engineering, and Mathematics (STEM) Education	Shaheed Rajguru College of Applied Sciences for Women, Delhi	January 3, 2018
6	Yogesh Velankar	Designing Effective Teaching Learning Environments	IIT Hyderabad	January 24, 2018
7	Yogesh Velankar	Scientific Understanding of the Teaching Learning Process	IIT(BHU), Varanasi	February 24, 2018



8.	Swasti Mishra	Challenges for Bhojpuri in the Context of Language Technology	Bhojpuri Adhyayan Kendra, BHU	February 21, 2018
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#### Visits abroad by faculty members

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Yogesh Velankar	Philippines	October 24, 2017	October 29, 2017	Invited Plenary Talk	Philippine Association of Engineering Schools (PAES), Inc.
2	Kamal Sheel	1. Taiwan (ROC) 2. China	July 1 to	October 30, 2017	Senior Fellow	Academia Sinica

#### Books, monographs authored/co-authored

S. No.	Name of Author/Co- Author	Title	Publisher
1	Puneet Kumar Bindlish	Understanding Integrative Intelligence	Praan Uitgeverij, Netherlands
2	Puneet kumar bindlish	Managing VUCA through Integrative Self Management	Springer

#### Editorial boards of journals

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Prof. Prasanta Kumar Panda	Member Editor	IOSR Journals of Humanities and Social Sciences (International Organization of Scientific Research) e-ISSN-2279-0837, p-ISSN-2279-0845
2	Prof. Prasanta Kumar Panda	In the editorial board	Journal of Research and Innovation in Social Sciences (ISSN -2394-0123)
3	Prof. Prasanta Kumar Panda	Editor-in- Chief	Nuances: (A Journal of Humanistic Inquiry) (ISSN NO 2395-0943)
4.	Prof. Prasanta Kumar Panda	the advisory Board of	Platform: A Bi-Lingual Magazine Based on Literature and Culture (ISSN- 2347-5242)

#### Research Activities

##### Proceedings of International Conferences

1. Baligar, P., Joshi, G., Velankar, Y. P., Bhadri, G. (2017). Instilling Data Analysis Skills in First Year Undergraduate Engineering Students: A Constructive Approach. 7th World Engineering Education Forum 2017, Kuala Lumpur, Malaysia.

# 13. Department of Mechanical Engineering

Year of Establishment : 1919

**Head of the Department :** Prof. A. K. Jha w.e.f. 12.08.2017

## Brief Introduction of the Department

The Department of Mechanical Engineering came into existence in 1919 under the leadership of Professor Charles A. King, the first Head of the Department and Principal of the erstwhile Banaras Engineering College. Over the last ninety nine years, the department has grown four folds to become the largest department in IIT (BHU), Varanasi. The post-graduate and doctoral program in the department is well-established and infrastructural facilities exist for studies and research for a range of specialisations such as Machine Design, Thermal and Fluid Engineering, Production Engineering and Industrial Management.

## Major areas of Research

Fracture mechanics, Vibrations and dynamic analysis, Smart materials, Tribology, Heat Transfer, Fluid dynamics, Metal forming/joining, Machining, Micro-Machining, Welding engineering, Supply Chain Management.

## Area of the Department/School (in square meters)

### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	04
2	No. of Lecture Halls	04
3	No. of Laboratory	20
4	No. of Computers available for students in the Department/School/ School	250

### New facilities added

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	Surface roughness measuring device	15
2	High temperature erosion tester	17
3	Pin-on-disc machine	6
4	SONY DSR-PD177P CAMCORDER VIDEO PROFESSIONAL CAMERA (OH-35 grant) - 1	1.6008
5	Apple IMAC DESKTOP SERVER (OH-35 grant) - 1	1.412
6	Next engine 3d scanner with multi strip laser triangulation technology-1	3.81356
7	FORM LAB 2 SLA - 3D PRINTER -1	4.1377
8	FILAMENT TYPE PRINTER S400-DH (DUAL HEAD)-1	1.108
9	RAISE 3D/N PLUS FDM 3D PRINTER-1	3.87076
10	PRATHAM-DESKTOP 3D PRINTER (OH-35 grant)-2	1.638
11	FLIR E-75 Camera	3.5
12	Hot wire anemometer (close to 50 m/s)	1.0
13	Test facility for turbulent study	3.0
14	Fluke Infrared Thermometer	0.75
15	Band Saw	2.3
16	Radial Drilling Machine	1.7





## Unique Achievement / Preposition of the Department/School

### Academic Programmes offered New Courses Introduced

S. No.	Course Code	Course name	Course credit
1	ME-549	Numerical Methods in Thermal Engineering	9

### Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech/B. Pharm	115	110	110	109	---
2	Dual Degree	22	23	23	22	19
3	M. Tech/ M. Pharm	33	32	---	---	---
4	Ph. D (Under Institute Fellowship)	19	14	25	04	19
5	Ph. D (Under Project Fellowship)	02	01	---	---	---
6	Ph. D (Under Sponsored Category)	---	---	01	01	01

### Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From
<b>INDIA</b>					
1	A. Bhattad	15131013	Int ISHMT-ASTFE Heat and Mass Transfer Conference	December 27-30, 2017, BITS Pilani, Hyderabad	IIT (BHU)
2	V. Kumar	15131018	Int ISHMT-ASTFE Heat and Mass Transfer Conference	December 27-30, 2017, BITS Pilani, Hyderabad	IIT (BHU)
3	Avinash Ravi Raja (PhD)		Indian Institute of Metals, NMD-ATM 71st Annual Technical Meeting	November 11-14, 2017, BITS Pilani K K Birla Goa Campus	I.I.T.(BHU)
4	Vinayak Kumar (M Tech part II Production)		International Congress, (2017), organized by International Institute of Welding	07-09 December 2017, Chennai	I.I.T.(BHU)
5	Sanjay Kumar Gupta (PhD)		International Congress, (2017), organized by International Institute of Welding	07-09 December 2017, Chennai	I.I.T.(BHU)
6	Vikram Singh Rana (IDD IX sem)		International Congress, (2017), organized by International Institute of Welding	07-09 December 2017, Chennai	I.I.T.(BHU)



7	Sarthak Dwivedi (IDD VII sem)		International Congress, (2017), organized by International Institute of Welding	07-09 December 2017, Chennai	I.I.T.(BHU)
8	Atul Kumar Srivastava	16132035	Indian Institute of Metals, NMD-ATM 71st Annual Technical Meeting	November 11- 14, 2017, BITS Pilani K K Birla Goa Campus	IIT (BHU)
9	Jitendra Kumar Singh	16131004	2nd International Conference on Advanced Production and Industrial Engineering (ICAPIE 2017)	October 6-7, 2017, Delhi Technological University, Delhi, 110042	IIT(BHU)

**ABROAD**

1	Gaurav Kumar Gugliani	13131506	9th Asia-Pacific Conference on Wind Engineering	3-7 December, 2017, Auckland, New Zealand	IIT (BHU)
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**Names of students/scholars who got prizes and awards outside the Institute**

Sl. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Sri Pratyush Mohan	15102004	M.Tech. Thesis Award	IIT (BHU)
2	Sri Sandeep	15132008	M.Tech. Thesis Award	IIT (BHU)
			Prof. (Dr.) Mahendra Kumar Jain Nyayacharya Gold Medal	Prof. Mahendra Kr. Jain Nyayacharya
			S.K. Memorial Gold Medal	S.K. Memorial
			BENCO- 64 Gold Medal	BENCO- 64
			BENCO- 64 Cash Prize (25,000)	BENCO- 64
3	Sri Animesh Jain	12406EN006	5th Year I.D.D. Thesis Award	IIT (BHU)
4	Sri Akash Rai	13135010	B.Tech. Thesis	IIT (BHU)
			The Prince of Wales Medal	The Prince of Wales
			Lala Balak Ramji Kohinoor Memorial Gold Medal	Lala Balak Ramji Kohinoor Memorial
			Sudhir Kumar Sharma Memorial Gold Medal	Sudhir Kumar Sharma Memorial
			CRS Lyengar Memorial Gold Medal	CRS Lyengar Memorial
			Late Prof. Manoranjan Sengupta Platinum Jubilee Merit Award (1000)	Late Prof. Manoranjan Sengupta

**Names of Students/Scholars who went for foreign Internship**

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Mr. Shuv Agnihotri		Clemson University	Clemson University	USA	2 months



2	Rohit Singh Gautam	14131003	State Key Laboratory of Tribology, Tsinghua University	Beijing	China	21 May to 21 July, 2017
3	Ashwani Ranjan	15131510	State Key Laboratory of Tribology, Tsinghua University	Beijing	China	21 May to 21 July, 2017
4	Sudesh Singh Sengar	15131011	State Key Laboratory of Tribology, Tsinghua University	Beijing	China	Sept 2016 to Sept 2017

## Faculty & their Activity

### Faculty and their areas of specialisation

S. No.	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
<b>PROFESSORS</b>		
1	Prof. V. P. Singh	Vibrations, Solid Mechanics
2	Prof. A.K. Agrawal	Quality Control, Six Sigma, Optimization, Industrial Engineering, Operation Management, Supply Chain Management
3	Prof. A.K. Jha	Manufacturing process and Manufacturing System
4	Prof. V.K. Srivastava	NDT of Composites, Delaminating of Fibre Composites, Fracture, Toughness and interface of Fibre Composites, Metal-Matrix Composites, Ceramic Fibre Composites, Biocomposites, Glass Composites, Nano Composites.
5	Prof. Santosh Kumar	Metal Forming/CAD-CAM-RP & Manufacturing Automation/Machine tools & Unconventional Manufacturing
6	Prof. S.P. Tewari	Casting and Welding
7	Prof. A.P. Harsha	Tribology, Bio-Tribology, Machine Design
8	Prof. Sandeep Kumar	Computational Mechanics (Wavelets, FEM, Meshless)
9	Prof. K. S. Tripathi	Mechanisms, Vibrations
10	Prof. S. K. Sinha	CNC
11	Prof. Rajesh Kumar	Tribology, MEMS Reliability, Optimization
12	Prof. Prashant Shukla	Thermal and Fluid Sciences
13	Prof. Pradyumna Ghosh	Heat Transfer and CFD, Nanofluids
14	Prof. S.K. Shukla	Thermal Engineering, Energy Engineering
15	Prof. Rajnesh Tyagi	Materials Development and Tribology, Manufacturing Engineering, Machine Design
16	Prof. S.K. Panda	Failure Analysis and Reliability Design, Finite Element Analysis, Impact Dynamics and Ballistics, Advanced Composite Structures, Rolling Element Bearings
17	Prof. Prabhas Bhardwaj	Cellular Manufacturing System, Supply Chain Management, Production Systems

**ASSOCIATE PROFESSORS**

1	Shri S. K. Shah	Production Engg.
2.	Dr. Mohd Zaheer Khan Yusufzai	Welding, Materials
3	Dr. Meghanshu Vashista	Machining, Grinding, Material Characterization
4	Dr. Swasti Sunder Mondal	Thermal Engg.
5	Dr. Jahar Sarkar	Thermodynamics, Heat Transfer, Sustainable Cooling
6	Dr. Arnab Sarkar	Wind Climate Modeling, Renewable Energy, Alternative Cycles, Microfluidics (Thermal & Fluid Engg.)
7	Dr. Debashis Khan	Computational Mechanics, Fracture Mechanics
8	Dr. Rakesh Kumar Gautam	Tribology, Composite Materials, Contact Modeling
9	Dr. O. P. Singh	Computational Fluid Dynamics, Design of thermal-fluid systems
10	Dr. Jeewan Vachan Tirkey	1. SI and CI Engine Design simulation 2. Alternate fuel
11	Dr. Cherian Samuel	Industrial Engg. & Management, Operations Management, Supply chain Management
12	Dr. Nilanjan Mallik	Smart materials and structures
13	Dr. Amit Tyagi	Machine Design
14	Dr. U. Srinivas Rao	Modeling and Simulation, Micro-machining, Machining, Tool Condition Monitoring
15	Mrs. Rashmi Rekha Sahoo	Thermal & Fluid Engineering

**ASSISTANT PROFESSORS**

1	Shri Prakash Chandra Mani	Tribology and Maintenance Engineering
2	Dr. Amitesh Kumar	Heat Transfer & Fluid Flow, High Mach Number Flows, Turbulence Modelling, Cryotherapy

**Institute Professors**

1	Prof. S. K. Sharma	Industrial Management
2.	Prof. J.P.Dwivedi	Solid Mechanics, Process Plasticity and Vibrations
3.	Prof. Om Prakash	Thermal and Fluid Engineering
4.	Prof. M. Prasad	Thermal and Fluid Engineering

**Emeritus Professors**

1	Prof. B.Kishore	Machine Design
2.	Prof. P. C. Upadhyay	Machine Design
3.	Prof. S. N. Gupta	Thermal and Fluid Engineering
4.	Prof. J. N. Dube	Production Engineering
5	Prof. N. K. Samariya	Thermal and Fluid Engineering



### Technical and Non-Teaching Staff

S. No.	Name	Qualification	Designation	Date of Appointment
1	Sri R.L. Srivastava,	Graduation (DAV)	Senior Assistant	18/10/2010
2	Sri P K Pandey	B.Com. (Hons.)	Junior Superintendant	01/08/2017
3	Sri J.K. Sinha	Diploma in Computer Sci. & Engg., BCA, B.Tech., MPA	Junior Assistant	04/09/2015
4	Sri Akash Mishra	M.Com. & B.Com.	Junior Assistant	08/05/2017
5	Sri Rajendra Prasad	Intermediate, ITI	Sr. Tech. Superintendent	29/09/1986
6	Sri P.N. Singh	Graduation (B.A.)	Sr. Tech. Superintendent	01/06/1987
7	Sri K.C. Mishra	12th, Diploma in Mech. Engg.	Sr. Tech. Superintendent	30/05/1987
8	Sri Kali Prasad	High School, ITI	Sr. Tech. Superintendent	10/03/1989
9	Sri Ram Adhar Yadav	Intermediate, Diploma in Mechanical Engg.	Technical Superintendent	05/05/1988
10	Sri Barmeshwar Rai	Graduation	Technical Superintendent	12/10/1988
11	Sri Dhaniram Shankar Singh	Intermediate (Sci.)	Technical Superintendent	04/06/1991
12	Sri Hari Shankar	12th, Diploma in Computer in Off. Management	Technical Superintendent	08/01/1997
13	Sri D.P. Sharma	Intermediate (Sci.)	Technical Superintendent	15/10/1998
14	Sri V.P. Srivastava	Graduation (B.Sc.)	Technical Superintendent	15/10/1998
15	Sri S.P. Singh	High School, ITC	Jr. Tech. Superintendent	12/10/1998
16	Sri Ranjeet Sharma	High School	Jr. Tech. Superintendent	12/10/1998
17	Sri Rajendra Kumar	Intermediate (Sci.)	Jr. Tech. Superintendent	22/02/2007
18	Sri Nand Lal	Intermediate, ITI	Jr. Tech. Superintendent	21/02/2007
19	Sri Anil Kr. Singh	Graduation (B.A.), ITI	Jr. Tech. Superintendent	20/02/2007
20	Sri Surendra P. Yadav	Intermediate (Sci.)	Sr. Technician	05/08/2008
21	Sri Dinesh Kumar	Graduation (B.Sc.)	Sr. Technician	11/08/2008
22	Sri Sunil Kr. Bardhan	12th, ITI, Diploma in Mechanical Engg.	Sr. Technician	05/08/2008
23	Sri Shambhu Prasad	Post Graduation (M.P.Ed.)	Sr. Technician	05/08/2008
24	Sri Shivendra Tewari	Diploma in Mech. Engg.	Sr. Technician	06/08/2008
25	Sri Ravi Prakash Singh	Intermediate, ITI (Draftsman)	Sr. Technician	06/08/2008
26	Ms. Saroj K. Patel	M.A. (Sociology), ITI	Sr. Technician	09/02/2011
27	Sri Mool Chand	Intermediate (Sci.)	Sr. Technician	16/09/1987
28	Sri Barmeshwar Prasad	Intermediate	Sr. Technician	11/07/2012
29	Sri Anupam Mishra	Graduation (B.Sc.), ADCA	Sr. Technician	11/07/2012




**Short-term courses/workshops/seminars/symposia/conferences organised by faculty members**

S. No.	Coordinator	Title	Period
1	Prof.S.K.Shukla, Dr. J.V.Tirkey	e-Content Development & Three day workshop on Making of Appropriate Cooking device for Rural India	December 12-14, 2017
2	Prof.S.K.Shukla	One Day Brain Storming Workshop on Nuclear Energy for Food Security and Rural Development	February 17, 2018
3	Dr. Jahar Sarkar, Prof. P. Ghosh	Nanofluid and its Engineering Applications	November 06-11, 2017
4	Dr. Nilanjan Mallik	STC on Smart Materials and Structures: Recent Trends in Industrial Applications	September 4 to 11, 2007
5	Prof. Santosh Kumar	Three days workshop on 'e-Content Development & Making of Appropriate Cooking device for Rural India	Dec 12-14, 2017
6	Prof. Santosh Kumar	7 days QIP Short term Course on "Additive Manufacturing: Theory & Practice"	March 16-22, 2017
7	Dr. Amitesh Kumar	Basics of Computational Fluid Dynamics: Theory & Programming	20-22 July, 2017
8	Dr. Om Prakash Singh	1 day training session for faculty on Intellectual Property Rights, Aryabhatta Knowledge University, Bihar	5th June, 2018.
9	Dr. Om Prakash Singh	3 days training program on Design and Topology Optimization using Finite Element Method	21-23 December 2017, IIT (BHU)
10	Dr. Om Prakash Singh	7 days training program on Modeling energy systems using CFD: Theory and Practice, IIT (BHU)	1-7 July 2017
11	Dr. Om Prakash Singh	5 days training program of design and innovation using CFD and FEM	27-31 Dec, 2017
12	Prof.A.K.Agrawal, Prof. S.K.Sharma & Dr.C.Samuel	Short term course on Total Quality Management	July 13-17, 2017
13	Prof. S.K.Sharma, Prof.A.K.Agrawal, & Dr.C.Samuel	Short term course on Engineering Economics	September 18-23, 2017
14	Prof. Pradyumna Ghosh	one day brain storming session in " Issues and Challenges on Heat Transfer on Humans" Organized	17th March, 2018

**Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings**

S. No.	Name of Faculty Member	Title	Period and Venue
<b>Seminars/Symposia/Conferences</b>			
1.	Prof A.P.Harsha	"Sixth World Tribology Congress (WTC 2017)	September 17-22, 2017, Beijing, China.
2.	Dr.MohdZaheer Khan Yusufzai	International Conference on Recent Advances in Materials & Manufacturing Technologies (IMMT 2017) UAE	November 28-29, 2017, BITS Pilani, Dubai Campus



3.	Dr.MohdZaheer Khan Yusufzai	Indian Institute of Metals, NMD-ATM 71st Annual Technical Meeting	November 11-14, 2017, BITS Pilani K K Birla Goa Campus
4.	Dr.MohdZaheer Khan Yusufzai	Asia Steel International Conference, (2018)	Bhubaneswar
5.	Dr. Meghanshu Vashista	International Conference on Recent Advances in Materials & Manufacturing Technologies (IMMT 2017) UAE	November 28-29, 2017, BITS Pilani, Dubai Campus
6.	Prof. Rajnesh Tyagi	World Tribology Congress WTC 2017	September 17-22, 2017 Beijing China
7.	Prof. Santosh Kumar	Three days workshop on 'e-Content Development & Making of Appropriate Cooking device for Rural India	Dec 12-14, 2017 at IIT (BHU)
8.	Prof. Santosh Kumar	Three days Conf on '6th International Conference on Human Values in Higher Education'	Feb 10-12, 2017 at IIT- Kanpur, India.
9.	Prof. Santosh Kumar	Three days world Conference on '6th Solar Cookers international Conf 2017	Jan 16-18, 2017 , at Vadodara (Gujrat), India.
10	Prof. Santosh Kumar	Two days National workshop on ' Pandit Madan Mohan Malviya National Mission on Teachers & Teaching (PMMMNTT)	Dec 16-17, 2016 at SGTB Khalsa College, Univ of Delhi, India
11	Prof. S.P. Tewari	2nd International Conference on Design and Production Engineering	November 13-14, 2017, Paris, France
12	Dr. Debashis Khan	International Conference on Vibration Problems (ICOVP 2017)	November 29th-December 02nd , 2017, IIT Guwahati
13	Dr. U. S. Rao	5th Diamond Turn Machining (Diamond turning) workshop,	Nov 10-11, 2017, IIT Madras, Chennai
14	Dr. U. S. Rao	International Conference on Recent Advances in Materials & Manufacturing Technologies (IMMT 2017), BITS Pilani Dubai Campus, Dubai, United Arab Emirates	28-29, November, 2017
15	Dr. Cherian Samuel	International Conference on Industrial Engg. & Operations Management	March 6-8, 2018 Bandung, Indonesia

#### Meetings

1	Dr. R.K.Gautam	UPSC, Paper setting	July 17-19, 2017 New Delhi
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#### Special lectures delivered by faculty members in other institutions

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Dr. Nilanjan Mallik	Smart Materials, structures and systems for future	Allenhouse Institute of Technology	04/05/2018
2	Dr. Nilanjan Mallik	Development of Mechatronic Systems towards Automation	SRMS-CET	27/06/2018



3	Dr. Mohd Zaheer Khan Yusufzai	Challenges in Welding	Malaviya Research Conclave (MRC) -2017	MMMUT, Gorakhpur 9-11 July 2017
4	Dr. Mohd Zaheer Khan Yusufzai	Welding of stainless steels	TEQIP-III sponsored, one week Short Term Training Programme (STTP) on Computational & Manu- facturing Challenges in Mechanical Engineering (CMCME-2018) at MMMUT Gorakhpur	March 19-25, 2018
5	Prof. Santosh Kumar	Developments in Digital forming methods: setup, simulation, analysis & experiments'	INDO-JAPAN Bilateral Symposium on Futuristic Materials & Manufacturing	July 16-17, 2018 at IIT MADRAS.
6	Prof. Santosh Kumar	CNC & Robotic Technology'	Faculty Development Program' under [Advance- ments in Manufacturing Technologies: Mechatronics, Automation and Robotics], Dr. A.P.J. Abdul Kalam Technical University, Lucknow, Uttar Pradesh (SRMSCET, UNNAO).	June 29, 2018
7	Prof. Santosh Kumar	'Additive Manufacturing'	Faculty Development Program ' under [Advancements in Manufacturing Technologies: Mechatronics, Automation and Robotics], Dr. A.P.J. Abdul Kalam Technical University, Lucknow, Uttar Pradesh (SRMSCET, UNNAO).	June 30, 2018
8	Prof. Pradyumna Ghosh	Natural Convection in Porous Media	IIT (Delhi), Chemical Engg Department	Dec.14th ,2017
9	Dr. Amitesh Kumar	Fundamentals of CFD	NIT Rourkela, Odisha	03-05 July, 2018
10	Prof. S.P. Tewari	Production Processes I	MITS Gwalior	12/01/2018
11	Prof. S.P. Tewari	Weld solidification under oscillatory condition	MMMUT, Gorakhpur	31/01/2018
12	Dr. Arnab Sarkar	Extreme Value Statistics for Specification of Design Aerodynamic Coefficient	NIT, Hamirpur	17 December, 2017
13	Prof. Rajesh Kumar	"Wear modeling - lubricated contacts Part II"	ICIT 2017, Vedic Village SPA Resorts, Rajarhat, Kolkata	6th Dec 2017



14	Prof. Rajesh Kumar	Statistics and experimental design in perspective-Part I",	Development Program (FDP) on Optimization Techniques and its Engineering Applications, at M.I.T.S. Gwalior	15-19 March, 2018
15	Prof. Rajesh Kumar	Statistics and experimental design in perspective-Part II"	Development Program (FDP) on Optimization Techniques and its Engineering Applications, at M.I.T.S. Gwalior	15-19 March, 2018
16	Prof. Rajesh Kumar	Multi-variable optimization	Development Program (FDP) on Optimization Techniques and its Engineering Applications, at M.I.T.S. Gwalior	15-19 March, 2018
17	Prof. Rajesh Kumar	Multi-objective optimization	Development Program (FDP) on Optimization Techniques and its Engineering Applications, at M.I.T.S. Gwalior	15-19 March, 2018

#### Visits abroad by faculty members

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Dr. Nilanjan Mallik	Madrid, Spain	03.06.2017	11.06.2017	Participate in International conference "8th ECCOMAS Thematic Conference on Smart Structures and Materials (SMART)"	CPDA
2	Prof A.P.Harsha	Beijing, China	16/09/2018	23/09/2018	For presenting research paper	CPDA grant
3	Dr. Mohd Zaheer Khan Yusufzai	U.A.E.	27-11-2017	03-12-2017	Paper presentation in International Conference	IIT (BHU)
4	Dr. Meghanshu Vashista	U.A.E.	27-11-2017	03-12-2017	Paper presentation in International Conference	IIT (BHU)
5	Prof. Rajnesh Tyagi	China	21.05.2017	06.07.2017	Research Work	CPDA, IIT BHU and Tsinghua University, Beijing
6	Dr. R.K.Gautam	China, Beijing	Sept.16,2017	Sept.23, 2017	Present a paper in WTC-2017	CPDA



7	Dr. Arnab Sarkar	New Zealand	2.12.2017	9.12.2017	To present paper in 9th APCWE to be held at the University of Auckland, Auckland, New Zealand	CPDA, IIT (BHU)
8	Dr. U. S. Rao	U.A.E.	27-11-2017	02-12-2017	Paper presentation in International Conference	IIT (BHU)
9	Prof. Sandeep Kumar	U.A.E.	27-11-2017	02-12-2017	Paper presentation in International Conference	IIT (BHU)
10	Dr. Cherian Samuel	Bandung Indonesia	5-3-18	10-3-18	Paper presentation in IEOM conf.	IIT (BHU)

### Honours and awards

S. No.	Name of Faculty Member	Details of Award
1	Dr. Meghanshu Vashista	Session Chair - Certificate of recognition - International Conference on Recent advances in Material and Manufacturing Technologies (IMMT-2017) - BITS Pilani Dubai Campus, Dubai, UAE, 28-29 November, 2017.
2	Prof. Santosh Kumar	Awarded CERTIFICATE OF MERIT for the Invited Talk 'Advancements in Manufacturing Technologies: Mechatronics, Automation and Robotics, During June 26-30, 2018 at Dr. A.P.J. Abdul Kalam Technical University, Lucknow, Uttar Pradesh (ME Deptt, SRMSCET, UNNAO).
3	Dr. Arnab Sarkar	Certificate of Appreciation for Key Note Speaker and Session Chair in ICET:EITM-2017 at NIT, Hamirpur
4	Dr. Arnab Sarkar	Certificate of Appreciation from Defence Science Journal for reviewing manuscripts

### Fellowships of academic and professional societies

S. No.	Name of Faculty Member	Details of Fellowship
1	Dr. Debashis Khan	Fellow of the Institute of Engineers (Effective from August 31st, 2017)
2	Dr. Debashis Khan	Life Member of ISTAM (Effective from June 09, 2017)

### Books, monographs authored/co-authored

S. No.	Name of Author/Co- Author	Title	Publisher
1	Prof.S.K.Shukla, Dr. J.V. Tirkey	Alternate Fuels for I.C.Engine: Introduction to Mechanical Engineering	SPRINGER
2	Prof. S.K. Shukla and Dr.J.V.Tirkey	e-Content Development On Appropriate Cooking device for Rural India	TLC, IIT(BHU), Varanasi





3	Prof A P Harsha	Chapter entitled "Solid particle erosion behaviour of polymers and their composites" Chapter 11, The handbook of polymer tribology, pp 391-434,	World Scientific Publishing Co. Pte. Ltd., 5 Toh Tuck Link, Singapore 596224 4 Editor: Dr S.K.Sinha, IIT Delhi
4	Prof. Pradyumna Ghosh	Principles of Temperature Measurement with Temperature Probes in Bioheat Transfer Applications, Theory and Applications of Heat Transfer in Humans:	John Wiley & Sons Ltd
5	Prof. S. K. SINHA	Engineering Mechanics	Pearson

### Editorial boards of journals

S. No.	Name of Faculty Member	Position (Editor/member)	Name of Journal
1	Prof.S.K.Shukla	Editorial Board Member	Journal of Thermal Engineering and Applications
2	Prof.S.K.Shukla	Editorial Board Member	Journal of Refrigeration, Air Conditioning, Heating and Ventilation
3	Prof.S.K.Shukla	Advisory Board Member	Petroleum and Fuel Technology
4	Prof. S.P. Tewari	Editor	International Journal of Production Engineering, Journal Pub
5	Prof. S.P. Tewari	Editor	International Journal of Manufacturing and Materials Processing, Journal Pub
6	Prof. S.P. Tewari	Reviewer	Indian Journal of Research, Anvikshiki
7	Prof. S.P. Tewari	Reviewer	SADHANA

### Research Activities

#### International Journals

1. Prakash M, Sarkar A, Sarkar J, Mondal SS, Chakraborty JP. Proposal and design of a new biomass based syngas production system integrated with combined heat and power generation, Energy, 2017; 133: 986-997.
2. Sahoo RR, Ghosh P, Sarkar J. Performance enhancement for wavy fin automotive radiator using optimum PG brine based nanofluids, Heat Transfer - Asian Research, 2017; 46(6): 585-597.
3. Bhattad A, Sarkar J, Ghosh P. Exergetic analysis of plate evaporator using hybrid nanofluids as secondary refrigerant for low-temperature applications, International Journal of Exergy, 2017; 24(1): 1-20.
4. Sahoo RR, Ghosh P, Sarkar J. Performance analysis of a louvered fin automotive radiator using hybrid nanofluid as coolant, Heat Transfer - Asian Research, 2017; 46(7): 978-995.
5. Sahoo RR, Ghosh P, Sarkar J. Performance comparison of various coolants for louvered fin tube automotive radiator, Thermal Science, 2017; 21(6B): 2871-2881.
6. Sarkar J. Generalized pinch point design method of subcritical-supercritical organic Rankine cycle for maximum heat recovery, Energy, 2018; 143: 141-150.
7. Bhattad A, Sarkar J, Ghosh P. Improving the performance of refrigeration systems by using nanofluids: A comprehensive review, Renewable and Sustainable Energy Reviews, 2018; 82(3): 3656-3669.
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9. Sarkar J. A novel pinch point design methodology based energy and economic analyses of organic Rankine cycle, ASME Journal of Energy Resources Technology, 2018; 140(5): No. 052004.
10. Kumar V, Sarkar J. Two-phase numerical simulation of hybrid nanofluid heat transfer in minichannel heat sink and experimental validation, International Communications in Heat & Mass Transfer, 2018; 91: 239-247.
11. Bhattad A, Sarkar J, Ghosh P. Discrete phase numerical model and experimental study of hybrid nanofluid heat transfer and pressure drop in plate heat exchanger, International Communications in Heat & Mass Transfer, 2018; 91: 262-273.
12. Sarkar J. Novel pinch point method based exergetic optimization of subcritical organic Rankine cycle for waste heat recovery, International Journal of Exergy, 2018; 25(4): 281-299.
13. J. V. Turkey, Ajeet Kumar & S. K. Shukla, (2018) Comparative analysis of engine performance and emission characteristics of different biodiesels Biofuels, DOI:10.1080/17597269.2018.1432273
14. Ajeet Kumar, J.V.Tirkey, Shailendra Kumar Shukla, (2018).Performance Investigation of CI Engine using Empirical Correlation for Burning Duration. International journal of thermal Science. Doi: <https://doi.org/10.2298/TSCI180125149K>.
15. Jeewan V. Tirkey,(2018).Concept development and prediction of VCR engine performance using slider crank pin mechanism based on quasi-dimensional combustion modelling. International journal of thermal Science, 22 (3), 1249-1258.
16. Jeewan V. Tirkey, M.A Quraishi, Aditya Raghuwanshi, Ankit Verma, C Verma (2018) Engine Fuel Production from Waste plastic Pyrolysis (WPO) and Performance Evaluation in a CI engine with Diesel Blend. Journal of Materials and Environmental Sciences ISSN: 2028-2508, 9 (6), 1712-1721.
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18. Arun Kumar, S. K. Shukla & Abhishek Kumar, (2018) Heat Loss Analysis: An Approach Towards the Revival of Parabolic Dish Type Solar International Journal of Green Energy, 15:2, 96-105, DOI: 10.1080/15435075.2018.1423978
19. Saurabh Pathak and S.K.Shukla, (2018) A Review on the Performance of organic Rankine cycle with different heat sources and absorption chillers Distributed Generation & Alternative Energy Journal, 33:2, 6-37, DOI: 10.1080/21563306.2018.12002409
20. Gupta, R.N. and Harsha, A.P., 2017. Synthesis, characterization, and tribological studies of calcium–copper–titanate nanoparticles as a biolubricant additive. ASME Journal of Tribology, 139(2), p.021801.
21. Gupta, R.N. and Harsha, A.P., 2017. Antiwear and extreme pressure performance of castor oil with nano-additives. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, doi no.1350650117739159.
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24. Gupta, R.N., Harsha, A.P. and Singh, S., 2018. Tribological study on rapeseed oil with nano-additives in close contact sliding situation. Appl Nanosci (2018) 8: 567. <https://doi.org/10.1007/s13204-018-0670-7>
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26. Yang Li, Guy R. Fogel, Liao Z, Rajnesh Tyagi, Weiqiang Liu. (2018) Prosthesis and Hybrid Strategy Consideration for Treating 2-level Cervical Disc Degeneration in Hybrid Surgery. SPINE, 43(6):379-387



27. Dingding X, Song J Song Wang, Zhenhua Liao, Rajnesh Tyagi, Yuhong Liu, Weiqiang Liu. (2018) Studies on Tribological properties of CoCrMo alloys against metals and ceramics as bearing materials. *J. of Materials Engg. & Performance*, 27 (2), 517-529.
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29. Pushkar Jha, R.K.Gautam, and Rajnesh Tyagi. (2017) "Effect of reinforcement content and technological parameters on the properties of Cu-4 wt% Ni -TiC composites". *Journal of Materials Engineering and Performance*, 26:5126–5136.
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31. Yang Li, Guy R. Fogel, Zhenhua Liao, Rajnesh Tyagi, Gaolong Zhang, and Weiqiang Liu, (2017) "Biomechanical Analysis of Two-Level Cervical Disc Replacement with a Stand-Alone U-Shaped Disc Implant" *Spine*, 42(20), pp E1173–E1181.
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61. Singh, Shushant and Khan, Debashis (2018) Quasi-statically growing crack tip fields in plastically compressible hardening-softening-hardening solid, *International Journal of Structural Integrity*, Vol. 9, No. 4, pp. 532– 547.
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63. Gugliani GK, Sarkar A, Mandal S, Agrawal V. Location wise comparison of mixture distributions for assessment of wind power potential: A parametric study, *International Journal of Green Energy*, 2017; 14(9): 737-753.
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77. Patel, B.S., Samuel, C. and Sharma, S.K. (2018) 'Analysing interactions of agile supply chain enablers in Indian manufacturing context', *Int. J. Services and Operations Management*, 31, pp 235-259.

#### National Journals

1. Sarkar A, Mondal SS. External and internal irreversibility on the example of heat engine, *Resonance: A Journal of Science Education*, 2018; 23(5): 535-544.

#### Proceedings of International Conferences

1. Sarkar J. Heat transfer enhancement of microchannel electronic heat sink using supercritical N<sub>2</sub>O as coolant (HMTC2017-06-0155), *Int ISHMT-ASTFE Heat & Mass Transfer Conference*, Dec 27-30, 2017, BITS Pilani, Hyderabad, India.
2. Kumar V, Verma G, Sarkar J. Numerical analysis of mini/microchannel heat transfer characteristics using different nanofluids (HMTC2017-06-0569), *Int ISHMT-ASTFE Heat and Mass Transfer Conference*, December 27-30, 2017, BITS Pilani, Hyderabad, India.
3. Bhattad A, Sarkar J, Ghosh P. Using hybrid nanofluid as secondary refrigerant in plate heat exchanger for milk chilling (HMTC2017-09-1067), *International ISHMT-ASTFE Heat and Mass Transfer Conference*, December 27-30, 2017, BITS Pilani, Hyderabad, India.





4. M. Vashista, Mohd. Zaheer Khan Yusufzai (2017) Effect of magnetizing field strength and magnetizing frequency on hysteresis loop shape and its characteristics, International Conference on Recent Advances in Materials & Manufacturing Technologies (IMMT 2017) November 28-29, 2017, Dubai, UAE
5. Mohd. Zaheer Khan Yusufzai, M. Vashista (2017) On the role of magnetic field intensity for better microstructural characterization during Barkhausen Noise analysis, International Conference on Recent Advances in Materials & Manufacturing Technologies (IMMT 2017) November 28-29, 2017, Dubai, UAE
6. Avinash Ravi Raja, Sanjay Kumar Gupta, Vivek Kumar, Ujjawaljangir, M. Z. Khan Yusufzai, "Friction stir processing of gas metal arc welded plate", Asia Steel International Conference, (2018), Bhubaneswar, Odisha, India. 6 to 9 February, 2018 at Bhubaneswar
7. Vinayak Kumar, Avinash Ravi Raja, M. Z. Khan Yusufzai, "Friction stir processing of welded mild steel plates", International Congress, (2017), organized by IIW. Chennai.
8. Sanjay Kumar Gupta, Avinash Ravi Raja, M. Z. Khan Yusufzai, "Cladding of mild steel with copper using gas metal arc welding process", International Congress, (2017), organized by IIW. Chennai.
9. Ramajayam, K K, Kumar, A, Kumari, C, Sarangi, S K, Thirugnanam, A, A new approach to improve the efficacy of cryosurgery in gel phantoms, CRYO 2017, 21th-24th July, 2017, Fengda International Hotel, Hefei, China.
10. Kumari, C, Kumar, A, Sarangi, S K, Thirugnanam, A, An experimental and numerical study on liquid nitrogen spray cooling for cryotherapy, CRYO 2017, 21th-24th July, 2017, Fengda International Hotel, Hefei, China.
11. Influence of Mold Oscillation during Solidification on Grain Size, Degree of Grain Refinement and Tensile Properties of the A356 and A319 Aluminum Alloys," 2nd conference on Design and Production Engineering 2017, Paris, 13-14 November 2017
12. "Dry sliding wear and mechanical behavior of tri-ceramic reinforced copper metal matrix hybrid composites" WTC-2017, Sept. 17-22, 2017, Beijing, China.
13. "Tribological behaviour of HSSS reinforced copper hybrid composites" 9<sup>th</sup> ICIT-2017, Dec. 6-9, 2017, Kolkata.
14. Singh, Shushant and Khan, Debashis (2017) Finite Deformation Analysis of Crack Tip Fields in Plastically Compressible Hardening Solids under Cyclic Loading, Proceedings of the International Conference on Vibration Problems (ICOVP 2017), November 29<sup>th</sup> –December 02<sup>nd</sup>, 2017, IIT Guwahati, India.
15. Singh, Shushant and Khan, Debashis (2017) On fatigue Crack Growth in Plastically Compressible Hardening Solids by Crack Tip Blunting, Proceedings of the International Conference on Theoretical, Applied, Computational and Experimental Mechanics (ICTACEM), December 29-31, 2014, IIT Kharagpur, India. pp.
16. Gugliani G.K., Sarkar A., Gupta A., Mandal S., Prince. Determination of cyclonic factor in different wind zones of India, 9<sup>th</sup> Asia Pacific Conference on Wind Engineering, Auckland, New Zealand, 3-7 December, 2017.
17. Nikhilesh K., Jitendra K. Singh, U. S. Rao, Optimization of cutting parameters in turning of Inconel 718 using nanofluid as a coolant, 2<sup>nd</sup> International Conference on Advanced Production and Industrial Engineering (ICAPIE 2017)
18. Rishi Ram, J.V. Turkey and Ajeet Kumar (2017). Effect of Neem Biodiesel-Diesel blend on a single cylinder naturally aspirated water cooled variable compression ratio diesel engine. International conference on Energy, Communication, Data analysis and soft Computing (ICECDS-2017). SKR engineering College, Poonamallee, Tamil nadu, 1-2 August 2017. 978-1-5386-1887-5/17/2017-IEEE
19. Ajeet Kumar, Jeevan Vachan Turkey, Tarachand Kumar Maurya, S.K. Shukla and (2017). Prediction of Engine performance and emission characteristics of CI Engine with the variation of Stroke/Bore ratio. International conference on advance in thermal system, Materials and Design Engineering ATSDME 2017, 21-22 December 2017 at Veermata Jijabai technological Institute (VJTI), Matunga, Mumbai.



### Proceedings of National Conferences

1. Atul K. Shrivastava, AkashAwale, M. Vashista, M. Z. Khan Yusufzai Magnetic Barkhausen Noise Analysis of Elastically Stressed Mild Steel, Indian Institute of Metals, NMD-ATM 71st Annual Technical Meeting November 11-14, 2017, BITS Pilani K K Birla Goa Campus
2. Avinash Ravi Raja, Aditya Kumar Yadav, M. Z. Khan Yusufzai, M. Vashista MULTIPASS SURFACING OF MILD STEEL USING FRICTION STIR WELDING, Indian Institute of Metals, NMD-ATM 71st Annual Technical Meeting November 11-14, 2017, BITS Pilani K K Birla Goa Campus (Poster and Short presentation)

### Other activities

#### International collaboration/achievements by the Department/School

1. MOU for establishment of CST UP Incubation Centre for Grass root Innovators has been signed on January 17, 2018.
2. Started International Collaboration with Prof. Christophe Ley, Ghent University, Belgium (One joint article published in Renewable Energy)

#### Distinguished visits in the Department/School from India

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. Debjyoti Banerjee, Department of Mechanical Engineering, University of Texas(A&M), USA	To interact and deliver a lecture on nanofins & nanofluids	Jan, 2018
2	Prof. Atul Shrivastava, Department of Mechanical Engg, IIT Bombay and Prof. Prabal Talukdar, Department of Mechanical Engg, IIT Delhi	To deliver lecture in one day brainstorming session in " Issues and Challenges on Heat Transfer on Humans" Organized by Prof. Pradyumna Ghosh	March, 2018

#### Distinguished Visits in the Department/School from abroad

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. Debjyoti Banerjee, Department of Mechanical Engineering, University of Texas(A&M), USA	To interact and deliver a lecture on nanofins & nanofluids, Organized by Prof. Pradyumna Ghosh	Jan, 2018

### Any other Information

- Dr. Arnab Sarkar: Reviewer in Internal Journal of Civil Engineering (Springer), Journal of King Saud Arabia (Elsevier), International Journal of Sediment Research (Elsevier), Defence Science Journal, Wind Energy (Wiley), International Journal of Ambient Research (Taylor & Francis), Quarterly Journal of Royal Meteorological Society
- Dr. Arnab Sarkar developed and transferred technology to Beauru of Indian Standard (BIS) for the revision of IS 15498 (Guidelines for improving the cyclonic resistance of low-rise houses and other buildings) and Dr. Arnab Sarkar has been included as a member of IS 15498 of CED 57 for implementing the revision of the code.
- Dr. Arnab Sarkar attended BIS meeting as an alternate member of CED 57 held during February, 2018
- Prof. Pradyumna Ghosh, Expert member of DST(Govt. Of India)

Photographs (Soft Copy) of Best Laboratory Equipment/workshops/symposia/other activities of your Department/School with footnote details



**STC on Smart Materials and Structures: Recent Trends in Industrial Applications (4 to 11 September, 2017)**



**Photograph of -e-Content Development & Three day workshop on Making of Appropriate Cooking device for Rural India, December 12-14, 2017.**

## 14. Department of Metallurgical Engineering

Year of Establishment : 1923

**Head of the Department:** Professor N.K. Mukhopadhyay

### **Brief Introduction of the Department/School**

The Department of Metallurgical Engineering, established in the year 1923 has pioneered metallurgical education and research in the country. The far-sighted vision of Mahamana Pandit Madan Mohan Malaviyaji has helped this Department to attain such a distinction. This is now a part of IIT (BHU). The UG programme began in the year 1923 itself and the first ever undergraduate and doctoral degrees in metallurgy in the country were awarded by this Department in the years 1927 and 1955 respectively. This is also one of the first two Departments in the country to confer a postgraduate degree in metallurgy in the year 1959. The undergraduate programme was set on a firm foundation by the first Head of the Department, Professor Nagardas Purushottam Gandhi. The postgraduate programme was nurtured by the second Head of the Department, Professor Daya Swarup. Professor Tanjore Ramachandra Anantharaman, the third Head of the Department, established a fine research school of metallurgy, firmly rooted in exemplary traditions and ensured all-round growth and high profile image of the Department. Subsequently, illustrious successive Heads of the Department have continued to do their utmost to enhance the levels of excellence that the Department is known for. The Department celebrated its Golden Jubilee in the year 1973, Diamond Jubilee in 1983 and Platinum Jubilee in the year 1998 in a befitting manner.

The Department of Metallurgical Engineering has so far produced 2576 graduates, 497 postgraduates (including M.Tech dual degree) and 174 Ph.D. degree holders. The first one is a record for any Metallurgy Department in the country. The outstanding research contributions of the Department culminated in its recognition as a Centre of Advanced Study (CAS) in Metallurgy by the UGC in 1980, the first-ever Engineering Department to be so recognized in the country and the first one in our University. The Department is also recognized as a Centre for Quality Improvement Programme of MHRD/AICTE from the year 1981. The Department has received special assistance under the COSIST programmes of UGC and also as a National Electron Microscopy Facility (NELMIF) from DST in 1982. The Department has a unique distinction of receiving special assistance under CAS for four consecutive phases. The Ministry of Steel, Govt. of India approved setting up Advanced Research Centre for Iron and Steel, in the Department in project mode (2016-2021). Ministry of Railways, Govt. of India has also sanctioned Rs. 5 Crore for setting up Malaviya Chair for Railways Technology with Department as its nodal centre.

Members of the staff, research scholars and students have won a very large number of awards and distinctions in recognition of their outstanding contributions. These include Medals, Prizes, Awards and Fellowships from many prestigious national and international professional societies and other organizations. Some of the above recognitions include to John Taylor Gold Medal, Henry C. Sorby Award, Henry Marion Howe Medal, Alexander von Humboldt Fellowships, Al Kharazmi Award, S.S. Bhatnagar Prizes of CSIR, S.S. Bhatnagar Medal of INSA, Platinum Medal, Tata Gold Medal and Prizes, G.D. Birla Award, National Metallurgists' Day Awards, MRSI Medals, Young Metallurgists' Awards, INSA Medals for Young Scientists, ISCA Young Scientist Awards, Young Engineer Award of IE(I), Dr. R.H. Kulkarni Memorial Fellowships, Prof C.N.R. Rao Award, ASM-IIM visiting lectureship award, besides several best paper Awards. The faculty members have the distinction of receiving Fellowships of various professional societies such as Indian National Science Academy (INSA), International Academy of Sciences (IASc), The National Academy of Sciences, India (NASI), The Indian National Academy of Engineering (INAE), Asia Pacific Academy of Materials (APAM), The Indian Institute of Metals (IIM), The Institution of Engineers India-IE(I), The Electron Microscope Society of India (EMSI), West Bengal Academy of Science and Technology (WAST).

The Department takes great pride in recalling achievements of its alumni. Some senior Alumni visited the Department: Shri Sushil Kumar Suri (1971), Dr. Suri A. Sastri (1960) and Shri Raja Setlur (1978). The arrangements of innumerable activities and functions in the Department have become possible due to the active support of the NPGMM Trust, Metallurgy Society IIT (BHU), IIM Varanasi Chapter and the Student Affiliate Chapter of IIM.

The current faculty strength consists of 8 Professors, 8 Associate Professors and 3 Assistant Professors. In





addition, we continue to have the welcome services of Prof. S. Lele as Distinguished Professor, Prof. Vakil Singh, Prof. T. R. Mankhand and Prof. S.N. Ojha, as Institute Professor. Prof. S.N. Tiwari and Prof. A.K. Ghose have been kind enough to engage the classes of our students in this session. Prof. G.V.S. Sastry got superannuated this year, but he is continuing his services to the Department as an Institute Professor. Shri Gangeshwar Singh from SAIL is continuing his services as Visiting Faculty since 2015. This year Dr. K. K. Singh, Dr. O. P. Sinha and Dr. I. Chakrabarty are promoted as Professors whereas Dr. J. K. Singh and Dr. N. K. Prasad are promoted as Associate Professors. Further, Dr. Bratindranath Mukherjee, Dr. Randhir Singh and Dr. Ashok Kumar Mondal have joined as Assistant Professor in this year.

### Major areas of Research

1. Microstructural, Structural and Chemical Characterization
2. Mechanical Behavior, Deformation Processing and Failure Analysis
3. Phase Equilibria and Phase Transformation
4. Non-Equilibrium Processing of Advanced Materials
5. Ultra-Fine Grained and Nano-Structured Material
6. Metallurgical and E-Waste Utilization
7. Design and Development of Advanced Steels
8. Tribology and Surface Engineering
9. Thermodynamics and Kinetics of Metallurgical Processes
10. Advanced Structural and Functional Materials

### Area of the Department/School (in square meters):

#### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	04
2	No. of Lecture Halls	03
3	No. of Laboratory	10 labs+1 workshop+ 1 Centre
4	No. of Computers available for students in the Department/School/ School	40
5	Conference Hall	01

#### New facilities added

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	100 kN Servo Hydraulic Corrosion Fatigue Testing System	141.00
2	X-ray Diffractometer	143.00
3	Vacuum Induction Melting Furnace	70.80
4	EBSD Detector	38.00

### Unique Achievement / Preposition of the Department/School

The Department of Metallurgical Engineering has so far produced 2523 graduates, 479 postgraduates (including M.Tech dual degree) and 172 Ph.D. degree holders. The first one is a record for any Metallurgy Department in the country. The outstanding research contributions of the Department have resulted in its recognition as a Centre of Advanced Study (CAS) in Metallurgy by the UGC in 1980, the first-ever Engineering Department to be so recognized in the country and the first one in our University. The Department has a unique distinction of receiving



special assistance under CAS for four consecutive phases, the fourth phase starting from the year 2005. The Department successfully completed the FIST level II. The Department is also recognized as a Centre for Quality Improvement Programme of MHRD/AICTE from the year 1981. The Department has received special assistance under the COSIST programmes of UGC and also as a National Electron Microscopy Facility (NELMIF) from DST in 1982. Govt. of India approved setting up Advanced Research Centre for Iron and Steel, in the Institute which will be located in the Department.

Members of the staff, research scholars and students have won a very large number of awards and distinctions in recognition of their outstanding contributions. These include Medals, Prizes, Awards and Fellowships from many prestigious national and international professional societies and other organizations. Some of the above recognitions pertain to John Taylor Gold Medal, Henry C. Sorby Award, Howe Medal, Alexander von Humboldt Fellowships, Al Kharazmi Award, S.S. Bhatnagar prizes of CSIR, S.S. Bhatnagar Medal of INSA, Platinum Medal, Tata Gold Medal and Prizes, G.D. Birla Award, National Metallurgists' Day Awards, MRSI Medals, Young Metallurgists' Awards, INSA Medals for Young Scientists, ISCA Young Scientist Awards, Dr. R.H. Kulkarni Memorial Fellowships, Prof C.N.R. Rao Award besides several best paper Awards. The faculty members have distinctions of receiving Fellowships (FNA, FASc, FNASc, FNAE, FAPM, FIIM, FIE, EMSI) of various professional societies such as INSA, IASc, NASc, INAE, APAM, IIM, IE (I) and EMSI.

#### Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech/B. Pharm	60	59	56	54	---
2	Dual Degree	21	18	16	21	15
3	M. Tech/ M. Pharm	19	24	---	---	---
4	Ph. D (Under Institute Fellowship)	15	08	09	02	13

#### Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From
<b>INDIA</b>					
1	Mr. Mukesh Raushan Kumar	13141003	Conference	15-17 March 2018/Punjab	IIT (BHU)
2	Mr. Manish Kr Kishore	13141002	Conference	1-3 Feb 2018/Baroda	IIT (BHU)
3	Mr. Ramji Omar	15141005	Conference	1-3 Feb 2018/Baroda	IIT (BHU)
4.	Mr. Rajbahadur	12607EN008	Conference	6-9 Feb 2018/Bhubaneswar	IIT (BHU)
5.	Mr. Rajkumar Diswar	16141006	Conference	1-3 Feb 2018/Baroda	IIT (BHU)
6	Ms Neha Gupta	16142016	Conference	1-3 Feb 2018/Baroda	IIT (BHU)





### Names of students/scholars who got prizes and awards outside the Institute

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Yagnesh Shadangi	14141002	Certificate of merit for poster presentation in EMSI 2017		Electron Microscope Society of India
2	Saptarshi Mukherje	17141502	Recipient of The Telegraph You Scholarship for pursuing higher education		
3	Dhruv Goel	14145013	Winner at Hult Prize National Final, Gurgaon and Top-6 at Global Finals in Dubai amongst 62 teams from 27 countries 2nd Runner Up, Startup Conclave at IIM Lucknow Top-7 in India and Top-50 globally in Smogathon, a case-study event by Poland Embassy		Poland Embassy

### Names of Students/Scholars who went for foreign Internship

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Aditya Solanki	14145002			France	
2	Tushar Borekar	14144018	Brunel University	London	England	
3	Ketan Ganne	14144003	Helmholtz Zentrum Geesthacht		Germany	

### Faculty & their Activity

#### Faculty and their areas of specialisation

S. No.	First Name	Area of Specialization
<b>PROFESSORS</b>		
1.	Prof. R.K. Mandal	Quasicrystals, Nanostructured Materials, Phase Transformations, Microstructural Evolution
2.	Prof. N.K. Mukhopadhyay	Physical Metallurgy, Mechanical Alloying, Nanoindentation
3.	Prof. Sunil Mohan	Alloy Development, Tribology
4.	Prof. (Smt.) N.C.S. Srinivas	Physical/Mechanical Metallurgy-Phase Transformations, Deformation and Fracture, Failure Analysis and Low Cycle Fatigue
5.	Prof. B.N. Sarma	Phase Equilibria, Phase Transformations, Computational Thermodynamics
6.	Prof. K.K. Singh	Extractive Metallurgy, Electronic waste recycling
7.	Prof. O.P. Sinha	Ferrous Process Metallurgy, N2 bearing Special Steels, Industrial wastes utilization, Plasma Technology



8.	Prof. I. Chakrabarty	Foundry Metallurgy, Phase Transformations, Wear of metals, Failure Analysis
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#### ASSOCIATE PROFESSORS

9.	Dr. C.K. Behera	Extractive Metallurgy, Experimental Thermo-lead free solder, nitrogen steel
10.	Dr. R. Manna	Heat Treatments of Metals, Ultra Fine Grained Metals, Severe Plastic Deformation, Phase Transformation
11.	Dr. Kausik Chattopadhyay	Mechanical Metallurgy, Structure-Property Relationship of Materials, Oxidation of Metals and Alloys, Powder Metallurgy, Fatigue & Fracture
12.	Dr. G.S. Mahobia	Welding Engineering, Heat-Treatment, Ferrous Metallurgy, Corrosion Fatigue & Fracture, Hot Corrosion
13.	Dr. Joysurya Basu	Electron Microscopy, Energy and Electronic Materials, Complex Structures and Phase Transformation in Metals and Ceramics
14.	Dr. Vikas Jindal	Computational Thermodynamics, Advanced Materials
15.	Dr. J.K. Singh	Foundry Metallurgy, Transport Phenomena
16.	Dr. Nand Kishore Prasad	Physical Metallurgy, Magnetic Materials, Nanomaterials and Biomaterials

#### ASSISTANT PROFESSOR

17.	Dr. Bratindranath Mukherjee	Nanomaterials for Energy Applications
18.	Dr. Randhir Singh	Extractive/Electro-Metallurgy, Fuel cells and batteries, hydrogen production
19.	Dr. Ashok Kumar Mondal	Mechanical behaviour of materials, Light metals, alloys (mostly magnesium and its alloys) and composites - Processing, microstructural characterization and evaluation of mechanical behavior, High temperature deformation behavior (Creep)

#### VISITING FACULTY & DISTINGUISHED PROFESSOR

20.	Prof. S. Lele	Physical Metallurgy and Materials Engineering
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#### INSTITUTE PROFESSORS

21.	Prof. Vakil Singh	Mechanical Behaviour of Metals and Alloys Fatigue, Fracture, and Environmental Effects Bio-implant Materials
22.	Prof. S.N. Ojha	Rapid Solidification Processing, Undercooling of Metallic Melts, Atomisation and Spray Deposition Processing, Directional Solidification of Binary Alloys, Physical Metallurgy of Alloy Steels
23.	Prof. G.V.S. Sastry	Physical Metallurgy, Rapid Solidification, Electron Microscopy, Ni-Base Superalloys, Quasi Crystals, Nanomaterials
24.	Prof. T.R. Mankhand	Extractive Metallurgy, Sulphide & Oxide Reduction, Utilization of Metallurgical Waste, Bioleaching

#### VISITING PROFESSOR

25.	Shri Gangeshwar Singh	Ferrous Metallurgy, Alloy Steel Technology, Hot Rolling & Heat Treatment of special steels
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#### GUEST FACULTY

26.	Prof. A.K. Ghose	Foundry Technology & Welding Technology
27.	Prof. S.N. Tiwari	Foundry & Metal Joining Technologies, Composite Materials and Tribology, Production of Alloy Steels

**Technical and Non-Teaching Staff**

Sl. No.	Name, Qualifications	Designation	Date of Appointment in the department
1.	Shri Arup Kr. Mandal	Technical Officer	12/08/2009
2.	Shri Lalit Kr. Singh	Sr. Technical Superintendent	14/02/2011
3.	Shri Arun Prakash	Sr. Technical Superintendent	18/02/1995
4.	Shri Chhangur	Sr. Technical Superintendent	01/03/1982
5.	Shri Janardan Dubey	Sr. Technical Superintendent	01/06/1987
6.	Shri A.K. Vishwakarma	Technical Superintendent	27/05/1987
7.	Dr. Ashutosh Dubey	Technical Superintendent	22/12/2008
8.	Shri Mohd. Sharaj	Technical Superintendent	06/08/2008
9.	Shri J.P. Minz	Technical Superintendent	26/05/1990
10.	Shri Kamala Prasad	Technical Superintendent	15/10/1998
11.	Shri Rana Pratap Yadav	Technical Superintendent	16/10/1998
12.	Shri Chhote Lal	Jr. Technical Superintendent	21/02/2007
13.	Shri Setu Prasad	Jr. Technical Superintendent	16/05/2007
14.	Shri Ashok Kr. Mishra	Jr. Technical Superintendent	16/05/2007
15.	Shri Binod Kr. Pathak	Jr. Technical Superintendent	18/05/2015
16.	Shri Bal Govind Singh	Sr. Technician	13/04/2012
17.	Shri Rajendra Prasad Yadav	Sr. Technician	05/08/2008
18.	Shri Shashi Kant Pandey	Sr. Technician	05/08/2008
19.	Shri Samish Kr. Singh	Sr. Technician	05/08/2008
20.	Shri Sunil Kumar	Sr. Technician	06/08/2008
21.	Shri Anjani Kr. Singh	Sr. Technician	06/08/2008
22.	Shri Mahendra Narain Mishra	Sr. Technician	05/08/2008
23.	Shri Kamlesh Mishra	Sr. Technician	12/08/2008
24.	Shri Balwant Singh	Sr. Technician	10/02/2011
25.	Shri Ram Ashre	Sr. Technician	10/09/1996
26.	Shri Sushil Kumar	Sr. Technician	13/07/2012
27.	Shri Rishabh Tiwari	Junior Assistant	05/06/2017

**Short-term courses/workshops/seminars/symposia/conferences organised by faculty members**

S. No.	Coordinator	Title	Period
1	Dr. Joysurya Basu.	Electron Microscopy of Materials	12th-17th February, 2018



### Special lectures delivered by faculty members in other institutions

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1.	Prof. S.N. Ojha	Emerging Trends in Processing of Steels for Strategic Applications	College of Engineering Pune	May 10, 2017
2.	Prof. S.N. Ojha	Indian Heritage of Five Millenia of Metal Casting	During 5th Confluence of Bharat Vikas Samelan on Ancient and Modern Science held at from Pune	May 11-14, 2017
3.	Prof. T.R. Mankhand	International Conference on Recent Advances in Metallurgy for Sustainable Development (Plenary Lecture)	M.S. University of Baroda, Vadodara, Gujarat	February 2018
4.	Prof. T.R. Mankhand	Iron & Steel Production on Sustainable Development' (Invited Lecture)	Ashoka Institute of Technology & Management, Pahariya, Varanasi	28th January, 2018
5.	Prof. K.K. Singh	How to get an idea for Entrepreneurship (Invited Lecture)	NML Jamshedpur	06th October 2017
6.	Dr. R. Manna	Development of Texture in Ultrafine-Grained Low Carbon Steel Processed through Equal-Channel Angular Pressing (Invited Lecture)	Sydney, Australia,	July 2 -7, 2017
7.	Dr. Joysurya Basu	Quantitative electron microscopy of phases and interfaces in vanadium alloys (Invited Lecture)	Rourkela, India.	December 8-9, 2017
8.	Dr. Joysurya Basu	In-situ electron microscopy for understanding mechanisms at nanoscale	Chennai, India	July 17-19, 2017
9.	Dr. J.K. Singh	Brass Embossing Techniques	Mirzapur	February 27, 2018

### Honours and awards

S. No.	Name of Faculty Member	Details of Award
1	Prof. S.N. Ojha	Conferred "Eminent-Engineer Award of Institution of Engineers (India) during 31st Annual Convention held at Kolkata on 19th February 2018
2	Prof. G.V.S. Sastry	Recipient of Lifetime Achievement Award-2017 of Electron Microscope Society of India.

### Fellowships of academic and professional societies

S. No.	Name of Faculty Member	Details of Fellowship
1	Prof. N.K. Mukhopadhyay	Elected Fellow, Asia Pacific Academy of Materials (FAPAM) (2017)



### Editorial boards of journals

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Prof. R.K. Mandal	Member	CMC-Transtech.
2	Prof. N.K. Mukhopadhyay	Key-Reader	Metallurgical and Materials Transactions A (USA)
3	Prof. N.K. Mukhopadhyay	Editor	Journal of Institution of Engineers, Metallurgical and Materials: Series D: (Springer)

### Research Activities

1. L.S. Rao, A.K. Jha, S.N. Ojha, Tribology and surface topography of Al-10Cu-Fe alloy produced by rheocasting process, Materials Research Express, 2017, 4 (9), 096505
2. L.S. Rao, A.K. Jha, S.N. Ojha, Solidification of Liquid Distributed in its Primary Matrix Phase of Al-10Cu-Fe Alloy and Their Tribological Characteristics, Journal of Materials Engineering and Performance, 2017, 26 (2), 601-610
3. L.S. Rao, A.K. Jha, S.N. Ojha, Microstructure and Tribological Characteristics of Strain-Induced Melt Activation (SIMA)-Processed Al-10Cu-Fe alloy, International Journal of Metalcasting, 2017, 1-20
4. Tribo-mechanical Behavior of Complex Hypereutectic Al-Si Alloy Compressed through a Converging Die at Elevated Temperatures, Khemraj, A.K. Jha, S.N. Ojha, Materials Research Express, 5 (2018) 076509
5. Deformation and Fracture Characteristics of Complex Al-Si Alloy during High Speed Closed Die Forging at Elevated Temperatures, Khemraj, A.K. Jha, S.N. Ojha International Journal of Materials and Product Technology, ISSN: 1741-5209. (Accepted)
6. Microstructural and Tribological Characteristics of Al-10Cu-Fe alloy Produced by Vertical Centrifugal Casting process, L Sankara Rao, K.Raju, A.K. Jha and S.N. Ojha, Transactions of the Indian Institute of Metals, January 2018
7. A.D. Verma, S. Pal, P. Verma, V. Srivastava, R.K. Mandal, I. Sinha, Ag-Cu bimetallic nanocatalysts for p-nitrophenol reduction using a green hydrogen source, Journal of Environmental Chemical Engineering, 2017, 5 (6), 6148-6155
8. K.K. Mehta, R.K. Mandal, A.K. Singh, Orientation Dependent Work Hardening Behavior of Cold Rolled and Solution Annealed Hastelloy C-276 Alloy, Materials Today: Proceedings, 2017, 4 (2), 277-284
9. P.K. Jena, K. Sivakumar, R.K. Mandal, A.K. Singh, Influence of Heat Treatment on the Ballistic Behavior of AA-7017 Alloy Plate against 7.62 Deformable Projectiles, Procedia Engineering, 2017, 173, 214-221
10. P.K. Jena, S.G. Savio, K.S. Kumar, V. Madhu, R.K. Mandal, A.K. Singh, An Experimental Study on the Deformation Behavior of Aluminium Armour Plates Impacted by Two Different Non-deformable Projectiles, Procedia Engineering, 2017, 173, 222-229
11. D. Singh, D. Singh, R.K. Mandal, O.N. Srivastava, R.S. Tiwari, Effect of quenching rate on the microstructure and mechanical behavior of Ce<sub>75</sub>Al<sub>21</sub>Ga<sub>4</sub> glassy alloy, Materials Characterization, 2017, 134, 18-24
12. S.K. Shaw, S.K. Alla, S.S. Meena, R.K. Mandal, N.K. Prasad, Stabilization of temperature during magnetic hyperthermia by Ce substituted magnetite nanoparticles, Journal of Magnetism and Magnetic Materials, 2017, 434, 181-186
13. M.K. Singh, B. Mukherjee, R.K. Mandal, Growth morphology and special diffraction characteristics of multifaceted gold nanoparticles, Micron, 2017, 94, 46-52
14. S.K. Alla, K.K. Devarakonda, E.V.P. Komarala, R.K. Mandal, N.K. Prasad, Ferromagnetic Fe-substituted Cerium Oxide Nanorods: Synthesis and characterization, Materials & Design, 2017, 114, 584-590
15. R.B. Singh, N.K. Mukhopadhyay, G.V.S. Sastry, R. Manna, Development of High-Strength Bulk Ultrafine-Grained Low Carbon Steel Produced by Equal-Channel Angular Pressing, Metallurgical and Materials Transactions A, 2017, 48 (11), 5449-5466





16. S.S. Mishra, Semanti Mukhopadhyay, T.P. Yadav, R.M. Yadav, Sruthi Radhakrishnan, R. Vajtai, P.M. Ajayan, N.K. Mukhopadhyay, H.K. Singh, O.N. Srivastava, Effect of Fe substitution by Co on off-stoichiometric Ni-Fe-Co-Mn-Sn Heusler alloy ribbons, *Materials Research Express*, 2017, 4 (8), 086507
17. S.S. Mishra, Semanti Mukhopadhyay, T.P. Yadav, R.M. Yadav, Rebeca Romero-Aburto, R. Vajtai, P.M. Ajayan, N.K. Mukhopadhyay, O.N. Srivastava, Structural and magnetic properties of rapidly solidified Ni<sub>45</sub>Fe<sub>5</sub>Mn<sub>40</sub>Sn<sub>10</sub> alloy ribbon *Journal of Advanced Physics*, 2017, 6 (3), 389-396
18. S.S. Mishra, S. Mukhopadhyay, T.P. Yadav, R.M. Yadav, S. Radhakrishnan, N.K. Mukhopadhyay, Effect of Fe substitution by Co on off-stoichiometric Ni-Fe-Co-Mn-Sn Heusler alloy ribbons, *Materials Research Express*, 2017, 4 (8), 086507
19. N.K. Prasad, K.M. Agrawal, J.R. Ranwa, S.S. Meena, S.M. Yusuf, N.K. Mukhopadhyay The effect of Mn on the structural and magnetic behaviour of Fe-6Si-8B alloy produced by high energy ball Milling, *Transactions of the Indian Institute of Metals*, 2017, 70 (6), 1431-1436
20. D. Verma, N.K. Mukhopadhyay, G.V.S. Sastry, R. Manna, Microstructure and Mechanical Properties of Ultrafine-Grained Interstitial-Free Steel Processed by ECAP, *Transactions of the Indian Institute of Metals*, 2017, 70 (4), 917-926
21. A. Khare, S.S. Yadava, P. Gautam, N.K. Mukhopadhyay, K.D. Mandal, Effect of sintering on the dielectric properties of 0.5 BaTiO<sub>3</sub>-0.5 Bi<sub>2</sub>/3Cu<sub>3</sub>Ti<sub>4</sub>O<sub>12</sub> nanocomposite synthesized by solid state route, *Journal of Materials Science: Materials in Electronics*, 2017, 28 (7), 5523-5530
22. N.K. Mukhopadhyay, *Electron Microscopy*, *Current Science*, 2017, 112 (1), 17-19
23. A. Khare, S.S. Yadava, P. Gautam, A. Kumar, N.K. Mukhopadhyay, Dielectric properties of nanocomposite based on bismuth copper titanate, *Journal of the Australian Ceramic Society*, 2017, 1-9
24. R.B. Singh, N.K. Mukhopadhyay, G.V.S. Sastry, R. Manna, Recovery of Ductility in Ultrafine-Grained Low-Carbon Steel Processed Through Equal-Channel Angular Pressing Followed by Cold Rolling and Flash Annealing, *Metallurgical and Materials Transactions A*, 2017, 48, 1189-1203
25. Narendra Kumar, Sandeep Kumar Singh, Gaurav Gautam, Aditya Kumar Padap, Anita Mohan and Sunil Mohan, Synthesis and statistical modelling of dry sliding wear of Al 8011/6?vol.% AlB<sub>2</sub> in situ composite, *Materials Research Express*, 2017, 4(10)
26. Narendra Kumar, Gaurav Gautam, Rakesh Kumar Gautam, Anita Mohan and Sunil Mohan, High-Temperature Tribology of AA5052/ZrB<sub>2</sub> PAMCs, *J. Tribol*, 2017, 139(1), 011601
27. Narendra Kumar, Gaurav Gautam, Rakesh Kumar Gautam, Anita Mohan and Sunil Mohan A Study on Mechanical Properties and Strengthening Mechanisms of AA5052/ZrB<sub>2</sub> In Situ Composites, *J. Eng. Mater. Technol*, 2017, 139(1), 011002
28. Preeti Verma, G. Sudhakar Rao, N.C. Santhi Srinivas, Vakil Singh, Rosette tensile fracture of modified 9Cr-1Mo steel, *Materials Science and Engineering A*, 2017, 683 172-186.
29. N. C. Santhi Srinivas, Preeti Verma, Vakil Singh, Dynamic Strain Ageing Behavior of Modified 9Cr-1Mo Steel under Monotonic and Cyclic Loading, *Procedia Engineering*, 2017, 184, 765-777.
30. Preeti Verma, Joysurya Basu, N.C. Santhi Srinivas, Vakil Singh, Deformation behavior of modified 9Cr-1Mo steel under low cycle fatigue at 600 °C, *Materials Characterization*, 2017, 131, 244-252
31. R.S. Rajpurohit, N.C. Santhi Srinivas, S. R. Singh, Vakil Singh, Effect of Ratcheting on Tensile Behavior of Zircaloy-2 at Room Temperature, *Transaction of Indian Institute of Metals* (2017)
32. Himanshu Ranjan Verma, Kamalesh K. Singh, Tilak Raj Mankhand, Comparative study of printed circuit board recycling by cracking of internal layers using organic solvents- dimethyl formamide and dimethyl lactamide, *Journal of Cleaner Production*, 2017, 142(4) 1721-1727
33. Himanshu Ranjan Verma, Kamalesh K. Singh, Tilak Raj Mankhand, Liberation of metal clads of waste printed circuit boards by removal of halogenated epoxy resin substrate using dimethyl acetamide, *Waste Management*, 2017, 60 652-659
34. Himanshu Ranjan Verma, Kamalesh K. Singh, Tilak Raj Mankhand Delamination mechanism study of large size waste printed circuit boards by using Dimethylacetamide, *Waste Management* 65 (2017) pp 139-146



35. Pratima Meshram, Hemant Somani, Banshi Dhar Pandey, Tilak Raj Mankhand, Haci Deveci, Abhilash, Two stage leaching process for selective metal extraction from spent Nickel metal hydride batteries , Journal of Cleaner Production, 157 (2017) pp 322-332
36. A. K. Mandal, O.P. Sinha , Effective Utilisation of waste fines in preparation of high-basicity double-layer DRI pellets for minimization of sticking IMM Trans, Section C, 2017, 126 (3) 182-190.
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57. M.M. Kothawale, R. Pednekar, U.B. Gawas, S.S. Meena, N.K. Prasad, S. Kumar Characterization of Nano-Particle Co<sub>1-x</sub>Zn<sub>x</sub>Fe<sub>2</sub>O<sub>4</sub> Synthesized Using Alove Vera Gel, Journal of Superconductivity and Novel Magnetism, 2017, 30 (2), 395-399
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#### Sponsored Research Projects

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Name of the Faculty Member
1.	Advanced Research Center for Iron and Steel at IIT (BHU), Steel Development Fund	2016-2021	Ministry of Steel, Govt. of India	3098	Dr. R. Manna (Coordinator) & all teachers of the Dept.
2.	Malaviya Chair For Railways Technology	2015-2020	Ministry of Railways, Govt. of India	500 (Corpus Fund)	Prof. R.K. Mandal (Coordinator)
3.	Structural optimization and band gap engineering of lead-free perovskite based photovoltaics	2017-2019	Center for Energy Research & Development, IIT (BHU)	22.00	Prof. R.K. Mandal (PI), Dr. B. Mukherjee, Dr. Joysurya Basu
4.	Development of Ni-Free Austenitic Stainless Steel for Biomedical Application	2016-19	Ministry of Steel, Govt. of India	284	Dr. G.S. Mahobia (PI), Prof. N.C. Santhi Srinivas, Dr. K. Chattopadhyay, Prof. Vakil Singh
5.	In-situ electron microscopy at atomic scale for understanding nucleation growth and interfaces of omega phase.	2017-2020	SERB, DST, Govt. of India	81.50	Dr. Joysurya Basu (PI), Prof. N. K. Mukhopadhyay, Prof. R.K. Mandal, Dr. Imteyaz Ahmad (Cer.)
6.	Alloy design, phase and microstructural stability of advanced amorphous, nanocrystalline alloys and composites	2016-2018	Seed Grant, IIT (BHU)	11.00	Dr. Joysurya Basu (PI)



7.	Development and structural characterization of $\text{Bi}_{2-x}\text{M}_x\text{O}_{3+x(y-3)/2}$ ( $\text{M}=\text{Fe}, \text{Cr}, \text{Mn}$ ) coating for protection against liquid coolant and sensors	2017-2020	UGC-DAE-CSIR, Govt. of India	18.00	Dr. Joysurya Basu (PI) Dr. N. K. Prasad
8.	Design of Broad spectrum 'Rainbow Solar Cell'	2013-2018	DST-INSPIRE Faculty Award	35.00	Dr. Bratindranath Mukherjee (PI)
9.	Design and Development of Indigenous Dental Implant of Titanium	2015-18	DST, Govt. of India	84.16	Dr. Rajesh Bansal, IMS-BHU (PI) Dr. K. Chattopadhyay (Co-PI), Prof. S.K. Sinha (Co-PI)

### Distinguished visits in the Department/School from India

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr. Surya Deo Yadav Indira Gandhi Centre for Atomic Research, Kalpakkam, India	To deliver lecture	October 27, 2017
2	Dr. Satyesh Kumar Yadav Department of Metallurgical and Materials Engineering, IIT Madras	To deliver lecture	November 11, 2017
3	Prof. N. V. Chalapathi Rao Department of Geology, Banaras Hindu University, India	To deliver lecture	January 05, 2018
	Shri Rajeev Gupta GM-Marketing, Jindal Stainless, India	To deliver lecture	March 30, 2018

### Distinguished Visits in the Department/School from abroad

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr. Saumyadeep Jana Pacific Northwest National Laboratory, USA	To deliver lecture	August 21, 2017
2	Prof. C. Ravi Ravindran Ryerson University, Toronto, Canada	To deliver lecture	August 19, 2017
	Dr. Paolo Mele Muroran Institute of Technology, Hokkaido, Japan	To deliver lecture	November 08, 2017
3	Dr. Deep Jariwala California Institute of Technology (Caltech), Pasadena, USA	To deliver lecture	December 15, 2017



# 15. Department of Mining Engineering

Year of Establishment : 1923

**Head of the Department :** Professor S.K. Sharma

## **Brief Introduction of the Department**

The Department of Mining Engineering a well conceived dream of the founder of this university **PANDIT MADAN MOHAN MALVIYAJI** and the oldest Mining Engineering Department in the country, came into existence as early as 1923, as a section of the Department of Geology, Mining and Metallurgy. Later, in the year 1944, separate departments of Mining and Metallurgy were constituted under the College of Mining and Metallurgy.

The first Ph.D. degree in Mining Engineering in the country was awarded from this department in the year 1964. This lead was further strengthened by introducing the First Post- Graduate course in 1966 leading to M.Sc. degree in Mining Engineering n Metal Mining and Coal Mining, respectively and later the M.Sc. degree in Mine Planning was introduced in 1972. Since, 1995-96 the department offers M.Tech. degree in Mine Environment, Mine Planning and Rock Mechanics.

The Department of Mining Engineering, BHU was one of the first in the country to receive UGC Assistance under COSIST and SAP Programme in 1984. Subsequently, the Department was upgraded as a Centre of Advanced Study in the area of Rock Mechanics and Ground Control in 1984.

The Department of Mining Engineering, IIT (BHU) occupies a pioneering position in the field of mining education and research. It has many firsts to its credit. The first Bachelor, Postgraduate and Doctoral degrees in mining engineering in India have been awarded by this department. Today's Mineral Industry is being run by many of its illustrious alumni who are holding key positions within the country and abroad. Senior faculty members have been recognized by the mining and allied industries as experts in the respective fields and are members of the important decision making bodies associated with CIMFR, NIRM, UGC, ISMU, NCL, CCL, SCCL, CIL, HZL, UCIL etc. The Department received generous grants to accelerate its research and developmental activities.

The Department is divided into six divisions with laboratories that are well equipped with the conventional and modern facilities. Facilities have also been developed for research in collaboration with mining industry to deal with their practical problems, these laboratories are also equipped to undertake fundamental research in the field of mining.

The above divisions consist of 19 laboratories. The Department is also provided with an Underground Experimental Model Mine well equipped for demonstration, experimental and research purposes particularly in the field of underground mechanised transport systems, mine ventilation and mine surveying experiments.

## **Major areas of Research**

- Rock Mechanics & Ground Control and numerical modelling
- Mine Environment, Mine Ventilation, Mine Safety, Water Soluble Polymer
- Mining Geology, Mine Water Management & Environmental Pollution
- Mining Methods, Production and Productivity analysis of Mining Machines
- Design of Structure in Rock, Mine Planning, Mine Environment
- Reliability Analysis and and Slope stability
- Environmental Economic, GIS and Remote Sensing, Operations Research
- Mine Surveying, Mine economics, Mine legislation and Computer Applications in Mining
- Mine Safety, Risk Analysis, Reliability and Rock Cutting Technology
- Rock Fragmentation Engineering, Rock Mechanics, Surveying
- Coal Analysis, Mineral Beneficiation

## **Area of the Department/School (in square meters)**

Ground floor (including Model Experimental of Underground Mine) = 5815.0826 m<sup>2</sup>

Ground Floor Open Space & Workshop & Laboratories = 1829.179 m<sup>2</sup>

First Floor = 3219.4264 m<sup>2</sup>





Second Floor = 505.3867 m<sup>2</sup>

### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	03
2	No. of Lecture Halls	01
3	No. of Laboratory	07
4	No. of Computers available for students in the Department/School/ School	32
5	No. of Research Laboratory	06

### Unique Achievement / Preposition of the Department/School

- Special Assistance Programme
- COSIST
- FIST Assistance
- MODROB
- Centre of Advanced Study in the area of Rock Mechanics & Ground Control and Geo-Environment

### Academic Programmes offered

#### New Courses Introduced

S. No.	Course Code	Course name	Course credit
1	MN571	Data Analytics	9

### Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech/B. Pharm	85	87	85	70	---
2	Dual Degree	19	18	18	07	12
3	M. Tech/ M. Pharm	22	16	---	---	---
4	Ph. D (Under Institute Fellowship)	36	---	---	---	---
5	Ph. D (Under Project Fellowship)	---	---	---	---	---
6	Ph. D (Under Sponsored Category)	01	---	---	---	---

### Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From
<b>INDIA</b>					
1	Mr. Akhilesh Kr. Yadav	13151501	Workshop on "Generation of National Database on Uranium in Drinking Water"	May 3-5, 2017	BARC, Mumbai



### Names of students/scholars who got prizes and awards outside the Institute

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Mr. Akhilesh Kr. Yadav	13151501	Young Engineer Award by Institution of Engineers (India)	Kolkata, 2017	

### Names of Students/Scholars who went for foreign Internship

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Mr. Ashish Arora	14155017	Colorado school of Mines	Summer Internship		

### Faculty & their Activity

#### Faculty and their areas of specialisation

S. No.	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
<b>PROFESSORS</b>		
1	Dr. B.K. Shrivastava	Mining Machinery, Rock Mechanics & Ground Control
2	Dr. N.C. Karmakar	Mine Environment, Mine Ventilation, Mine Safety, Water Soluble Polymer
3	Dr. A. Jamal	Mining Geology, Mine Water Management & Environmental Pollution
4	Dr. Piyush Rai	Mining Methods, Production and Productivity analysis of Mining Machines, Fragmentation and Blasting
5	Dr. S.K. Sharma	Design of Structure in Rock, Mine Planning, Mine Environment
6	Dr. S. Gupta	Reliability Analysis, Mine Ventilation
<b>ASSOCIATE PROFESSORS</b>		
1	Shri R. P. Singh	Mine fire, Mine mechanization & Planning
2	Dr. Ashok Jaiswal	Rock Mechanics & Ground Control
3	Dr. Rajesh Rai	Rock Mechanics and Slope stability
4	Dr. A Kumar	Environmental Economic, GIS and Remote Sensing, Operations Research
5	Dr. G.S.P. Singh	Rock Mechanics and Ground Control
6	Dr. S. K. Palei	Mine Safety, Risk Analysis, Reliability and Rock Cutting Technology
<b>ASSISTANT PROFESSORS</b>		
1	Dr. Tarun Verma	Mine Environment, Mine Ventilation, Mine Surveying, Mine economics
2	Dr. Suresh Kumar	Rock Fragmentation Engineering, Rock Mechanics, Surveying
3	Dr. Nawal Kishore	Mine planning, draggling and surface continuous miner
4	Dr. Amit Kumar Verma	Geo-Mechanics, Underground Space Technology and slope stability
<b>RESEARCH STAFF</b>		
1	Dr. A.K. Singh	Mine Environment
2.	Dr. C.S. Singh	Rock Mechanics

**Technical and Non-Teaching Staff**

Sl. No.	Name, Qualifications	Designation	Date of Appointment in the department
<b>Technical Staff</b>			
1.	Shri Mithilesh Kumar Gupta, B.A. & Polytechnic in Mechanical Automobile Engineering	Senior Technical Superintendent	29.01.2007
2.	Shri Lalmani Intermediate and Diploma in Mechanical Engineering	Technical Superintendent	12.08.2008
3.	Shri Balgovind High School, Diploma Degree	Senior Technical Superintendent	01.04.1980
4.	Shri Kanhaiya Lal, Intermediate (Science)	Senior Technical Superintendent	27.05.1987
5.	Shri Anupam Kumar Debey M.Sc. (Biochemistry), PG (Envi. Science.) & M.A. (Social Science)	Technical Superintendent	16.12.2008
6.	Shri A.K. Pandey, M.A. (Hindi)	Technical Superintendent	13.04.1989
7.	Shri Rajendra Prasad, B.A.	Technical Superintendent	20.04.1989
8.	Shri C.B.Singh, M.Sc. Ag (Entomology and Agricultural Zoology)	Technical Superintendent	21.12.1990
9.	Shri Bindresh Yadav, High School Science	Technical Superintendent	22.12.1990
10.	Shri Indu Bhusan Pal, Intermediate (Science)	Technical Superintendent	01.02.1991
11.	Shri Ramdhani Prasad, Intermediate (Science)	Technical Superintendent	01.06.1994
12.	Shri Ram Sewak Singh, Intermediate (Science)	Technical Superintendent	07.01.1997
13.	Shri Mahendra Yadav, Intermediate (Science)	Senior Technician	05.08.2008
14.	Shri Vijay Prakash Shrivastava, Intermediate (Science)	Senior Technician	05.08.2008
15.	Shri Ajay Kumar Patel, M.Sc. (Geology)	Senior Technician	06.08.2008
16.	Shri Sunil Kumar Mishra, B.A. & ITI Degree	Senior Technician	05.08.2008
17.	Shri Bansh Narayan Pal, Intermediate (Science)	Junior Technician	02.06.1980
18.	Shri Rajkumar Singh, Intermediate (Science)	Junior Technician	23.04.2004
19.	Shri Pyarelal, Intermediate & ITI Degree	Junior Technician	11.07.2012



#### Non-Teaching Staff

20.	Shri Ashish Shankar Gupta, B.A. & Pursuing M.A. in Sociology from IGNOU	Junior Assistant	08.05.2017
21.	Ms. Neha Gautam, Master in Mass Communication & Journalism	Junior Assistant	27.07.2017

#### Short-term courses/workshops/seminars/symposia/conferences organised by faculty members

S. No.	Coordinator	Title	Period
1	Prof B K Shrivatva and Dr Rajesh Rai	Short term course: Rock Mechanics and Ground Control	19-24 Aug 2017
2	Prof B K Shrivatva and Dr Rajesh Rai	Work shop on "Slope Stability"	26-28 Oct 2017
3	Prof. B K Shrivastva and Dr. Ashok Jaiswal	Application of Numerical Modeling in Strata Control	08-12 April, 2017
4	Prof. B K Shrivastva and Dr. Ashok Jaiswal	Social Cost Benefit Analysis of a Project	01-04 February, 2018

#### Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

S. No.	Name of Faculty Member	Title	Period and Venue
<b>Seminars/Symposia/Conferences</b>			
1.	Prof. Piyush Rai	6th International Conference on Material Science and Engineering (CMSE-2017)	October 23-27, 2017 Beijing, China
2.	Prof. Piyush Rai	National Symposium on Advances in Rock Breakage and Blasting	January 20-21, 2018 Jodhpur, Rajasthan
3.	Dr. Tarun Verma	International Conference on Industrial Management and Engineering Management 2017	December 10-13, 2017 Singapore
4.	Dr. Suresh Kumar Sharma	Advance Technology in Rock Breakage & Fragmentation	January 20-21, 2018 Jodhpur, Rajasthan

#### Distinguished visits in the Department/School from India

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Ms. Resham Dwivedi, IRS-2017	Interactive Session	13.01.2018 at M.P. Netarwal Hall

#### Distinguished Visits in the Department/School from abroad

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. Anupma Prakash, Director, CNSM Division of Research, University of Alaska Fairbanks, USA	Lecture & Interaction	08.01.2018 at M.P. Netarwal Hall



## Consultancy

### List of Major Consultancy Projects

S. No.	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1.	Prof. A. Jamal, Prof. S.K. Sharma, Prof. S. Ratan	Investigation of coal grade	IGS TPP, Jharli, Jhaggar, Haryana	27,300/-
2.	Prof. B.K. Shrivastva Dr. Rajesh Rai	Slope stability (Internal Dump)	NCL, Singrauli	7,00,000/-
3.	Prof. S.K. Sharma & Dr. G.S.P. Singh	Scientific study for the behavior of roof rock over long standing galleries in Tandri UG of Kanhar area, WCL	WCL, Nagpur	5,00,000/-
4.	Prof. S.K. Sharma, Dr. G.S.P. Singh, Dr. Tarun Verma & Dr. Nawal Kishore	Scientific study for design of blast pattern and ground vibration monitoring	Krishna Mining Works, Billi Markund, Sonbhadra	7,47,500/-
5.	Prof. S.K. Sharma, Dr. G.S.P. Singh, Dr. Tarun Verma & Dr. Nawal Kishore	Blasting pattern design to perform drilling and blasting operation at 2x660 MW Obra-C UPRVVNL Plant	Baghel Infra (P) Limited	5,00,000/-
6.	Prof. A. Jamal, Prof. S.K. Sharma Dr. A.K. Singh Prof. S. Ratan	Investigation of coal grade	D.B.Power Ltd., Mumbai	1,44,900/-
7.	Prof. S.K. Sharma, Dr. T. Verma, Dr. N. Kishore & Dr. G.S.P. Singh	Determination/formulation of SOR (Schedule of Rates) for outsourcing work of removal of overburden, loading of coal in to tippers/trucks, transportation of coal, wagon loading, drilling in coal strata, crushing of coal by mobile crusher & extraction of coal by surface miner etc in SECL	SECL, Bilaspur	34,50,000/-
8.	Prof. B.K. Shrivastva Dr. Rajesh Rai, Dr. Ashok Jaiswal	Design & build slope stabilization at JDA Jammu Bus Stand	Indigo Infra Project Pvt. Ltd, New Delhi	1,61,000/-
9.	Prof. B.K. Shrivastva Dr. Rajesh Rai Dr. Ashok Jaiswal	Design & build shoring system for DLF capital greens IV shivaji Marg, New Delhi	Indigo Infra Project Pvt. Ltd, New Delhi	1,61,000/-
10.	Prof. S.K. Sharma	Jindal ITF Limited-v-NTPC Limited (Arbitration Matter)	Singh & Associates	15,00,000/-
11.	Prof. Piyush Rai Dr. Suresh Kr. Sharma	To study ground vibration and fly rock	S.N.S. (Minerals) Limited, Satna	29,500/-
12.	Prof. A. Jamal Prof. S.K. Sharma	Investigation of coal grade	APCPL, Jharli, Jhaggar, Haryana-124141	21,840/-





13.	Prof. B.K. Shrivastva Dr. Ashok Jaiswal	Scientific study for design of mining method, support design and plan strata control, instrumentation & monitoring of 110 level East CM Panel, East block of Churcha Mine (RO) of SECL	SECL, Bilaspur	17,26,904/-
14.	Prof. B.K. Shrivastva Dr. Rajesh Rai Dr. Ashok Jaiswal	Design for cut slope stabilization	Indigo Infra Project Pvt. Ltd, New Delhi	1,18,000/-
15.	Prof. B.K. Shrivastva Dr. Rajesh Rai Dr. Ashok Jaiswal	Design of built shoring works of wall 7 at DLF valley	Indigo Infra Project Pvt. Ltd, New Delhi	1,47,500/-
16.	Prof. S.K. Sharma, Dr. T. Verma, Dr. N. Kishore & Dr. G.S.P. Singh	Scientific study related to work out Threshold Limit Value (TLV) during slope stability monitoring with Radars at Kusmunda Project	SECL, Kusmunda Area, Korba	3,17,000/-
17.	Prof. S.K. Sharma, Dr. T. Verma, Dr. N. Kishore & Dr. G.S.P. Singh	Scientific study for Gevra OCP, SECL to working out Threshold Limit Value (TLVs) during slope stability monitoring with Radars	SECL, Gevra Area, Korba	3,16,668/-
18.	Prof. S.K. Sharma, Dr. T. Verma, Dr. N. Kishore & Dr. G.S.P. Singh	Scientific study for Dipka OCP, SECL to working out Threshold Limit Value (TLVs) during slope stability monitoring with Radars	SECL, Dipka Area, Korba	3,16,666/-
19.	Prof. A. Jamal & Prof. S.K. Sharma	Equilibrated Gross Calorific Value (GCV) at 60% RH and Temp. 60C and Proximate analysis	CCL, Dhori Area	1,84,080/-
20.	Prof. A. Jamal & Prof. S.K. Sharma	Proximate and GCV analysis cost of coal sample	NTPC, Rihand	15,930/-
21.	Prof. A. Jamal & Prof. S.K. Sharma	Proximate and GCV analysis cost of coal sample	Haldia Energy Ltd.	56,160/-
22.	Prof. A. Jamal & Prof. S.K. Sharma	Proximate and GCV analysis cost of coal sample	Jhajjar Power Ltd.	38,350/-
23.	Prof. A. Jamal & Prof. S.K. Sharma	Proximate and GCV analysis cost of coal sample	U.P. Rajya Vidyut Utpadan Nigam Ltd.	2,83,790/-
24.	Prof. S.K. Sharma, Dr. Nawal Kishore & Prof. A.K. Jain	Preparing multiple question papers	UPEIDA	76,000/-
25.	Prof. A. Jamal & Prof. S.K. Sharma	Proximate and GCV analysis cost of coal sample	Adani Power Maharashtra Ltd.	42,480/-
26.	Prof. A. Jamal & Prof. S.K. Sharma	Proximate and GCV analysis cost of coal sample	NTPC-Sipat	91,260/-



27.	Prof. S.K. Sharma, Dr. G.S.P. Singh, Dr. Tarun Verma & Dr. Nawal Kishore	Scientific study of development of cracks and patholes in ath earea	SECL-Manikpur	39,00,000/-
28.	Prof. A. Jamal & Prof. S.K. Sharma	Proximate and GCV analysis cost of coal sample	ECL, Rajmahal Area	3,22,636/-
29.	Prof. A. Jamal & Prof. S.K. Sharma	Proximate and GCV analysis cost of coal sample	Dev Priya Products Pvt. Ltd.	5,310/-
30.	Prof. A. Jamal & Prof. S.K. Sharma	Proximate and GCV analysis cost of coal sample	Dev Priya Papers Pvt. Ltd.	7,670/-
31.	Prof. B.K. Shrivastva & Dr. Rajesh Rai	Slope stability analysis	Ambuja Cement Ltd, Raigargh	9,44,000/-
32.	Prof. B.K. Shrivastva & Dr. Rajesh Rai	Scientific studies of ultimate pit slope, dump slope etc.	ECL, Rajmahal Area	12,98,000/-
33.	Prof. B.K. Shrivastva & Dr. Rajesh Rai	Scientific study the issue of bench & dmump slope stability along with safe mining method at Bhanegaon OCM Nagpur area, WCL	WCL, Nagpur	2,95,000/-
34.	Prof. A. Jamal & Prof. S.K. Sharma	Proximate and GCV analysis cost of coal sample	KRPulp & Papers Ltd	10,620/-
35.	Prof. B.K. Shrivastva, Prof. P. Rai, Dr. Rajesh Rai, Dr. S.K. Palei, Dr. Ashok Jaiswal & Dr. Suresh K. Sharma	Slope stability analysis	Ambuja Cement Ltd, Raigargh	12,00,000/-

### Research Publications

S. No.	No.
1	Total Number of Papers Published in Refereed National Journals 06
2	Total Number of Papers Published in Refereed International Journals 09
3	Total Number of Papers Presented in National Conferences 05
4	Total Number of Papers Presented in International Conferences 06

#### (a) Refereed International Journals

1. Mohammadi Mousa, Rai Piyush and Gupta Suprakash, Performance Evaluation of Bucket Based Excavating, Loading and Transport (Belt) Equipment – An OEE Approach, Arch. Min. Sci. 62 (2017), 1, 105-120.
2. Rizwan Hasim, Ashok Jaiswal and BK Shrivastva, (2017), “Support Design during Depillaring Operation in Bord and Pillar Panel Using Numerical Simulation Method”, Modelling C, Vol. 78; N3; pp 351-363
3. Azam, Shah Fateh and Rai, Piyush Modelling of Dragline Bucket for Determination of Stress, Int. Jour. Modelling, Measurement and Control C, Vol. 78, No. 3, Sept., 2017, pp; 392-402.
4. Sharma, Suresh Kumar and Rai, Piyush, Establishment of Blasting Design Parameters Influencing Mean fragment Size Using State-of-Art Statistical Tools and Techniques, Measurement 96(2017), 34-51, DOI10.1016/j.measurement.2016.10.047



5. Shirin, S., A.K. Yadav, and A. Jamal, 2017. Sustainability of mine after mine closure: A case study. *Journal of Ecosyst&Ecography* 2017, 7:2 (Suppl).DOI:10.4172/2157-7625-C1-030.116
6. Yadav, A.K., S. Shirin and A. Jamal, 2017. Assessment of air quality and human health surrounding in mines. *Journal of Ecosyst&Ecography* 2017, 7:2 (Suppl).DOI:10.4172/2157-7625-C1-030.98

**(b) Refereed National Journal**

1. Shailendra Chawla, Ashok Jaiswal and B. K. Shrivastva, (2018), "Design of Snook in Depillaring Panel Using Continuous Miner", *Journal of the Institute of Engineering (India) Series D*, Vol. 99 (1); pp 39-49
2. Aarif Jamal, Saba Shirin and RanjanPushkar, 2017. Overburden mixed disposal in voids of opencast coal mines. *The Indian Mining and Engineering Journal*. 56(5), 26-33.
3. A. K. Sonkar and A. Jamal. "QUALITATIVE ASSESSMENT OF GROUNDWATER IN SINGRAULI COALFIELD REGION, MADHYA PRADESH" *Rasayan J.Chem*, 11 (3), 1270 - 1276 (2018). DOI: <http://dx.doi.org/10.31788/RJC.2018.1134026>.
4. Ramita Varshney and Aarif Jamal. "EVALUATION OF RESERVOIR WATER QUALITY USING WATER QUALITY INDEX IN GOVIND BALLABH PANT SAGAR RESERVOIR, INDIA" *Rasayan J.Chem*, 11(3), 1177-1182 (2018). DOI: <http://dx.doi.org/10.31788/RJC.2018.1134023>.
5. H. L. Yadav and A. Jamal. "ASSESSMENT OF WATER QUALITY IN COAL MINES: A QUANTITATIVE APPROACH" *Rasayan J.Chem*, 11(1):46-52 (2018).DOI: 10.7324/RJC.2018.1111961
6. H. L. Yadav and A. Jamal. " TREATMENT OF ACID MINE DRAINAGE USING A SANDSTONE COLUMN" *Rasayan J.Chem*, 10(3), 891-896 (2017).
7. Shirin, S., A. Jamal, 2018. Environmental Impact of Mine Water, Utilization and Management In Indian Mines. *Rasayan J. Chem* 11(2) 531 – 536.
8. Shirin, S., A. Jamal, 2017. Neutralization of Acidic Mine Water Using Flyash and Overburden. *Rasayan Journal of Chemistry* 11(1), 74-79.
9. Singh, GSP and Singh, UK, "Assessment of Caving Behaviour of Strata and Powered Support Requirement for Safe Longwall Extraction Under Difficult Caving Strata Condition", *ISRM India Journal-Half Yearly Technical Journal of Indian National Group of International Society of Rock Mechanics*, 6(1),10-20

**(c) Proceedings of International Conferences**

1. Thirumala Vivek, Verma Tarun and Gupta Suprakash, Injury Analysis of Mine Workers: A Case Study, in the proceeding of The IEEE International Conference on Industrial Engineering and Engineering Management, December 10-13, 2017, Singapore.
2. Yadav, A.K., S. Shirin, A. Jamal, 2017. Suspended particulate matters and management system regarding air pollution in mines. *Proceedings of the Sixth International Conference on Environmental Management, Engineering, Planning & Economics*, Thessaloniki, Greece, June 25-30, 2017. 56-64.
3. R. Kumar, S.Ratan, R.Varshney, S.Shirin (2017 'Economic Rehabilitation of Local population in the post mining situation' – A.Jamal,). Accepted and Published in CEMEPE/SECOTOX. *Proceedings of the Sixth international Conference on Environmental Management, Engineering, Planning and Economics*, Thessaloniki, Greece, June 25-30, 2017. 876-885.
4. Vikas Srivastava and Sanjay K Sharma (April 25-26, 2017): Adroitness for committing of modelling limits from near equilibrium shipping magnitudes. 6th paris international conference on Recent trends in engineering and Technology (RTET17), Paris (France)
5. Vikas Srivastava and Sanjay K Sharma (March 20-23, 2017): The ramification consanguine to amplitudes possession of the sensors in thermal imaging. 2nd International Conference on Mining, Material and Metallurgical Engineering, Bangkok, (Thailand).

**(d) Proceedings of National Conferences**

1. Kumar, V., Gupta, N. K., Palei S. K., & Karmakar, N. C. (2017). Whole body vibration and its impact on dumper operators in coal mines, ICOVP, 13th International Conference on Vibration Problems, 29 Nov-2 Dec, 2017, Indian Institute of Technology Guwahati, India.



2. Ashutosh Kumar, A. Ray, Rajesh Rai, Ashok Jaiswal, B.K. Shrivastva, (2017), “Effect of weak foundation layer on dump stability”, 4th Indian Landslide Congress 2017, Indian Institute of Technology, Bombay, 8 th - 9th December, 2017
3. Sahu, A. & Palei, S. K. (2017). Reliability Analysis of a Dragline for Productivity Improvement: A Case Study. 14th Control Instrumentation System Conference (CISCON-2017), 3-4 Nov. 2017, MIT, Manipal, Karnatak, India.
4. B K Shrivastva and Ashok Jaiswal,(2017), “Prediction Of Mine Subsidence By Numerical Simulation Approach”, National Seminar, RMEII, Udaipur, India July 7-9, 2017, pp 221- 229
5. Rai, Piyush 2018. Challenges and Possibilities in Surface Blasting” in the Nat. Sem. on Technology Innovation and Safety in Mining Industry, on Mar. 23-24, 2018, Jointly Org. by MEAI of India, Barajamda Chapter and Tata Steel, Noamundi. (Key Note Paper)
6. Sharma, Suresh and Rai, Piyush 2018. “A case Study on Stemming Confinement in Surface Blasting”, Procs. National Symp. on Advanced Technology in Rock Fragmentation and Blasting , Jan. 20-21, 2018, Jointly Org. by MEAI of India, Jodhpur Chapter and Inst. of Engrs (I), Jodhpur Chapter, Jodhpur.

# 16. Department of Pharmaceutical Engineering & Technology

Year of Establishment : 1932

**Head of the Department :** Dr. S.K.Singh up to 08.05.2018 (FN), Dr. Sanjay Singh w.e.f. 08.05.2018 (AN)

## **Brief Introduction of the Department/School:**

Department of Pharmaceutical Engineering & Technology is a pioneer in Pharmaceutical education in India at University level. It was started in July 1932 by Prof. Mahadev Lal Schroff under the auspicious guidance of Mahamana Madan Mohan Malaviya Ji. A two-year course was introduced in 1934 for the degree of B.Sc. (Pharmaceutical Chemistry). The department has expanded academically by the inception of B.Pharm. in 1937, M.Pharm. in 1941, Ph.D. in 1945 and integrated dual degree (IDD) in 2006 as its regular programmes. In the year 2014, the existing UG and IDD programmes have been restructured and renamed as 4-year B Tech Programme in Pharmaceutical Engineering and Technology and 5-year IDD (B Tech & M Tech) programme in Pharmaceutical Engineering and Technology, respectively.

The Department has produced over 2126 B.Pharm., 1184 M.Pharm., 52 M.Pharm.(Dual Degree) and 102 Ph.D. (as on May 2017) students who enjoy leading positions in industry, academia, drug administration, research institutes and contemporary pharmacy practice worldwide. The Department has also hosted many events at the National level and to name a few are the 17<sup>th</sup>, 34<sup>th</sup> & 59<sup>th</sup> editions of Indian Pharmaceutical Congress in the years 1965, 1982 & 2007 in conjunction with Silver Jubilee, Golden Jubilee and Platinum Jubilee of the Department, respectively.

## **Major areas of Research**

The department is actively involved in the following broad research areas.

1. Drug discovery – Identification and optimization of new chemical agents from natural and synthetic origin for the treatment of diabetes, epilepsy, depression, pain, Alzheimer's, cancer, tuberculosis and other infectious diseases etc.
2. Drug formulation design and development – Design and development of new drug delivery systems with improved pharmacokinetic and pharmacodynamic profiles.

## **Area of the Department/School (in square meters)**

Total area of the Department: 62,677 Square feet

## **Infrastructure**

S. No.	Particulars	Number
1	No. of Classrooms	06
2	No. of Lecture Halls	02
3	No. of Laboratory	26
4	No. of Computers available for students in the Department	40

## **New facilities added**

S. No.	Details (Infrastructure, Equipment, etc.)	Value (in Lakhs of Rupees)
<b>Equipments</b>		
1.	Liquid Nitrogen Container	1.00
2.	CO2 Incubator Make: Heal Force	4.11
3.	Biosafety Cabinet Make: Haier	4.35
4.	Inverted Phase contrast Microscope with camera	3.10





5.	Refrigerated Centrifuge Make: Remi	2.62
6.	Agilent High Performance Liquid Chromatographic System	15.62
7.	High speed homogenizer	2.05
8.	Microscope with camera	2.7
9.	Freeze dryer	6.19
10.	Refrigerated Centrifuge	8.97
11.	Ultra Low Temperature Reaction Bath with Inbuild Magnetic-Stirrer	3.42
12.	Thermo Mixer C, Smart Block 1.5Ml, and Thermo Top with condens. protect technology for Thermo Mixer	2.75

#### Infrastructure

1.	Air conditioning - 04 nos	2.06
2.	Renovation of 7 no of faculty chambers	2.72
3.	AGCCP Aguaguard (Make: Eureka Forbes)	0.54
4.	Tissue Culture Lab	5.00

#### Unique Achievement of the Department

The Department of Pharmaceutical Engineering & Technology is the pioneer department to start the degree level pharmacy education in the Country and in South-east Asia. This department is known for its enormous contribution to the growth and expansion of pharmaceutical education and research across the country. In pursuit of achieving its goal, the department has been continuously imparting quality education to produce pharmacists befitting to the requirements of industry and society. Recently the department introduced a research based undergraduate and integrated dual degree curriculum to impart innovative research skills and expertise among the students.

On the research front, the department has been actively engaged in the cutting edge research areas of drug discovery and development. The R & D expertise available in the department includes; (a) New drug target identification and validation; (b) Discovery of natural and synthetic lead compounds and their optimization; (c) Development of novel drug delivery systems including nano-formulations for synthetic and herbal drugs; (d) Authentication and standardization of herbal products; (e) Preclinical evaluation of drug candidates; (f) Analytical method development for drugs and drug formulations.

Apart from institute funded research projects, extramural research funding to the tune of about two crores has been generated during the last two years.

To date, nearly 1500 peer-reviewed research papers have been documented by the department. Approximately ~700 research communications have been registered with Scopus alone. During the last five years, the department has published about ~300 peer-reviewed research papers. Besides this, a dozen of patents have been filed by the faculty members during the last five years. The high order research credits of faculty members viz., cumulative h-index of 200 and cumulative citations of 26000, further corroborates the research strength of the department of Pharmaceutical Engineering & Technology.

Some of the key research accomplishments of the department in the area of drug discovery and development include;

- discovered of some potential multifunctional anti-Alzheimer's and anticancer lead compounds, active at nanomolar to micromolar concentration,



- (b) enhancement of bioavailability and efficacy of drugs through nanoformulations and target-directed carrier systems,
- (c) identified newer cellular and molecular mechanisms involved in neuropathic pain,
- (d) developed a bioactive glass based formulation for the treatment of cerebral ischemia, and
- (e) created a well characterized natural product library of ~100 compounds from plants and microbial origin. On an average the faculty members of the department publish around 60-70 peer-reviewed research papers annually. Over 10 patent applications have been filed by the faculty members so far.

### Academic Programmes offered

#### New Courses Introduced

S. No.	Course Code	Course name	Course credit
1.	PH502	Drug Regulatory Affairs	9
2.	PH412	Dosage Formulation Design	9
3.	PH413	Industrial Pharmacy	9
4.	PH422	Computational Drug Design	9
5.	PH433	Toxicology	9
6.	PH443	Nutraceuticals and Herbal Cosmetics	9
7.	PH512	Novel Drug Delivery Systems	9
8.	PH522	Advances in Drug Synthesis	9
9.	PH532	Advanced Pharmacology	9
10.	PH542	Medicinal Plant Biotechnology	9
11.	PH503	Spectroscopy	9
12.	PH 511	Advanced Biopharmaceutics	9
13.	PH 545	Separation tech. of Bioactives	9
14.	PH 513	Pharmacokinetics	9
15.	PH 533	Molecular Pharmacology	9
16.	PH 546	Medicinal Natural Products	9
17.	PH 514	Nanopharmaceutics	9
18.	PH 524	Medicinal Chemistry of Antiinfectives	9
19.	PH 534	Clinical Pharmacology	9
20.	PH 541	Evaluation of Natural Drugs	9

#### Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech/B. Pharm	53	58	44	32	---
2	Integrated Dual Degree	13	20	14	16	08
3	M. Pharm	39	32	---	---	---



4	Ph. D (Under Institute Fellowship)	03	05	13	05*	13
5	Ph. D (Under Project Fellowship)	---	02	---	02	---
6	Ph. D (Under Sponsored Category)	01	01	---	---	01

\*01 student under Institute Fellowship

### Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From institute
<b>INDIA</b>					
1.	Romaji Kosuru (Ph.D)	12621EN004	National Conference	14-15 Mar, 2017 Vijaywada, AP	Rs. 10000/-
2.	Shivani Jaiswal (Ph.D)	16161502	National Conference	21-22 Aug, 2017 Hyderabad	Rs. 10000/-
3.	Himanshu Verma (M.Ph)	16162011	69th Indian Pharmaceutical Congress	22-24 Dec, 2017, Rajpura Punjab	Rs. 8845/-
4.	Mohd. Aquib Siddiqui (M.Ph)	16162014	69th Indian Pharmaceutical Congress	22-24 Dec, 2017, Rajpura Punjab	Rs. 9525/-
5.	Vishal Sharma (M.Ph)	16162038	69th Indian Pharmaceutical Congress	22-24 Dec, 2017, Rajpura Punjab	Rs. 4605/-
6.	Khemraj Lahre (M.Ph)	16162012	69th Indian Pharmaceutical Congress	22-24 Dec, 2017, Rajpura Punjab	Rs. 9045/-
7.	Roshan Sonkar (M.Ph)	16162022	69th Indian Pharmaceutical Congress	22-24 Dec, 2017, Rajpura Punjab	Rs. 9045/-
8.	Narendra (M.Ph)	16162015	69th Indian Pharmaceutical Congress	22-24 Dec, 2017, Rajpura Punjab	Rs. 8520/-
9.	Siddamurthy Supraja (M.Ph)	16162028	69th Indian Pharmaceutical Congress	22-24 Dec, 2017, Rajpura Punjab	Rs. 10000/-
10.	Mansi Upadhyay (Ph.D)	14161006	National Conference	23-25 Jan, 2018	Rs. 9665/-
11.	Matte Kashivishwanath (Ph.D)	16161006	National Conference	23-25 Jan, 2018	Rs. 9782/-
12.	Manish Ashok Khedkar (M.Ph)	17162008	69th Indian Pharmaceutical Congress	22-24 Dec, 2017, Rajpura Punjab	Rs. 10000/-
13.	Datta Maroti Pawde	16162007	69th Indian Pharmaceutical Congress	22-24 Dec, 2017, Rajpura Punjab	Rs. 10000/-
14.	Ankita Sunjay Burande	17162003	69th Indian Pharmaceutical Congress	22-24 Dec, 2017, Rajpura Punjab	Rs. 10000/-
15.	Apeksha Narendra Dahat (M.Ph)		National Conference	22-24 Dec, 2017, Rajpura Punjab	Rs. 10000/-



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16.	Mansi Upadhyay (Ph.D)	14161006	National Conference	22-24 Dec,2017, Rajpura Punjab	Rs. 9665/-
17.	Ashok Kumar (B.Tech)		National Conference	22-24 Dec,2017, Rajpura Punjab	Rs. 1000/-
18.	Pavan Srivastava (Ph.D)	13161007	TBBR	13-15 Feb, 2018 BHU, Varanasi	Rs. 3000/-
19.	Ankit Ganeshpurkar (Ph.D)	16161001	TBBR BHU, Varanasi	13-15 Feb, 2018	Rs. 4012/-
20.	Kaushik Neogi (Ph.D)	16161005	TBBR BHU, Varanasi	13-15 Feb, 2018	Rs. 3000/-
21.	Akansha Mishra (Ph.D)	14161001	TBBR BHU, Varanasi	13-15 Feb, 2018	Rs. 3426/-
22.	Srabanti Jana (Ph.D)	14161009	TBBR BHU, Varanasi	13-15 Feb, 2018	Rs. 3500/-
23.	Srabanti Jana (Ph.D)	14161009	ETDDD International Conference IIT(BHU), Varanasi	18-20 Jan, 2018	Rs. 2000/-
24.	Prabha Rajput(Ph.D)	17161007	TBBR BHU, Varanasi	13-15 Feb, 2018	Rs. 4680/-
25.	Prabhash Nath Tripathi (Ph.D)	13161009	TBBR BHU, Varanasi	13-15 Feb, 2018	Rs. 5562/-
26.	Sombir (M.Ph)	16162030	National Conference MNNIT, Allahabad	9-11 Mar, 2018	Rs. 2338/-
27.	Akansha Mishra (Ph.D)	14161001	ETDDD International Conference IIT(BHU), Varanasi	18-20 Jan, 2018	Rs. 2172/-
28.	Mousumi Besan (Ph.D)	13161005	National Conference MNNIT, Allahabad	9-11 Mar, 2018	Rs. 4490/-
29.	Pankaj Paliwal (Ph.D)	14161007	ETDDD International Conference IIT(BHU), Varanasi	18-20 Jan, 2018	Rs. 2396/-
30.	Pankaj Paliwal (Ph.D)	14161007	TBBR BHU, Varanasi	13-15 Feb, 2018	Rs. 4680/-
31.	Sukesh Kr. Gupta (Ph.D)	14161010	TBBR BHU, Varanasi	13-15 Feb, 2018	Rs. 4400/-
32.	Sukesh Kr. Gupta (Ph.D)	14161010	ETDDD International Conference IIT(BHU), Varanasi	18-20 Jan, 2018	Rs. 2100/-
33.	Abhishek Kumar Sah		Conference at INST Mohali	19-21 Dece. 2017	TA-INST (DST)
34.	Naveen Shivavedi	13161006	IBRO-APRC Neuroscience School-2017	April 1-16, 2017; Department of Zoology, Banaras Hindu University, Varanasi, India	International Brain Research Organization

## ABROAD

1.	Krishna Kr. Patel (Ph.D)	14161005	International Conference	6-7 July, 2017 Singapore	Rs. 30000/- IIT(BHU)
2.	Sandeep Kumar Reddy A	14161008	Controlled Release Society: Annual Meeting & Exhibition	16-19 July, 2017 Boston, U.S.A.	Department of Science and Technology, New Delhi
3.	Abhishek Kumar Sah	---	Conference at National University of Singapore	06-07 July 2017	Registration SERB-NPDF



### Names of students/scholars who got prizes and awards outside the Institute

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Abhishek Kumar Sah	---	Best poster presentation Award	19-21 December 2017	INST (DST)
2	Bhupendra Sahu	17162006	Bronze Medal in 52nd Inter IIT Sports 2017	15-23 Dec 2017, IIT Madras	Gymkhana IIT Madras
3	Mr. Matte Kasi Viswanadh	16161006	1st Prize	17 to 19 January 2018. Nirma Institute of Pharmacy, Ahmedabad, Gujarat.	Director, Nirma Institute of Pharmacy, Ahmedabad, Gujarat

### Names of scholars/students who won Convocation/Institute Day prizes

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1.	Shreyasi Majumdar	15162020	Gold medal (First Rank in M. Pharm 2015-17)	Institute (IIT-BHU)
2.	Anindita Bhattacharjee	16162002	Gold medal (Institute day)	Institute (IIT-BHU)
3.	Adity Sharma	17162002	1st Prize in Institute Day for Model presentation	Head of Department

### Names of Students/Scholars who went for foreign Internship

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Juhi Singh	13164003	Leipzig University	Leipzig Centre for	Germany	3 months
2	Karan Arya	13164004	University of Cambridge	Molecular Informatics, Department of Chemistry	United Kingdom	May-July, 2017

### Faculty & their Activity

#### Faculty and their areas of specialisation

S. No.	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
<b>PROFESSORS</b>		
1	Brahmeshwar Mishra (M.Pharm., PhD.)	Pharmaceutics - Rate Controlled Novel Drug Delivery Systems, Nanotechnology based drug formulations Pharmacokinetics and Pharmacodynamics
2	Sushil Kumar Singh (M.Pharm., PhD.)	Pharmaceutical Chemistry - Chemistry of Natural Drug Products, Synthetic Analogues and Evaluation of their Biological Activity
3	Sanjay Singh (M.Pharm., PhD.)	Pharmacology - Nanomedicine, PK/PD Modeling, Stress and Diabetic Pharmacology





4	Sushant Kumar Shrivastava (M.Pharm., PhD.)	Pharmaceutical Chemistry - Rational Drug Design and Molecular Modeling
5	S. Hemalatha (M.Pharm., PhD.)	Pharmacognosy - Pharmacognostical and Pharmacological Evaluation of Indian Medicinal Plants
6	Dr.Sairam, K (M.Pharm., PhD.)	Pharmacology - Neuropharmacology, Mitochondrial Medicine, New Drug Discovery, Organelle Targeted Drug Development

#### ASSOCIATE PROFESSORS

1	A.K.Srivastava (M.Pharm.)	Pharmaceutics - Newer Drug Delivery System especially Oral Controlled Release Solid Dosage Form
2	Senthil Raja A (M.Pharm., PhD.)	Pharmaceutical Chemistry - Synthetic Medicinal Chemistry, Computational Chemistry, Lead identification and Optimization
3	Alakh Niranjana Sahu (M.Pharm., PhD.)	Pharmacognosy - Quality control studies and standardization of medicinal plants and herbal formulations
4	Ruchi Chawla (M.Pharm., PhD)	Pharmaceutics - Nano-drug Delivery System and Pharmacokinetics
5	M.S. Muthu (MS., Ph.D.)	Pharmaceutics - Cancer Nanotechnology, Theranostics, Anti-psychotic nanomedicine

#### ASSISTANT PROFESSORS

1	Sunil Kumar Mishra (M.Pharm., Ph.D.)	Pharmacognosy - Medicinal & Aromatic Plants (MAP) Research, MAP Tissue Culture, Natural Drugs
2	Prashanta Kumar Nayak (M.Pharm., Ph.D.)	Pharmacology - Brain injury; Memory impairment; Breast cancer; Gallbladder cancer
3	Gyan Prakash Modi (M.Pharm., Ph.D.)	Pharmaceutical Chemistry - Design, Development of Novel Drugs to Treat Infections and CNS Disorders
4	Shreyans Jain (MS, PhD)	Medicinal Chemistry of Natural Products
5	Vinod Tiwari (MS, PhD)	Pharmacology: Cellular molecular mechanisms driving Neuropathic Pain, Role of reward circuitry in Chronic Pain, Targeting Kinesins for the treatment of neuropathic pain
6	Ashish Kumar Agrawal (MPharm, PhD)	Pharmaceutical Nanotechnology and drug delivery

#### SENIOR RESEARCH OFFICER

1	Ashok Kumar (M. Sc., Ph.D.)	Pharmaceutical Chemistry - Synthesis and Characterization of Novel Compounds
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#### GUEST FACULTY

1	Dr. Sriram D	Medicinal Chemistry, Anti-tubercular drug discovery
2	Dr. G. N. Singh	Drug Regulated Affairs, Pharmacopoeia
3	Dr. Rajeev Singh Raghuvanshi	Drug development, Drug Delivery

**Technical and Non-Teaching Staff**

Sl. No.	Name, Qualifications	Designation	Date of Appointment in the department
<b>Technical Staff</b>			
1.	Sh. Ram Jiyawan, B.A.	Ex. Senior Assistant	05.06.2007
2.	Sh. Rafique Ahmad, High School	Ex Sr Laboratory Attendant	26.05.1992
3.	Sh. Yashwant Singh, M.A.	Skilled Clerical Staff	27.04.2015
4.	Km. Shyamali Ghosal, B. Lib.	Semi Professional Assistant	01.08.1987
5.	Sh. Chhote Lal, B.A.	Ex. Technical Superintendent	02.02.1987
6.	Sh. Virendra Kumar, I Sc.	Technical Superintendent	15.10.1998
7.	Sh. Nand Lal, B. Sc.	Ex. Technical Superintendent	11.01.1979
8.	Sh. Madan Lal, M.A.	Technical Superintendent	12.08.1995
9.	Sh. Ram Hriday Pathak, H.Sc.	Technical Superintendent	15.10.1998
10.	Sh. Akhila Nand Upadhyay, B.Sc., D.Pharm.	Senior Technician	18.08.2008
11.	Sh. Arun Kumar, Intermediate	Senior Technician	02.07.1996
12.	Smt. Archana Singh, M.Sc	Technical Superintendent	15.12.2008
13.	Sh. Mohd. Jameel, Intermediate	Senior Technician	02.07.1996
14.	Sh. Kapil Dev Rai, M.A.	Technical Superintendent	02.02.1987
15.	Sh. Sunil Kumar Singh, Dip. in Electrical Engg	Senior Technician	20.12.2013
16.	Sh. Atul Kumar Gupta, B.Tech (Electrical)	Junior Assistant	21.05.2017
17.	Sh. Amit Kumar, Intermediate	Senior Technician	03.12.2015
18.	Sh. Anand Kumar, B.A.	Caretaker cum Clerk	06.12.2016

**Short-term courses/workshops/seminars/symposia/conferences organised by faculty members**

S. No.	Coordinator	Title	Period
1	Prof. Sushil Kumar Singh	Emerging Trends in Drug Discovery and Development	January 18-20th, 2018
2	Prof. Sairam Krishnamurthy (Organizing secretary)	ETDDD (Conference)	January 18-20th, 2018

**Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings**

S. No.	Name of Faculty Member	Title	Period and Venue
<b>Seminars/Symposia/Conferences</b>			
1.	Prof. B. Mishra	Personality Development and Career Building	6th February, 2018, IMS, Banaras Hindu University Varanasi



	Quality Improvement Programme for pharmacy faculty	1st February, 2018, Ashoka Institute of Technology and Management, Varanasi.
	Emerging Trends in Drug Discovery and Development	18-20 January, 2018. Dept. of Pharm. Engg. & Tech., IIT (BHU) Varanasi.
	Quality Improvement Programme for pharmacy faculty	6th January, 2018, Kakatiya University, Warangal
	Pharma Ratan 2017 and International Pharmaceutical Conference	26th November, 2017, Hotel Crown Plaza, New Delhi
	Emerging Trends in Science, Technology and Management	11th November, 2017, Ashoka Institute of Technology and Management, Varanasi
	Challenges and Opportunities in Food Processing in Cotext to Value Addition	24th October, 2017, Institute of Agricultural Science, Banaras Hindu University, Varanasi
	78th orientataion course at UGC-Human Resource Development Centre	1-28 September, 2017, Banaras Hindu University, Varanasi
	1st Advanced Faculty Training Course	6th-7th September, 2017, Department of Food Science and Technology, Banaras Hindu University, Varanasi
	77th Orientataion Course at UGC-Human Resource Development Centre	15 May-11 June, 2017, Banaras Hindu University, Varanasi
	Drug Targeting-Variou Approaches and Advantages	30th March 12th April, 2017, Jadavpur University, Kolkata
2.	Alakh N Sahu	Three days Public Training Programme titled "Patent Filing Procedure in India, Proceedings of Patents, Introduction to Patent specification & Patent Search"
		23-25 October, 2017, Rajiv Gandhi Institute of Intellectual Property Management, Nagpur, India.
3.	Prasanta Kumar Nayak	Faculty Development Program
		July 18-22, 2017 at TLC, IIT (BHU)
	Faculty Development Program	14th May to 2nd June 2018 at TLC, IIT(BHU)
4.	Gyan Prakash Modi	Contemporary Facts in organic synthesis 2017 (CFOS)
		Dept of Chemistry, IIT Roorkee, 22-24 Dec, 2017
5.	Senthil Raja A	Three days Public Training Programme titled "Patent Filing Procedure in India Proceedings of Patents, Introduction to Patent specification & Patent Search"
		23-25 October, 2017, Rajiv Gandhi Institute of Intellectual Property Management, Nagpur, India.



### Special lectures delivered by faculty members in other institutions

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1.	Prof. B. Mishra	Understanding Expiry Dates of Medicines	Dept. of Vikriti Vigyan, IMS, Banaras Hindu University, Varanasi.	6th February, 2018
		Understanding Bioavailability and Pharmacokinetics - An Innovative Way of Teaching	Ashoka Institute of Technology and Management, Varanasi	1st February, 2018
		Drug Delivery Systems Based on Osmotic Technology	Ashoka Institute of Technology and Management, Varanasi	1st February, 2018
		Pastilles Based Drug Delivery Systems	Kakatiya University, Warangal	6th January, 2018
		Osmoregulated Drug Delivery Systems	Kakatiya University, Warangal	6th January, 2018
		Education Reforms in Pharma Domain	Hotel Crown Plaza, New Delhi	26th November, 2017
		Risk Management for Effective Medication	Ashoka Institute of Technology and Management, Varanasi	11th November, 2017
		Risk Management for Effective Medication and Nutritional Intake	Centre of Food Science & Technology, Institute of Agricultural Science, Banaras Hindu University, Varanasi	24th October, 2017
		Risk Management for Effective Medication	UGC-Human Resource Development Centre, Banaras Hindu University	13th September, 2017
		Healthcare Management through Effective Medication and Food Intake	Department of Food Science and Technology, Banaras Hindu University, Varanasi	6th September, 2017
		An Insights into Osmo-nutrient Delivery Systems	at Department of Food Science and Technology, Banaras Hindu University, Varanasi	7th September, 2017
		Risk Management for Effective Medication	UGC-Human Resource Development Centre, Banaras Hindu University	30th May, 2017
		Risk Management For Effective and Safe Medication	Jadavpur University, Kolkata	3rd April, 2017
		Osmotic Technology Based Drug Delivery Systems	Jadavpur University, Kolkata	3rd April, 2017
2.	Gyan Prakash Modi	Development of novel neuroprotective agents for the treatment of Alzheimer's disease	Dept of Chemistry, IIT Roorkee	Dec. 22-24, 2017
		Development of Novel Multifunctional Drugs for Multifactorial Diseases	FDP at Dept of Pharmacy, Ashoka Inst. Tech. and Management, Varanasi.	Feb 1-5, 2018



### Honours and awards

S. No.	Name of Faculty Member	Details of Award
1.	Prof. B. Mishra	Life Time Achievement Award 2018 in Pharmaceutics Specialization, by Venus International Foundation, Chennai Pharma Ratan-Life Time Achievement Award 2017, Rab Di Meher (NGO), New Delhi.
		Distinguished HOD Award 2017, by CSI- Mumbai Chapter, Mumbai
		Distinguished Professor Award 2017, by CSI- Mumbai Chapter, Mumbai
2.	Gyan Prakash Modi	Outstanding Scientist in Medicinal Chemistry- Venus International Foundation, Nov 11 2017
		Outstanding Reviewer 2017: Bioorganic and Medicinal Chemistry, Elsevier

### Books, monographs authored/co-authored

S. No.	Name of Author/Co- Author	Title	Publisher
1.	Prof. B. Mishra	Multifunctional Nanocarrier Systems for Effective Delivery of Drugs in Cancer Treatment (Chapter)	IGI Global., USA.
		Nanotheranostics: Implications of Nanotechnology in Simultaneous Diagnosis and Therapy	CRC Press/Taylor & Francis Group, Florida, USA.
2.	Anuj Garg and Sanjay Singh	Transdermal drug delivery systems In Vitro and In Vivo tools in drug delivery research for optimum clinical outcomes	CRC Press ISBN No 9781138555600

### Editorial boards of journals

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1.	Prof. B. Mishra	Member	Recent Patents On Drug Delivery & Formulation
		Associate Editor	Journal of Pharmaceutical Research
		Editor-In-Chief	SPER Journal of Pharmaceutical Sciences [SJPS]
		Member	Austin Therapeutics
		Advisory Board Member	SPER Times
		Member	Journal of Advanced Pharmaceutical Technology and Research
		Member	Inventi Impact: Pharmaceuticals
		Member of Reviewer's panel	Pharmbit
		Editorial Advisors	The Pharmstudent
2.	Ruchi Chawla	Associate Editor	SPER Journal of Pharmaceutical Sciences





2.	Ruchi Chawla	Associate Editor	SPER Journal of Pharmaceutical Sciences
3.	Dr. M.S. Muthu	Editor-in-Chief	Research and Reviews: Pharmacology and Toxicology Studies
4.	Prasanta Kumar Nayak	Editorial Board Member	Journal Of Research Innovation And Management Science ( <a href="http://www.jrim.net/editorial-board">http://www.jrim.net/editorial-board</a> )
		Managing Editor	The Pharmstudent ( <a href="https://www.thepharmstudent.com/editorial_board.html">https://www.thepharmstudent.com/editorial_board.html</a> )

### Research Publications (In National and International Journals)

1. Yadav SK, Khan G, Bonde GV, Bansal M, Mishra B: Design, optimization and characterizations of chitosan fortified calcium alginate microspheres for the controlled delivery of dual drugs. *Artificial Cells, Nanomedicine and Biotechnology*. 46(6):1180-1193, 2018.
2. Yadav SK, Khan G, Bansal M, Bonde GV, Thokala S, Upadhyay U, Mishra B: Multiparticulate based thermosensitive intra-pocket forming implants for better treatment of bacterial infections in periodontitis. *International Journal of Biological Macromolecules*. 116:394-508, 2018.
3. Upadhyay M, Adena SKR, Vardhan H, Yadav SK, Mishra B: Development of biopolymers based interpenetrating polymeric network of capecitabine: A drug delivery vehicle to extend the release of the model drug. *International Journal of Biological Macromolecules*. 115:907-919, 2018.
4. Yadav SK, Khan G, Bonde GV, Bansal M, Mishra B: Quality By Design And Evaluation Of Crosslinked Chitosan Microspheres For The Controlled Delivery Of Doxycycline Hyclate. *Drug Delivery Letters*. 8(2):116-129, 2018.
5. Jha RK, Yadav SK, Chawla R, Pandey S, Mishra B. Development and evaluation of microsphere based mucoadhesive discs of raloxifene hydrochloride. *SPER Journal of Pharmaceutical and Biological Research*. 1(1):14-19, 2018.
6. Deb A, Mandurnekar AA, Rani V, Chauhan T, Mishra B, Chawla R. Formulation and evaluation of curcumin loaded nanofilms for the treatment of wounds. *SPER Journal of Pharmaceutical and Biological Research*. 1(1):5-9, 2018.
7. Pandey S, Mishra S, Purohit S, Mishra B, Chaudhary A: *In vitro* drug release and study of anti-inflammatory effect of rasna saptak kwath. *Asian Journal of Pharmaceutics*. 11(4)(Suppl):S718-722, 2017.
8. Sheetal, Bansal M, Khan G, Yadav SK, Singh AK, Prakash P, Mishra B: Development, optimization and evaluation of curcumin loaded biodegradable crosslinked gelatin film for the effective treatment of periodontitis. *Drug Development and Industrial Pharmacy*. 44(7):121-1221, 2018.
9. Chaurasia S, Patel RR, Vure P, Mishra B: potential of cationic-polymeric nanoparticles for oral delivery of naringenin: *in vitro* and *in vivo* investigations. *Journal of Pharmaceutical Sciences*. 107:706-716, 2018.
10. Chaubey P, Mishra B, Mudavath SL, Patel RR, Chaurasia S, Sundar S, Suvana V, Monteiro M: Mannose-conjugated curcumin-chitosan nanoparticles: Efficacy and toxicity assessments against *Leishmania donovani*. *International Journal of Biological Macromolecules*. 111:109-120, 2018.
11. Adena SKR, Upadhyay M, Vardhan H, Mishra B: Development, optimization, and *in vitro* characterization of dasatinib-loaded PEG functionalized chitosan capped gold nanoparticles using Box-Behnken experimental design. *Drug Development and Industrial Pharmacy*. 44(3):493-501, 2018.
12. Bonde GV, Yadav SK, Chauhan S, Mittal P, Ajmal G, Thokala S, Mishra B: Lapatinib nano-delivery systems: a promising future for breast cancer treatment. *Expert Opinion on Drug Delivery*. 15(5):495-507, 2018.
13. Bonde GV, Upadhyay M, Ajmal G, Mittal P, Hardikar SR, Mishra B. Polyethylene glycol block polymeric micelle: A promising delivery vehicle for lymphatic targeting. *SPER Journal of Pharmaceutical and Biological Research*. 1(1):1-4, 2018.



14. Upadhyay M, Adena SKR, Vardhan H, Pandey S, Mishra B: Development and optimization of locust bean gum and sodium alginate interpenetrating polymeric network of capecitabine. *Drug Development and Industrial Pharmacy*. 44(3):511-521 2018.
15. Vardhan H, Mittal P, Adena SKR, Upadhyay M, Yadav SK, Mishra B: Process optimization and *in vivo* performance of docetaxel loaded PHBV-TPGS therapeutic vesicles: A synergistic approach. *International Journal of Biological Macromolecules*. 108:729-743, 2018.
16. Bansal M, Mittal N, Yadav SK, Khan G, Gupta P, Mishra B, Nath G: Periodontal thermoresponsive, mucoadhesive dual antimicrobial loaded *in situ* gel for the treatment of periodontal disease: *in vitro* characterization and antimicrobial study. *Journal Of Oral Biology And Craniofacial Research*. 8:126-133, 2018.
17. Pandey S, Mishra S, Purohit S, Mishra B, Chaudhary A: *In vitro* drug release and study of anti-inflammatory effect of rasna saptak kwath. *Asian Journal of Pharmaceutics*. 11(4)(Suppl):S718-722, 2017.
18. Singh AK, Prakash P, Singh R, Nandy N, Firdaus Z, Bansal M, Singh RK, Srivastava A, Roy JK, Mishra B, Singh RK: Curcumin Quantum Dots Mediated Degradation of Bacterial Biofilms. *Frontiers in Microbiology*. 8:1517, 2017
19. Yadav SK, Khan G, Bansal M, Vardhan H, Mishra B: Screening Of Ionically Crosslinked Chitosan-Tripolyphosphate Microspheres Using Plackett-Burman Factorial Design For The Treatment Of Intrapocket Infections. *Drug Development and Industrial Pharmacy*. 43(11):1801-1816, 2017.
20. Khan G, Yadav SK, Patel RR, Kumar N, Bansal M, Mishra B: Tinidazole Functionalized Homogeneous Electrospun Chitosan/Poly(E-Caprolactone) Hybrid Nanofiber Membrane: Development Optimization And Its Clinical Implications. *International Journal of Biological Macromolecules*. 103: 1311-1326, 2017.
21. Vardhan H, Mittal P, Adena SKR, Upadhyay M, Mishra B: Development Of Long-Circulating Docetaxel Loaded Poly(3-Hydroxybutyrate-Co-3-Hydroxyvalerate) Nanoparticles: Optimization, Pharmacokinetic, Cytotoxicity And *In-vivo* Assessments. *International Journal of Biological Macromolecules*. 103: 791-801, 2017.
22. Chaurasia S, Patel RR, Vure P, Mishra B: Oral Naringenin-Nanocarriers: Fabrication, Optimization, Pharmacokinetic And Chemotherapeutic Efficacy Assessments. *Nanomedicine*, 12(11): 1243-1260. 2017.
23. Kumar N, Chaurasia S, Patel RR, Khan G, Kumar V, Mishra B: Atorvastatin Calcium Encapsulated Eudragit Nanoparticles with Enhanced Oral Bioavailability, Safety and Efficacy Profile. *Pharmaceutical Development and Technology*. 22(2): 156-167, 2017.
24. Mishra M, Yadav SK, Mishra B: Antibacterial loaded Spray Dried Chitosan Polyelectrolyte Complexes as Dry Powder Aerosol for the Treatment of Lung Infections. *Iranian Journal of Pharmaceutical Research*. 16(1):74-92, 2017.
25. Mishra B, Padaliya R, Patel RR: Exemestane Encapsulated Vitamin E-TPGS-Polymeric Nanoparticles: Preparation, Optimization, Characterization and In-vitro Cytotoxicity Assessment. *Artificial Cells, Nanomedicine and Biotechnology*. 45(3):522-534, 2017.
26. Vardhan H, Mittal P, Sandeep Kumar Reddy A, Mishra B: Long circulating polyhydroxybutyrate-co-hydroxyvalerate nanoparticles for tumor targeted docetaxel delivery: Formulation, optimization and *in vitro* characterization. *European Journal of Pharmaceutical Sciences*. 99:85-94, 2017.
27. Bonde GV, Yadav SK, Chauhan S, Mittal P, Ajmal G, Thokala S, Mishra B: Lapatinib nano-delivery systems: a promising future for breast cancer treatment. *Expert Opinion on Drug Delivery*. 15(5):495-507, 2018.
28. Bonde GV, Upadhyay M, Ajmal G, Mittal P, Hardikar SR, Mishra B. Polyethylene glycol block polymeric micelle: A promising delivery vehicle for lymphatic targeting. *SPER Journal of Pharmaceutical and Biological Research*. 1(1):1-4, 2018.
29. Purohit P, Mishra B: Systematic Review On Interaction Studies Of Synthetic Antidiabetic Drugs And Herbal Therapies. *Journal of Pharmaceutical Research*. 16(2):86-94, 2017.
30. Purohit P, Mishra B: Exploring Guar Gum: Dietary Adjunct To Novel Drug Delivery Systems. *Asian Journal of Complementary And Alternative Medicine*. 5(13):9-14, 2017.



31. Upadhyay M, Sandeep Kumar Reddy A, Bonde GV, Muthu MS, Mishra B: Synthetic Hydrogels: Applications in Drug Delivery And Tissue Engineering. *Austin Journal of Biomedical Engineering*. 4(1): 1037, 2017.
32. Chaurasia S, Mishra B: Design of novel chemotherapeutic delivery system for colon cancer therapy based on oral polymeric nanoparticles. *Therapeutic Delivery*. 8(1):29-47, 2017.
33. Dewangan, H., Lakshmi, Singh, S., (2017). Rational Design and Evaluation of HBsAg Polymeric Nanoparticles as Antigen Delivery Carriers. *International Journal of Biological Macromolecules*. Volume 111, Pages 804-812.
34. Dewangan, H., Pandey, T., Singh, S., (2017). Nanovaccine for Immunotherapy and Reduced Hepatitis-B Virus in Humanized Model. *Artificial Cells, Nanomedicine and Biotechnology*, 1-10.
35. Kosuru Ramoji, S., Singh (2018): Pterostilbene Decreases Cardiac Oxidative Stress and Inflammation via Activation of AMPK/Nrf2/HO-1 Pathway in Fructose-Fed Diabetic Rats. *Cardiovascular Drugs and Therapy*, 1-17.
36. Lakshmi., Vijayakumar M.R., G. Narayana, Singh S., (2018). Vitamin E TPGS emulsified vinorelbinebitartrate loaded solid lipid nanoparticles (SLN): Preparation, optimization, characterization and in vitro anticancer efficacy against MCF-7 breast cancer cell lines. *Current Drug Delivery* (Accepted)
37. Dewangan, H., Pandey, T., Singh, S., (2018), Hepatitis B Antigen Loaded Biodegradable Polymeric Nanoparticles: Formulation Optimization and In-vivo Immunization in BALB/c Mice. *Current Drug Delivery* (Accepted)
38. Sharma S, Hemalatha S. DNA Fingerprinting Profile and Quality Control, Standardization of Folklore Medicinal Plant *Exacumlawii*. *Pharmacognosy Journal*. 2017;9(6).
39. Sharma, Sonam, Arusha Modi, Gopeshwar Narayan, and Siva Hemalatha. "Protective effect of *Exacumlawii* on cisplatin-induced oxidative renal damage in rats." *Pharmacognosy magazine* 13, no. Suppl 4 (2018): S807.(I.F- 1.5)
40. Sharma S, Nath G, Hemalatha S. Antimicrobial activity of *Exacumlawii* extracts and volatile oil against ocular infection. *International journal of pharmaceutical sciences and research*. 2018 jun 1;9(6):2266-72.
41. Hemalatha S. Antiuro lithic activity of different fractions of *Aganosmadichotoma* as folk medicine of Andhra Pradesh. *International Journal of Green Pharmacy (IJGP)*. 2017 Jul 15;11(02).
42. Prajapati SK, Garabadu D, Krishnamurthy S. Coenzyme Q10 prevents mitochondrial dysfunction and facilitates pharmacological activity of atorvastatin in 6-OHDA induced dopaminergic toxicity in rats. *Neurotoxicity research*. 2017 May 1;31(4):478-92.
43. Kushwah S, Kumar A, Basu S, Krishnamurthy S, Kumar A. Comparison of cerebrospinal fluid Cytochrome-c and Caspase-9 as biomarkers for newborns with hypoxic ischemic encephalopathy with non-asphyxiated babies and followup of these biomarkers after day 7. *International Journal of Research in Medical Sciences*. 2017 Jan 10;3(8):2034-40.
44. Tripathi A, Paliwal P, Krishnamurthy S. Piracetam attenuates LPS-induced neuroinflammation and cognitive impairment in rats. *Cellular and molecular neurobiology*. 2017 Nov 1;37(8):1373-86.
45. Paliwal P, Dash D, Krishnamurthy S. Pharmacokinetic study of piracetam in focal cerebral ischemic rats. *European journal of drug metabolism and pharmacokinetics*. 2018 Apr 1;43(2):205-13.
46. Kumar S, Mishra A, Krishnamurthy S. Purinergic antagonism prevents mitochondrial dysfunction and behavioral deficits associated with dopaminergic toxicity induced by 6-OHDA in rats. *Neurochemical research*. 2017 Dec 1;42(12):3414-30.
47. Garabadu D, Krishnamurthy S. Metformin attenuates hepatic insulin resistance in type-2 diabetic rats through PI3K/Akt/GLUT-4 signalling independent to bicuculline-sensitive GABAA receptor stimulation. *Pharmaceutical biology*. 2017 Jan 1;55(1):722-8.
48. Sharma P, Kumari A, Gulati A, Krishnamurthy S, Hemalatha S. Chrysin isolated from *Pyrus pashia* fruit ameliorates convulsions in experimental animals. *Nutritional neuroscience*. 2017 Dec 29:1-9.
49. Paliwal P, Chauhan G, Gautam D, Dash D, Patne SC, Krishnamurthy S. Indole-3-carbinol improves



- neurobehavioral symptoms in a cerebral ischemic stroke model. *Naunyn-Schmiedeberg's archives of pharmacology*. 2018 Jun 1;391(6):613-25.
50. Arepalli SK, Tripathi H, Manna PP, Pankaj P, Krishnamurthy S, Patne SC, Pyare R, Singh SP. Preparation and in vitro investigation on bioactivity of magnesia-contained bioactive glasses. *Journal of the Australian Ceramic Society*. 2018:1-1.
  51. Arepalli SK, Tripathi H, Manna PP, Pankaj P, Krishnamurthy S, Patne SC, Pyare R, Singh SP. Enhanced in vivo biocompatibility of magnesia-contained bioactive glasses. *Journal of the Australian Ceramic Society*. 2018:1-6.
  52. Hussain Y, Krishnamurthy S. Piracetam attenuates binge eating disorder related symptoms in rats. *Pharmacology Biochemistry and Behavior*. 2018 Jun 1;169:35-47.
  53. Gupta SK, Mesharam MK, Krishnamurthy S. Electromagnetic radiation 2450 MHz exposure causes cognition deficit with mitochondrial dysfunction and activation of intrinsic pathway of apoptosis in rats. *Journal of biosciences*. 2018 Jun 1:1-4.
  54. Samaiya PK, Narayan G, Kumar A, Krishnamurthy S. 2, 4 Dinitrophenol Attenuates Mitochondrial Dysfunction and Improves Neurobehavioral Outcomes Postanoxia in Neonatal Rats. *Neurotoxicity research*. 2018 Mar 26:1-6.
  55. Kumar G, Paliwal P, Mukherjee S, Patnaik N, Krishnamurthy S, Patnaik R. Pharmacokinetics and brain penetration study of chlorogenic acid in rats. *Xenobiotica*. 2018 Mar 7:1-7.
  56. Kumar D, Gupta SK, Ganeshpurkar A, Gutti G, Krishnamurthy S, Modi G, Singh SK. Development of Piperazinediones as dual inhibitor for treatment of Alzheimer's disease. *European journal of medicinal chemistry*. 2018 Apr 25;150:87-101.
  57. Reddy NR, Krishnamurthy S. Repeated olanzapine treatment mitigates PTSD like symptoms in rats with changes in cell signaling factors. *Brain research bulletin*. 2018 Jun 11.
  58. Mishra A, Chandravanshi LP, Trigun SK, Krishnamurthy S. Ambroxol modulates 6-Hydroxydopamine-induced temporal reduction in Glucocerebrosidase (GCase) enzymatic activity and Parkinson's disease symptoms. *Biochemical pharmacology*. 2018 Sep 1;155:479-93.
  59. Paliwal P, Kumar AS, Tripathi H, Singh SP, Patne SC, Krishnamurthy S. Pharmacological application of barium containing bioactive glass in gastro-duodenal ulcers. *Materials Science and Engineering: C*. 2018 Nov 1;92:424-34.
  60. Agrawal, P., Singh, R.P., Sonali, Kumari, L., Mehata, A.K., Sharma, G., Singh, S., Rajesh, C.V., Koch, B., Pandey, B.L., Muthu, M.S. (2017): TPGS-chitosan crosslinked targeted nanoparticles for effective brain cancer therapy. *Material Science and Engineering: C*. 74, 167-176. IF: 5.080
  61. Muthu M.S., Mehata, A.K., Viswanadh, M.K. (2017): Upconversion nanotheranostics: emerging designs for integration of diagnosis and therapy. *Nanomedicine* 12(6), 577-580. IF: 5.005
  62. Singh R.P., Sharma G., Sonali., Muthu M.S. (2017): Chitosan-folate decorated carbon nanotubes for site specific lung cancer delivery. *Mater Sci Eng C Mater Biol Appl*. 77, 446-458. IF: 5.080
  63. Sonali, Singh, R.P., Viswanadh, M.K., Singh, S., Muthu, M.S. (2017): Mesoporous Silica Nanoparticles for Brain Cancer Theranostics. *The Pharmstudent*. 28, 36-44.
  64. Sonali, Viswanadh M.K., Singh, R.P., Agrawal, P., Mehata, A.K., Pawde, D.M., Narendra., Sonkar, R., Muthu. M.S. (2018): Nanotheranostics: Emerging strategies for early diagnosis and therapy of brain cancer. *Nanotheranostics*. 2(1), 70-86.
  65. Kumar M and Nayak PK (2017), Psychological sequelae of myocardial infarction. *Biomedicine & Pharmacotherapy* 95: 487-496. <http://dx.doi.org/10.1016/j.biopha.2017.08.109>.
  66. Shivavedi N, Kumar M, Tej GNVC, Nayak PK (2017), Metformin and ascorbic acid combination therapy ameliorates type 2 diabetes mellitus and comorbid depression in rats. *Brain Research* 1674: 1?9. <http://dx.doi.org/10.1016/j.brainres.2017.08.019>.
  67. Kumar M and Nayak PK (2017), Therapeutic potential of rosmarinic acid in myocardial infarction and post-myocardial infarction depression: the role of tumor necrosis factor- $\alpha$ . *The Pharmstudent* 28: 18?26.





68. Rati K.P.Tripathi, Vishnu, MS, Suresh KG, Sairam K, Senthil Raja A Design, synthesis, and pharmacological evaluation of 2-amino-5-nitrothiazole derived semicarbazones as dual inhibitors of MAO and AChE: effect of the size of aryl binding site, *J Enz Inhibition Med Chem* 2017, 33 (1), 37-57. (IF: 4.2)
69. Rati K.P.Tripathi, Senthil Raja A Evaluation of 2-amino-6-nitrobenzothiazole derived hydrazones as acetylcholinesterase inhibitors: In-vitro assays, molecular docking and theoretical ADMET prediction. *Med Chem Res*, 2017, 1-17 (IF: 1.2)
70. Rati K.P.Tripathi, Senthil Raja A Anticonvulsant activity, organotypic hippocampal neuroprotection assay and in-silico sodium channel blocking potential of 2-amino-6-nitrobenzothiazole derived semicarbazones. *Biomed Pharmacother*, 2017, 95, 1451-1460. (IF: 2.8)
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72. Seth A, Sharma P, Tripathi A, Choubey P, Srivastava P, Tripathi P & Shrivastava S. (2018) Design, Synthesis, Evaluation and Computational Studies of Nipectic Acid-Acetonaphthone Hybrids as Potential Antiepileptic Agents. *Medicinal Chemistry (Sharjah (United Arab Emirates))*. In Press- Accepted (I.F.: 2.331)
73. Seth A, Sharma P, Tripathi A, Choubey PK, Srivastava P, Tripathi PN, Shrivastava SK (2018) Design, synthesis, evaluation and molecular modeling studies of some novel N-substituted piperidine-3-carboxylic acid derivatives as potential anticonvulsants. *Medicinal Chemistry Research*, 27, 1206-1225. (I.F.: 1.277)
74. Shrivastava SK, Srivastava P, Bandresh R, Tripathi PN, Tripathi A (2017) Design, synthesis, and biological evaluation of some novel indolizine derivatives as dual cyclooxygenase and lipoxxygenase inhibitor for anti-inflammatory activity. *Bioorganic & Medicinal Chemistry*, 25, 4424-4432. (IF: 2.930).

## Research Activities

### Proceedings of International Conferences

1. Krishna Kumar Patel, Shilpkala Gade and Sanjay Singh. Development of Moxifloxacin loaded Nanostructured Lipid Carriers for Effective Treatment of Endophthalmitis. *Scientific Frontiers in Natural Product Based Drugs at National University of Singapore*, Singapore during 6-7 Jul 2017.
2. Ramoji Kosuru, Sanjay Singh. Effect of Pterostilbene Supplementation on Insulin Resistance and Metabolic Syndrome in Fructose-fed Diabetic Rats. *Scientific Frontiers in Natural Product Based Drugs at National University of Singapore*, Singapore. 6-7 Jul 2017. (Recipient of Best Poster Award).
3. Neogi K and Nayak PK. 2018. Identification of novel  $\beta$ -catenin/TCF4 interaction inhibitors from ZINC database: A combination of ligand based pharmacophore modeling, drug likeness filter, and structure based molecular docking studies. *International conference on Emerging Trends in Drug Discovery and Development*, Varanasi, India (18-20 January 2018).
4. 2. Neogi K and Nayak PK. 2018. Identification of some natural products as  $\beta$ -catenin/TCF4 interaction inhibitor from ZINC database: A combination of ligand based qualitative 3-D pharmacophore modeling, drug likeness filter, and structure based molecular docking, and in silico ADMET analysis. *International conference on Trends in Biochemical and Biomedical Research: Advances and Challenges*, Varanasi, India (13-15 February 2018).
5. "Design, synthesis and characterization of novel molecules used in the treatment of Alzheimer disease" Amruta Pandey, Swati Vishwakarma, Yash Pal Singh and Gyan Modi (ETDDD, 2018, IIT (BHU), Varanasi).
6. Shivani Jaiswal, Senthil Raja A, Nira Mishra, Scaffold hopping hided design of some isatin based rigid analogs as fatty acid amide hydrolase inhibitors – synthesis and evaluation. *World Health Congress – 2017*, 21-22 August 2017, held at Hyderabad.
7. Sandeep Kumar, Vishnu, MM, Senthil Raja A. "Exploration of a library of benzimidazole derived hydrazones as dual inhibitors of acetylcholinesterase and monoamine oxidases" in the international conference on "Emerging Trends in Drug Discovery and Development" (ETDDD-2018) from 18th -20th January 2018, Department of Agricultural science, BHU.





8. Vishnu, MM, Senthil Raja A. "Protein crystallography and structure-based drug design – promising tools in the discovery of potent neurotherapeutic agents" in the 45th National Seminar on Crystallography (NSC 45) from 9th - 12th July 2017, IIT (BHU).

#### Proceedings of National Conferences

1. Pankaj Paliwal and Sairam Krishnamurthy. Pharmacokinetic study of Piracetam in focal cerebral ischemic rats. International conference on ETDDD, Department of Pharmaceutical Engineering and Technology 2018 Jan 18-21.
2. Sukesh Kumar Gupta and Sairam Krishnamurthy. Exposure to electromagnetic radiation 2450 MHz induces Beta amyloid toxicity in experimental rats. International conference on ETDDD, Department of Pharmaceutical Engineering and Technology 2018 Jan 18-21.
3. Akanksha Mishra, Sudha Prajapati and Sairam Krishnamurthy. Taxifolin shows anti-PD like effect in 6-hydroxydopamine toxicity in rats. International conference on ETDDD, Department of Pharmaceutical Engineering and Technology 2018 Jan 18-21.
4. Santosh Kumar Prajapati, Durgesh Singh Dangi and Sairam Krishnamurthy. Chronic caffeine intake aggravates behavioural symptoms in stress re-stress model of Post-traumatic stress disorder. International conference on ETDDD, Department of Pharmaceutical Engineering and Technology 2018 Jan 18-21.
5. Qadir Alam and Sairam Krishnamurthy. Anti-neuroinflammatory Activity of Dihydroquercetin on LPS Model of Neuroinflammation. International conference on ETDDD, Department of Pharmaceutical Engineering and Technology 2018 Jan 18-21.
6. Anindita Bhattacharjee, Neha Singh, Santosh Kumar Prajapati and Sairam Krishnamurthy. Re-stress cue differentially modulate PTSD-like symptoms in modified stress re-stress model. International conference on ETDDD, Department of Pharmaceutical Engineering and Technology 2018 Jan 18-21.
7. Smriti Gupta, Sukesh Kumar Gupta, Rjat Vig and Sairam Krishnamurthy. Silibinin exhibits protective and healing effects in gastric ulcer models. International conference on ETDDD, Department of Pharmaceutical Engineering and Technology 2018 Jan 18-21.
8. Pankaj Paliwal, Alok Tripathi and Sairam Krishnamurthy. Piracetam ameliorates LPS induced neurotoxicity in rats. International Conference on Trends in Biochemical and Biomedical Research: Advances and Challenges (TBBR), Dept of Biochemistry, Banaras Hindu University; 2018 Feb 13 – 15.
9. Sukesh Kumar Gupta and Sairam Krishnamurthy. Exposure to electromagnetic radiation 2450 MHz causes cholinergic toxicity in experimental rats International Conference on Trends in Biochemical and Biomedical Research: Advances and Challenges (TBBR), Dept of Biochemistry, Banaras Hindu University; 2018 Feb 13 – 15.
10. Akanksha Mishra, Saket Kumar and Sairam Krishnamurthy. Neuroprotective effect of brilliant blue-G in 6-OHDA induced PD model. International Conference on Trends in Biochemical and Biomedical Research: Advances and Challenges (TBBR), Dept of Biochemistry, Banaras Hindu University; 2018 Feb 13 – 15.
11. Santosh Kumar Prajapati and Sairam Krishnamurthy. Co-enzyme Q10 attenuates mitochondrial dysfunction and facilitates pharmacological activity of atorvastatin in 6-OHDA induced dopaminergic toxicity in rats. 2nd IBRO/APRC Chandigarh Neuroscience Symposium going to held at Panjab University, Chandigarh 2017 Oct 12.

#### Research Projects

1. "Experimental Evaluation of Geroprotective Activity of Some Compounds"; Natreon Inc.USA; Rs.22,06,800/- 2016-2018
2. "Evaluation of some compounds in experimental Alzheimer's Disease" ; Natreon Inc.USA; Rs.29,40,000/- 2016-2018
3. Pharmacological effect of novel formulation in experimental allergic encephalomyelitis rodent model; M/S Disto Pharmaceuticals Pvt. Ltd.Hyderabad.; Rs.5,04,000/-- 2016-2018
4. "Pharmacology of Natural Drugs in Obesity and Eating Disorders" sponsored by Natreon Inc.USA; Rs. 26,54,600/-,2018-2020.



### Patent Applications

1. "An Oral Composition Of Indole-3-Carbinol and A Method Of Preparation Thereof" by Sairam Krishnamurthy, Pankaj Paliwal and Gaurav Chauhan. Indian Patent filed on July 2017, Application No. 201711026941.
2. "An Oral Bioactive Glass Formulation Containing Aqueous Micronized Barium Oxide for Treating Gastro-Duodenal Ulcers" by Sairam Krishnamurthy, Pankaj Paliwal and Sampath Kumar Arepalli. Indian Patent filed on September 2017, Application No. 201711031854.
3. "A Bioactive Glass Based Formulation for Treating Cerebral Ischemic Reperfusion Injury And Method Thereof" by Sairam Krishnamurthy and Pankaj Paliwal. Indian Patent filed on September 2017, Application No. 201711032099.
4. "A Bioactive Glass Scaffold and A Method of Preparation Thereof" by Sairam Krishnamurthy, Pankaj Paliwal, Shreyasi Majumdar and Sampath Kumar Arepalli. Indian Patent filed on October 2017. Application No. 201711035474.
5. "Formulation of silver containing bioactive glass" by Sairam Krishnamurthy, Pankaj Paliwal Indian Patent filed on May 2018. Application No. 201811017805
6. "A Novel Formulation of Dabigatran Solid Dispersion Formulation and a Method of Preparation Thereof" by Sairam Krishnamurthy, Pankaj Paliwal. Indian Patent filed on August 2018. Application No. 201811029316
7. Modgalya, D., Banerjee, A.G., Sharma, P.A., Shrivastava, S.K., Bhattacharjee, J., Singh, S. A Process for Preparation of Pharmaceutical Active Novel N-(9-(4-chlorophenyl)-3-hydroxy-9H-xanthene-7-yl)-acetamide. Indian Patent (Application No. 3858/DEL/2011) Status- Published on 02/06/2017.
8. Shrivastava, S.K., & Sinha, S. Cholinesterase Inhibiting Compounds, Compositions And Process Thereof. Indian Patent (Application No. 201611011127) Status- Published on 26/01/2018

### International collaboration/achievements by the Department/School

- **Dr. Sairam K.-** *With Nateon Ins. USA.*
- **Dr. G.P. Modi** admitted as a Member (MRSC) of The Royal Society of Chemistry, Life membership of society of chemistry and biologists & Life membership of Association of pharmaceutical teachers of India
- **Dr. Senthil Raja A,** Won Bronze Medal (Inter IIT Volleyball Championship) during the 24th Inter IIT Staff Sports Meet 2017 held at IIT, Madras.

### Distinguished visits in the Department/School from India

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Dr B. Ramachandran Research Coordinator (Chemistry) Accendere Knowledge Management Services Pvt Ltd	Orientation program for UG/PG students	8th April, 2017
2.	Dr. J.P. Prasad, Head of Blood Product and Quality Management, National Institute of Biological	Spirit '18 National Seminar on "Quality Control and Biotherapeutics"	3rd Feb, 2018, Krishi Shatabdi Bhawan, BHU
3.	Dr. G.N.Srivastava Department of TB & Respiratory Diseases, Institute of medical Sciences Banaras Hindu University	Spirit '18 National Seminar on "Quality Control and Biotherapeutics"	3rd Feb, 2018, Krishi Shatabdi Bhawan, BHU



### Distinguished Visits in the Department/School from abroad

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Dr. Nitin Bapat Sr. Scientist, Procter & Gamble, Loveland, Ohio, USA	To chair the session of ETDDD-2018 organised by the Department	19 Jan, 2018 Shatabdi Krishi Prekshagrih, BHU
2.	Dr. S Gupta President & CEO, Asana Bioscience, New Jersey, USA	To give lecture in ETDDD-2018 organised by the Department	19 Jan, 2018 Shatabdi Krishi Prekshagrih, BHU
3.	Dr. A. Zutshi Director, Translational Pharmacology, EMD Serono, Massachusetts, USA	To give lecture in ETDDD-2018 organised by the Department	19 Jan, 2018 Shatabdi Krishi Prekshagrih, BHU
4.	Dr. P.C. Bansal Senior Vice President, Amneal Pharmaceuticals, New Jersey, USA	To give lecture in ETDDD-2018 organised by the Department	19 Jan, 2018 Shatabdi Krishi Prekshagrih, BHU
5.	Prof. L. Dwoskin University of Kentucky, Kentucky and Co-founder and Vice- President of Yaupon Therapeutics, Inc, USA	To give lecture in ETDDD-2018 organised by the Department	19 Jan, 2018 Shatabdi Krishi Prekshagrih, BHU
6.	Dr. D.K. Jaiswal DMRK Pharmaceutical Consulting Company LLC, New York, USA	To chair the session of ETDDD-2018 organised by the Department	20 Jan, 2018 Shatabdi Krishi Prekshagrih, BHU
7.	Dr. L. Gheber Ben-Gurion University of the Negev, Be'erSheva, Israel	To give lecture in ETDDD-2018 organised by the Department	20 Jan, 2018 Shatabdi Krishi Prekshagrih, BHU
8.	Dr. B. Akabayov Ben-Gurion University of the Negev, Be'erSheva, Israel	To give lecture in ETDDD-2018 organised by the Department	20 Jan, 2018 Shatabdi Krishi Prekshagrih, BHU





**HPLC Systems: Sophisticated Instruments Laboratory,  
Department of Pharmaceutical Engg & Tech., IIT (BHU)**



**FTIR – ATR Instrument, Sophisticated Instruments Laboratory  
Department of Pharmaceutical Engg & Tech., IIT (BHU)**



**Flash chromatography and Microplate Reader, Pharmaceutical Chemistry Research Lab,  
Department of Pharmaceutical Engg & Tech., IIT (BHU)**



# 17. Department of Chemistry

Year of Establishment : 1985

**Head of the Department :** Prof. Rashmi Bala Rastogi

## Brief Introduction of the Department/School

The Department of Chemistry, IIT-BHU, previously known as Department of Applied Chemistry (Institute of Technology), was established in the year of 1985. Earlier this Department was functioning as a Section in the School of Basic Sciences in Banaras Hindu University-Varanasi. This Department currently constitutes 16 faculty members including 08 Professors, 1 Institute professor, 2 Associate Professors and 5 Assistant Professors. The prime responsibility of the department is to organize the teaching of chemistry courses in various B. Tech and integrated M. Tech programs. In addition, this department is also providing an excellent research platform to the students in various thrust areas of chemistry.

The Department of Chemistry offers a five-year Dual Degree M. Tech program in Industrial Chemistry and Ph. D programs in Organic, Inorganic, Physical and Analytical chemistry. More than 100 PhD's have been awarded from this department and about 50 students are currently pursuing their research. Research programs in the department have been supported by DST, CSIR, BRNS, UGC and AICTE. The department has received 85 lakhs from DST-FIST for the establishment of research and teaching facilities. The department is presently equipped with primary instruments including AAS, AFM, UV-Vis spectrophotometers, FTIR, and powder-XRD, Particle size analyser, NMR, etc.

## Major areas of Research

Computational Chemistry, Nanoparticles for adsorption and catalytic applications; Composite materials  
Organic synthesis, Carbohydrate chemistry; Photocatalytic degradation  
Corrosion Inhibitors, Ant wear/Extreme Pressure Lubricant Additives, Sensors, Energy materials.

## Area of the Department/School (in square meters)

503 square meter (Total Plinth Area)

## Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	03
2	No. of Lecture Halls	03
3	No. of Laboratory	03
4	No. of Computers available for students in the Department/School	15

## Unique Achievement / Preposition of the Department/School

Department purchased Atomic Force Machine (AFM) under the DST-FIST Grant.

Resource person UPSC new Delhi, 2017.

Professor Incharge of NMR spectroscopy, CIF, IIT(BHU).

## Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech/B. Pharm	---	---	---	---	---
2	Dual Degree	14	19	16	12	13
3	M. Tech/ M. Pharm	---	---	---	---	---
4	Ph. D (Under Institute Fellowship)	41 Fellowships				





5	Ph. D (Under External Fellowship)	12 (Project: 02 + UGC: 03 + CSIR: 07 Fellowships)				
6	Ph. D (Under Sponsored Category)	---	---	---	---	---

### Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From
<b>INDIA</b>					
1	Ashutosh Kumar	12611EN011	CACEE-2018	10 JAN. 2018	Department of Chemistry and R&D IIT BHU
2	Ankush Mishra	13051503	ICMS Kerala	8-10 Dec. 2017,	Department of Chemistry and R&D IIT BHU
3	Sachin Mishra	13051005	Conference	12 Aug 2017, Aligarh Muslim University	Student Travel Grant Support, office of the Dean (Research and Development) & Department of Chemistry (?3835
4	Somaiah Gajaganti	13051012	NOST, BHU, Varanasi	09-12 Nov. 2017	Department of Chemistry and R&D IIT BHU
5	Joshi Prathamesh Ganesh	14053006	CORSYM-2018	23-24 March 2017, Chennai	Department of Chemistry and R&D IIT BHU
6	Priyanka Chaudhary	14051007	XIII J-NOST Conference	9-12 Nov 2017 & BHU (Varanasi)	Department and R & D section
7	Titto Sunil John	14053013	ABSMSNW, 2017	24-27 February 2017, IIT(BHU)	Department of Chemistry and R&D IIT BHU
8	Shwarnima Singh	15051002	ICANN, 2017	18-21 Dec. 2017, IIT Guwahati	Department of Chemistry and R&D IIT BHU
9	Swati Chauhan	15051004	ICMS, 2017	08-10 Dec. 2017, Kerala	Department of Chemistry and R&D IIT BHU
10	Sunil Kumar	15051005	ICANN, 2017	18-21 Dec. 2017, IIT Guwahati	Department of Chemistry and R&D IIT BHU
11	Adesh Kumar Singh	15051008	Emerging Chemistry and Biology of Carbohydrate	Dec 18-20, 2017, IIT-Kharagpur	Department of Chemistry and R&D IIT BHU



12	Pratibha Verma	15051009	ICMS, 2017	08-10 Dec. 2017, Kerala	Department of Chemistry and R&D IIT BHU
13	Dinesh Kumar Verma	15051010	ICIT, 2017	06-09 Dec. 2017, Kolkata	Department of Chemistry and R&D IIT BHU
14	Jiyaul Haque	15051011	CORSYM 2018	23-24 March, 2018	IIT(BHU)
15	Daraksha Bano	15051012	ICANN, 2017	18-24 Dec. 2017	Department of Chemistry and R&D IIT BHU
16	Savita Kumari	16051002	International Conference on Emerging Trends in Chemical Science	Feb 24-25, 2018 at Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur-273009 UP India	TAship
17	Sadaf Azeez	16051004	CFOS-2017 IIT-ROORKEE	22-24 Dec 2017 IIT-Roorkee	Department of Chemistry, R&D, IIT (BHU)
18	Varsha Tiwari	16051009	ECBC, IIT- Kharagpur	18-20 Dec. 2017, IIT-Kharagpur	Department of Chemistry, R&D, IIT (BHU)
19	Jyoti Kuntail	16051504	ICANN, 2017	18-21 Dec. 2017, IIT Guwahati	Department of Chemistry, R&D, IIT (BHU)

#### Names of scholars/students who won Convocation/Institute Day prizes

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Jain Yash Manoj	14053005	Institute Day	Head of Department
2	Ashutosh Kumar	12611EN011	Institute Day	Head of Department

#### Names of Students/Scholars who went for foreign Internship

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Naman Katyal	13053004	University College London	London, UK	UK	8th May 2017 to 04 Aug. 2017
2	Titto Sunil John	14053013	National University of Singapore	Singapore	Singapore	15.5.2017 to 21 July 2017
3	Jain Yash Manoj	14053005	Technische Universität Darmstadt (DAAD - WISE)	Germany	Germany	15May 2017 to 15 Aug. 2017

**Faculty & their Activity****Faculty and their areas of specialisation**

S. No.	Name	Major Areas of Specialization
<b>PROFESSORS</b>		
1	Prof. Rashmi Bala Rastogi	Corrosion Inhibitors, Antiwear / Extreme Pressure Lubricant Additives
2	Prof. P. C. Pandey	Sensors Technology, bioelectrochemistry, Organically modified silicate based Nanomaterial and optoelectrochemistry
3	Prof. A. K. Mukherjee	Physical Chemistry, Computational Chemistry
4	Prof. S. H. Hasan	Nanomaterials, Nuclear Materials, Water Remediation
5	Prof. V. Srivastava	Synthetic Organic and Green Chemistry
6	Prof. Y. C. Sharma	Renewable Energy and Bio-fuels, Development and characterization of heterogenous catalysts, Synthesis and application of nanoadsorbents, Macrophytes for Uptake of Metallic Species from industrial effluents.
7	Prof. Dhanesh Tiwary	Bioremediation, composites for photoderadation, Development of surface functionalized iron oxide and mesoporous silica
8	Prof. K. D. Mandal	Electro -Ceramics, Nano-materials, Materials Chemistry, Solid State Chemistry
<b>ASSOCIATE PROFESSORS</b>		
1	Dr. Sundaram Singh	Synthetic Organic Chemistry, Microwave Assisted Organic Synthesis
2	Dr. Indrajit Sinha	Chemistry of nanomaterials and Computational Chemistry
<b>ASSISTANT PROFESSORS</b>		
1	Dr. Manisha Malviya	Synthesis of Metal oxide nanoparticles, renewable energy, photo electrochemistry, bio electrochemistry, alkaline fuel cell
2	Dr. Jeyakumar Kandasamy	Organic Synthesis, Carbohydrate Chemistry
3	Dr. Asha Gupta	Energy Storage devices (Lithium-ion, Sodium Ion battery, Supercapacitors), Heterogeneous Catalysis, Electrochemistry, Photocatalysis, Catalyst for green and renewable energy, First-Principles Density Functional Calculations
4	Dr. Arindam Indra	Artificial photosynthesis, Bioinspired energy conversion, Metal Organic Framework (MOF) derived catalysts for the water splitting, Photocatalytic organic reaction
5	Dr. V. Ramanathan	Laser Spectroscopy, Raman Spectroscopy and Imaging, Computational chemistry
<b>Institute Professors</b>		
1	Prof. M.A. Quraishi	Corrosion Inhibition & Green Chemistry



### Technical and Non-Teaching Staff

S. No.	Name, Qualification	Designation	Date of Appointment in the department
1.	Mr. ParamHans Ram, B.Sc.(Hons) & LLB	Technical Superintendent	15.12.2008
2.	Mr. Prakash Narayan Pandey, Post Graduate	Technical Superintendent	22.12.1990
3.	Mr. Sundip Kumar, Intermediate (Science)	Sr. Tech. Superintendent	26.02.2007
4.	Mr. Rajesh Kumar, Intermediate (Science)	Senior Technician	06.08.2008
5.	Mr. Jagdish Kumar, B.Sc.(Hons)	Senior Technician	06.08.2008
6.	Mr. Pooran Singh Rana, Intermediate (Science)	Senior Technician	25.07.2014
7.	Mr. Chhote Lal, High School	Senior Technician	25.07.2014
8.	Mr. Daya Shankar Singh, Intermediate & ITI	Ex. Sr. Technical	03.12.1976
9.	Mr. Narendra Kumar Tripathi,	Ex. Technical Assistant	11.02.1977
10.	Ms. Anshu Kaushal, M.Sc. (Computer Science)	Junior Assistant	20.05.2017
11.	Mr. Rambish Gond, M.A (Sociology)	Junior Assistant	07.06.2017
12.	Mr. Lakhan Chand Jana, (9th Pass)	Ex. Peon	24.06.2000
13.	Mr. Amit Anand Singh, M.Lib.I.Sc.	Care Taker Cum-Clerk	02.08.2017
14.	Mr. Niraj Kumar, Intermediate	MTS	19.01.2017

### Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

S. No.	Name of Faculty Member	Title	Period and Venue
<b>Seminars/Symposia/Conferences</b>			
1.	Jeyakumar K	Sustainable Environment and Energy	6th -7th APRIL 2017, Hindustan Hindustan University, Chennai, INDIA
		Contemporary Facets in Organic Synthesis 2017	22-24 December, 2017 IIT Roorkee
		Emerging Chemistry and Biology of Carbohydrates	December 18-20, 2017 IIT Kharagpur
		Challenges and Advances in Computational Chemistry 2018	January 08-12, 2018 Satyabama University, Chennai
2.	Dr. Indrajit Sinha	Workshop on Nanostructured & Smart Materials / Coatings (WNMC-2017)	organized by Manipal University Jaipur from 4 to 5 June 2017

### Special lectures delivered by faculty members in other institutions

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Jeyakumar Kandasamy	Chemistry of N-nitrosoamines: From synthesis to applications	VIT-Vellore	25-09-2017



2	Dr. Indrajit Sinha	Iron Oxide and plasmonic nano-materials for water treatment	Workshop on Nanostructured & Smart Materials/Coatings (WNMC-2017)	Organized by Manipal University Jaipur from 4 to 5 June 2017
3	Prof. Syed Hadi Hasan	Expo on Nanoscience and Molecular Nanotechnology	Frankfurt, Germany.	Nov, 6 - 8, 2017
4	Prof. M. A. Quraishi	QIP Program	IIT, Dhanbaad	07th June 2017
5	Dr. Sundaram Singh	An Efficient One Pot Multicomponent Synthesis of Some Novel Substituted Imidazole's using Nano Zirconia Catalyst Under Solvent Free Conditions: A Greener "NOSE" approach	Barcelona, Spain	02-04th Oct. 2017
6	Prof. Yogesh Chandra Sharma	Delivered a lecture on 'Nanoabsorbents for water remediation' to faculty and students at Vaal University of Technology.	Vaal University of Technology, Johannesburg.	18 Oct 2017
		Delivered a lecture on application of "Nanofluids for water reclamation" in at NFEA 2017.	The TLC, IIT BHU Varanasi	Nov 06, 2017

### Visits abroad by faculty members

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Prof. R.B. Rastogi	Paris, France	26/06/2017	02/07/2017	Nano Tech France 2017 Conference	IIT(BHU) CPDA
2	Manisha Malviya	Paris, France	26/06/2017	02/07/2017	Nano Tech France 2017 Conference	IIT(BHU) CPDA
3	Prof. D. Tiwary, P. Singh, A. Ojha, & P. K. Mishra	Paris, France	28-30 June 2017	02/07/2017	Nano Tech France 2017 Conference	IIT(BHU) CPDA
4	Prof. K.D. Mandal	Paris, France	26/06/2017	02/07/2017	Nano Tech France 2017 Conference	IIT(BHU) CPDA
5	Prof. Yogesh Chandra Sharma	Duran University of Technology	12-17 Oct. 2017		Evaluation of progress of Biodiesel production project	DST-IBSA

### Honours and awards

S. No.	Name of Faculty Member	Details of Award
1	Prof. Yogesh Chandra Sharma	Elected fellow: Biotech Research Society of India (BRSI), 08.10.2017 Lifetime Achievement Award in Chemical Sciences, AVIRA, Chennai, Oct., 2017





### Fellowships of academic and professional societies

S. No.	Name of Faculty Member	Details of Fellowship
1	M. A. Quraishi	Fellow Royal Society of Chemistry U.K. (494750).
2	Manisha Malviya	Electrochemical Society, Life fellow, Bengaluru,

### Books, monographs authored/co-authored

S. No.	Name of Author/ Co- Author	Title	Publisher
1	Kumar D, Singh B, Sharma Y C.	Challenges and Opportunities in Commercialization of Algal Biofuels. Chapter # 20, Editors: Sanjay Kumar Gupta, Anushree Malik and Faizal Bux. Algae Biofuels Recent Advances and Future Prospects.	Publisher: Springer International Publishing Switzerland 2017. ISBN 978-3-319-51009-5; DOI 10.1007/978-3-319-51010-1 Cited by in Scopus (1), 2017, Page # 421-450.

### Editorial boards of journals

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Prof. Syed Hadi Hasan	Member of Editorial Board	Bio resources, North Carolina State University, USA
			Advances in Environmental Chemistry, Hindawi, Egypt
2	Prof. MA Quraishi	Member of Editorial Board	International Journal of Corrosion and Scale Inhibition, Moscow Russia (ISSN 2305-6894).
			Journal of Steel Structure & Construction, USA (ISSN: 2472-0437).
			Journal of Lean Corrosion, The University of Queensland, Brisbane, Australia.
			AJSE, Springer (Guest Editor, ISSN: 1319-8025).
			The Open Electrochemistry Journal (ISSN: 18767505X)
			Journal of Materials and Environment Science (ISSN: 2028-2508).
			Innovations in Corrosion and Materials Science (ISSN: 2352-0957).
			Indian Journal of Materials Science (ISSN: 2314-7490).
			Recent Patents on Materials Science, USA (Associate Editor ISSN: 1874-4656).



3	Prof. Yogesh Chandra Sharma	Editor-in-Chief, Editorial Board member	International Journal of Environmental Pollution and Solutions, Columbia Academic Press, USA, Columbia International Press
		Editor-in-Chief (for two years)	SADHANA, Indian Academy of Sciences, Bangalore
		Associate Editor (Since 2015)	Indian Journal of Chemical Technology, NISCAIR, CSIR, New Delhi
		Editorial Board Member (Since 2015)	International Reviews in Chemical Engineering (IRECHE), Praise Worthy Prize, London, WC2B, 6AA, U.K.
		Editorial Board Member,	International Journal on Advanced Materials and Technologies (IREAMT), Praise Worthy Prize, London, WC2B 6AA, U.K.
		Editorial Board Member,	Journal of Materials and Environmental Sciences, ISSN: 20282508
		Editorial Board Member,	IIST Journal of Applied Chemistry, India, 0976-7355
		Editorial Board Member	Energy Conversion and Management, Elsevier

## Research Activities

### Research Publication

1. Kalyani; Jaiswal, V.; Rastogi, R.B.; Kumar, D.; Singh, P. Evaluation of tribological properties of sulfur- and phosphorous-free quinolinium salts and their correlation with quantum chemical parameters, *Tribol. Trans*-60, 349-61 (2017).
2. Kalyani; Jaiswal, V.; Rastogi, R.B.; Kumar, D. Synergistic studies of Schiff base with organoborate as efficient antiwear lubricant additive. *Proc. IMechE Part J: J Engineering Tribology*-231, 357-65 (2017).
3. Singh, A. K.; Kandasamy J.\* Palladium catalyzed stereocontrolled synthesis of C-aryl glycosides using glycals and arenediazonium salts at room temperature, *Org. Biomol. Chem.* 2018,16, 5107-5112.
4. Tiwari, V.; Badavath, V. N.; Singh, A. K.; Kandasamy J.\* A highly efficient TEMPO mediated oxidation of sugar primary alcohols into uronic acids using 1-chloro-1,2-benziodoxol-3(1H)-one at room temperature, *Tetrahedron Lett.*, 2018, 59, 2511-2514.
5. Mishra, K.B.; Singh, A. K.; Kandasamy J.\* Tris(pentafluorophenyl)borane Promoted Stereoselective Glycosylation with Glycosyl Trichloroacetimidates under Mild Condition, *J. Org. Chem.* 2018, 83, 4204-4212.
6. Chauhan, S.; Chaudhary, P.; Singh, A. K.; Verma, P.; Srivastava, V.\*; Kandasamy, J.\* tert-Butyl nitrite induced radical dimerization of primary thioamides and selenoamides at room temperature, *Tetrahedron. Lett.*, 2018, 59, 272-276.
7. Enhanced electron transfer mediated detection of hydrogen peroxide using a silver nanoparticle-reduced graphene oxide-polyaniline fabricated electrochemical sensor, Vijay Kumar, Rajeev Kumar Gupta, Ravi Kumar Gundampati, Devendra Kumar Singh, Sweta Mohan, Syed Hadi Hasan and Manisha Malviya, *RSC Adv.*, 2018, 8, 619.
8. Pyridine-based functionalized graphene oxides as a new class of corrosion inhibitors for mild steel: an experimental and DFT approach, Rajeev Kumar Gupta, Manisha Malviya, Chandrabhan Verma, Neeraj K. Gupta and M. A. Quraishi, *RSC Adv.*, 2017, 7, 39063.



9. Aminoazobenzene and diaminoazobenzene functionalized graphene oxides as novel class of corrosion inhibitors for mild steel: Experimental and DFT studies, Rajeev Kumar Gupta, Manisha Malviya, Chandrabhan Verma, M.A. Quraishi, Materials Chemistry and Physics 198 (2017) 360.
10. Oxygen reduction reaction on anisotropic silver nanoparticles in alkaline media, Rajeev Kumar Gupta, A.D. Verma, I. Sinha, Manisha Malviya Chemical Physics Letters 680 (2017) 6–9.
11. Ankush Mishra, Chandrabhan Verma, Hassane Lgaz, Eno Ebenso, Vandana Srivastava, Mumtaz Ahmad Quraishi, Synthesis, characterization and corrosion inhibition studies of N -phenyl-benzamides on the acidic corrosion of mild steel: Experimental and computational studies, Journal of Molecular Liquids, 8 Dec. 2017.
12. A.D. Verma, Shaili Pal, Pratibha Verma, Vandana Srivastava, R.K. Mandal, I. Sinha, Ag-Cu bimetallic nanocatalysts for p-nitrophenol reduction using a green hydrogen source, Journal of Environmental Chemical Engineering 5, 6148–6155, 2017.
13. Somaiah Gajaganti Shivam Bajpai, Sundaram Singh, Vandana Srivastava, An Efficient Room Temperature Oxygen Radical Anion ( $O_2^-$ ) Mediated One–Pot Multi–Component Synthesis of..., Canadian Journal of Chemistry, 1-7, September, 2017.
14. Swati Chauhan, Priyanka Chaudhary, Adesh Kumar Singh, Pratibha Verma, Vandana Srivastava, Jeyakumar Kandasamy, *tert*-Butyl nitrite induced radical dimerization of primary thioamides and selenoamides at room temperature, Tetrahedron Letters, 59, 272–276, 2018. <https://doi.org/10.1016/j.tetlet.2017.12.033>.
15. Vandana Srivastava, Dheeraj S. Chauhan, Prathamesh G. Joshi, V. Maruthapandian, A. A. Sorour and M. A. Quraishi, PEG-Functionalized Chitosan: A Biological Macromolecule as a Novel Corrosion Inhibitor, Chemistry Select, 3, 1990–1998, 2018. DOI: 10.1002/slct.201701949.
16. M.A.Quraishi, C. Verma, Eno Ebenso, Vandana Srivastava, Jiyaul Haque, Experimental and quantum chemical studies of functionalized tetrahydropyridines as corrosion inhibitors for mild steel in 1 M Hydrochloric acid, Results in Physics, 1481-93, 2018.
17. Jiyaul Haque, Vandana Srivastava, Dheeraj Chauhan, Hassane Lgaz, M. A. Quraishi, Microwave induced synthesis of Chitosan Schiff bases and their application as novel and green corrosion inhibitors: Experimental and theoretical approach, ACS Omega, 3, 5654-5668, 2018.
18. S. Bajpai, S. Singh & Vandana Srivastava, Monoclinic zirconia nanoparticle-catalyzed regioselective synthesis of some novel substituted spirooxindoles through one-pot multicomponent reaction in a ball mill: A step toward green and sustainable chemistry, Synthetic Communications, 1532-2432, 2017.
19. R. K. Gupta, A.D. Verma, I. Sinha\*, Manisha Malviya; Oxygen reduction reaction on anisotropic silver nanoparticles in alkaline media; Chemical Physics Letter 680, 6, 2017.
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#### Proceedings of International Conferences

1. Rastogi, R.B.; Kalyani, Jaiswal, V. Kumar, D; Synthesis of zinc oxide/reduced graphene oxide nanocomposites and evaluation of its tribological properties in paraffin oil as energy efficient lubricant additive, Nano tech france, June, 28-30, (2017).
2. Verma, D. K.; Jaiswa, V.: and Rastogi, \*R.B. Friction and Wear Reducing Behavior of Graphene based Nanomaterials in Polyethylene glycol (PEG) base oil as Energy Efficient low SAPS Antiwear Additives, ICIT-Kolkata, December 6-9, (2017)
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#### Proceedings of National Conferences

1. Nano engineered high dielectric constant Complex Perovskite Materials for Device Applications Presented the invited talk in the national conference on soft materials, Gorakhpur University, March 27-28, 2018.

#### International collaboration/achievements by the Department/School

1. MoU between the Institute of Inorganic Chemistry, University of Cologne, Cologne, Germany and Indian Institute of Technology (Banaras Hindu University), Varanasi, India

#### Distinguished visits in the Department/School from India

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. Tara Pal (IIT- Kharagpur)	Discussion/Inter with faculty members	09 March 2018, Department of Chemistry, IIT(BHU)

**Distinguished Visits in the Department/School from abroad**

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr. Hilary Rutto, (VAAL University of Technology, Johannesburg)	IBSA project	12-18 Dec 2017

**Any other Information****1. Student Completed Ph. D.**

- Mr. Pardeep Singh (2017), Studies on biodegradation and photocatalytic degradation of organic pollutants.
- Mr. Ravi Kant Sharma, (06.04.2017).
- Ms. Kalyani, (20.05.2017).
- Mr. Devarapaga Madhu, (16.09.2017).
- Ms. Shweta Mohan, (18.09.2017).
- Ms. Veen Singh, (13.01.2018).

**2. Sponsord R&D, Consultancy & Extension Element****(a) Sponsord Research Project**

S. No.	Title of Project	Funding Agency	Financial Outlay	Year of start & total period	Name of P.I. and Co investigators	Status Started or completed or in progress
1	Development of screen printed electrodes for Cesiumion removal	DRDO	Rs. 43 lakh	2018-2021	PI: Prof. PC Pandey, Co PI Prof. Yogesh Chandra Sharma	Sanctioned
2	Evaluation and optimization of biodiesel production from microalgae	DST	Rs 61 lakh	2015	Prof. Yogesh Chandra Sharma	In Progress
3	Developemtn of portable Electro-chemical sensors for hydrogen peroxide	BRNS	35 lakh	2017-2020	Nil	Ongoing
4	Development of screen printed electrodes for Cesiumion removal	DRDO	43 lakh	2018-2021	Prof. Yogesh Chandra Sharma	Starting



## 18. Department of Physics

Year of Establishment : 1985

**Head of the Department :** Prof. Prabhakar Singh

### Brief Introduction of the Department

#### Introduction

Department of Physics (formerly Department of Applied Physics, IT, BHU / Applied Physics Section, 1968) established in 1985, is a center of excellence for quality research and teaching in Physics & Applied Physics. The evolution of Department of Physics in its present form took over nine decades. Since its inception, physics teaching was both integral and essential part of the technical education to enable young minds having good grounding in physical sciences. Therefore, initially all the three colleges (BENCO, TECHNO & MINMET) had their own faculty members in Physics to do the job. A turning point came in 1968 when BENCO, TECHNO & MINMET were merged under one umbrella of Institute of Technology, Banaras Hindu University (IT-BHU). This then made it meaningful to have all the physics teachers from these three colleges to join hands together to form an Applied Physics Section as a part of newly formed School of Applied Sciences. Finally, we became a Department of Applied Physics of IT-BHU in 1985. At long last, we became a Department of Physics in 2012 soon after the conversion of IT-BHU into IIT (BHU) on 29 June 2012. Faculties of the department have been pursuing cutting edge front line research in various areas and in collaboration with prestigious national and international institutes. The Department currently offers research programmes in the field of Solar Physics & Space Physics, Astrophysics, Cosmology, High Energy Physics, Nuclear & Particle Physics Fibre Optics, Photonics & Optoelectronics, Condensed Matter Physics & Materials physics, Microwave Remote Sensing, Bio-physics and Composite Materials, Energy Studies & Solid State Ionics, Quantum statistical mechanics and dynamics, Quantum entanglement and quantum information theory etc.

#### Major areas of Research

The department has a rich heritage and history of scientific research in space physics including theoretical study of the planetary atmosphere and solar magnetic field. In the mid 1970s, the whistler wave at low latitude were recorded for the first time and published in the prestigious "Nature" by the group of our department. (SP)<sup>2</sup>RG has been making significant contributions to the theory and modeling of solar plasma in optical, ultraviolet, X-ray, gamma-ray, and in the atomic spectroscopy – especially in the field of diagnostics of electron and proton beams and of the plasmas they heat. This group has been making seminal contributions in the areas of 'MHD waves and transients in the solar atmosphere' and also in 'science communication'. Theoretical calculations related to pitch-angle, cross-sections, scattering are also being carried out. Another group is actively working on the origin of the solar magnetic field, its dynamics using magnetohydrodynamics and the mysterious solar cycle using a novel theoretical (dynamo) model. The SP<sup>2</sup>RG has equipped with VLF-Antenna for upper Earth atmospheric measurements; Advanced Solar Computation and Analyses Laboratory (ASCAL) to analyse the large-scale solar observational data and model its magnetic atmosphere. SP<sup>2</sup>RG has global collaborations (e.g., UK, Poland, Russia, China, Austria, Spain, USA, Belgium, etc) as well as participation in international (e.g., Royal Society; Polish National Science Foundation etc.), and national (e.g., 2m- National Large Solar Telescope; Aditya-I) projects.

The department has now several strong theoretical physics groups (Astrophysics & Astronomy, High Energy Physics, Nuclear & Particle Physics etc.) who are actively working on Structures and Dynamics of the Interstellar Medium, Large-scale gas fragmentation and star formation in galaxies, and Gravitational Lensing as an Astrophysical Probe, Cosmology / Cosmic Microwave background - Statistical Isotropy, Component separation, Low energy QCD at high precision, flavour physics, phenomenology of top, Higgs, vector-like fermions and singlet scalar fields, and model building, Nuclear Physics (Gamma Ray Spectroscopy, Nuclear structure model calculations - cranked Nilsson Strutinsky Model, Shell Model calculations).

The Department carries out a wide range of frontier research activities related to magnetism and superconductivity and semiconductors, nanostructures, thin films and nano-materials and is backed by many sophisticated equipment and measurement techniques. Though the main emphasis of these works is on fundamental aspects, many of the results have a potential for application in industries. In the materials science, we



study the electronic, physical, mechanical, optical, and chemical properties of materials, most often in relation to their structure, and use this knowledge to understand and optimize their properties and create new, improved materials and devices. Work in Soft Condensed Matter and Bio-physics is also a front-line research area of the department. “Soft” condensed matter research explores areas like adhesion, friction, wetting, the movement of fluids in porous media, Modelling self-assembly and phase separation kinetics in the complex soft materials, understanding recent single molecule force spectroscopy experiments on biopolymers, Polymers under shear flow, etc. Biophysics and nanotechnology group aim is to investigate the interaction between 2D, 1D, and 0D materials with proteins and DNA. The main focus of this group is to develop sustainable technologies using green synthesis method utilizing medicinal plants and biopolymers for biomedical, energy and environmental applications like biosensors, drug delivery, OLED, bioelectronics and other nanotechnology applications using various experimental techniques and computational methods. Another theoretical physics group is also involved in understanding non-equilibrium dynamics of quantum many body systems with long range interaction.

Optics, Photonics and Fiber optics is emerging new field of research in our country. We establish a research lab with essential facilities to pursue the theoretical, experimental and computations researches in the field of Photonics. We are engaged in the theoretical analysis of photonic crystals and quasi photonic crystals composed of graded, dispersive and negative index materials. These works would be useful in study of the photonic crystals having such type of materials for various applications. It will open new window to design several photonic crystal devices like sensors, reflectors, switches etc. Research works on the Optical Instrumentation, Non-Destructive Imaging and testing, Computational Optics and Imaging through random complex media have also been initiated in our department. Such works has variety of practical applications in underwater imaging, bio-medical optics, space applications etc.

Research on remote sensing is also one of the frontline research areas in the Department. In this field, the growth of agricultural crops are monitored, classification of crops and the recognition of shape/size of buried objects are done by scatterometer measurements and satellite image analysis. Such studies are useful in designing of sensors, urban planning, crop classification, crop-yield and soil moisture estimation for agricultural planning.

Moreover, one of the groups is actively engaged in different types of luminescent materials, particularly inorganic nanostructures/phosphors having potential applications in the area of energy harvesting, bio-imaging and for advance lighting applications, etc. Composite material studies are also pursued at the Department and the lab for such studies is in development.

Research in the field of Green Energy and Solid State Ionics is also carried out in this Department. The energy studies explore the various fuel cells, materials, etc. to optimize the renewable energy sources. In the Green Energy area, the work on anode, cathode and electrolyte materials of Solid Oxide Fuel Cells (SOFC) is in focus. Also, preliminary establishment of lab towards the fabrication and characterization for Solar cells has been done. In addition to it, some work on hydrogen energy has also been started. Towards Solid State Ionics, the ion dynamics of the structurally disordered and crystalline materials is being studied. This study is not only restricted to the amorphous materials but also has been extended to the various materials of SOFC. Also, the work has also been started in the field of materials for nano piezo- pyro energy harvesters.

**Area of the Department/School (in square meters): 1844 Square Meters**

#### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	01
2	No. of Lecture Halls	01
3	No. of Laboratory	16
4	No. of Computers available for students in the Department/School/School	50



### New facilities added

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	Rack Server for computation (Qty. 2)	3.80 Lakhs each
2	Tower Workstation for computation	4.70 Lakhs
3	Upgrade of high performance computer	6.47 Lakhs
4	Gamma Spectroscopy and Compton Effect	4.87 Lakhs
5	Radiation Counter	2.88 Lakhs
6	ESR/NMR Set Up	5.18 Lakhs
7	UV-VIS-NIR Spectrophotometer	15.56 Lakhs
8	FTIR Spectrometer with Spectra Manager Software	9.21 Lakhs
9	Diamond Crystal Plate and Pellet Holder (Accessories for FTIR Spectrophotometer)	4.44 Lakhs
10	RDP XL Series Linux Embedded Thin Client	7.54 Lakhs

### Unique Achievement / Preposition of the Department/School

Department's vision is to promote new ideas and innovations in physical sciences. Our mission is to offer world class education, research guidance and also leadership in physical sciences. Our aim is to become a high ranking in Physics Department globally in terms of teaching quality, research contributions and academic leadership.

Under new curriculum process (which Institute has started in 2014) Department offers two physics courses at B.Tech-Part-I level as an institute science course and two physics courses to preparatory students. We also offer several electives and open electives under this new flexible project based curriculum. Our 5-year Integrated M. Tech. programme (IMD) in Engineering Physics which started in 2005 has been converted to Integrated Dual Degree (IDD) Programme from 2014 and is running successfully. Main objective of this course is to impart knowledge of various core technical disciplines without compromising on the basic physics and mathematics courses. The course gives an insight to the disciplines of engineering as well as science, and practical working experience through industrial training / summer internship, project / dissertation work to enhance the working skills of the students. Department will start the M.Sc Programme in Physics from 2019-20 and students will be admitted through JAM.

Students of IMD/IDD (Engineering physics) are awarded with several fellowships to go abroad to pursue higher studies, involved in several project works in both science and technology, present their research works in different workshop/conference/symposia. They also pursue summer internship in industries and reputed institutions/universities in India and abroad. Many of these students are also recruited by reputed national and multinational companies.

The Department offers research programmes in the field of Solar Physics & Space Physics, Fibre Optics, Photonics & Optoelectronics, Condensed Matter Physics & Materials physics, Microwave Remote Sensing, Bio-physics and Composite Materials, Energy Studies & Solid State Ionics. About 90 Ph.D students have received their PhD degree so far from the department. Many of our alumni (Ph.D., IMD) are well placed in reputed Institutes / University in India and abroad.

Department has a strong component to deliver popular science lecture and publish articles in magazines like Scientific American and news papers.

Faculty members in the Department working in the frontier areas of research have published in International



journals of high impact factor (e.g. Nature Comm., JACS, PRL, PRE, Astrophysical Journal, Solar Physics, Astronomy & Astrophysics, MNRAS, J. Mat. Chem., PCCP, SSI, RSC Adv. etc.), published book and authored book chapters.

Department successfully organized several National (RTCMP, NCTP), International workshop / Conferences (DYNAMIC SUN-I, THERMANS-2016, ABSMSNW-2017), GIAN Course Work, and Ishan Vikas Programme of MHRD for school students from North East Students, student's convention 'JIGYASA' (2015, 2016, 2017), Institute Day, etc. in recent years.

Several Indian and Foreign distinguished faculty members visited the Department to deliver seminar, colloquium.

Dr. Anil Bharadwaj, an alumnus of the Department received Shanti Swarup Bhatnagar award in 2007 for outstanding contribution in the field of Earth, Atmosphere, Ocean, and Planetary Sciences. He also received Infosys Science Foundation award-2016 in Physical Sciences category.

Faculty Members & Alumni of the Department have received several fellowships and lifetime memberships of various academic and professional societies like Royal Astronomical Society (FRAS), Astronomical Society of India (ASI), Optical Society of India, International Academy of Physical Sciences (at Allahabad, India), Materials Research Society of India (MRSI), Indian Physics Association (IPA), Indian Thermal Analysis Society (ITAS), Indian society for Materials Chemistry (ISMC) (at BARC, Mumbai), International Astronomical Union (IAU), International Academy of Astronautics (IAA) on Comparative Climatology - Studying Planetary Climate to Understand our Planet, Max-Planck Society fellowship, NASA/NRC Associate, Commonwealth Academic Staff Fellow: Glasgow, Cambridge and Oxford universities (1990-91) etc.

Faculty members have received several awards/honours like e.g. Indira Gandhi Prize for Popularization of Science-2011 (Science Communications) by Indian National Science Academy (INSA), NATIONAL AWARD of 1,00,000/- for Outstanding Efforts in Science and Technology Communication through Books and Magazines for 2005, 2004 Award for Popular Writing on Solar Physics (American Astronomical Society/Solar Physics Division), 'MPAE Gold Pin' Award (1999) by Max-Planck-Institut für Aeronomie (MPAE) Germany in recognition of the outstanding contributions to the SUMER/SoHO science, D.Sc. Honoris Causa etc.

The department has enriched with many excellent faculties and faculty strength has increased to 22. Currently, in the department major research activities are going in theoretical as well as in experimental physics. The Department has been granted DST-FIST support and many other projects funded by national and International agencies namely DST, BRNS, DRDO, CSIR etc. Faculty members have several National, International Research collaboration, MOU, VLF-Global-Network Project etc.

### Academic Programmes offered

#### New Courses Introduced

S. No.	Course Code	Course name	Course credit
1	PHY401	Nuclear and Particle Physics	11
2	PHY402	Quantum Electronics	6
3	PHY403	Introduction to Quantum Field Theory	9
4	PHY404	Phase Transition & Critical Phenomena	9
5	PHY412	Physics of the Sun and its Atmosphere	9
6	PHY421	Advanced Condensed Matter Physics	9
7	EP421	Advanced Materials & Characterization Techniques	9
8	EP431	Integrated Optics	9



9	EP432	Photonics and Optoelectronics	9
10	EP441	Advanced Biophysics	9
11	EP451	Non-Conventional Energy Sources	9
12	EP452	Fuel Cell	9
13	EP461	Antenna & Radar Engineering	9
14	PHY502	Advanced Classical Mechanics and Electrodynamics	9
15	PHY503	Advanced Experimental Physics	9
16	PHY504	Advanced Mathematical and Computational Physics	9
17	PHY505	Advanced Quantum and Statistical Physics	9
18	PHY513	Astrophysics of the sun and the Galaxies	9
19	PHY522	Tribophysics of Composite Materials	9
20	PHY523	Quantum Phase Transition	9
21	PHY524	Advanced Condensed Matter Physics and Materials Science	9
22	PHY541	Nanotechnology for health, energy and environment	9
23	PHY561	Principle of Remote Sensing	9

#### Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech/B. Pharm	---	---	---	---	---
2	Dual Degree	20	19	21	13	---
3	M. Tech/M. Pharm/ IMD (Engg. Phys.)	---	---	---	---	11
4	Ph. D (Under Institute Fellowship)	17	04	06	04	08
5	A. Ph. D (Under Project Fellowship)	---	03	---	---	---
	B. Other Funding Agency	11	04	03	---	01

#### Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
<b>INDIA</b>					
1	Abhishek Singh	12610EN003	45th National Seminar on Crystallography(NSC-45)	July 9-12, 2017, SMST, IIT (BHU)	NA
2	O.N. Verma	12610EN004	2nd International Conference on Condensed Matter & Applied Physics (ICC 2017)	24-25 Nov. 2017, Bikaner, Rajasthan, India	STGS, IIT (BHU), Varanasi





3	Prince Kumar Gupta	13171001	45th National Conference On Crystallography	9-12 JULY, 2017, IIT(BHU)	Self
4	Pawan Kumar	13171003	45th National Seminar on Crystallography (NSC45 2017)	IIT BHU, 9-12 July 2017	Self
5	Pawan Kumar	13171003	20th International Conference of International Academy of Physical Sciences	14-16 July, 2017, Hyderabad	STGS, IIT (BHU) Varanasi
6	Pawan Kumar	13171003	2nd International Conference on Condensed Matter and Applied Physics,	24-25, Nov., 2017, Bikaner	STGS, IIT (BHU) Varanasi
7	Rahul Singh	13171004	NMD ATM 2017	11-14 Nov., 2017 Goa	STGS, IIT (BHU) Varanasi
8	Rahul Singh		62nd DAE Solid State Physics Symposium,	26-30 Dec., 2017 Mumbai	STGS, IIT (BHU) Varanasi
9	Saurabh Singh	13171005	Faculty Development Programme, 2017 organized by Atma Ram Sanatan Dharma College	10th Nov. 2017 Univ. of Delhi, New Delhi.	Self
10	Saurabh Singh	13171005	Science Communication: Issues and Challenges, 2018, organized by Dept. of Physics, Fakhruddin Ali Ahmad Govt. P.G. College	16-17 Feb. 2018 Mahmudabad, Sitapur (U.P.).	Self
11	Arkadeb Pal	14171002	DAE Solid State Physics Symposium 2017, BARC	December 26-30, BARC, MUMBAI	STGS, IIT (BHU) Varanasi
12	Vani Pawar	14171003	2nd International Conference on Condensed Matter & Applied Physics (ICC 2017)	24-25 November 2017, Bikaner, Rajasthan, India	STGS, IIT (BHU) Varanasi
13	Vani Pawar	14171003	Advanced Materials and Nanotechnology (AMN-2018).	15-17 March 2018, IIIT Noida	Self
14	Upendra Kumar	14171005	Conference "NSC-46"	9th-12th July 2017, SMST, IIT (BHU) Varanasi	Self
15	Upendra Kumar	14171005	International Conference "Solid State Physics Symposium-2017"	26th-30th December 2017 BARC Mumbai	STGS, IIT (BHU) Varanasi
16	Upendra Kumar	14171005	National Conference "Advanced Materials and Nanotechnology (AMN-2018)"	15th-17th March 2018, Jaypee Institute of Information Technology (JIIT) Noida	Self
17	Ajeet Kumar Vishwakarma	14171006	Conference, ICMAP-2018, IIT(ISM)	Feb 9-11, 2018, IIT (ISM), Dhanbad	STGS, IIT (BHU) Varanasi
18	Dharmendra Yadav	15171003	National Seminar on Crystallography	09-12 July, 2017, SMST, IIT(BHU)	Self



19	Pavan kumar Vishwakarma	15171006	Workshop on EOR and 21cm Cosmology	10-22 July 2017 NCRA-TIFR, Pune	NCRA-TIFR, Pune
20	Pavan Kumar Vishwakarma	15171006	Radio Astronomy School-2017	28 August - 8 September 2017	STGS, IIT (BHU) Varanasi
21	Pavan Kumar Vishwakarma	15171006	XXXVI Astronomical Society of India Meet Osmania University, Hyderabad	5-9 February 2018	Partially from ASI, partially from STGS IIT (BHU)
22	Prajyoti Singh	15171007	ICME-2017	June 2-4, 2017, IIT Kanpur	NA
23	Prajyoti Singh	15171007	ISCAS-2017	July 1-3, 2017 DTU- Delhi	STGS, IIT (BHU) Varanasi
24	Prajyoti Singh	15171007	DAE SSPS-2017	December, 26-30, 2017, BARC Mumbai	STGS, IIT (BHU) Varanasi
25	Ruchi Bala	15171008	Conference, ESAR-2018	23-24 Feb, 2018, Rama University, Kanpur, UP	STGS, IIT (BHU) Varanasi
26	Ritika Solanki	15171009	IAU Symposium 340 "Long Term Datasets for the Understanding of Solar and Stellar Magnetic Cycles"	19-24, Feb. 2018, B.M. Birla Auditorium, Jaipur, India	IAU Grant Award
27	Vijay Pratap Yadav	15171010	Conference, ESAR-2018	23-24 Feb, 2018, Rama University, Kanpur, UP	STGS, IIT (BHU) Varanasi
28	Vinod Kumar Gangwar	15171011	ICME-2017	June 2-4, 2017, IIT Kanpur	NA
29	Vinod Kumar Gangwar	15171011	ISCAS-2017	July 1-3, 2017 DTU- Delhi	STGS, IIT (BHU) Varanasi
30	Vinod Kumar Gangwar	15171011	DAE SSPS-2017	December, 26-30, 2017, BARC Mumbai	STGS, IIT (BHU) Varanasi
31	Vinod Kumar Gangwar	15171011	AMN-2018	March 15-17, 2018, IIIT-Noida	NA
32	Devyani Shukla	15171013	International Symposium on Functional Materials (ISFM-2018): Energy and Biomedical Applications	13-15 April, 2018 Chandigarh	STGS, IIT (BHU) Varanasi
33	Yamini	16171002	International Astronomical Union Symposium (IAUS 340)	19-24 February, 2018 B.M. Birla Auditorium, Jaipur, India	Org. Comm. of the conf. and RESPOND-ISRO Proj.
34	Sudheer Kumar Mishra	16171003	International Astronomical Union Symposium (IAUS 340), Jaipur, 2018	19-24 February 2018, Birla Auditorium, Jaipur, India	International Astronomical Union



35	Ajay Shankar Bangwal	16171004	Advanced Materials and Nanotechnology (AMN-2018).	15-17 March 2018, IIIT Noida	SELF
36	Manish Kumar	16171005	Advanced Materials and Nanotechnology (AMN-2018).	15-17 March 2018, IIIT Noida	SELF
37	Vandna Tomar	16171006	Advanced Materials and Nanotechnology (AMN-2018).	15-17 March 2018, IIIT Noida	STGS, IIT (BHU) Varanasi
38	Pragati Singh	16171007	Advanced Materials and Nanotechnology (AMN-2018).	15-17 March 2018, IIIT Noida	STGS, IIT (BHU) Varanasi
39	Jay Prakash Singh	16171008	Stochastic thermodynamics, active and driven system, ICTS	7-12 Aug, 2017 (Bangalore)	STGS, IIT (BHU) Varanasi
40	Jay Prakash Singh	16171008	Emergent Phenomena in Classical and Quantum Systems (EPCQS-18), S. N. Bose National Centre for Basic Sciences	February 26-28, 2018 Kolkata.	STGS, IIT (BHU) Varanasi
41	Jais Kumar	16171010	Workshop on EOR and 21cm cosmology, NCRA-TIFR, Pune	July, 10-22nd 2017, NCRA-TIFR, Pune	NCRA-TIFR, Pune
42	Jais Kumar	16171010	Radio Astronomy School- 2017, NCRA-TIFR, Pune	Radio Astronomy School- 2017 NCRA-TIFR, Pune	NCRA-TIFR, Pune
43	Jais Kumar	16171010	Universe after the first 200 million years Presidency University, Kolkata	Dec, 11-13th 2017 Presidency University	Presidency University
44	Jais Kumar	16171010	XXXVI Astronomical Society of India Meet Osmania University, Hyderabad	Feb, 5-9th, 2018, Hyderabad	ASI + STGS, IIT(BHU), Varanasi
45	Jais Kumar	16171010	Franco-Indian Astronomy School, From reionization to large scale structure, a multi-wavelength approach, IUCAA Pune	Feb, 11-17th, 2018, IUCAA Pune	IUCAA Pune
46	Sameer Kumar	16171501	Stochastic Thermodynamics, Active Matter and Driven Systems	August 7-11, 2017 at ICTS-TIFR, Bangalore.	Project Grant: R&D/DST/INSPIRE/FELLOW/PHY/16-17/13
47	Sameer Kumar	16171501	Emergent Phenomena in Classical and Quantum Systems (EPCQS-18)	February 26-28, 2018 at the S.N. Bose National Centre for Basic Sciences, Kolkata.	Project Grant: R&D/DST/INSPIRE/FELLOW/PHY/16-17/13
48	Dr. Priyanka A. Jha		45th National Seminar on Crystallography 2017	9-12 July, 2017 IIT (BHU) Varanasi	Self



49	Dr Ashutosh Kumar Shahi		WCSEAA-2017	6-9 September 2017, Dept. of Physics, Pondicherry Univ., India	Self
50	Dr. Pawan Kumar Dubey	003	School on Clean and Renewable Energy Technologies via Chemical Route	November 27-December 02, 2017 JNCASR, Bangalore	SERB, New Delhi
51	Dr. Pawan Kumar Dubey	003	Winter School-2017 on Frontiers in Materials Science	December 04-08, 2017, JNCASR, Bangalore	SERB, New Delhi
52	Dr. Pardeep Kumar	16176002 (Project Staff EID 002)	Advanced Materials and Nanotechnology (AMN-2018).	17-19 March 2018 AMN, IIIT Noida.	Self
53	Dr. Priyanka A. Jha		Advanced Materials and Nanotechnology (AMN-2018).	17-19 March, 2018 AMN, IIIT Noida.	Self
54	Abhishek	13173002	School and Conference on Driven Quantum Systems	February 12-21 2018 IACS, Kolkata	None
55	Hapani Dhruvil S.	13173005	Advanced Materials and Nanotechnology (AMN-2018).	17-19 March 2018, IIIT Noida.	

#### ABROAD

1	Abhishek Singh	12610EN003	The 8th International Symposium on Surface Science(ISSS-8)	Oct 22-26, 2017, Tsukuba Japan	IIT (BHU) India
2	Saurabh Singh	13171005	21st International Conference on Solid State Ionics, 2017	18-23 June 2017 organized by University of Padua, Italy.	STGS, IIT (BHU) Varanasi
3	Dharmendra Yadav	15171003	5th International Congress on Technology Engineering & Science (ICONTESS)	01-02 Feb, 2018 Kuala Lumpur, Malaysia.	STGS, IIT (BHU) Varanasi
4	Yamini	16171002	The 4th Asia-Pacific Solar Physics Meeting (APSPM 2017) Kyoto University	7-10 Nov., 2017, Kyoto, Japan	Org. Comm. of the conf. and RESPOND-ISRO project
5	Jay Prakash Singh	16171008	Collective behaviour smr-18, ICTP Trieste Italy	7-11 May, 2018, Trieste Italy	STGS, IIT (BHU) Varanasi

#### Names of students/scholars who got prizes and awards outside the Institute

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Yamini	16171002	Best Poster Award	19-24 February, 2018 B.M. Birla Auditorium, Jaipur, India	International Astronomical Union Symposium (IAUS 340)



### Names of scholars/students who won Convocation/Institute Day prizes

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Arkadeb Pal	14171002	Institute day Best Poster award from Department	Dept. of Physics, IIT (BHU), Varanasi
2	Arkadeb Pal	14171002	Institute Day Popular Poster Award From Department	Department of Physics, IIT (BHU), Varanasi
3	Yamini	16171002	2nd position for presenting the Poster at Department of Physics	Department of Physics, IIT (BHU), Varanasi
4	Meera Nandakumar	17171018	Poster Presentation in Department	Department of Physics, IIT (BHU), Varanasi
5	Gautam K. Naik	15173007	Institute day Best Poster award from Department	Dept. of Physics, IIT (BHU), Varanasi
6	Dhruvil S. Hapani	13173005	Institute day Best Poster award from Department	Dept. of Physics, IIT (BHU), Varanasi
7	Nandini Sahu	12410EN012	IIT (BHU) Gold Medal	IIT (BHU), Varanasi

### Names of Students/Scholars who went for foreign Internship

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Abhishek Raj	13173002	College of Staten Island, The City University of New York	New York	USA	5 June to 15 August 2017
2	Manuj Kumar Singh	13173008	Institut Fresnel Marseille (Charpak Research Internship Scholarship, 310 Euro PM)	France	France	24 May to 30 July 2017
3	Shyam Harimohan Menon	14173011	Western Ontario Western University	Canada	USA	15 May to 11 August 2017
4	Soumyadeep Das	14173012	Chinese University of Hong Kong (CUHK)	Hong Kong	Hong Kong	25 June to 20 August 2017
5	Gautam K. Naik	15173007	University of Tokyo, Japan	Tokyo	Japan	9 June to 20 July 2017

### Faculty & their Activity

#### Faculty and their areas of specialisation

S. No.	Name	Major Areas of Specialization
<b>PROFESSORS</b>		
1.	Prof. Debaprasad Giri	Statistical Physics; Soft Condensed Matter Physics; Computational Bio-Physics





2.	Prof. Prabhakar Singh	Experimental Materials Science: Materials related to green and clean energy; Ion Conducting Glasses; Materials for Solid Oxide Fuel Cells; Electro-ceramics and Solar cells
3.	Prof. Sandip Chatterjee	Experimental Condensed Matter Physics; Topological Insulators, Superconductivity, Multiferroic Materials
4.	Prof. Rajendra Prasad	Microwave Remote Sensing; Satellite Image Analysis for Crop and Soil Monitoring, Shape and Size Detection of Buried Objects

#### ASSOCIATE PROFESSORS

1.	Dr.(Mrs.) Anita Mohan	Physics and Diagnostics of Solar, EUV and X-Ray Emission Processes; Synthesis of composites; Tribology
2.	Dr. Praveen Chandra Pandey	Fiber Optics; Photonics; Non linear Optics; PBG and Metamaterials, Photonic materials.
3.	Dr. (Mrs.) Shail Upadhyay	Materials Science; Electronic Ceramics
4.	Dr. Abhishek Kr. Srivastava	Physics of Solar Transients; MHD Waves; Coronal and Stellar Seismology
5.	Dr. Rakesh Kumar Singh	Optics & Optoelectronics, Optical Instrumentation, Non Destructive Imaging and Testing,

#### ASSISTANT PROFESSORS

1.	Dr. Sunil Kumar Mishra	Quantum Dynamics of Spin Chains, Quantum Entanglement, Frustrated Magnets, Nanomagnetism
2.	Dr. Avanish Singh Parmar	Biophysics, Bio-nanotechnology, Soft Matter
3.	Dr. Saurabh Tripathi	Structural Phase Transitions in ferroics, Broadly modeling of short, medium and long range ordered structures with real space and reciprocal space data using Pair distribution function and Rietveld analysis, for bulk and nanomaterials.
4.	Dr. Swapnil Patil	ARPES studies of correlated electron phenomena - heavy fermion/Kondo phenomenon, superconductors, semiconductors etc.
5.	Dr. (Mrs.) Shradha Mishra	Condensed matter theory, equilibrium and nonequilibrium statistical physics, soft condensed matter theory.
6.	Dr. Prasun Dutta	Structures and dynamics of Interstellar medium, radio interferometric techniques, nova and supernovae, cellular automaton
7.	Dr. Rajeev Singh	Quantum Statistical Mechanics. Disordered and non-equilibrium quantum dynamics
8.	Dr. Somnath Nag	Nuclear Physics ( Gamma Ray Spectroscopy, Nuclear structure model calculations - cranked Nilsson Strutinsky Model, Shell Model calculations )
9.	Dr. Sunil Kumar Singh	Laser Spectroscopy, Photon upconversion and quantum-cutting luminescence, upconversion based optical imaging, Materials for energy harvesting and sensor applications
10.	Dr. Gauhar Abbas	Low energy QCD at high precision, flavour physics, phenomenology of top, Higgs, vector-like fermions and singlet scalar fields, and model building.
11.	Dr. Awanish Kumar Singh	Statistical Physics, Soft Matter Physics: Modeling self-assembly and phase separation, Tailoring Gel Structure, Controlled Radical Polymerization (CRP), Photo-CRP



12.	Dr. Bidya Binay Karak	Solar Physics; Magnetohydrodynamics (MHD) and its application in Sun and other stars; Astrophysical Fluids, Turbulence, and Convection; Dynamo Theory, Sunspot and Solar Cycle, Chaotic behaviours of Astrophysical Objects
13.	Dr. Pavan Kumar Aluri	Cosmology - Cosmic Microwave Background - Statistical isotropy, CMB/Foreground component separation

**Institute Professors**

1.	Prof. Bhola Nath Dwivedi	Physics and Diagnostics of Solar EUV and X-ray Emission Processes; MHD Waves and Oscillations in the Solar Atmosphere; Science Communication
2.	Prof. Onkar Nath Singh	Spectroscopy, Fiber Optics

**Emeritus Professors**

1.	Prof. R. P. Singhal	Planetary and Space Physics; Plasma Physics; X-ray; Nuclear Physics; Atomic Collisions Physics
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**Visiting Faculty**

1.	Dr. Arvind Kumar Tripathi	Planetary & Space Sciences, Planetary Space Weather
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**DST INSPIRE Faculty**

1.	Dr. Neha Agnihotri	Photophysics, Computational Modelling of Light Harvesting Systems; Density Functional Theory; Molecular Dynamics Simulation
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**Technical and Non-Teaching Staff**

Sl. No.	Name, Qualifications	Designation	Date of Appointment in the department
1.	Anil Kumar Srivastava, B. Com. (Hons)	Section Officer (Retired)	06.06.2007
2.	Rahul Kant Chaudhary, M. Tech.	Jr. Assistant	13.05.2017
3.	Awadhesh Kumar Srivastava, B.Com & B. Lib	Skilled Clerical Staff	10.06.2016
4.	Vikash Singh, B.Sc.	Skilled Staff	21.12.2010
5.	Ramji Ram, High School & Agricultural Diploma	Technical Superintendent	30.05.1987
6.	Mahavir, High School Science	Technical Superintendent	29.09.1988
7.	Manjul Tiwari, B.Sc. & Diploma in Applied Videography	Technical Superintendent	15.12.2008
8.	Bhanu Pratap Prasad, Intermediate Science	Technical Superintendent	19.11.1990
9.	Sujeet Kumar Bose, BA & Diploma in Electrical Engineering	Jr. Technical Superintendent	22.02.2007
10.	Pankaj Kumar Asthana, B.Sc.	Senior Technician	06.08.2008
11.	Upendra Prasad, M.Sc.& M.Ed.	Senior Technician	16.08.2008
12.	Kumar Vikram, Intermediate Commerce & DCA+Tally	Jr. Technician	27.08.2004
13.	Uma Shankar Pandey, Intermediate	Multi Tasking Staff	16.12.2016
14.	Anil Pal, BA & ITI Diploma	Multi Tasking Staff	05.05.2017



Short-term courses/workshops/seminars/symposia/conferences organised by faculty members (From 1st April 2017 to 31st March 2018)

S. No.	Coordinator	Title	Period
1	Dr P.C. Pandey (Convener)	Jigyasa'17	11-12 November 2017
2	Dr. S. K. Mishra (Secretary)	Jigyasa'17	11-12 November 2017
3	Dr. A. K. Srivastava (Organizing Committee Member)	Dynamic Sun-II at Rimen Riep. Cambodia,	12-16 February 2018
4	Dr. A. K. Srivastava (Organizing Committee Member)	IAU Symposium 340 at Jaipur	19-23 February 2018

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

S. No.	Name of Faculty Member	Title	Period and Venue
<b>Seminars/Symposia/Conferences</b>			
1	Prof. Prabhakar Singh	Solid Oxide Fuel Cells: fundamental and advancements in the field of electrolyte materials	22nd National Symposium on Advances in Ultrasonics and Material Science (NSU-2017), 8-10 November, 2017, Central University of Himachal Pradesh
2	Prof. Prabhakar Singh	Conductivity spectroscopy: A tool to understand the ion dynamics in crystalline and amorphous materials	Workshop Thermans-2018, 16-17 January, 2018, Department of Chemistry, Goa university, Goa
3	Prof. Prabhakar Singh	Effect of double doping on the ionic conductivity of ceramic electrolyte systems for SOFC	19th International Symposium on Eco-materials Processing and Design (ISEPD 2018) and Expo on Surface Coatings, Marriott Jaipur, February 21-24, 2018
4	Prof. Prabhakar Singh	Materials for Solid Oxide fuel cells	Advanced Materials and Nanotechnology (AMN-2018), 17-19 march, 2018, IIIT Noida
5	Prof. Prabhakar Singh	Fabrication and electrical characterization of composite 8YSZ-Ce <sub>0.8</sub> Sm <sub>0.2</sub> O <sub>2-?</sub> thin ceramic tapes for Intermediate Temperature-Solid Oxide Fuel Cells (IT-SOFCs)	SSI-21 held between 18-23 June, 2017, Padua, Italy
6	Prof. Prabhakar Singh	Compositional effect on the ionic conductivity in LaAlO <sub>3</sub> ceramic system	42nd ICACC held between 21-26 January, 2018 in Florida
7	Dr. Sunil Kumar Mishra	Helical multiferroics and qubit(s) transfer	Young Investigator Meet On Quantum Condensed Matter Theory', 26-27 October 2017, SNBNCBS Kolkata



8	Dr. Saurabh Tripathi	45th National Seminar on Crystallography	July 9-12, 2017, IIT(BHU), Varanasi
9	Dr. Prasun Dutta	International Conference PHISC	February 6-11, 2017, NCRA_TIFR, Pune
10	Dr. Prasun Dutta	EoR Workshop	July 10-22, 2017, NCRA-TIFR, Pune
11	Dr. Prasun Dutta	International Conference on the Universe after the first 200 million years	December 11-13, 2017, Presidency University, Kolkata
12	Dr. Rajeev Singh	Recent trends in Quantum Matter	Dec 5-6, 2017, IIT Bombay
13	Dr. Rajeev Singh	5th Indian Statistical Physics Community	Meeting February 16-18, 2018, ICTS, Bangalore
14	Dr. Rajeev Singh	Conference on Driven Quantum Systems	February 19-21, 2018, IACS, Kolkata
15	Dr. Sunil Kumar Singh	Advances in Spectroscopic Techniques and Materials (ASTM-2018)	March 14-16, 2018

#### Special lectures delivered by faculty members in other institutions

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Prof. P. Singh	Conductivity Spectroscopy: a tool to understand the dynamics of ions in crystalline and disordered materials	ICMATE, Genova, Italy	16.06.2017
2	Dr P.C. Pandey	Influence of graded index materials and semiconductor on the photonic band gaps and localization modes in one-dimensional quasi periodic (Fibonacci, Thue-Morse and Double-Periodic) photonic crystals	CONIAPS XX, Osmania University, Hyderabad-500 007, Telangana State, India	14-16 July 2017
3	Dr. A. K. Srivastava	Observations and Modelling of X6.9-class Flare Induced Vertical Kink Oscillations in a Large Scale Plasma Curtain	8th Coronal Loop Workshop, Palermo, Italy.	27.06.2017
4	Dr. A. K. Srivastava	Peculiar EUV Waves and Their Diagnostics Capability	AOGS 2017, ST-07, Singapore	09.08.2017
5	Dr. A. K. Srivastava	Role of Torsional Alfvén Waves as an Energy Source in the Solar Corona	AOGS 2017, ST-07, Singapore	10.08.2017
6	Dr. A.K. Srivastava	High-frequency Torsional Alfvén Waves as an Energy Source in the Solar Corona	Our mysteriou Sun: magnetic coupling between solar interior and atmosphere	27.09.2017



7	Dr. A. K. Srivastava	Pulsations in Solar and Stellar Flares and Refined MHD Seismology	ISSI-BJ Science Group Meeting, NSS, Beijing, China	28.10.2017
8	Dr. A. K. Srivastava	On understand in new heating candidates in Sun's corona" in the session Sun and the Solar System I	XXXVI Astronomical Society of India Meeting at Osmania University, Hyderabad	08.02.2018
9	Dr. Sunil Kumar Mishra	On "Helical multiferroics and qubit(s) transfer"	Young Investigator Meet On Quantum Condensed Matter Theory, SNBNCBS Kolkata	27.10.2017

#### Visits abroad by faculty members

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Prof. Prabhakar Singh	Italy	11.06.2017	24.06.2017	To present papers in SSI-21 held between 18-23 June, 2017, Padua, Italy	CPDA
2	Prof. Prabhakar Singh	USA	20.01.2018	26.01.2018	To deliver an invited talk in the 42nd ICACC held between 21-26 January, 2018 in Florida	CPDA and partially from the organising committee
3	Dr. Shail Upadhyay	Dubai	23.11.2017	27.11.2017	To present paper in ICFMCE-2017, held between 24-26 Nove., 2017	CPDA
4	Dr. Abhishek Kumar Srivastava	Poland	10.06.2017	27.06.2017	Collaborative Research Visit to Prof. K. Murawski	UMCS, Lublin, Poland
5	Dr. Abhishek Kumar Srivastava	Italy	27.06.2017	30.06.2017	8th Coronal Loop Workshop	UMCS, Lublin, Poland; Partially from CPDA
6	Dr. Abhishek Kumar Srivastava	Singapore	08.08.2017	11.08.2017	AOGS-2017 Meeting	CPDA
7	Dr. Abhishek Kumar Srivastava	Georgia	25.09.2017	29.09.2017	Solar Physics Conference at Tbilisi	CPDA
8	Dr. Abhishek Kumar Srivastava	China	16.10.2017	20.10.2017	ISSI-BJ Meeting	ISSI-Beijing, China
9	Dr. Sunil Kumar Mishra	Germany	03.06.2017	03.07.2017	Research stay expenses by host university+ Air Fare by CPDA	Local





### Honours and awards

S. No.	Name of Faculty Member	Details of Award
1	Dr. Swapnil Patil	DST-SERB Early Career Research Award 2017
2	Dr. Shradha Mishra	DST-SERB Early Career Research Award 2017

### Books, monographs authored/co-authored

S. No.	Name of Author/Co- Author	Title	Publisher
1	Devyani Shukla, Jayeeta Lahiri, Avanish Singh Parmar	Characterization of Self- Assembled Protein Scaffolds from Collagen-mimetic peptides	Protein Scaffolds: Design, Synthesis, and Applications, Methods in Molecular Biology, Springer Nature, NY, 1798, 223-237

### Editorial boards of journals

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Dr. Abhishek Kumar Srivastava	Review Editor	Frontiers in Astronomy and Space Sciences

### Research Activities

#### Proceedings of International Conferences

1. O. N. Verma, A. K. Shahi, and P. Singh, Study of lanthanum aluminate for cost effective electrolyte material for SOFC", AIP Conf. Proc. (accepted).
2. Pawan Kumar, P. C. Pandey, Study of Cobalt Effect on Structural and Optical Properties of Dy Doped ZnO Nanoparticles. 2nd International Conference on Condensed Matter & Applied Physics (ICC-2017) AIP Proceeding. Vol. 1953, p. 050046, doi.org/10.1063/1.5032701.
3. Pawan Kumar, P. C. Pandey, Structural investigation of (Tb, Li) co-doped ZnO nanoparticles. 45<sup>th</sup> National Seminar on Crystallography (NSC45 2017)
4. Pawan Kumar, P. C. Pandey, Influence of Li concentration on magnetic and optical properties of Europium embedded Zinc Oxide. Recent Advances in Physical Sciences and Future Challenges (CONIAPS 2017).
5. Vani Pawar, P. K. Jha and P. Singh, Observation of shift in band gap with annealing in hydrothermally synthesized TiO<sub>2</sub>-Thin films, AIP conference proceedings 1953,030097 (2018)
6. AK Vishwakarma, R Prasad, DK Gupta, P Kumar, VN Mishra. Ground based bistatic scatterometer measurement of rice crop at C-band in the specular direction. Proceedings of the Microwave and Photonics (ICMAP), 2018 3rd International Conference on; 2018: IEEE.

#### Proceedings of National Conferences

#### Refereed Peer Reviewed Journal Publications

1. Sanjay Kumar, Sanjay, Sanjiv Kumar, Debaprasad Giri, and Shesh Nath Statistical mechanics of a polymer chain attached to the interface of a cone-shaped channel, Europhysics Letters, 118, Volume 118, 28001 (2017).
2. O. N. Verma, P. K. Jha and P. Singh, A structural –electrical property correlation in A-site double substituted lanthanum aluminate, J. Appl. Phys. 122, 225106 (2017).
3. Pardeep K. Jha, Priyanka A. Jha, P. Singh, R. Ranjan and R. K. Dwivedi, Sm/Ti co-substituted bismuth ferrite multiferroics: reciprocity between tetragonality and piezoelectricity, Phys. Chem. Chem. Phys., DOI



- 10.1039/C7CP01849E (2017).
4. Raghvendra, Prabhakar Singh, Electrical conductivity of YSZ-SDC composite solid electrolyte synthesized via glycine nitrate method, *Ceram. Int.* 43: 11692-11698 (2017).
  5. Pravin Kumar, Sabrina Presto, A.S.K. Sinha, Salil Varma, Massimo Viviani, P. Singh, Effect of samarium ( $\text{Sm}^{3+}$ ) doping on structure and electrical conductivity of double perovskite  $\text{Sr}_2\text{NiMoO}_6$  as anode material for SOFC, *J. Alloys and Compounds*, 725: 1123-1129 (2017).
  6. O.N. Verma, Priyanka A. Jha, Anand Melkeri and Prabhakar Singh, A comparative of aqueous tape and pellet of  $\text{La}_{0.89}\text{Ba}_{0.01}\text{Sr}_{0.1}\text{Al}_{0.9}\text{Mg}_{0.1}\text{O}_{3-d}$  electrolyte material, *Physica B: Condensed Matter* 521: 230-238 (2017).
  7. N. Tiwari, S. Kumar, A. K. Ghosh, S. Chatterjee, S. N. Jha and D. Bhattacharyya, Structural investigations of (Mn, Dy) co-doped ZnO nanocrystals using X-ray absorption studies, *RSC Adv.*, 7, 56662-56675 (2017).
  8. Gopal S. Kenath, Piyali Maity, Yogesh Kumar, Hemant Kumar, V. K. Gangwar, S. Chatterjee, S. Jit, A. K. Ghosh and B. N. Pal, Single quantum dot rectifying diode with tunable threshold voltage, *J. Mater. Chem. C* 5, 9792 (2017).
  9. Ripandeep Singh, T Hansen, C Ritter, Neetika Sharma, P. Shahi, S. Chatterjee and A Das, Pressure induced effects on the chemical and magnetic structure of spinel  $\text{MnV}_2\text{O}_4$ , *Journal of Physics: Condensed Matter* 29, 345802 (2017).
  10. Shiv Kumar, G.D. Dwivedi, Amish G. Joshi, Sandip Chatterjee, A.K. Ghosh, Study of structural, dielectric, optical properties and electronic structure of Cr-doped  $\text{LaInO}_3$  perovskite nanoparticles, *Materials Characterization* 131, 108 (2017).
  11. K. K. Shukla, Arkadeb Pal, Abhishek Singh, Rahul Singh, J. Saha, A. K. Sinha, A. K. Ghosh, S. Patnaik, A. M. Awasthi and Sandip Chatterjee, Hidden transition in multiferroic and magnetodielectric  $\text{CuCrO}_2$  evidenced by ac-susceptibility, *Euro Phys. Letts.* 118, 27008 (2017).
  12. Brijmohan, Shiv Kumar, Manish Kumar, S Chatterjee, and A K Ghosh, Investigations of physical properties of  $\text{Fe}:\text{TiO}_2$  diluted magnetic semiconductor nanoparticles, *J. Mater. Chem. C*, 5, 4257-4267 (2017).
  13. Abhishek Singh, A. K. Ghosh and Sandip Chatterjee, Antiferromagnetic Ordering at Room Temperature in Co-Doped  $\text{Sb}_2\text{Te}_3$  Topological Insulators, *J. Supercond. And Novel Mater.* (<https://doi.org/10.1007/s10948-017-4462-1>) (2017).
  14. Rahul Singh, Prince Kumar Gupta, Shiv Kumar, Amish G. Joshi, A. K. Ghosh, S. Patil, and Sandip Chatterjee, Enhancement in electrical and magnetic properties with Ti-doping in  $\text{Bi}_{0.5}\text{La}_{0.5}\text{Fe}_{0.5}\text{Mn}_{0.5}\text{O}_3$  Journal of Applied Physics 121, 154101 (2017).
  15. D.K. Gupta, R. Prasad, P. Kumar, A.K. Vishwakarma, P.K. Srivastava, Vegetation water content retrieval using scatterometer data at X-band. *Geocarto International*, 33 (6): 602-611 (2017).
  16. V.N. Mishra, R. Prasad, P. Kumar, P.K. Srivastava, P.K. Rai, Knowledge-based decision tree approach for mapping spatial distribution of rice crop using C-band SAR derived information. *Journal of Applied Remote Sensing*, 11 (4): 046003 (2017).
  17. P. Kumar, R. Prasad, D.K. Gupta, V.N. Mishra, A.K. Vishwakarma, V.P. Yadav, R. Bala, A. Choudhary, R. Avtar, Estimation of winter wheat crop growth parameters using time series Sentinel-1A SAR data. *Geocarto International*, 33 (9): 942-956 (2017).
  18. P. K. Srivastava, D. Han, A. Yaduvanshi, G. P. Petropoulos, S. K. Singh, R. K. Mall, R. Prasad, Reference Evapotranspiration Retrievals from a Mesoscale Model Based Weather Variables for Soil Moisture Deficit Estimation. *Sustainability*, 9 (11): 1971 (2017).
  19. MK Chaudhari, BK Singh, PC Pandey, Enhanced light trapping in dye-sensitized solar cell by coupling to 1D photonic crystal and accounting for finite coherence length, *Journal of Modern Optics*, 1-9 (2017).
  20. P Kumar, PC Pandey, Consequence of Cobalt Incorporation on Structural and Optical Properties of Transparent Nano-Crystalline ZnO Thin Film, *Journal of International Academy of Physical Sciences* 20 (3) (2017).
  21. A Dixit, PC Pandey, Off-axis photonic bands of hexagonal plasma photonic crystal fiber containing elliptical



- holes with defect of high index material for nonlinear waves by PWE method, *Modern Physics Letters B*, 1750156 (2017).
22. A Dixit, S Tiwari, PC Pandey, , *International Journal of Modern Physics B* 31 (8), 1750047 (2017).
  23. Upendra Kumar<sup>1</sup>, Md J. Ansaree, A. K. Verma<sup>1</sup>, S. Upadhyay and G. Gupta, Oxygen vacancy induced electrical conduction and room temperature ferromagnetism in system BaSn<sub>1-x</sub>Ni<sub>x</sub>O<sub>3</sub> (0 ≤ x ≤ 0.20), *Mater. Res. Express* 4, 116304, (2017).
  24. Md. J. Ansaree, U. Kumar and S. Upadhyay, Solid-state synthesis of nano-sized Ba(Ti<sub>1-2x</sub>Sn<sub>x</sub>)O<sub>3</sub> powders and dielectric properties of corresponding ceramics, *Appl. Phys. A*, 123:432 (2017).
  25. K. Yamini Rao, A.K. Srivastava, J.G. Doyle, B.N. Dwivedi, Origin of Impulsive Plasma Outflows due to Magnetoacoustic Shocks, *Monthly Notices of the Royal Astronomical Society*, 470, 2449-2456 (2017).
  26. Blazei Kuzma, Kris Murawski, Pradeep Kayshap, Darek Wójcik, A. K. Srivastava, Bhola N. Dwivedi, Two-fluid Numerical Simulations of Solar Spicules, *The Astrophysical Journal*, 849, Issue 2, article id. 78, 9 pp (2017).
  27. A. K. Srivastava, B. N. Dwivedi, Evidence of Magnetoacoustic Oscillations above the Brightened and Magnetically Active Quiet-Sun, *Journal of Astrophysics & Astronomy*, 38, 61, 8 pp (2017).
  28. Harshit Verma, L. Chotorlishvili, J. Berakdar, Sunil K. Mishra, Qubit(s) transfer in helical spin chains, *EPL* 119 30001 (2017).
  29. S. Patil, V.R.R. Medicherla, A. Khadiza, R.S. Singh, P. Manfrinetti, F. Wrubl, S.K. Dhar, M. Kalobaran, Observation of pseudogap in MgB<sub>2</sub>, *Journal of Physics: Condensed Matter* 29, 465504 (2017).
  30. A. Generalov, D.A. Sokolov, A. Chikina, K. Yu, V.N. Antonov, L.V. Bekenov, S. Patil, A.D. Huxley, J. W. Allen, K. Matho, K. Kummer, D.V. Vyalikh, C. Laubschat, Insight into the temperature dependent properties of the ferromagnetic Kondo lattice YbNiSn, *Physical Review B* 95, 184433 (2017).
  31. Rakesh Das, Manoranjan Kumar, Shradha Mishra, Order-disorder transition in active nematic: A lattice model Study, *Scientific Report* 7 (1), 7080 (2017)
  32. S. Choudhuri, N. Roy, S. Bharadwaj, S.S. Ali, A. Ghosh, P. Dutta, Validating a novel angular power spectrum estimator using simulated low frequency radio-interferometric data, *New Astronomy* 57, 94-103, (2017).
  33. P. Kayshap, and B.N. Dwivedi, Diagnostics of Coronal Bright Points using IRIS, AIA, and HMI Observations, *Solar Physics* 292: 108, 29 pages (2017).
  34. Saurabh Singh, Priyanka A. Jha, Sabrina Presto, Massimo Viviani, A. S. K. Sinha, Salil Varma and Prabhakar Singh, Structural and electrical conduction behaviour of yttrium doped strontium titanate: anode material for SOFC application, *J. Alloys and Compounds* 748, 627-644 (2018).
  35. Pawan K. Dubey, R. Kumar, R. S. Tiwari, O. N. Srivastava, A. C. Pandey and P. Singh, Surface modification of aligned TiO<sub>2</sub> nanotubes by Cu<sub>2</sub>O nanoparticles and their enhanced photo electrochemical properties and hydrogen generation application, *Int. J. Hydrogen Energy* 43 (14), 6867-6878 (2018).
  36. S. Presto, P. Kumar, S. Varma, M. Viviani and P. Singh, Electrical conductivity of NiMo-based double perovskites under SOFC anodic conditions, *Int. J. Hydrogen energy* 43, 4528- 4533 (2018).
  37. R. Pandey, M. Viviani, P. Singh, R. Botter, M. P. Carpanese, A. Barbucci and S. Presto, The effect of synthesis and thermal treatment on phase composition and ionic conductivity of Na doped SrSiO<sub>3</sub>, *Solid State Ionics*, 314 172-177 (2018).
  38. Rahul Singh, Vinod K. Gangwar, D. D. Daga, Abhishek Singh, A. K. Ghosh, Manoranjan Kumar, A. Lakhani, Rajeev Singh, and Sandip Chatterjee, Unusual negative magnetoresistance in Bi<sub>2</sub>Se<sub>3</sub>-ySy topological insulator under perpendicular magnetic field, *Appl. Phys. Letts.* 112, 102401 (2018).
  39. P. Kumar, R. Prasad, D.K. Gupta, A.K. Vishwakarma, A. Choudhary, Retrieval of rice crop growth variables using multi-temporal RISAT-1 remotely sensed data. *Russian Agricultural Sciences*, 43 (6): 461-465 (2018).
  40. Khushubo Tiwari, Gaurav Gautam, Narendra Kumar, Anita Mohan and Sunil Mohan Effect of Primary Silicon Refinement on Mechanical and Wear Properties of a Hypereutectic Al-Si Alloy, *Silicon*, <https://doi.org/10.1007/s12633-017-9755-2>, (2018).
  41. Md. J. Ansaree & Upendra Kumar & S. Upadhyay, Structural, dielectric and magnetic properties of



- particulate composites of relaxor ( $\text{BaTi}_{0.85}\text{Sn}_{0.15}\text{O}_3$ ) and ferrite ( $\text{NiFe}_2\text{O}_4$ ) synthesized by gel-combustion method, *Journal of Electroceramics* 40:257–269, (2018).
42. R. Chandra, P. F. Chen, A. Fulara, A. K. Srivastava, W. Uddin, A Study of a Long Duration B9 flare-CME Event and Associated Shock, *Advances in Space Research*, 61, 705 (2018).
  43. K. Murawski, P. Kayshap, A. K. Srivastava, D. J. Pascoe, P. Jelínek, B. Kuzma, V. Fedun, Magnetic Swirls and Associated Fast Magnetoacoustic Kink waves in a Solar Chromospheric Flux tube, *Monthly Notices of the Royal Astronomical Society*, 474, 77 (2018).
  44. J. G. Doyle, J. Shetye, A. E. Antonova, D. Y. Kolotkov, A. K. Srivastava, M. Stangalini, G. R. Gupta, A. Avramova, M. Mathioudakis, Stellar flare oscillations: Evidence for Oscillatory Reconnection and Evolution of MHD Modes, *Monthly Notices of the Royal Astronomical Society*, 475, 2842 (2018).
  45. S. K. Mishra, Talwinder Singh, P. Kayshap, A. K. Srivastava, Evolution of Magnetic Rayleigh-Taylor Instability into the Outer Solar Corona and Low Inter Planetary Space, *The Astrophysical Journal*, 856, 86 (2018).
  46. A. Singh, R. Singh, T. Patel, G.S. Okram, A. Lakhani, V. Ganeshan, A.K. Ghosh, S.N. Jha, S. Patil, S. Chatterjee, Tuning of carrier type, enhancement of Linear magnetoresistance and inducing ferromagnetism at room temperature with Cu doping in  $\text{Bi}_2\text{Te}_3$ , *Topological Insulators*, *Materials Research Bulletin* 98, 1-7 (2018).
  47. K. Ali, G. Adhikary, S. Thakur, S. Patil, S.K. Mahatha, A. Thamizhavel, G. De Ninno, P. Moras, P.M. Sheverdyayeva, C. Carbone, L. Petaccia, K. Maiti, Hidden phase in parent Fe-pnictide superconductors, *Physical Review B* 97, 054505 (2018).
  48. Rakesh Das, Shardha Mishra, Sanjay Puri, Ordering Dynamics of Self-propelled particles in an inhomogeneous medium, *Euro. Phys. Lett.* 121(3), 37002, (2018).
  49. Sudipta Pattanayak, Shradha Mishra, Collection of polar self-propelled particles with a modified alignment interaction, *Journal of Physics Communications* 2 (4), 045007 (2018).
  50. A. K. Singh, A. Basu, Somnath Nag, H. Hübel, J. Domscheit, I. Ragnarsson, A. Al-Khatib, G. B. Hagemann, B. Herskind, D. R. Elema, J. N. Wilson, R. M. Clark, M. Cromaz, P. Fallon, A. Görgen, I.-Y. Lee, D. Ward, and W. C. Ma, Absence of paired crossing in the positive parity bands of  $^{124}\text{Cs}$ , *Phys. Rev. C* 97, 024323 (2018).
  51. Devyani Shukla, J. Lahiri, A. S. Parmar, Characterization of Self-Assembled Protein Scaffolds from Collagen-Mimetic Peptides, *Protein Scaffolds*, pp 223-237, (2018).
  52. Smritee Singh, Priya Mishra, Ivneet Banga, Avanish S Parmar, Prem Prakash Tripathi, Sonu Gandhi, Chemiluminescence based immunoassay for morphine detection in biological fluid, *Bioimpacts*, 8, 53-58 (2018).
  53. K. Wilhelm and B.N. Dwivedi, A physical process of the radial acceleration of disk galaxies, *Monthly Notices Roy. Astron. Soc.* 474, pages 4723–4729 (2018).
  54. Jayshri Kumari, A.K. Tripathi, R.P. Singhal, and O.N. Singh II, Investigation of Saturn's aurora by whistler mode waves, *ICARUS* (Accepted) (2018).
  55. A.K. Tripathi, R.P. Singhal, and O.N. Singh II, The Generation of Saturn's Aurora at lower latitudes by Electrostatic Waves, *J. Geophysical Research-Space Physics*: 123, doi: 10.1002/2017JA024804, (2018).

#### Distinguished visits in the Department/School from India

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. Vamsik Komarala, CES, IIT Delhi	Solar Energy Related Issues	13.04.2017, Dept. of Physics, IIT(BHU)
2	Prof. K. Porsezian, Department of Physics, Pondichery University,	Giving talk in Colloquium Series	20.04.2017, Dept. of Physics, IIT(BHU)





3	Dr. Mukesh Joshi, Photonics Nanomaterials Lab, Laser Materials Processing Division, RRCAT, Indore	To conduct oral examination (Ph.D.) External Member	06.06.2017, Dept. of Physics, IIT(BHU)
4	Prof. K. Porsezian, Department of Physics, Pondichery University, Pondichery	To conduct oral examination (Ph.D.) External Member	16.06.2017, Dept. of Physics, IIT(BHU)
5	Prof. P. C. Pandey, IIT Bhubaneswar	To conduct oral examination (Ph.D.) External Member	11.09.2017, Dept. of Physics, IIT(BHU)
6	Dr. Rishu K Singh, Institute of Mathematical Sciences, Chennai	Deliver a talk	25.09.2017, Dept. of Physics, IIT(BHU)
7	Prof. Sourangshu Mukhopadhyay, University of Burdwan, West Bengal	To conduct oral examination (Ph.D.) External Member	07.10.2017, Dept. of Physics, IIT(BHU)
8	Prof. Sreerup Raychaudhuri, Department of Theoretical Physics, TIFR, Mumbai	Academic & Research work	07.10.2017, Dept. of Physics, IIT(BHU)
9	Prof. Rajaram Nityanand, Azim Premji University, Bengaluru	Giving talk in Colloquium Series	09.10.2017, Dept. of Physics, IIT(BHU)
10	Prof. Ram Sagar, Indian Institute of Astrophysics, Bengaluru	Deliver a talk	08.11.2017, Dept. of Physics, IIT(BHU)
11	Prof. Ujjawal Sen, HRI, Allahabad	Giving talk in Colloquium Series	10.11.2017, Dept. of Physics, IIT(BHU)
12	Prof. R. Shankar, BHU-Distinguished Professor & DST-Ramanna, UGC-Emeritus Fellow	Deliver a talk	18.11.2017, Dept. of Physics, IIT(BHU)
13	Dr. Salil Verma, Scientific Officer-F, BARC Mumbai	Academic & Research work	12.02.2018, Dept. of Physics, IIT(BHU)

### Distinguished Visits in the Department/School from abroad

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr. Massimo Viviani, National Research Council, Institute of Condensed Matter Chemistry and Technologies for Energy, Genova - Italy	Collaborative research works	11 to 17.02.2018, Dept. of Physics, IIT(BHU)
2	Dr. Sanjiv Kumar Tiwari, Lockheed Martin Solar and Astrophysics Laboratory, Palo Alto 94304, USA & Bay Area Environmental Research Institute, NASA Research Park	Academic Visitor	26 to 27.02.2018, Dept. of Physics, IIT(BHU)
3	Dr. Robert Leamon, NASA-GSFC, Greenbelt, Maryland, USA	Indo-US (USTTF) Project	16 to 19.02.2018, Dept. of Physics, IIT(BHU)





**FTIR Spectrometer**



**UV-VIS-NIR Spectrophotometer**



**RDP XL Series**



**Institute Day-2017**



**Jigyasa 17**

# 19. Department of Mathematical Sciences

Year of Establishment : 1985

**Head of the Department :** Prof. Lal Pratap Singh

## Brief Introduction of the Department

Department of Mathematical Sciences began its journey as a section to assist engineering departments of the institute which, in the true sense, pioneered engineering education in the nation. It soon acquired the status of a full-fledged department in 1985. The department aims to give emphasis to research in analysis, algebra, topology, mathematical modelling and other applied areas of mathematics. Be it functional analysis, fluid dynamics, biomechanics, fracture mechanics, solid mechanics, gasdynamics, digital image processing, generalized thermoelasticity, heat and mass transfer, cryptology and many more fields of applied nature, department's contribution is enormous in terms of numerous research papers published in reputed international journals over the past few decades. Computing is the glamour of the department. It annexes several dimensions in terms of new and growing areas of research and further facilitates simulation of mathematical models constructed for inter-disciplinary areas.

The department caters to the needs of the undergraduate as well as post-graduate students of the Institute. It runs a 5 years' Dual Degree programme which is one of the most sought courses offered by the institute. The top jobs in terms of annual package are offered for this course, which is a strong indication how popular and useful the course is for the industrial growth in general and software industry in particular under present circumstances.

## Major areas of Research

Bio-Transport Processes, Biomechanics, Computational Fluid Dynamics, Digital Image Processing, Fluid mechanics, Free Boundary Problems, Solid Mechanics, Fracture Mechanics, Functional Analysis, Fuzzy & Soft Set Theory, Soft Computing, Fuzzy Topology, Fuzzy Geometry, Heat and Mass Transfer, Mathematical Modelling, Nonlinear Waves, Nonlinear Dynamics, Theoretical & Numerical Optimization, Pseudo-Differential Operators, Mathematical modeling on Coupled thermomechanics, Wavelet Analysis and Distributions, Fractional Calculus, Numerical analysis, Parallel Computing, Graph Theory and Network Sciences.

## Area of the Department/School (in square meters):1665 sqm

1. New Building = 1080 Sq-meter
2. Old Building = 585 Sq-meter

## Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	02
2	No. of Lecture Halls	02
3	No. of Laboratory	02
4	No. of Computers available for students in the Department/School/ School	80

## Unique Achievement/Preposition of the Department/School

### Academic Programmes offered

### New Courses Introduced

S. No.	Course Code	Course name	Course credit
1	CSM-431	Fuzzy Set Theory	9
2	MA 711	Advances in Rings and Modules	9 (3-0-0)



### Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech/B. Pharm	---	---	---	---	---
2	Dual Degree	22	22	22	21	---
3	M. Tech/ M. Pharm	---	---	---	---	22
4	Ph. D (Under Institute Fellowship)	03	05	---	03	---
5	Ph. D (Under Project Fellowship)	01	02	---	---	---
6	Ph. D (Under Sponsored Category)	01	---	---	---	---

### Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From
<b>INDIA</b>					
1	Mr. Shashi Kant	13121016	Int. Conference "Recent Advances in PDE's Theory, computations and applications.	June 08-10, 2017 & IIT Bombay	10,000/- (STGS)
2	Mr. Ajay Kumar	12612EN006	Int. Conference "Recent Advances in PDE's Theory, computations and applications.	June 08-10, 2017 & IIT Bombay	10,000/- (STGS)
3	Mr. Ajay Kumar	12612EN006	International Conference on "6th China, India, Japan, Caria, Mathematical Biology Colloquium cum Conference"	23-26 August, 2017 IIT Kanpur	10,000/- (STGS)
4	Mr. Vijay Kumar Shukla	13121004	International Conference "Recent Space advances in PDE: Theory Computations & Applications"	08-10 June, 2017 & IIT Bombay	10,000/- (STGS)
5	Mr. Abhishek Kumar Singh	12612EN013	International Conference "Recent Space advances in PDE: Theory Computations & Applications"	08-10 June, 2017 & IIT Bombay	10,000/- (STGS)
6	Om Namha Shivay	16121014	Gian Course on Fractional Derivatives and It's Applications	30 Jan-03 Feb, IIT BHU	1000 (RS Grant)
7	Om Namha Shivay	16121014	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	02-12 Jan 2018, DST CIMS, BHU	1500 (RS Grant)



8	Om Namha Shivay	16121014	Smart Materials and Structures- Recent Trends in Industrial Appli- cations (SMART-RTI, Sept.2017)	4-11 Sep. 2017 at IIT (BHU)	4000 (RS: Research Support Grant)
9	Manushi Gupta	16121002	Gian Course on Fractional Derivatives and It's Applications	30 Jan-03 Feb, IIT BHU	NA
10	Manushi Gupta	16121002	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	02-12 Jan 2018, DST CIMS, BHU	1500 (RSGrant)
11	Manushi Gupta	16121002	Smart Materials and Structures- Recent Trends in Industrial Appli- cations (SMART-RTI, Sept.2017)	4-11 Sep. 2017 at IIT (BHU)	4000 (RS Grant)
12	Manushi Gupta	16121002	4th International Conference on Mathematics and Computing	9-11 January 2018, IIT(BHU)	3000 (RSGrant)
13	Anup Singh	16121004	Gian Course on Fractional Derivatives and It's Applications	30 Jan- 03 Feb, IIT BHU	1000 (RSGrant)
14	Rakesh Kumar	16121008	Gian Course on Fractional Derivatives and It's Applications	30 Jan-03 Feb, IIT BHU	1000 (RSGrant)
15	Rakesh Kumar	16121008	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	02-12 Jan 2018, DST CIMS, BHU	1500 (RSGrant)
16	Anup Singh	16121004	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	02-12 Jan 2018, DST CIMS, BHU	1500 (RSGrant)
17	Anuwedita Singh	16121005	Gian Course on Fractional Derivatives and It's Applications	30 Jan-03 FEB, IIT BHU	NA
18	Anuwedita Singh	16121005	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	05-15 Feb 2018, DST CIMS, BHU	1500 (RSGrant)
19	Anuwedita Singh	16121005	Smart Materials and Structures - Recent Trends in Industrial Appli- cations (SMART-RTI, Sept.2017)	4-11 September 2017 at IIT(BHU)	4000 (RSGrant)
20	Swati Yadav	16121007	Gian Course on Fractional Derivatives and It's Applications	30 Jan-03 Feb, IIT BHU	NA
21	Swati Yadav	16121007	GIAN Course on Isogeometric Methods using BSplines and Nurbs	16-20 Dec, IIT BHU	NA
22	Swati Yadav	16121007	GIAN Course on Theory and Computation of Singularly Perturbed Differential Equations	04 - 08 Dec, IIT BHU	NA



23	Swati Yadav	16121007	ISEA Sponsored One Week Workshop on Biometrics	07-11 Aug, NIT Durgapur	1000
24	Pankaj Gautam	16121011	ISEA Sponsored One Week Workshop on Biometrics	07-11 Aug, NIT Durgapur	1000
25	Pankaj Gautam	16121011	GIAN Course on Wavelets and its Applications in Image and Signal Processing	21-25 Dec, IIT BHU	NA
26	Pankaj Gautam	16121011	Workshop on Fixed Point Theory and Dynamical System	Nov 20-30, 2017, IIT BHU	3000 (RS Grant)
27	Pankaj Gautam	16121011	4th International Conference on Mathematics and Computing	Jan 9-11, 2018, IIT BHU	3000 (RS Grant)
28	Pankaj Gautam	16121011	Hands on Training Programme On C and MATLAB	Feb 10-17, 2018 DST CIMS BHU	750 (RSGrant)
29	Shashi Kant	13121016	6th China India Japan Korea Biology Colloquium Cum Conference	23-27 August, 2017, IIT Kanpur	5000
30	Anil Kumar Shukla	16121003	ISEA Sponsored One Week Workshop on Biometrics	07-11 Aug, NIT Durgapur	1000
31	Anil Kumar Shukla	16121003	Gian Course on Fractional Derivatives and It's Applications	30 Jan-03 Feb, IIT BHU	NA
32	Sumit	16121012	GIAN Course on Theory and Computation of Singularly Perturbed Differential Equations	04-08 Dec, IIT BHU	NA
33	Sumit	16121012	GIAN Course on Isogeometric Methods using B-Splines and Nurbs	16-20 Dec, IIT BHU	NA
34	Sumit	16121012	GIAN Wavelets and its Applications in Image and Signal Processing	21-25 Dec, IIT BHU	NA
35	Sumit	16121012	Gian Course on Fractional Derivatives and It's Applications	30 Jan-03 Feb, IIT BHU	NA
36	Vinita Devi	16121013	GIAN Course on Theory and Computation of Singularly Perturbed Differential Equations	04-08 DEC, IIT BHU	NA
37	Vinita Devi	16121013	GIAN Course on Isogeometric Methods using B-Splines and Nurbs	16-20 Dec, IIT BHU	NA
38	Vinita Devi	16121013	GIAN Wavelets and its Applications in Image and Signal Processing	21-25 Dec, IIT BHU	NA
39	Vinita Devi	16121013	GIAN Course on Fractional Derivatives and It's Applications	30 Jan-03 Feb, IIT BHU	NA
40	Vinita Devi	16121013	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	02-12 Jan 2018, DST CIMS, BHU	1500 (RSGrant)





41	Rahul Kumar Maurya	16121001	Partial Differential Equations and It's Applications	29 May-11 Jun, 2017, Central University of Tamil Nadu	NA
42	Rahul Kumar Maurya	16121001	Numerical Techniques for Partial Differential Equations	10-14 Jul, 2017, VNIT Nagpur	NA
43	Rahul Kumar Maurya	16121001	GIAN Course on Theory and Computation of Singularly Perturbed Differential Equations	04-08 Dec, 2017, IIT BHU	NA
44	Rahul Kumar Maurya	16121001	GIAN Course on Isogeometric Methods using B-Splines and Nurbs	16-20 Dec, 2017, IIT BHU	NA
45	Rahul Kumar Maurya	16121001	GIAN Course on Wavelets and their Applications in Signal and Image Processing	21-25 Dec, 2017, IIT BHU	NA
46	Rahul Kumar Maurya	16121001	GIAN Course on Fractional Derivatives and It's Applications	30 Jan-03 Feb, 2018, IIT BHU	NA
47	Rahul Kumar Maurya	16121001	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	02-12 Jan 2018, DST CIMS, BHU	1500 (RSGrant)
48	Harendra Kumar	16121502	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	02-12 Jan 2018, DST CIMS, BHU	1500 (RSGrant)
49	Harendra Kumar	16121502	Annual Foundation School (AFS-1)	04-30 Dec 2017, IIT Delhi	NA
50	Kamlesh Kumar	13121010	GIAN Course on Theory and Computation of Singularly Perturbed Differential Equations	04-08 Dec, IIT BHU	NA
51	Kamlesh Kumar	13121010	GIAN Course on Isogeometric Methods using B-Splines and Nurbs	16-20 Dec, 2017, IIT BHU	NA
52	Kamlesh Kumar	13121010	GIAN Wavelets and its Applications in Image and Signal Processing	21-25 Dec, IIT BHU	NA
53	Kamlesh Kumar	13121010	GIAN Course on Fractional Derivatives and It's Applications	02-12 Jan 2018, DST CIMS, BHU	NA
54	Pooja Gupta	16121501	GIAN Course On Theory and Computation of Singularity Perturbed Differential Equations	04-08 Dec, 2017, IIT BHU	NA
55	Pooja Gupta	16121501	GIAN Course on Isogeometric Methods using B-Splines and Nurbs	Dec 16-20, 2017, IIT BHU	NA
56	Pooja Gupta	16121501	GIAN Course On Wavelets and their Applications in Signal and Image Processing	Dec 21-25, 2017, IIT BHU	NA



57	Pooja Gupta	16121501	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	Jan 2-12, 2018, IIT BHU	1500(RS Grant)
58	Pooja Gupta	16121501	Hands on Training Programme on C and Matlab	Feb 10-17, 2018, DST CIMS, BHU	750 (RSGrant)
59	Pragya Shukla	17121010	GIAN Course on Fractional Derivatives and its Applications	Jan 30-Feb 3, 2018, IIT Bhu	NA
60	Pragya Shukla	17121010	GIAN Course on Wavelets and their Application in Signal and Image Processing	Dec 21-25, 2017, IIT Bhu	NA
61	Pragya Shukla	17121010	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	Feb 5-16, 2018, DST CIMS, BHU	1500 (RSGrant)
62	Pragya Shukla	17121010	Hands on Training Program on C and MATLAB	Feb 10-17, 2018, DST CIMS BHU	750(RSGrant)
63	Prashant Pandey	17121012	GIAN Wavelets and its Applications in Image and Signal Processing	21-25 Dec., IIT BHU	NA
64	Prashant Pandey	17121012	GIAN Course on Isogeometric Methods using B-Splines and Nurbs	16-20 Dec., IIT BHU	NA
65	Prashant Pandey	17121012	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	02-12 Jan. 2018, DST CIMS, BHU	1500 (RSGrant)
66	Prashant Pandey	17121012	Conference on Analysis and Its Applications	09-11 Dec., 2017	2500 (RSGrant)
67	Prashant Pandey	17121012	Hands on Training Program on C and MATLAB	Feb 10-17, 2018, DST CIMS BHU	750 (RSGrant)
68	Harshita Tiwari	17121006	Hands on Training Program on C and MATLAB	Feb 10-17, 2018, DST CIMS BHU	750 (RSGrant)
69	Harshita Tiwari	17121006	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	JAN 2-12, 2018, DST CIMS BHU	1500 (RSGrant)
70	Diksha Gupta	17121009	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	Jan 2-12, 2018, DST CIMS BHU	1500 (RSGrant)
71	Diksha Gupta	17121009	4th International Conference on Mathematics and Computing	Jan 9-11, 2018, IIT BHU	NA
72	Vijay Kumar Patel	13121008	GIAN course on Theory and Computation of Singularly Perturbed Differential Equations	Dec 04-08, 2017, DoMS, IIT BHU	RSG, Full support



73	Vijay Kumar Patel	13121008	GIAN Course on Isogeometric Methods using B-Splines and Nurbs	Dec 16-20, 2017, DoMS, IITBHU	RSG, Full support
74	Vijay Kumar Patel	13121008	GIAN course on Wavelets and their Applications in Signal and Image Processing	Dec 21-25, 2017, DoMS, IITBHU	RSG, Full support
75	Vijay Kumar Patel	13121008	GIAN course on Fractional Derivatives and It's Applications	Jan 30- Feb 03, 2018, DoMS, IIT BHU	RSG, Full support
76	Prashant Kumar Pandey	17121018	Annual Foundation School (AFS-1)	04-30 Dec 2017, IIT Delhi	NA
77	Prashant Kumar Pandey	17121018	GIAN Course on Fractional Derivatives and It's Applications	30 Jan-03 Feb, IIT BHU	NA
78	Prashant Kumar Pandey	17121018	Hands on Training Programme On C and MATLAB	Feb 10-17, 2018, DST CIMS BHU	750 (RSGGrant)
79	Rahul Kumar Chaturvedi	17121002	GIAN Course on Isogeometric Methods using B-Splines and Nurbs	Dec 16-20, 2017, IIT BHU	NA
80	Rahul Kumar Chaturvedi	17121002	GIAN Course on Wavelets and its Applications in Image and Signal Processing	21-25 Dec, IIT BHU	NA
81	Rahul Kumar Chaturvedi	17121002	Hands on Training Program on C and MATLAB	Feb 10-17, 2018, DST CIMS BHU	750 (RSGGrant)
82	Rahul Kumar Chaturvedi	17121002	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	JAN 2-12, 2018, DST CIMS BHU	1500 (RSGGrant)
83	Shobhit Kumar Srivastava	17121019	Hands on Training Program on C and MATLAB	Feb 10-17, 2018, DST CIMS BHU	750 (RSGGrant)
84	Jay Singh Maurya	17121017	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	Jan 2-12, 2018, DST CIMS BHU	1500(RS Grant)
85	Jay Singh Maurya	17121017	GIAN Course on Wavelets and its Applications in Image and Signal Processing	21-25 Dec 2017, IIT(BHU)	1000 (RS Grant)
86	Kushal Dhar Dwivedi	16121504	Training Programme on 'Tools for Scientific Documentation: Latex Jabref, DocEar and other open source software	02-12 Jan 2018, DST CIMS, BHU	1500 (RS Grant)
87	Kushal Dhar Dwivedi	16121504	Annual Foundation School (AFS-1)	04-30 Dec 2017, IIT Delhi	NA
88	Kushal Dhar Dwivedi	16121504	GIAN Course on Fractional Derivatives and It's Applications	30 Jan-03 Feb, IIT BHU	NA
89	Abhishek Singh	16121010	International Workshop on Convex Analysis and Optimization (IWCAO)	14 Nov to 19 Nov 2017, AMU Aligarh	2000(RS Grant)



90	Avinash Dixit	16121006	ISEA Sponsored One Week Workshop on Biometrics	07-11 Aug, NIT Durgapur	NA
91	Avinash Dixit	16121006	GIAN Course on Wavelets and its Applications in Image and Signal Processing	21-25 Dec, IIT BHU	NA
92	Avinash Dixit	16121006	Workshop on Fixed Point Theory and Dynamical System	Nov 20-30, 2017, IIT BHU	3000 RS Grant)
93	Avinash Dixit	16121006	Hands on Training Programme On C and MATLAB	Feb 10-17, 2018, DST CIMS BHU	750 (RS Grant)
94	Avinash Dixit	16121011	4th International Conference on Mathematics and Computing	Jan 9-11, 2018, IIT BHU	NA
95	Shivam Shreevastava	13121018	4th International Conference on Mathematics and Computing	Jan 9-11, 2018, IIT BHU	NA
96	Sonal Gupta	17121007	Hands on training program on Matlab and C	Feb 10-17 Dst CUMS BHU	750 (RS Grant)

#### ABROAD

1	Ms. Samiksha Gupta (IMD)	13123015	EACL-2017	02.04.2017 & Valencia Spain	50000/-
2	Mr. Somveer Singh Research Scholar	13121015	CNSA-2017	22-27 May, 2017 & EIMI, St. Petersburg Russia	80,000/- (DST)
3	Mr. Vijay Kumar Patel Research Scholar	13121008	CNSA-2017	22-27 May, 2017 & EIMI, St. Petersburg Russia	50000/- Approx (CSIR)
4	Mr. Vijay Kumar Patel Research Scholar	13121008	International Conference Analysis & PDE	04-06 October, 2017; Hannover, Germany	50000/-
6	Mr. Sartaj Singh IMD	13123016	International Conference "Euroseipy"	28 August to 01 September, 2017; Erlangen Germany	50000/-
7	Mr. Jagdish Prasad Maurya Research Scholar	12612EN012	Differential Equations & Applications	04-06 Sept, 2017 & Bromo, Czech Republic	50,000/-
8	Ms. Vandana Tiwari Research Scholar	12612EN001	International Conference on Applied Analysis & Mathematical Modelling	03-07 July, 2017 & St. Istanbul Turkey	50,000/-
9	Mr. Rishabh Daal, IMD	13121013	International Conference on "Europython-2017"	09-16 July, & 2017 Italy	50,000/-

#### Names of Students/Scholars who went for foreign Internship

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Mr. Abhishek Sharma	16123002	The Laboratory of Digital Science of Nantes	France	France	14.5.2018 to 20.7.2018



## Faculty & their Activity

### Faculty and their areas of specialisation

S. No.	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
<b>PROFESSORS</b>		
1	T Som, Ph.D.	Functional Analysis, Fuzzy Set Theory, Image Processing
2	R Srivastava, Ph.D.	Fuzzy Topology
3	L P Singh, Ph.D.	Non-Linear Waves, Computational Fluid Dynamics
4	S K Pandey, Ph.D.	Bio Mechanics, Fluid Mechanics
5	S Mukhopadhyay, Ph.D.	Mathematical Modelling on Solid mechanics, coupled thermos-mechanics and Non-Fourier heat conduction
6	S Das, Ph.D.	Fracture Mechanics, Mathematical Modelling, Nonlinear Dynamics
7	S K Upadhyay, Ph.D.	Wavelet Analysis, Distribution Theory, Pseudo Differential Operator
8	Murali Krishna Vemuri,	Harmonic analysis, Differential Geometry.
<b>ASSOCIATE PROFESSORS</b>		
1	Ashok Ji Gupta, Ph.D.	Theory of Rings and Modules
2	Rajeev, Ph.D.	Mathematical Modelling, Free Boundary Problems
3	Vineet Kumar Singh, Ph.D.	Numerical Wavelets Method, Operational Matrix Methods, Signal Processing
4	Rajesh Kumar Pandey, Ph.D.	Integral Equations, Wavelets and Image Processing, Fractional Derivatives
<b>ASSISTANT PROFESSORS</b>		
1	Anuradha Banerjee, Ph.D.	Stochastic Modelling in Queueing Theory
2	Sunil Kumar, Ph.D.	Numerical analysis, Image Processing, Parallel computing
3	Debdas Ghosh, Ph.D.	Convex Optimization, Numerical Optimization, Optimization under Uncertainty
4	Lavanya Sivakumar, Ph.D.	Graph Theory and Network Sciences
<b>Institute Professor</b>		
1	K.N.Rai, Ph.D.	Mathematical Modeling, Bio-heat Transfer

### Technical and Non-Teaching Staff

Sl. No.	Name, Qualifications	Designation	Date of Appointment in the Department
1.	Shri. Som Deo Keshari B.Com (Hons), M.Lib.I.Sc.	Junior Assistant	24.05.2017
2.	Shri. Anil Kumar Mishra Intermediate, B.A.	Junior Technical Superintendent	19.02.2007
3.	Dr. Piush Kumar Singh Ph.D., Mathematics	Senior Tech.	06.08.2008





**Short-term courses/workshops/seminars/symposia/conferences organised by faculty members**

S. No.	Coordinator	Title	Period
1	Prof. T Som	STC/Workshop on "Fixed Point Theory and Dynamical Systems"	Nov 20-30, 2017
2	Prof.S.K.Upadhyay and Dr. Ashok ji Gupta	Algebra, Analysis & Applications-2017, Department of Mathematical Sciences, IIT(BHU)	3rd July-9th July, 2017
3	Dr. Vineet Kumar Singh	GIAN Course on Wavelets and its Applications in Image and Signal Processing, IIT BHU	21-25 Dec, 2017
4	Dr. Rajesh K. Pandey	GIAN Course on "Fractional Derivatives and Its Applications"	Jan30-Feb 03,2018
5	Dr. Sunil Kumar	Theory and Computation of Singularly Perturbed Differential Equations, (funded by MHRD, Govt. of India, under GIAN scheme).	December 04-08, 2017
6	Dr. Sunil Kumar	Isogeometric Methods using B-Splines and NURBS (funded by MHRD, Govt. of India, under GIAN scheme).	December 16 - 20, 2017
7	Dr. Debdas Ghosh	4th International Conference on Mathematics and Computing 2018	9-11 January 2018

**Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings**

S. No.	Name of Faculty Member	Title	Period and Venue
<b>Seminars/Symposia/Conferences</b>			
1	Prof. T Som	STC/Workshop on Fixed Point Theory and Dynamical Systems	Nov 20-30, 2017, Dept. of Mathematical Sciences, IIT (BHU)
2	Prof. T Som	International Conference on Mathematics and Computing (ICMC-2018)	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)
3	Prof. T Som	Short Term Training Program on Numerical Computations and Optimization Techniques	Feb 6-10, 2018, JEC Jabalpur
4	Prof. S. Mukhopadhyay	STC/Workshop on Fixed Point Theory and Dynamical Systems	Nov 20-30, 2017, Dept. of Mathematical Sciences, IIT (BHU)
5	Prof. S. Das	STC/Workshop on Fixed Point Theory and Dynamical Systems	Nov 20-30, 2017, Dept. of Mathematical Sciences, IIT (BHU)
6	Prof. T Som	National Training Programme on The Art of Mathematical Modeling as Teaching Pedagogy	Feb 9-10, 2018, St. Aloysius (Autonomous) College, Jabalpur
7	Dr. Ashok Ji Gupta	Conference on Rings and Factorizations	February 19-23, 2018 University of Graz, Graz, Austria
8	Dr.Sunil Kumar	18th International Conference on Computational and Mathematical Methods in Science and Engineering,	July 09-13, 2018 Rota, Cadiz, Spain.



9	Prof.K.N.Rai	Biology and Medicine Through Mathematics conference	Richmond, Virginia Commonwealth University, USA, May 18-20, 2017.
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**Meetings**

1	Prof. T Som	International Conference on Geometry & Mathematical Models in complex phenomenon (Chairer a session) at CMS, Kolkata	Dec 5-7, 2017
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**Special lectures delivered by faculty members in other institutions**

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Prof. S.K. Pandey	Characteristics governing Dynamics of Whirlwinds	International conference of International Academy of Physical Sciences-XIII organised at Dr Ram Manohar Lohia Awadh University of Faizabad (Ayodhya), Uttar Pradesh	13-15 April, 2018.
2	Prof. S.K. Pandey	Modern Mathematcal Methods and High Performance computng in Sciences and technooogy	2nd international Conference, Indraprastha Engineering college, Sahibabad Gaziabad, Uttar Pradesh, India.	January 04-06
3	Prof. S.K. Pandey	Some Glimpses of Mathematical Modelling	Invertis Inspire organised at Invertis University, Bareilly	October 05-07, 2017
4	Prof. S.K. Pandey	Variation of Pressure from Cervical to Distal End in Oesophagus during Swallowing	G. J. University of Science and Technology, Hisar India	October 28-23, 2017.
5	Prof. S Das	Fractional order nonlinear equations and their solutions"	University of Malaya, Malaysia	October 02- 09, 2017
6	Prof. S Das	Academic Visitor	Nanyang Technological University (NTU), Singapore	December 06-12, 2017
7	Prof. S Das	Fractional order nonlinear diffusion equations	University of South Africa, Johannesburg, South Africa	March 14-20, 2018
8	Prof. S.K. Upadhyay	Continuous wavelet transform		1-5 Dec. 2017
9	Prof. S.K. Upadhyay	Cauchy Wavelet transform on tube-domain	Annual Conference of "Bhartiya Ganita Parishad	18-19 Nov. 2017
10	Prof. S.K. Upadhyay	Characterization of wavelet transform of ultra-distributions	Conference of the International Academy of Physical Sciences, Guru Jambheshwar University, Hisar, Haryana	28-30 Oct., 2017
11	Prof. S.K. Upadhyay	Bessel wavelet transform	SVNIT, Surat	2018



12	Prof. S.K. Upadhyay	Pseudo-differential Operators	QIP, Madan Mohan Malviya University of Technology	12 April, 2018
13	Prof. S.K. Upadhyay	Pseudo-differential Operators involving K-L transform	Conference of the International Academy of Physical Sciences, Ram Manohar Lohia, Awadh University	13-15 April, 2018
14	Dr. Ashok Ji Gupta	Error Correcting Codes	Department of Mathematics and Statistics, Gurukul Kangari Vishwavidyalaya, Haridwar	September 25-26 2017.
15	Dr. Ashok Ji Gupta	Introduction to coding theory	NIT Nagaland,	December 11-12, 2017
16	Dr. Debdas Ghosh	Fuzzy Ideal Cone Method for Capturing the Entire Fuzzy Nondominated Set of an FMOP	ISI Kolkata	9th March 2018
17	Prof. K.N.Rai.	Wavelet and its application	DST-CIMS, Institute of Science, BHU	April 04, 2018
18	Prof. K.N.Rai	गणित एवं उसके अनुप्रयोग	Neharu Gram Bharti, Deemed Vishwavidyalaya, Allahabad,	February 16-17, 2018
19	Prof. K.N.Rai.	A study of wavelet based numerical methods	Department of Mathematics, Institute of sciences, BHU	February 16-18, 2018
20	Prof. K.N.Rai	Advances in stability analysis on dynamical system	Department of Mathematics, NIT Silchar	March 08-12, 2017
21	Prof. T. Som	Concepts of soft sets, soft relation, fuzzy soft relation and Applications	JEC, Jabalpur	Feb 6-10, 2018
22	Prof. T. Som	Different Aspects of Modeling: Concepts of soft sets, soft relation, fuzzy soft relation and Applications	St. Aloysius (Autonomous) College, Jabalpur	Feb 9-10, 2018

#### Visits abroad by faculty members

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Dr. Anuradha Banerjee	GERMANY	28.02.2018	15.03.2018	Collaborative Research With Prof. Frank Aurzada, Department Of Mathematics. TU DARMSTADT	CPDA IIT BHU
2	Dr. Ashok Ji Gupta	Austria	18.2.2018	26.2.2018	Conference	CPDA

**Honours and awards**

S. No.	Name of Faculty Member	Details of Award
1	Prof. Subir Das	Excellence in teaching for the year 2016-17

**Books, monographs authored/co-authored**

S. No.	Name of Author/Co- Author	Title	Publisher
1	Debdas Ghosh · Debasis Giri Ram N. Mohapatra · Ekrem Savas Kouichi Sakurai · L. P. Singh	Mathematics and Computing	Springer, Communications in Computer and Information Science, Vol. 834
2	Vijay K. Yadav and S. Das	Dual combination synchronization scheme for non-identical different dimensional fractional order systems using scaling matrices, Linear and Nonlinear Fractional Order Systems	Elsevier Publisher (2018).

**Editorial boards of journals**

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Prof. T. Som	Guest Editor Member, Editorial Board	i) International J. of Fuzzy Computation and Modelling ii) Indian Academy of Mathematics
2	Prof. T. Som	Reviewer	Springer Plus : i) Mathematics and ii) Computer Science iii) Neural Computing and Application- sand few other reputed journals
3	Prof. L. P. Singh	Reviewer	many Internationally reputed Journals
4	Prof. Sanjay Kumar Pandey	Associate Editor	International Journal of Energy and Thermal Fluids
5	Dr. S. Mukhopadhyay	Editor/Associate Editor	i) Computational Methods in Science and Technology ii) Mathematics and Mechanics of Solids iii) International Journal of Thermoelasticity
6	Dr. S. Mukhopadhyay	Math-Reviewer	Mathematical Reviews (AMS), USA
7	Dr. S. Mukhopadhyay	Reviewer	Several International peer reviewed reputed Journals like, Applied Mathematical Modelling International Journal of Engg. Scs. Mathematics and Mechanics of Solids, Applied Mathematics and Computation Acta Mechanica etc.
8	Dr. S. Das	Reviewer	Several Internationally reputed Journals
9	Dr. S. K Upadhyay	Reviewer	many Internationally reputed Journals



10	Dr. S. K Upadhyay	Assistant Editor	Journal of Progress of Mathematics.
11	Prof. Sanjay Kumar Pandey	Member, Editorial Board	ISST Journal of Mathematics and Computer Systems, Ghazaibad, INDIA

## Design and Development Activities

### Patents filed

S. No.	Name of Faculty Member	Title of Patent
1	Prof. Subir Das	A system and method for determination of Crack progression" (Ref. No. P.1323.IN); Application No. 201711012057; Date of filing: April 3, 2017

## Research and Consultancy

### Sponsored research projects

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-coordinator
1	Study and Analysis of Mathematical Models of Nonlinear Fractional order Diffusion Equations	3 years (2015-2018)	SERB Govt. of India	17.82	Dr. S Das
2	Fractional calculus approached solutions for two dimensional ground water contaminations in unsaturated media	4 years (completed on 31 march 2018)	Board of Nuclear Science BARC, Govt. of India	22.95	Dr. S Das
3	Development of solution methods for Abel's integral equations and generalized Abel's integral equation	3 years (2016-2019)	DAE Govt. of India	3.325	Dr. Rajesh Kumar Pandey
4	On Characterizing and Obtaining the Complete Efficient Solution Set of an Interval Optimization Problem under a D-Dominance and a Variable Dominance Structure	3 years (Dec 2016-Dec 2019)	SERB Govt. of India	15.025	Dr. Debdas Ghosh

## Research Publications

Sl. No.	No.
1	Total Number of Papers Published in Refereed National Journals
2	Total Number of Papers Published in Refereed International Journals
3	Total Number of Papers Presented in National Conferences
4	Total Number of Papers Presented in International Conferences



**(a) Publications in Refereed International Journals**

1. Yadav, V. K., Prasad, G., Som, T., & Das, S. (2017). Combined synchronization of time-delayed chaotic systems with uncertain parameters. *Chinese Journal of Physics*, 55(2), 457-466. (SCI)
2. Tiwari, A. K., Shreevastava, S., Som, T., & Shukla, K. K. (2018). Tolerance-based intuitionistic fuzzy-rough set approach for attribute reduction. *Expert Systems with Applications*, 101, 205-212. (SCI)
3. Shreevastava, S., Tiwari, A. K., & Som, T. (2018). Intuitionistic Fuzzy Neighborhood Rough Set Model for Feature Selection. *International Journal of Fuzzy System Applications (IJFSA)*, 7(2), 75-84. (SCOPUS).
4. Nath, T., Gupta, R. K., & Singh, L. P. (2017). Solution of Riemann problem for ideal polytropic dusty gas. *Chaos, Solitons & Fractals*, 95, 102-110.. (Elsevier).
5. Nath, T., Gupta, R. K., & Singh, L. P. (2017). Resonantly interacting non-linear waves in a van der Waals gas. *Acta Astronautica*, 140, 91-95. (Elsevier).
6. Nath, T., Gupta, R. K., & Singh, L. P. (2017). The Progressive Wave Approach Analyzing the Evolution of Shock Waves in Dusty Gas. *International Journal of Applied and Computational Mathematics*, 3(1), 1217-1228. (Springer).
7. Pandey, S. K., & Singh, A. (2018). Peristaltic transport of Herschel–Bulkley fluids in tubes of variable cross section induced by dilating peristaltic waves: application to sliding hiatus hernia. *International Journal of Dynamics and Control*, 1-12.
8. Pandey, S. K., & Maurya, J. P. (2018). Exact solutions for unsteady axisymmetric vortex motions governing atmospheric vortices. *Dynamics of Atmospheres and Oceans*.
9. Pandey, S. K., & Maurya, J. P. (2018). A Mathematical Model Governing Tornado Dynamics: An Exact Solution of a Generalized Model. *Zeitschrift für Naturforschung A*, 73(8), 753-766.
10. Pandey, S. K., & Maurya, J. P. (2017). Exploration of Characteristics Governing Dynamics of Whirlwinds: Application to Dust Devils. *Zeitschrift für Naturforschung A*, 72(8), 763-778. De Gruyter
11. Pandey, S. K., Ranjan, G., Tiwari, S. K., & Pandey, K. (2017). Variation of pressure from cervical to distal end of oesophagus during swallowing: Study of a mathematical model. *Mathematical biosciences*, 288, 149-158. Elsevier
12. Shivay, O. N., & Mukhopadhyay, S. (2018). Some basic theorems on a recent model of linear thermoelasticity for a homogeneous and isotropic medium. *Mathematics and Mechanics of Solids*, 1081286518762612.
13. Kant, S., & Mukhopadhyay, S. (2018). An investigation on responses of thermoelastic interactions in a generalized thermoelasticity with memory-dependent derivatives inside a thick plate. *Mathematics and Mechanics of Solids*, 1081286518755562.
14. Kant, S., Gupta, M., Shivay, O. N., & Mukhopadhyay, S. (2018). An investigation on a two-dimensional problem of Mode-I crack in a thermoelastic medium. *Zeitschrift für angewandte Mathematik und Physik*, 69(2), 21.
15. Kant, S., & Mukhopadhyay, S. (2018). Investigation on effects of stochastic loading at the boundary under thermoelasticity with two relaxation parameters. *Applied Mathematical Modelling*, 54, 648-669.
16. Kant, S., & Mukhopadhyay, S. (2017). A detailed comparative study on responses of four heat conduction models for an axisymmetric problem of coupled thermoelastic interactions inside a thick plate. *International Journal of Thermal Sciences*, 117, 196-211.
17. Kumar, A., & Mukhopadhyay, S. (2017). Investigation on the effects of temperature dependency of material parameters on a thermoelastic loading problem. *Zeitschrift für angewandte Mathematik und Physik*, 68(4), 98.
18. Kant, S., & Mukhopadhyay, S. (2017). Investigation of a problem of an elastic half space subjected to stochastic temperature distribution at the boundary. *Applied Mathematical Modelling*, 46, 492-518.
19. Tiwari, R., & Mukhopadhyay, S. (2017). On electromagneto-thermoelastic plane waves under Green–Naghdi theory of thermoelasticity-II. *Journal of Thermal Stresses*, 40(8), 1040-1062.
20. Kumar, A., Kumari, B., & Mukhopadhyay, S. (2017). Thermo-Mechanical Responses of an Annular



- Cylinder with Temperature Dependent Material Properties under Thermoelasticity without Energy Dissipation. *Computational Methods in Science and Technology*, 23(4), 317-329.
21. Kumari, B., & Mukhopadhyay, S. (2017). Fundamental solutions of thermoelasticity with a recent heat conduction model with a single delay term. *Journal of Thermal Stresses*, 40(7), 866-878.
  22. Tiwari, R., & Mukhopadhyay, S. (2018). Analysis of wave propagation in the presence of a continuous line heat source under heat transfer with memory dependent derivatives. *Mathematics and Mechanics of Solids*, 23(5), 820-834.
  23. Kumari, B., & Mukhopadhyay, S. (2017). A domain of influence theorem for thermoelasticity without energy dissipation. *Mathematics and Mechanics of Solids*, 22(11), 2156-2164.
  24. Kumari, B., & Mukhopadhyay, S. (2017). Some theorems on linear theory of thermoelasticity for an anisotropic medium under an exact heat conduction model with a delay. *Mathematics and Mechanics of Solids*, 22(5), 1177-1189.
  25. Mishra, P.K., Singh, P., & Das, S. (2017). Study of thermo-elastic cruciform crack with unequal arms in an orthotropic elastic plane. *ZAMM-Journal of Applied Mathematics and Mechanics/Zeitschrift für Angewandte Mathematik und Mechanik*, 97(8), 886-894.
  26. Mishra, P. K., Singh, P., & Das, S. (2017). Interaction of Three Interfacial Cracks between an Orthotropic Half-Plane Bonded to a Dissimilar Orthotropic Layer with Punch. *Zeitschrift für Naturforschung A*, 72(11), 1021-1029.
  27. Jaiswal, S., Chopra, M., & Das, S. (2018). Numerical solution of a space fractional order solute transport system. *Journal of Porous Media*, 21(2).
  28. Tripathi, N. K., Das, S., Ong, S. H., Jafari, H., & Al Qurashi, M. M. (2017). Solution of time-fractional Cahn–Hilliard equation with reaction term using homotopy analysis method. *Advances in Mechanical Engineering*, 9(12), 1687814017740773.
  29. Das, S., Singh, A., & Ong, S. H. (2018). Numerical solution of fractional order advection-reaction-diffusion equation. *Thermal Science*.
  30. Jaiswal, S., Chopra, M., & Das, S. (2018). Numerical Solution of Two-Dimensional Solute Transport System Using Operational Matrices. *Transport in Porous Media*, 122(1), 1-23.
  31. Das, S., & Yadav, V. K. (2017). Stability analysis, chaos control of fractional order Vallis and El-Nino systems and their synchronization. *IEEE/CAA Journal of Automatica Sinica*, 4(1), 114-124.
  32. Yadava, V. K., Das, S., & Cafagna, D. (2016, December). Nonlinear synchronization of fractional-order Lu and Qi chaotic systems. In *Electronics, Circuits and Systems (ICECS), 2016 IEEE International Conference on* (pp. 596-599). IEEE.
  33. Yadav, V. K., Das, S., Bhadauria, B. S., Singh, A. K., & Srivastava, M. (2017). Stability analysis, chaos control of a fractional order chaotic chemical reactor system and its function projective synchronization with parametric uncertainties. *Chinese Journal of Physics*, 55(3), 594-605.
  34. Yadav, V. K., Shukla, V. K., Das, S., Leung, A. Y. T., & Srivastava, M. (2018). Function projective synchronization of fractional order satellite system and its stability analysis for incommensurate case. *Chinese journal of physics*, 56(2), 696-707.
  35. Yadav, V. K., Prasad, G., Srivastava, M., & Das, S. (2018). Combination–combination phase synchronization among non-identical fractional order complex chaotic systems via nonlinear control. *International Journal of Dynamics and Control*, 1-11.
  36. Upadhyay, S. K., & Dubey, J. K. (2017). Wavelet convolution product involving fractional fourier transform. *Fractional Calculus and Applied Analysis*, 20(1), 173-189. (Sci).
  37. Upadhyay, S. K., & Singh, R. (2017). Bessel Wavelet Transform on the Spaces with Exponential Growth. *Filomat*, 31(8), 2459-2466. (Sci).
  38. Upadhyay, S. K., Singh, R., & Tripathi, A. (2017). The relation between Bessel wavelet convolution product and Hankel convolution product involving Hankel transform. *International Journal of Wavelets, Multiresolution and Information Processing*, 15(04), 1750030. (Sci).



39. Kumar, A., & Upadhyay, S. K. (2018). The Continuous Fractional Wavelet Transform on W-Type Spaces. *Journal of the Indian Mathematical Society*. (Scopus).
40. Upadhyay, S. K., & Chauhan, M. S. (2018). Pseudo-Differential Operators of Homogeneous Symbol Associated with n-Dimensional Hankel Transformation. *The Journal of the Indian Mathematical Society*, 85(3-4), 470-493. (Scopus).
41. Maurya, S. K., & Gupta, A. J. (2018). Finite-direct-injective modules. *International Electronic Journal of Algebra*, 23(23), 143-152.
42. Patel, M. K., Kumar, V., & Gupta, A. J. (2018). On semi-projective modules and their endomorphism rings. *Asian-European Journal of Mathematics*, 11(02), 1850029.
43. Singh, S., Patel, V. K., & Singh, V. K. (2018). Application of wavelet collocation method for hyperbolic partial differential equations via matrices. *Applied Mathematics and Computation*, 320, 407-424.
44. Singh, S., Patel, V. K., Singh, V. K., & Tohidi, E. (2018). Application of Bernoulli matrix method for solving two-dimensional hyperbolic telegraph equations with Dirichlet boundary conditions. *Computers & Mathematics with Applications*, 75(7), 2280-2294.
45. Singh, S., Patel, V. K., & Singh, V. K. Convergence rate of collocation method based on wavelet for nonlinear weakly singular partial integro-differential equation arising from viscoelasticity. *Numerical Methods for Partial Differential Equations*.
46. Patel V.K., Singh V.K., & Postnikov E. B. (2018). Application of piecewise expansion based on 2D Legendre wavelets for fractional partial differential equation, *International Journal of Pure and Applied Mathematics*, Volume 119, No.16, 5159-5167.
47. Kumar, K., Pandey, R. K., & Sharma, S. (2017). Comparative study of three numerical schemes for fractional integro-differential equations. *Journal of Computational and Applied Mathematics*, 315, 287-302.
48. Singh, K. K., Bajpai, M. K., Pandey, R. K., & Munshi, P. (2017). A novel non-invasive method for extraction of geometrical and texture features of wood. *Research in Nondestructive Evaluation*, 28(3), 150-167.
49. Singh, H., Pandey, R. K., & Baleanu, D. (2017). Stable Numerical Approach for Fractional Delay Differential Equations. *Few-Body Systems*, 58(6), 156.
50. Pandey, R. K., Kumar, N., & Mohapatra, R. N. (2017). An approximate method for solving fractional delay differential equations. *International Journal of Applied and Computational Mathematics*, 3(2), 1395-1405.
51. Singh, K. K., Bajpai, M. K., & Pandey, R. K. (2018). A novel approach for enhancement of geometric and contrast resolution properties of low contrast images. *IEEE/CAA Journal of Automatica Sinica*, 5(2), 628-638.
52. Kumar, K., Pandey, R. K., & Sharma, S. (2018). Numerical Schemes for the Generalized Abel's Integral Equations. *International Journal of Applied and Computational Mathematics*, 4(2), 68.
53. Sharma, S., Pandey, R. K., & Kumar, K. (2018). Collocation method with convergence for generalized fractional integro-differential equations. *Journal of Computational and Applied Mathematics*, 342, 419-430.
54. Kumar, K., Pandey, R. K., & Sharma, S. (2018). Approximations of fractional integrals and Caputo derivatives with application in solving Abel's integral equations. *Journal of King Saud University-Science*.
55. Sharma, S., Pandey, R. K., & Kumar, K. (2018). Galerkin and Collocation Methods for Weakly Singular Fractional Integro-differential Equations. *Iranian Journal of Science and Technology, Transactions A: Science*, 1-8.
56. Shukla A. K., Pandey R. K. & Yadav S. (2018). Salt and Peper Noise Algorithm Based on Generalized Fractional Operator, *International Journal of Pure and Applied Mathematics*, 119 (16) 5147-5158.
57. Gupta G. K. & Banerjee A. 2017. Steady state analysis of system size based balking in M/M<sup>b</sup>/1 queue (*International Journal of Mathematics in Operational Research* (Inder Science) (In press). ISSN online: 1757-5869.





58. Gupta G. K. and Banerjee A. (2018). Analysis of infinite buffer general bulk service queue with state dependent balking (In press) *International Journal of Operational Research* (Inder Science), ISSN online: 1745-7653.
59. Singh, J., Kumar, S., & Kumar, M. A domain decomposition method for solving singularly perturbed parabolic reaction-diffusion problems with time delay. *Numerical Methods for Partial Differential Equations*, 34(5), 2018, 1849-1866.
60. Gupta, V., Kumar, M., & Kumar, S. (2018). Higher order numerical approximation for time dependent singularly perturbed differential-difference convection-diffusion equations. *Numerical Methods for Partial Differential Equations*, 34(1), 357-380.
61. Kumar, D., Singh, S., Sharma, N., & Rai, K. N. (2018). Verified non-linear DPL model with experimental data for analyzing heat transfer in tissue during thermal therapy. *International Journal of Thermal Sciences*, 133, 320-329.
62. Yadav, S., Upadhyay, S., & Rai, K. N. (2017). Legendre Wavelet Modified Petrov–Galerkin Method in Two-Dimensional Moving Boundary Problem. *Zeitschrift für Naturforschung A*, 73(1), 23-34.
63. Singh, S., Kumar, D., & Rai, K. N. (2018). Analytical solution of Fourier and non-Fourier heat transfer in longitudinal fin with internal heat generation and periodic boundary condition. *International Journal of Thermal Sciences*, 125, 166-175.
64. Upadhyay S., Yadav S., Rai K. N. (2017). Modelling and simulation of moving boundary problem arising during immersion frying of foods, National Academic of Science (in press).
65. Kumar, D., Kumar, P., & Rai, K. N. (2017). Numerical solution of non-linear dual-phase-lag bioheat transfer equation within skin tissues. *Mathematical biosciences*, 293, 56-63.
66. Kumar, D., Upadhyay, S., Singh, S., & Rai, K. N. (2017). Legendre wavelet collocation solution for system of linear and nonlinear delay differential equations. *International Journal of Applied and Computational Mathematics*, 3(1), 295-310.
67. Upadhyay, S., & Rai, K. N. (2017). Galerkin and collocation methods for solution of initial value problem of generalised van der Pol equation. *International Journal of Engineering Systems Modelling and Simulation*, 9(2), 103-112.
68. Kumar, D., & Rai, K. N. (2017). Numerical simulation of time fractional dual-phase-lag model of heat transfer within skin tissue during thermal therapy. *Journal of thermal biology*, 67, 49-58.
69. Singh, P. K., Singh, R. S., & Rai, K. N. (2018). A Parallel Algorithm for Wavelet Transform-Based Color Image Compression. *Journal of Intelligent Systems*, 27(1), 81-90.
70. Upadhyay, S., & Rai, K. N. Finite Element Legendre Wavelet Galerkin Approach in Investigation of Non Fourier's and Non Fick's effects on Heat and Mass Transfer During Drying of Foods. *Computational Thermal Sciences: An International Journal*, Jan, 2018.
71. Singha, S., Kumar, P., Rai, K. N., & Tomard, N. S. (2017). Unsteady free convection oscillatory couette flow through a variable porous medium with concentration profile. *International Journal of Nonlinear Analysis and Applications*, 8(1), 177-186.

#### (b) Proceedings of International Conferences

1. Tiwari, V., & Som, T. (2018, January). Fixed Point Results for  $(\phi, \psi)$ -Weak Contraction in Fuzzy Metric Spaces. In *International Conference on Mathematics and Computing* (pp. 278-285). Springer, Singapore.(SCOPUS)
2. Som T., Choudhury A., Sahu D.R., & Kumar A. (2018). Convergence of generalized Mann type of iterates to common fixed point, Springer Proceedings of Mathematics and Statistics (POMS).(SCOPUS)
3. Tiwari A.K., Shreevastava S., Subbiah K. & Som T. (2018). Enhanced Prediction for Piezophilic Protein by incorporating Reduced Set of Amino Acids using Fuzzy-Rough Feature Selection Technique followed by SMOTE Springer Proceedings of Mathematics and Statistics(POMS) of ICMC- 2018.(SCOPUS)
4. Mishra V., Som T., Samuel C. & Sharma S.K. (2018). Fuzzy Goal Programing Approach for Resource



- Allocation in a NGO Operation. Springer Proceedings of Mathematics and Statistics (POMS) 2018.(SCOPUS).
5. Gupta, M., & Mukhopadhyay, S. (2018, January). On Linear Theory of Thermoelasticity for an Anisotropic Medium Under a Recent Exact Heat Conduction Model. In *International Conference on Mathematics and Computing* (pp. 309-324). Springer, Singapore.
  6. Upadhyay, S.K. & Singh, R. (2018). Linear Time Invariant Filter associated with Bessel Wavelet Transform, *The Journal of Analysis* (Accepted). (Springer)
  7. Upadhyay, S. K., & Singh, R. (2017). Abelian theorems for the Bessel wavelet transform. *The Journal of Analysis*, 1-12.
  8. Upadhyay, P., Upadhyay, S. K., & Shukla, K. K. (2017). A Mathematical Model of Consumers' Buying Behaviour Based On Multiresolution Analysis. *Procedia computer science*, 122, 564-571.
  9. Banerjee, A., Sikdar, K., & Gupta, G.K. (2018). On Finite Buffer BMAP/G/1 Queue with Queue Length Dependent Service. *Operations Research and Optimization: FOTA 2016*, Kolkata, India, November 24-26, 225, 43.
  10. Gupta G. K. & Banerjee A. (2018). On queue with batch size and queue length dependent service. *Fourth International Conference on Mathematics and Computing January 9-11, 2018, IIT (BHU) Varanasi, India*. Accepted for publication in *Communications in Computer and Information Science: conference proceedings series of Springer Vol. 834 (SCOPUS)*.
  11. Kumar S., Singh J., & Kumar M. (2018). A Robust Domain Decomposition Method for Singularly Perturbed Parabolic Systems, *Proc. of the 18th International Conference on Computational and Mathematical Methods in Science and Engineering, CMMSE 2018*, Rota, Cadiz, Spain, July 9–14, 2018.
  12. Singh J., Kumar S., & Kumar M. (2018). A high order accurate overlapping domain decomposition method for singularly perturbed reaction-diffusion systems, *Lecture Notes in Computer Science*, (2018), *Proc. of 7-th Conference on Finite Difference Methods: Theory and Applications (FDM: T&A' 2018)*, Lozenetz, Bulgaria, June 11-16, 2018.

### (C) Proceedings of National Conferences

1. Upadhyay, S.K, Kumar, A. (2017). Pseudo Differential Operators and Wavelet Transform Associated With Fractional Fourier Transform, **GANITA, Proceedings of NCMAA**, Vol 67(3), 2017, 79-95 (Survey article).

### Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

1. S.K. Agrawal, M Srivastava, S Das (2012), Synchronization of fractional order chaotic systems using active control method, *Chaos, Solitons & Fractals* 45 (6), 737-752. Citations: 110
2. M Srivastava, SP Ansari, SK Agrawal, S Das (2014), AYT Leung, Anti-synchronization between identical and non-identical fractional-order chaotic systems using active control method, *Nonlinear Dynamics* 76 (2) (2014), 905-914. Citation: 64
3. R. K. Pandey, N. Kumar (2012), Solution of Lane-Emden type equations using Bernstein Operational matrix of Differentiation, *New Astronomy* 17, 303-308. Citation: 60
4. K Vishal, S Kumar, S Das (2012), Application of homotopy analysis method for fractional Swift Hohenberg equation—Revisited, *Applied Mathematical Modelling* 36 (8), 3630-3637. Citation: 40
5. D Tripathi, SK Pandey, OA Bégin (2013), Mathematical modelling of heat transfer effects on swallowing dynamics of viscoelastic food bolus through the human oesophagus, *International Journal of Thermal Sciences* 70, 41-53. Citation: 37





### Distinguished Visitors

Sl. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1	Dr. Om Prakash Agrawal Professor Mechanical Engineering, Southern Illinois University Carbondale, IL USA	Jan 30-Feb 03, 2018 Department of Mathematical Sciences	To deliver lectures in the GIAN course on "Fractional Derivatives and Its Applications"
2	Professor P Veeramani, IIT, Madras	Nov 20-30, 2017 Department of Mathematical Sciences	Invited talk in STC/Workshop on Fixed Point Theory & Dynamical Systems-2017
3	Professor V Sree Hari Rao, JNTUH College of Engineering, Hyderabad	Nov 20-30, 2017 Department of Mathematical Sciences	Invited talk in STC/Workshop on Fixed Point Theory & Dynamical Systems-2017
4	Professor D K Ganguly, Ex Professor, University of Calcutta	Nov 20-30, 2017 Department of Mathematical Sciences	Invited talk in STC/Workshop on Fixed Point Theory & Dynamical Systems-2017
5	Professor B S Choudhury, IEST, Shibpur	Nov 20-30, 2017 Department of Mathematical Sciences	Invited talk in STC/Workshop on Fixed Point Theory & Dynamical Systems-2017
6	Professor R P Pant, Kumaun University, Nainital	Nov 20-30, 2017 Department of Mathematical Sciences	Invited talk in STC/Workshop on Fixed Point Theory & Dynamical Systems-2017
7	Professor M Saha, University of Burdwan	Nov 20-30, 2017 Department of Mathematical Sciences	Invited talk in STC/Workshop on Fixed Point Theory & Dynamical Systems-2017
8	Prof. Anthony TS Ho, Department of Computer Science, Faculty of Engineering and Physical Sciences University of Surrey, UK	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)
9	Prof. S. Ponnusamy, Head, Indian Statistical Institute, Chennai Centre, India	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)
10	Prof. Ram N. Mohapatra, Academic Director & Professor, University of Central Florida, Orlando, USA	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)
11	Prof. Matti Vuorinen, Department of Mathematics and Statistics, University of Turku, Finland	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)
12	Prof. Srinivas R. Chakravarthy, Professor of Operations Research and Statistics, Department of Industrial and Manufacturing Engineering, Kettering University, Flint, USA	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)
13	Prof. Chris Rodger, Auburn University, Alabama	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)
14	Dr. Srinivas Pyda, Senior Director, Oracle's System's Technology group in the Server Technology division	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)



15	Dr. Aravindh, SCUBE, India	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)
16	Prof. Kouchi Sakurai, Faculty of Information Science and Electrical Engineering, Kyushu University, Fukuoka, Japan	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)
17	Prof. Debasis Giri, Department of Computer Science and Engineering, Haldia Institute of Technology, India	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)

### International collaboration/achievements by the Department/School

1. Srivastava H. M, Upadhyay, S.K, KhatterwaniK., "A Family of Pseudo Differential Operators on the Schwartz Space Associated With the Fractional Fourier Transform", Russian Journal of Mathematical Physics, Vol 24 No. 4 (2017), 534-543(Sci).

### Indian Faculty visits in the Department/School/School

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. S. K. Mishra, Department of Mathematics, Banaras Hindu University, India	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)
2	Dr. D Gopal, NIT, Surat	Invited talk in STC/Workshop on Fixed Point Theory & Dynamical Systems-2017	Nov 20-30, 2017 Department of Mathematical Sciences

### Foreign Faculty Visits in the Department/School

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr. Om Prakash Agrawal Professor, Mechanical Engineering, Southern Illinois University Carbondale, IL USA	Jan 30-Feb 03, 2018 Department of Mathematical Sciences	To deliver lectures in the GIAN course on "Fractional Derivatives and Its Applications"
2	Dr. Srinivas Pyda, Senior Director, Oracle's System's Technology group in the Server Technology division	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)
3	Prof. Kouchi Sakurai, Faculty of Information Science and Electrical Engineering, Kyushu University, Fukuoka, Japan	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)
4	Prof. Chris Rodger, Auburn University, Alabama	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)
5	Prof. Srinivas R. Chakravarthy, Professor of Operations Research and Statistics, Department of Industrial and Manufacturing Engineering, Kettering University, Flint, USA	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)



6	Prof. Matti Vuorinen, Department of Mathematics and Statistics, University of Turku, Finland	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)
7	Prof. Anthony TS Ho, Department of Computer Science, Faculty of Engineering and Physical Sciences University of Surrey, UK	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)
8	Prof. Ram N. Mohapatra, Academic Director & Professor, University of Central Florida, Orlando, USA	Jan 9-12, 2018, Dept. of Mathematical Sciences, IIT (BHU)	Invited talk in International Conference on Mathematics and Computing (ICMC-2018)

#### Some accepted papers

1. Sanjeev Kumar Maurya and A. J. Gupta: "A Note on Direct Injective modules" Palestine Journal of Mathematics, 2017.
2. Sanjay Kumar Pandey, Amirlal Singh and Shailendra Kumar Tiwari, Flow of Herschel-Bulkley Fluids in circular cylindrical Tubes Caused by Dilating Peristaltic Waves, Austin Journal of Gastroenterology (Accepted: 07 August, 2018).
3. Sanjay Kumar Pandey and Amirlal Singh, Unsteady Peristaltic Transport of a Particle-Fluid Suspension: Application to Oesophageal Swallowing, Zeitschrift für Naturforschung A. (Accepted: 31 July, 2018). De Gruyter
4. Vijay K. Yadav and S. Das, Combination synchronization of fractional order  $n$ -chaotic systems using active backstepping design, Nonlinear Engineering – Modeling and Application (NLENG), Accepted (2018), (Scopus Journal).
5. Upadhyay, Prateep, Upadhyay, S.K, Shukla, K.K., "Denoising 1D Signal Using Wavelets", Springer CCIS Series (Accepted), 2017 (Scopus).
6. Upadhyay, Prateep, Upadhyay, S.K, Shukla, K.K., "Heat Equation Based ECG Signal Denoising in The Presence of White, Coloured and Muscle Artifact Noises", Springer AISC Series (Accepted), 2018 (Scopus).

## 20. School of Bio-Chemical Engineering

Year of Establishment : 1986

**Coordinator of the School :** Prof. Pradeep Kumar Srivastava (from 1<sup>st</sup> October, 2018)

Prof. Subir Kundu (from 1<sup>st</sup> August, 2017 to 30<sup>th</sup> September, 2018)

### Brief Introduction of the school

The School was established for achieving several benchmarks in teaching and research in the modern field of Bioengineering. It has kept on modernizing its programmes to impart education in upcoming areas of Biochemical engineering.

The School presently offers courses leading to IDD, M.Tech. and Ph.D. degrees in Biochemical Engineering. The School also offers courses to undergraduate students of Department of Chemical Engineering, Department of Pharmaceutics, and postgraduate students of School of Materials Science & Technology, School of Biomedical Engg, Department of Civil Engg, Department of Food Sc & Tech, IAgSc, and School of Biotechnology, Faculty of Science. In the new undergraduate curriculum, the School has been entrusted to offer a number of institute level courses either independently or jointly with other departments. The research facilities of the School are utilized not only by other departments of the institute and BHU but also by other teaching institutions and research laboratories. The faculty also guides

### Major areas of Research

1. BioProcess and Bioreactor Engg
2. Enzyme Engineering & Tissue Engineering
3. Molecular Biology and Genetic Engg.

### Area of the School (in square meters)

The School has been functioning the premise of Dept of Chemical Engineering since its inception. However, the school developed two dedicated laboratories in the Dept of Biochemical Engineering, IIT (BHU), subsequently has also developed its own building adjacent to the Dept of Chemical Engg (Total Area about 5,000 sq ft.). Recently the school has a new building, three storied which includes all teaching and Laboratories. The floor area of the new building of School is 10,000 sq. feet. (Total 30,000sq ft).

### Infrastructure

The School has 12 laboratories, 06 lecture theatres, a 100 seat conference room, small library with textbook bank and internet facility. The School also has a seminar room and a few instruction rooms and rooms for its faculty. The School enjoys an excellent professional interaction with various industrial organizations, Experts and consultants. Faculty members are engaged in high level research collaborations and consultancy work in industry, where as some others have projects funded by the industry. Besides these, the School also provides know-how for process improvement/development, raw materials and products analysis, microbiological testing, etc to the industries in and around Varanasi.

S. No.	Particulars	Number
1	No. of Classrooms	06
2	No. of Lecture Halls	01
3	No. of Laboratory	12
4	No. of Computers available for students in the Department/School/ School	20

### Unique Achievement of the School

Unique Achievement/Preposition of the Department/School

- 1986 : M Tech Degree course & PhD degree
- 2006: Five Year Integrated Dual Degree Course in Bio-chemical Engineering & Biotechnology
- In addition, School offers theory and laboratory courses to the students of M.Sc. (Food Sc & Tech) and M.Sc.



(Biotechnology) programmes of the Banaras Hindu University.

- The School offers Ph. D. Degree in Biochemical Engineering. The yearly intake varies between 10 and 20. Students with Biochemical engineering degree or allied disciplines (as listed in the ordinances) join the Ph.D. Programme. The School also offers joint research programmes with other Schools of the Institute or other academic institution/ R&D organizations.

### Academic Programmes offered

#### New Courses Introduced

Streams in Biochemical Engg:

- BRE X1X Bioprocess and Bioreactor Engg
- ETE X2X Enzyme & Tissue Engg
- MBG X3X Molecular Biol & Genetic Engg

#### IDD SEM V

	Course Code	Subjects	L-T-P	Credits
DC	BC311	Microbial Engineering	3-1-0	11
DC	BC331	Waste WaterEngg	2-0-2	08
DC	BC312	Bioprocess Technol	3-0-0	09
DE I	BC	Enzyme Engineering (Common Elective)	3-1-0	11
OE-I		(From Chem Engg/Chemistry/Pharmacy)	3-0-0	9
HU			1-2-0	5
	BC391	Stream Project	0-0-10	10
		Total		63

#### IDD SEM VI

	Course Code	Subjects	L-T-P	Credits
DC	BC 314	Bio Reactor Design	3-0-2	11
DC	BC 301	Waste WaterEngg	3-0-0	9
DC	BC 332	Mol Biol & GE	3-0-2	11
DE II	BC 3	Adv Ferment. Tech (315)/Adv Enzyme Engg (323)/ Structural Biology (333)	3-0-0	9
OE-II	AC	Anal Tech in Chem (Preferred OE)	3-0-0	9
	HU	Humanities	2-0-0	6
HU	BC 392	Stream/ UG Project	0-0-10	10
		Total		65



**IDD SEM VII**

	Course Code	Subjects	L-T-P	Credits
DC	BC 401	Downstream Processing	3-0-0	9
DC	BC 402	Food Engg & Biotechnol	3-0-2	11
DE III	BC 4	Intro Bioinformat (434)/ Animal Cell Culture (424)/ Adv BRD (416)	3-0-0	9
OE III		From Other Departments	3-0-0	9
BC	BC 491	Stream/UG Project	0-0-10	10
HU	IH	Humanities	3-0-0	9
		Total		63

**IDD SEM VIII**

	Course Code	Subjects	L-T-P	Credits
DC	BC 403	Bio-Process Plant Design	3-0-0	9
DE IV	BC 4	Biopro Simula & Control(417)/Cell & Tissue Engg (425)/rDNA Tech(435)	3-0-0	9
OE V		From Other Departments	3-0-0	9
OE VI		From Other Departments	3-0-0	9
HU			1/2/2000	8
DP	BC 492	PG Project/Thesis	0-0-10	10
		Total		54

**IDD SEM IX**

	Course Code	Subjects	L-T-P	Credits
DC	BC 501	Bio Business Planning & Management	3-0-0	9
DE VII	BC	Protein Engg (536)/Metabolic Engg (526)/ Biosensor (516)	3-0-0	9
	(PG Open)			
HU	IH		3-0-0	9
DP	BC 591		0-0-20	20
PE				
		Total		47

**IDD X**

	Course Code	Subjects	L-T-P	Credits
DC	BC 592	Dissertation	0-0-50	50

**Total 576**



## Stream Electives

### Stream I BRD

1. Advance Fermentation Technology
2. Advance Bio Reactor Design
3. Bioprocess Simulation & Control
4. Biosensors

### Stream II ETE

1. Adv Enzyme Engg
2. Animal Cell Culture
3. Cell & Tissue Engg
4. Metabolic Engg

### Stream III MBG

1. Structural Biology
2. Intro to Bioinformatics
3. rDNA Technology
4. Protein Engg.

## Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech/B. Pharm	---	---	---	---	---
2	Dual Degree	14	11	12	12	14
3	M. Tech/ M. Pharm	08	08	---	---	---
4	Ph. D (Under Institute Fellowship)	03	18	---	---	---

## Conferences/workshops/seminars and symposia abroad or in India

1. A novel strategy for anti-hyperglycemic and anti-oxidative stress effect of *Vicia faba* seed extract in *Saccharomyces cerevisiae*'. TBBR-2018, held in February 13-15, 2018 at BHU, Varanasi.
2. Studies of faba bean (*Vicia faba* L.) seed extract on apoptosis in *Saccharomyces cerevisiae*!', in the international conference Novel applications of Biotechnology in Agricultural Sectors (INABSDG-2018) held at BHU, Varanasi during 20-21 March, 2018.
3. Effect of *Vicia faba* seed extract on oxidative stress and *in vitro* and *in silico* interaction with alpha –glucosidase Chemcon 2017 held at Haldia West Bengal during 27-30 December, 2018
4. Comparative study of solid-state fermentation and submerged fermentation for protease inhibitor production from *Agaricus bisporus*" at "International Conference on Trends in Biochemical and Biomedical Research Advances and Challenges (TBBR-2018), Department of Biochemistry, Institute of Science, Banaras Hindu University, Varanasi, Feb 13-15, 2018.
5. Protective effect of protease inhibitor from *Agaricus bisporus* on hydrogen peroxide induced apoptosis in *Saccharomyces cerevisiae*" at "International Conference on Novel Applications of Biotechnology in Agricultural Sectors: Towards Achieving Sustainable Development Goal-2018", Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, March 20-21, 2018.
6. In-vitro anti-diabetic potential of *Pterocarpus marsupium* extract" at "International Conference on Trends in Biochemical and Biomedical Research Advances and Challenges (TBBR-2018), Department of Biochemistry, Institute of Science, Banaras Hindu University, Varanasi, Feb 13-15, 2018.
7. Methanolic extract of *Pterocarpus marsupium* heartwood protect *Saccharomyces cerevisiae* cell against oxidative stress-induced cell death" at "International Conference on Novel Applications of Biotechnology



in Agricultural Sectors: Towards Achieving Sustainable Development Goal-2018”, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, March 20-21, 2018.

8. International conference "Biosangam" at Motilal Nehru NIT Allahabad, 2018, entitled Fermentative approach for biosynthesis of fumaric acid utilizing Jackfruit seed flour.
9. Got Best poster award at Biofuturity 2018 at Bundelkhand University Jhansi, for poster entitled “Isolation and Characterization of new soil isolate for the production of clavulanic acid” by Shalja Verma and SK Srivastava.

### Faculty & their Activity

#### Faculty and their areas of specialisation

S. No.	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
<b>PROFESSORS</b>		
1	Prof. Subir Kundu	Bioreactor design and scale up, probiotics, Cell Bio-processesing
2	Prof. Mira Debnath	Genetic Engineering, Microbial Engineering, Fermentation Technology
3	Prof. R. M. Banik	Bioprocess Technology, Enzyme engineering
4	Prof. Pradeep Srivastava	Reactor design, Secondary metabolites, Tissue engineering, IPR
<b>ASSOCIATE PROFESSORS</b>		
1	Dr. Abha Mishra	Bioinformatics, Protein and genetic engineering, IPR
<b>ASSISTANT PROFESSORS</b>		
1	Dr. Vishal Mishra	Wastewater Technology, Particulate mechanics
2	Dr. Ashish Kumar singh	Genetic engineering and Molecular biology
3	Dr. Sanjay Kumar	Bioprocess development of therapeutic enzyme and Bioenergy (Algal bio-fuel and Microbial fuel cell), biological water analysis

### Research and Consultancy

#### Sponsored research projects

S. No.	Name of the project	Duration	Sources	Amount (Rs)	Coordinator ship
1.	Application of genetic engineering to enhance the lipid content in microalga <i>Scenedesmus obliquus</i> : a step towards biodiesel	2017-2020	CST, UP	4,50,000.00	Dr. Ashish Kumar Singh
2.	Screening of Novel Antibiotics from the Metagenome of Himalayan Glacial Soil	2017-2020	DRDO, New Delhi	39,87,500.00	Dr. Ashish Kumar Singh
3.	Construction of cold inducible expression system	2017-2020	DBT, New Delhi	36,10,300.00	Dr. Ashish Kumar Singh
4.	Identification of Gene Responsible for Degradation of Poly (ethylene terephthalate) in <i>Ideonellasakaiensis</i>	2017-2020	DBT New Delhi	40,43,200.00	Dr. Ashish Kumar Singh
5.	Flow and segregation of granular materials out of hoppers and 3 dimensional devices	2018-2021	CST, UP	10.44	Dr. Vishal Mishra



6.	Engineering of E. coli for production of Isoprene: An industrially important hydrocarbon	2016-2019	DBT, New Delhi	49.5	Dr. Sanjay Kumar (Co-PI)
7.	Development of a novel bilayered wound healing membrane using polyherbal formulation	2014-2018	DRDO	33,00,000.00	Prof. Pradeep Srivastava

### Industrial consultancy projects

S. No.	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1	Dr. Sanjay Kumar	Biological water analysis of Ramgarh Lake	U. P. Jal Nigam	9.56
2	Prof. Pradeep Kumar Srivastava	Technical Gap Analysis in Saree Sector at Varanasi	TIFAC	12.00
3	Prof. Pradeep Kumar Srivastava	MSME Internship	TIFAC	4.50

### Research Publications

S. No.	No.
1	Total Number of Papers Published in Refereed International Journals
2	Total Number of Papers Presented in International Conferences

#### (a) Refereed International Journals/Books

- Vivek Kumar Yadav & Abha Mishra (2018): *In-vitro & in-silico* study of hypoglycemic potential of *Pterocarpus marsupium* heartwood extract, Natural Product Research, 1-5. DOI: 10.1080/14786419.2018.1471078
- Ekant tamboli, Aditi Bhatnagar and Abha Mishra, Alpha-amylase inhibitors from mycelium of an oyster mushroom, Preparative Biochemistry and Biotechnology, DOI: 10.1080/10826068.2018.1487849, 2018.
- VKYadav and Abha Mishra, In vitro & in-silico study of hypoglycemic potential of *Pterocarpus marsupium* heartwood extract, 2018; Natural Product Research([doi.org/10.1080/14786419.2018.1471078](https://doi.org/10.1080/14786419.2018.1471078)).
- Choudhary, Dhiraj Kumar, and Abha Mishra. "In vitro and in silico interaction of faba bean (*Vicia faba* L.) seed extract with xanthine oxidase and evaluation of antioxidant activity as a therapeutic potential." *Natural product research* (2018): 1-5.
- Choudhary, Dhiraj Kumar, and Abha Mishra. "In vitro and in silico interaction of porcine  $\alpha$ -amylase with *Vicia faba* crude seed extract and evaluation of antidiabetic activity." *Bioengineered* 8.4 (2017): 393-403.
- Choudhary, Dhiraj Kumar, and Abha Mishra. In vitro Investigation of hypoglycemic and oxidative stress properties of faba bean (*Vicia faba* L.) seed extract in *Saccharomyces cerevisiae* 2376. "Preparative biochemistry and biotechnology(2018)"(Accepted)
- Choudhary Dhiraj Kumar, Mishra Abha, and Mittal Aishwarya. "Exploring hypoglycemic potential of *Vicia faba* crude seed extract in *Saccharomyces cerevisiae* 3187." *Research Journal Of Biotechnology* 13.7 (2018): 41-48.
- Singh, K., Mishra, A., & Singh, A. (2017). Synthesis Characterization and In Vitro Release Study of Ciprofloxacin-Loaded Chitosan Nanoparticle. *BioNanoScience*, 1-8.
- Singh, K., Mishra, A., & Singh, A. (2017). Synthesis, characterization and in-vitro release profile of Gentamicin loaded chitosan nanoparticle. *International Journal of pharmacy and nanotechnology*,



- 9(1), 29189-29198.
10. Reena Vishvakarma & Abha Mishra (2017) Production of a protease inhibitor from edible mushroom *Agaricus bisporus* and its statistical optimization by response surface methodology, *Preparative Biochemistry and Biotechnology*, 47:5, 450-457.
  11. Kushwaha, A., Rani, R., Kumar, S., Thomas T, David A. A., (2017). A new insight to adsorption and accumulation of high lead concentration by exopolymer and whole cells of lead-resistant bacterium *Acinetobacter junii* L. Pb1 isolated from coal mine dump, *Environmental Science and Pollution Research*, 24, 10652-10661.
  12. Sumedha Ojha, Shipra Deep and Subir Kundu(2017) "Plant derived antimicrobial peptide Ib-AMP1 as a potential alternative drug candidate for Staphylococcus aureus toxins". *Cellular and Molecular Biology* (2017), Vol. 63 (6), Pp 56-59.
  13. Shipra Deep, Sumedha Ojha and Subir Kundu. (2017) "Efficacy and Stability studies of microbial folate fortified fruit juices prepared using probiotic microorganism". *Cellular and Molecular Biology* (2017), Vol. 63 (6), Pp 48-52.
  14. Chakravarty, Ipsita, Sukhendra Singh, and Subir Kundu. (2017) "Development of the processing strategies for the production of Daptomycin by free and immobilized cells of *Streptomyces roseosporus* using non-conventional support matrices." *International Journal of Pharmaceutical Sciences and Research* 8, no. 3 (2017): 1356.
  15. Singh, S., I. Chakravarty, and S. Kundu (2017) "Mathematical modelling of bioethanol production from algal starch hydrolysate by *Saccharomyces cerevisiae*." *Cellular and Molecular Biology* 63.6 (2017): 83-87.
  16. Chakravarty I, Kundu K, Ojha I S, Kundu S. (2017) "Development of Various Processing Strategies for New Generation Antibiotics Using Different Modes of Bioreactors". *JSM Biotechnol Bioeng*(2017).4(1): 1073.
  17. Chakravarty I, Kundu S, Singh Sukhendra. (2017) "Rheological Models of *S.roseosporus* fermentation broth." (2017) CABEQ 3:1-7 –Accepted.
  18. Anand Kumar, Subir Kundu, Mira Debnath (Das), (2017) Expression, Purification and Evaluation of recombinant lipoprotein of *Salmonella typhi* as a vaccine candidate. *Biologicals*, Biologicals 46 (2017) 108e113 (SCI Impact Factor-1.70).
  19. Ojha Sumedha and Kundu Subir (2017): "Docking and molecular dynamics studies for developing Microcin C7 as an alternative drug against Diphtheria toxin"; *International Journal of Bioinformatics research and Applications*. Vol 13, No. 3, Pp-292-300, (2017).
  20. Applicability of two-dimensional surface model in bacterial biosorption system: an advanced approach in bioremediation of metal ions, Vishal Mishra, *Environmental Technology* (Taylor & Francis, accepted) 2017.
  21. Review on Biosorption of Arsenic From Contaminated Water, Anica Dadwal, Vishal Mishra, *Clean soil air water* (John Wiley) 2017. Published
  22. Anamika Kushwaha, Radha Rani, Sanjay Kumar, Tarence Thomas, Arun Alfred David (2017) A new insight to adsorption and accumulation of high lead concentration by exopolymer and whole cells of lead-resistant bacterium *Acinetobacter junii* L. Pb1 isolated from coal mine dump. *Environmental Science and Pollution Research*, doi:10.1007/s11356-017-8752-8
  23. Sanjay Kumar, Prabhu AA, Dasu VV, K. Pakshirajan (2017) Batch and fed-batch bioreactor studies for the enhanced production of glutaminase-free L-asparaginase from *Pectobacterium carotovorum* MTCC 1428. *Prep Biochem Biotechnol*.47(1):74–80. 10.1080/10826068.2016.1168841
  24. Reena Viswakarma and Abha Mishra\*, (2017) Production of a protease inhibitor from edible mushroom *Agaricus bisporus* and its statistical optimization by Response Surface Methodology, *Preparative Biochemistry and Biotechnology*, ISSN: 1082-6068 (Taylor and Francis) 1532-2297 (Online) Journal homepage: <http://www.tandfonline.com/loi/lpbb20>
  25. S. M. Khade, S. K. Srivastava, Krishan Kumar, Kedar Sharma, Arun Goyal and A.D. Tripathi (2018). Optimization of clinical uricase production by *Bacillus cereus* under submerged fermentation, its





- purification and structure characterization. *Process Biochemistry*. DOI: <https://doi.org/10.1016/j.procbio.2018.09.010>
26. Shankar Khade, S K Srivastava (2017): Demethylation of arsenic and nickel from tannery industries: Biostimulation Remediation Technologies for Groundwater Contaminants: IGI Global publication.
  27. Ali, Akher, Md Ershad, Vikash Kumar Vyas, Sumit Kumar Hira, Partha Pratim Manna, B. N. Singh, Shushma Yadav, P. Srivastava, S. P. Singh, and Ram Pyare. "Studies on effect of CuO addition on mechanical properties and in vitro cytocompatibility in 1393 bioactive glass scaffold." *Materials Science and Engineering: C* 93 (2018): 341-355.
  28. Mallick, Sarada Prasanna, Bhisham Narayan Singh, Amit Rastogi, and Pradeep Srivastava. "Design and evaluation of chitosan/poly (L-lactide)/pectin based composite scaffolds for cartilage tissue regeneration." *International journal of biological macromolecules* 112 (2018): 909-920.
  29. Mallick, Sarada Prasanna, Amit Rastogi, Satyavrat Tripathi, and Pradeep Srivastava. "Strategies on process engineering of chondrocyte culture for cartilage tissue regeneration." *Bioprocess and biosystems engineering* 40, no. 4 (2017): 601-610.
  30. Sinha, R., and P. Srivastava. "Effect of immobilisation on production of rapamycin by *Streptomyces hygroscopicus*." *Cellular and molecular biology (Noisy-le-Grand, France)* 63, no. 6 (2017): 25-28.

### Patents

Sl. No.	Year	Title
1	2017	A novel process for enhanced production of Rapamycin
2		Indian Patent NO244209, Pradeep Srivastava & Harshad Narottam Patil
3	2012	A novel platform design and formulation for eco washing process of Carpets, rugs, etc,
4	2017	An innovative polyherbal bio absorbable dermal patch for wound healing
5	2016	A cartilage repair product and its method of production using a novel air lift bioreactor.,2016, Sarda Prasanna Mallick, Amit Rastogi & Pradeep Srivastava

### Foreign Faculty Visits in the Department/School/

#### Any other Information (Invited Talks/ Lectures/ duties)

Title of Lecture/Lecture Series	Date, Place and Programme where lectures delivered	Other relevant information	Faculty member
Invited Specialised Teacher for Bioprocess plant design and Bioreactor Design courses: 10 Lecture series on these two course for B. Tech. and M. Sc. Students	Oct 22-25, 2017 SMVDU Jammu (Department of Biotechnology), invited specialised teacher for Bioprocess plant design and Bioreactor Design	Invited Course Teacher (7 lectures)	Dr. Sanjay Kumar
QIP-STC lecture in BICBD-2017 organised by School Bioinstrumentation used in the Bioreactor and Biosensor Design criteria of Bioreactor Design and Selection	Nov 7-13, 2017 School of Biochemical Engineering, IITBHU QIP courses on Bioinstrumentation and Control in Bioreactor Design	As a resource person	Dr. Sanjay Kumar



QIP-STC lecture in ABE-2017 organised by School. Advances in the bioreactor design and product development	June 19-24, 2017 School of Biochemical Engineering IITBHU QIP courses on Advances In Bioprocess Engineering	As a resource person	Dr. Sanjay Kumar
STC lecture "Advances in water and wastewater analysis technology used to improve water quality"	Sept 22, 2017 Department of Biotechnology MNNIT Allahabad	As invited talk for STC on "Recent Advances in Biofilms and Environmental Biotechnology"	Dr. Sanjay Kumar
External Examiner (Biochemical Engineering Laboratory Exam)	17 Dec 2017 Department of Biochemical Engineering, HBTI Kanpur	As an Examiner at HBTU Kanpur	Dr. Sanjay Kumar
QIP short term course on Advances in Bioprocess Engg.,	19-24 June, 2017	Course co-coordinator	Dr. Abha Mishra
QIP short term course on Advances in Bioprocess Engg.,	19-24 June, 2017	Course co-coordinator	Dr. Vishal Mishra

## 21. School of Bio-Medical Engineering

Year of Establishment : 1985

**Coordinator of the School :** Prof. Neeraj Sharma

### Brief Introduction of the Department/School

Biomedical Engineering is a highly interdisciplinary and upcoming field of technology. The School of Biomedical Engineering is involved in Teaching and Research in collaboration with Institute of Medical Sciences (BHU), and with other Departments of IIT (BHU). The School follows a constant path of progress and diversification to be in pace with the time of change. The School runs the Integrated Dual Degree (IDD) program that offers B. Tech in Bioengineering and M. Tech in Biomedical Technology, besides there is also a two year M. Tech program in Biomedical Engineering. The school time to time updates the curriculum, introduces new electives and new practical components according to the requirements. The objective of the School is to play an important role in the development of Biomedical Engineers. The research credentials of the School is multifarious and interdisciplinary so as to integrate all the thematic of the field in one common pool and thereby achieve progress in unison. The School of Biomedical Engineering was established by the UGC during the Fifth Five Year Plan in the year 1978. Banaras Hindu University is fortunate in having both the Institute of Technology and Institute of Medical Sciences in the same campus. This results in excellent collaborative work related to Biomedical Engineering. The infrastructure development work of the School was started in 1985 with the appointment of core faculty members.

### Major areas of Research

- Biomedical signal and image processing
- Stem cell therapy/engineering and regenerative medicine
- Nanocomposites and bio-devices
- Tissue Engineering and Biomicrofluidics, nanotoxicology
- BioMEMS and Biosensors
- Brain Circulation, Autoregulation, Its Disturbance and Neuroprotection
- Bio-effects of electromagnetic radiation, specially the biohazards of Microwave radiation
- Design and fabrication of low cost diagnostic and therapeutic instruments
- Development and characterization of functionally graded materials & conducting IPN composites and their medical application
- Control system modelling, analysis and simulation in health and diseases.
- Molecular pathogenesis of Infectious diseases and nanomedicine based therapeutics for infectious diseases
- Neuroscience; Neurotechnology; Brain disorders, Affordable Health Care.
- Computational Biomechanics (Design and modelling of Orthopaedics implants i.e. Hip Joint, Knee Joint, Spine spacers, Bone Plates and Screws, Dental implants, Cardiovascular Blood flow dynamics study, Stent and Heart valve design and development; FEA/CFD Simulation). Energy harvesting for biomedical applications.

**Area of the Department/School (in square meters):**

### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	03
2	No. of Lecture Halls	01
3	No. of Laboratory	09
4	No. of Computers available for students in the Department/School/ School	20



### New facilities added

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	Facility for stem cell handling	4.8

### Unique Achievement / Preposition of the Department/School

- Faculty have used Human Brain Imaging technology (MRI) to resolve a critical issue in Human Ageing process, i.e., how White matter fibres enable re-organization of Grey matter network, enabling adaptive coping across life-span (Prasun Roy).
- Further, the researchers have also developed the first MRI technique to map actual Functional Nerve tracts in the human brain, this information is crucially needed in Neurosurgical Planning for protecting these active tracts (Prasun Roy).  
Selected as an 'OUTSTANDING RESEARCHER IN TISSUE ENGINEERING' under the Biomedical Sciences and Engineering Discipline for Venus International Healthcare Awards - VIHA 2018 by the Centre for Health and Medical Sciences (CHMS) of Venus International Foundation (VIF).
- Young Scientist Award to Dr Marshal from Society for Biomaterials and Artificial Organs (India) in XXVII National Conference and the 6th Asian Biomaterials Congress with a them 'Innovative Biomaterials: Technologies for Life and Society' October 2017.
- Institute Best Project Award (Gold Medal) during Institute Day, 2018 at IIT (BHU), Varanasi. (Agarwal Piyush Sunil, Poddar, S., Mahto, S.K "Evaluation of Psyllium husk as a potential biomaterial for Tissue Engineering applications").
- Institute Best Project Award (Gold Medal) during Institute Day, 2018 at IIT (BHU), Varanasi, Mr. Alok Prakash, Dr. Shiru Sharma, for "Development of EMG controlled prosthetic hand. Also Demonstrated this project prototype in Festival of innovation and Entrepreneurship, 2018 held at Rashtrapati Bhawan, New Delhi.
- Munendera Singh, Received Best Paper Award for: An improved Xie-Beni index for cluster validity measure, was judged as best paper at International Conference on Image Processing (ICIIP 2017) ORGANIZED BY Department of Computer Engineering Jaypee University of Information Technology, Waknaghat, Himachal Pradesh.
- Dr. S. K. Mahto selected for "Bharat Vikas Award" by the Institute of Self Reliance, Bhubaneswar, Odisha on the Occasion of Citizen's Day to be held on Nov. 19, 2017.

The School has received funding from different schemes such as MHRD, DST, and DBT. The school was also funded under the DST-FIST program. Currently all faculty members are engaged in research. The school developed well equipped laboratories with financial assistance from various agencies. MoU's have been signed with medical device making companies and consultancy work are also done by the faculties.

### Academic Programmes offered

- Integrated Dual Degree (IDD) with B. Tech. in Bioengineering and M. Tech. In Biomedical Technology with following streams:
  - Bio-Instrumentation
  - Biomechanics
  - Biomaterials
- M. Tech. in Biomedical Engineering
- Ph.D. Program
- Ph.D. Program (For QIP sponsored candidates)



### New Courses Introduced

S. No.	Course Code	Course name	Course credit
1	BM 321	Sports Biomechanics	13
2	BM 322	Ergonomics	11
3	BM 512	Biomedical Instrumentation design, safety and reliability aspects.	9
4	BM 511	Artificial Intelligence and its Application in Biomedical Engineering	11

### Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech/B. Pharm	---	---	---	---	---
2	Dual Degree	14	15	19	13	10
3	M. Tech/ M. Pharm	08	06	---	---	---
4	Ph. D (Under Institute Fellowship)	35 (31+4*) *On Professional Leave				
5	Ph. D (Under Project Fellowship)	Part Time (Project Staff) :			02	
		UGC/CSIR-JRF (Full Time Students) :			02	
6	Ph. D (Under Sponsored Category)	QIP :			03	
		Part Time (Institute Staff) :			01	

### Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From
<b>INDIA</b>					
1	Mr. Piyush Sunil Agarwal and Ms. Suruchi Poddar	14024003 & 15021007	Institute Day, IIT (BHU)	16-18 February, 2018; IIT (BHU)	IIT (BHU)
2	Ms. Neelima Varshney and Mr. Ajay Sahi	16021002 & 15021005	Institute Day, IIT (BHU)	16-18 February, 2018; IIT (BHU)	IIT (BHU)
3	Mr. Rakesh Kumar Sidu and Mr. Kiran Yellappa Vajanthri	16022009 & 14021004	Institute Day, IIT (BHU)	16-18 February, 2018; IIT (BHU)	IIT (BHU)
4	Ms. Pranaya Bandari and Ms. Yashasvi	16024005 & 16024019	Institute Day, IIT (BHU)	16-18 February, 2018; IIT (BHU)	IIT (BHU)
5	Mr. Fahad Abdullah Fazjar and Mr. Kazi Arshad Aslam	16024008 & 16024006	Institute Day, IIT (BHU)	16-18 February, 2018; IIT (BHU)	IIT (BHU)
6	Mr. Kiran Yellappa Vajanthri	14021004	International Conference on Microfluidics and Lab On A Chip, India.	17-18 January, 2018; Ramada Convention Centre, Mumbai	IIT (BHU)





7	Mr. Rakesh Kumar Sidu	16022009	International Symposium on Emerging Areas in Bio-sciences and Biomedical Technologies (eBBT)	5-6 January, 2018; IIT Indore.	IIT (BHU)
8	Ms. Parul Yadav	15022005	National Conference on Bio-technology and Environment	10-11 April, 2018 Jamia Millia Islamia, New Delhi	DST-INSPIRE PROJECT
9	Ms. Suruchi Poddar	15021007	National Conference on Bio-technology and Environment	10-11 April, 2018 Jamia Millia Islamia, New Delhi	DST-INSPIRE PROJECT
10	Mr. Munendra Singh	14021003	2017 Fourth International Conference on Image Information Processing (ICIIP -2017)	Dec 21-23, 2017 Jaypee University of Information Technology, Solan, HP	STGS
11	Mr. Abhishek Kushwaha	14024002	2017 Annual IEEE India Conference (IEEE INDICON 2017)	Dec 15-17, 2017 IIT Roorkee	Institute Support
12	Mr. Surendra Meena	14024011	Innovation competition 2018	National Institute of Technology, Uttarakhand, 9-10th February 2018	Institute Support
13	Ms Hemlata Shakya	13021005	International Conference on Computational Strategies For Next Generation Technologies (NEXTCOM)-2017).	25-26 Nov. 2017 CT IEMT Jalandhar, Punjab, India	Institute Support
14	Miss Juhi Jaiswal	17021001	International Conference on Nanoscience and Technology (ICONSAT 2018)	March 21st-23rd, 2018, JN Tata Auditorium, IISC, Bengaluru	STGS
15	Miss Juhi Jaiswal	17021001	Institute Day, IIT (BHU)	16-18 February, 2018; IIT (BHU)	IIT (BHU)
16.	Mr Vidush Agrawal	15024015	Institute Day, IIT (BHU)	16-18 February, 2018; IIT (BHU)	IIT (BHU)
17	Mr Arshad Kazi	16024008	Institute Day, IIT (BHU)	16-18 February, 2018; IIT (BHU)	IIT (BHU)
18	Mr. Chandan Kumar	13021004	"Electron Microscopy & Microanalysis of materials", IIT (BHU)	February 12-17, 2018., IIT (BHU)	IIT (BHU)
19	Mr. Chandan Kumar	13021004	Institute Day, IIT (BHU)	16-18 February, 2018; IIT (BHU)	IIT (BHU)
20	Mr. Chandan Kumar	13021004	"STC on SMART-RTI", IIT (BHU)	4 to 11 September, 2017, IIT (BHU)	IIT (BHU)
21	Mr Sumit Kumar	17021506	Institute Day, IIT (BHU)	16-18 February, 2018; IIT (BHU)	IIT (BHU)



#### ABROAD

1	Mr. Uvanesh K.	15021002	Advanced Nano Materials Conference (ANM-2018)	18-20 Jul 2018 University of Aveiro, Portugal	Support by DBT-CTEP Scheme Vide No: DBT/CTEP/02/201800285
2	Romel Bhattacharjee	15021006	2nd IEEE International Conference on Opto-Electronic Information Processing (ICOIP 2017)	July 7-9, 2017/ Singapore	Institute Support

#### Names of students/scholars who got prizes and awards outside the Institute

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Mr. Munendra Singh	14021003	Best Paper	Dec 21-23, 2017 Jaypee University of Information Technology, Solan, HP	2017 Fourth International Conference on Image Information Processing (ICIIP -2017)

#### Names of scholars/students who won Convocation/Institute Day prizes

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Mr. Fahad Abdulla Fazjar	16024006	Institute day Prize (Poster Presentation)	Coordinator
2	Mr. Aneesh Gadhwal	16024003	Institute day Prize (Poster Presentation)	Coordinator
3	Mr. Nikhil Dhaka	14024007	Institute day Prize (Poster Presentation)	Coordinator
4	Mr. Agrawal Piyush Sunil	14024003	Gold Medal for Institute Day Best Project Award 2018)	Director, IIT (BHU)
5	Ms. Bhawna Vermani	16022003	Institute day Prize (Poster Presentation)	Coordinator
6	Mr. Uvanesh K.	15021002	Institute day Prize (Poster Presentation)	Coordinator
7	Ms. Neelima Varshney	16021002	Institute day Prize (Poster Presentation)	Coordinator
8	Mr. Munendra Singh	14021003	Institute day Prize (Poster Presentation)	Coordinator
9	Mr. Alok Prakash	15021004	Awarded Best Project (Ph D category) Institute day	Director, IIT (BHU)
10	Ms. Bandari Pranaya	16024005	Institute day Prize (Poster Presentation)	Coordinator

#### Names of Students/Scholars who went for foreign Internship

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Mr. Jaseel Muhammed Keloth		Khorana Scholars Program	Massachusetts Institute of Technology (MIT), USA	Cambridge, Massachusetts	3 months



2	Mr. Kiran Yellappa Vajanthri	14021004	Department of Biotechnology	Kyoto University	Japan	One week
3	Ms. Radha Kumari	13024007	Department of Biotechnology (DBT), Indo-U.S. Science and Technology Forum (IUSSTF) and WINStep Forward's Khorana Program	University of Michigan	USA	70 Days

## Faculty & their Activity

### Faculty and their areas of specialisation

S. No.	Name	Major Areas of Specialization
<b>PROFESSORS</b>		
1	Dr. Neeraj Sharma	Bioinstrumentation, Biomedical Signal and image Processing.
2	Dr. Ranjana Patnaik	Neurophysiology, Electrophysiology, Biomaterials, Biochemistry
3	Dr. Nira Misra	Biomaterials, Nanocomposites
4	Dr. Prasun Kumar Roy	Neuroscience, Neurotechnology, Brain Research, Affordable Health Care
<b>ASSOCIATE PROFESSORS</b>		
1	Dr. Shiru Sharma	Biological control system, Mathematical modeling of biological system, Bio-instrumentation
2	Dr. Sanjay Kumar Rai	Computational Biomechanics (Design and modelling, FEA/CFD Simulation). Energy Harvesting for biomedical applications.
3	Dr. Marshal	Biophysics, Biomaterials and Tissue Engineering, Stem Cell Reprogramming, Biosensors, Bio-MEMS, Nano-medicine, Plasma Physics
4	Dr. Pradip Paik	Materials for Health Care and Therapeutic Applications: New designing and synthesis of Polymers, Ceramic, Composites, other Nanoscale Materials of Health care and Nanomedicine, in-plantable materials, Drug Delivery, Cancer Therapy, Nano vaccination, in-vitro and in-vivo studies
<b>ASSISTANT PROFESSORS</b>		
1	Dr. Sanjeev Kumar Mahto	Cell and Tissue Engineering, Biomicrofluidics, Neuroengineering, Nanotoxicology

### Visiting Faculty

1	Dr. Smita Pradhan	Image Segmentation & Registration
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### Technical and Non-Teaching Staff

Sl. No.	Name, Qualifications	Designation	Date of Appointment in the department
1.	Mr. Ajay Kumar Diploma in Mechanical Engineering	Senior Technical Superintendent	17.02.1992
2	Mr. Bhuwaneshwari Sharan Intermediate (Science)	Technical Superintendent	06.06.1988



Sl. No.	Name, Qualifications	Designation	Date of Appointment in the department
1.	Mr. Ajay Kumar Diploma in Mechanical Engineering	Senior Technical Superintendent	17.02.1992
2	Mr. Bhuwaneshwari Sharan Intermediate (Science)	Technical Superintendent	06.06.1988
3	Dr. Anuj Srivastava D.M.L.T., B.Sc. MLT, M.Sc. (Microbiology), Ph.D	Senior Technician	06.08.2008
4	Mr. Bharat Kumar Vishwakarma B.Sc., B.Ed., P.G.D.C.A.	Senior Technician	12.07.2012
5	Mr. Divyanshu Singh M.A. (Journalism & Mass Communication), D.C.A. (Diploma in Computer Application)	Junior Assistant	20.05.2017
6	Mr. Vipin Kumar Verma, B.Tech (Electronics & Communication Engg.)	Junior Assistant	01.08.2017

**Short-term courses/workshops/seminars/symposia/conferences organised by faculty members**

S. No.	Coordinator	Title	Period
1	Dr. Sanjeev Kumar Mahto	Establishment of a Centre for Advanced Biomaterials and Tissue Engineering	A One-day Brainstorming Workshop Mar. 19, 2018, IIT (BHU) Sponsored by QIP Cell.

**Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings**

S. No.	Name of Faculty Member	Title	Period and Venue
<b>Seminars/Symposia/Conferences</b>			
1.	Dr. Sanjeev Kumar Mahto	A Brainstorming Workshop Sponsored by QIP Cell Title of the talk: Impact of Heat Acclimatization on Cellular Adaptation and Thermotolerance in Humans	Mar. 17, 2018, IIT (BHU)
2.	Dr. Sanjeev Kumar Mahto	Four Week Faculty Development Program; PMMMNMTT, MHRD, Govt. of India	Jan. 12-17, 2018; May 28-June 02, 2018
3.	Prof. Neeraj Sharma	Participated in MSME activity and acted as moderator in session of innovation start-up.	2-3rd Dec 2017
4.	Prasun K. Roy	Advances in Research on Ageing and Neurological Disorders	Sept. 20-22, 2017. Banaras Hindu University, Varanasi
5.	Prasun K. Roy	International Conference on Advances in Dementia	Sept. 23-24, Alzheimer's Disease Society of India, Kolkata

**Meetings**

1	Prasun K. Roy	Translational Neuroscience & Mental Health	Oct. 29-31, 2017. Indian Academy of Neuroscience, Bhubaneswar.
2	Prasun K. Roy	The Brain Modes Meeting	Dec 11-14, 2017. National Brain Research Centre, Gurgaon

**Special lectures delivered by faculty members in other institutions**

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Prof. Neeraj Sharma	Issues in Biomedical measurements and Design Approaches for Bio medical Devices	Department of Molecular and Cellular Engineering, Jacob Institute of Bio-technology and Bio-engineering, Sam Higginbottom University of Agriculture, Technology & Sciences, Allahabad	4th Oct 2017
2	Prof. Neeraj Sharma	Bioprocess Instrumentation and Control in Bioreactor Design	Delivered Invited lecture at QIP Short Term Course. Organized by School of Biochemical Engineering at IIT(BHU), Varanasi.	November 07 to 13, 2017
3	Prasun K. Roy	Introduction to Biomedical Engg.: The Spectrum, Prospects & Future	Amity University, Gurgaon	14.9.17

**Honours and awards**

S. No.	Name of Faculty Member	Details of Award
1	Dr. Sanjeev Kumar Mahto	Bharat Vikas Award" by the Institute of Self Reliance, Bhubaneswar, Odisha on the Occasion of Citizen's Day to be held on Nov. 19, 2017
2	Dr Marshal	Young Scientist Award from Society for Biomaterials and Artificial Organs (India) in XXVII National Conference and the 6th Asian Biomaterials Congress with a them 'Innovative Biomaterials: Technologies for Life and Society' October 2017.

**Editorial boards of journals**

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Prasun K. Roy	Member	INAE Letters of Indian National Academy of Engg.
2	Prasun K. Roy	Member	Int. J. Artificial Intelligence and Soft Computing





## Research Activities

### Research Publications

1. Bandyopadhyay, A.; Dewangan, V. K.; Vajanthri, K. Y.; Poddar, S.; Mahto, S. K. Anjali; Poddar S.; Mahto S. K.; Easy and affordable method for rapid prototyping of tissue models in vitro using three-dimensional bioprinting; *Biocybernetics and Biomedical Engineering*; 38 (2017); 158-169.
2. Balavigneswaran, C. K.; Mahto, S. K.; Mahanta, A. K.; Singh, R.; Vijayakymar, M. R.; Ray, B.; Misra, N.; Cell Proliferation Influenced by Matrix Compliance of Gelatin Grafted Poly(d,l-Lactide) Three Dimensional Scaffolds; *Colloids and Surfaces B*; 166 (2018); 170-178
3. Vajanthri, K. Y.; Yadav, P.; Poddar, S.; Mahto, S. K.; Development of Optically Sensitive Liver Cells; *Tissue and Cell*; 52 (2018); 129-134
4. Singh, M., Verma, A., & Sharma, N. (2018). Optimized multi-stable stochastic resonance for the enhancement of pituitary microadenoma in MRI. *IEEE Journal of Biomedical and Health Informatics*, 22(3), 862–873.
5. Singh, M., Verma, A. & Sharma, N., Multi-objective noise estimator for the application of de-noising and segmentation of MRI data. *Biomedical Signal Processing and Control*. Vol. 46, 249-259 (2018).
6. Munendra Singh, Ashish Verma, Neeraj Sharma, “BAT optimization based neuron model of stochastic resonance for the enhancement of MR images.” *Biocybernetics and Biomedical Engineering*, 37, no. 1 (2017):124-134.
7. Singh, M., Sharma, S., Verma, A., & Sharma, N. (2017). Enhancement and Intensity Inhomogeneity Correction of Diffusion-Weighted MR Images of Neonatal and Infantile Brain Using Dynamic Stochastic Resonance. *Journal of Medical and Biological Engineering*, 37(4), 508-518.
8. A Kajaria, N Sharma, S Sharma, S Pradhan, M Abhijit, L Aggarwal, “Monte Carlo study of a flattening filter-free 6 MV photon beam using the BEAMnrc code”, *Biomedical Research* 28 (4), 2017.
9. Anuranjeeta., Anshu A K., Shukla K.K. and Sharma S., “Evaluation of Morphological Changes in Histopathological Images of Ovarian and Breast Cancer Tissues and its Correlation with their Biochemical Parameters” *Research Journal of Biotechnology*., Vol. 12 (4), pp 30-38, (2017)
10. Anuranjeeta., Tiwari A., Shukla K.K., and Sharma S., “Classification of Histopathology Images of Cancerous and Non-cancerous Tissues based on Morphological Features” *Biomedical and Pharmacology*., Vol. 10 (1), pp 353-366, (2017)
11. Anuranjeeta., Bhattacharjee R., Shukla K.K., and Sharma S., “Classification and Quantitative Analysis of Histopathological Images of Breast Cancer” *International Journal of Biomedical Engineering and Technology (IJBET)* [accepted in march 2018]
12. Hemlata Shakya, Shiru Sharma “Quantitative Analysis of Paraspinal Muscle strain during Cervical Traction Using Wireless EMG Sensor” *International Journal of Biomedical Engineering and Technology (IJBET)* [Accepted in 12 Jan 2018].
13. Pareek V, Subramanyam V, Roy P K. A Correlational Study between Microstructural White Matter Properties and Macrostructural Gray Matter Volume Across Normal Ageing: Conjoint DTI and VBM Analysis, *Magnetic Resonance Insights*. (Accepted). 2018.
14. Shilpa D, Chaudhry S, Lal B, Roy P K. Tractography-based score for learning Effective Connectivity from Multimodal Imaging, *IEEE Transactions on Bio-Medical Engineering*, 65(5):1057-1068, 2018.
15. S Singh, K Mitra, R Singh, A Kumari, SK SenGupta, N Misra, P Maiti, B Ray. Colorimetric Detection of Hydrogen Peroxide and Glucose using Brominated Graphene. *Analytical Methods*, 2017, 9, 6675-6681.
16. R. Sharma, G. Kapusetti, SY Bhong, P Roy, SK Singh, S Singh, C.K. Balavigneswaran, KK Mahto, B. Ray, P. Maiti, N. Misra, Osteoconductive Amine-Functionalized Graphene-Poly(methyl methacrylate) Bone Cement Composite with Controlled Exothermic Polymerization. *Bioconjugate chemistry*, 2017, 28(9):2254-2265. [I.F=4.818]
17. C.K. Balavigneswaran, S.K. Mahto, S. Bano, A.K. Mahanto, M. Ganguli, B. Ray, P. Maiti, N. Misra. Tailored Chemical Properties of 4 arm star shaped poly(D,L-Lactide) as Cell Adhesive Three-Dimensional Scaffolds. *Bioconjugate chemistry* 2017, 28, 1236 -1250.



18. S. Singh, K. Mitra, A. Shukla, R. Singh, R. K. Gundampati, N. Misra, P. Maiti, B. Ray. Brominated Graphene as Mimetic Peroxidase for Sulfide Ion Recognition. *Analytical chemistry*, 2017, 89 (1), 783–791.
19. Shikha Singh, Kheyannath Mitra, Sudipta Senapati, Rajshree Singh, Yajnaseni Biswas, Susanta K. Sen Gupta, Nira Misra, Tarun K. Mandal, Pralay maiti aand B. Ray Water Soluble Flurescent Graphene Nanodots *Chem Nanomate* 2018, 4, 1-13.
20. Singh SS, Rai SN, Birla H, Zahra W, Kumar G, Rao GM, Tiwari N, Patnaik R, Singh RK, Singh SP. Effect of Chlorogenic acid supplementation in MPTP intoxicated mouse. *Front. Pharmacol.*, 2018 doi: 10.3389/fphar.2018.00757 (IF: 4.4)
21. Kumar G, Paliwal P, Mukherjee S, Patnaik N, Krishnamurthy S, Patnaik R. Pharmacokinetics and Brain Penetration Study of Chlorogenic Acid in Rats. *Xenobiotica*. 2018 Feb 24. DOI: 10.1080/00498254.2018.1445882
22. Sharma HS, Muresanu DF, Lafuente JV, Patnaik R, Tian ZR, Ozkizilcik A, Castellani RJ, Mössler H, Sharma A. Co-Administration of TiO<sub>2</sub> Nanowired Mesenchymal Stem Cells with Cerebrolysin Potentiates Neprilysin Level and Reduces Brain Pathology in Alzheimer's Disease. *Molecular neurobiology*. 2018 Jan 1;55(1):300-11. (Impact Factor: 6.1)
23. Patnaik R, Sharma A, Skaper SD, Muresanu DF, Lafuente JV, Castellani RJ, Nozari A, Sharma HS. Histamine H<sub>3</sub> Inverse Agonist BF 2649 or Antagonist with Partial H<sub>4</sub> Agonist Activity Clobenpropit Reduces Amyloid Beta Peptide-Induced Brain Pathology in Alzheimer's Disease. *Molecular neurobiology*. 2018 Jan 1;55(1):312-21. (Impact Factor: 6.1)
24. Lafuente JV, Sharma A, Muresanu DF, Ozkizilcik A, Tian ZR, Patnaik R, Sharma HS. Repeated Forced Swim Exacerbates Methamphetamine-Induced Neurotoxicity: Neuroprotective Effects of Nanowired Delivery of 5-HT<sub>3</sub>-Receptor Antagonist Ondansetron. *Molecular neurobiology*. 2018 Jan 1;55(1):322-34. (Impact Factor: 6.1)
25. Sharma A, Muresanu DF, Lafuente JV, Sjöquist PO, Patnaik R, Tian ZR, Ozkizilcik A, Sharma HS. Cold environment exacerbates brain pathology and oxidative stress following traumatic brain injuries: potential therapeutic effects of nanowired antioxidant compound h-290/51. *Molecular neurobiology*. 2018 Jan 1;55(1):276-85. (Impact Factor: 6.1)
26. Ozkizilcik A, Sharma A, Muresanu DF, Lafuente JV, Tian ZR, Patnaik R, Mössler H, Sharma HS. Timed release of cerebrolysin using drug-loaded titanate nanospheres reduces brain pathology and improves behavioral functions in Parkinson's disease. *Molecular neurobiology*. 2018 Jan 1;55(1):359-69. (Impact Factor: 6.1)
27. Wiklund L, Patnaik R, Sharma A, Miculescu A, Sharma HS. Cerebral Tissue Oxidative Ischemia-Reperfusion Injury in Connection with Experimental Cardiac Arrest and Cardiopulmonary Resuscitation: Effect of Mild Hypothermia and Methylene Blue. *Molecular neurobiology*. 2018 Jan 1;55(1):115-21.
28. Paul S, Sinha T, Patnaik R. Feedforward neural network based classification cans possibly a novel tool to evaluate the neuronal condition in rat model. *Journal of the Neurological Sciences*. 2017 Oct 15;381:981. (Impact Factor: 2.29)
29. Wiklund L, Patnaik R, Sharma A, Miculescu A, Sharma HS. Cerebral Tissue Oxidative Ischemia-Reperfusion Injury in Connection with Experimental Cardiac Arrest and Cardiopulmonary Resuscitation: Effect of Mild Hypothermia and Methylene Blue. *Molecular Neurobiology*. 2017 Sep 11:1-7. (Impact Factor: 6.1)
30. Ozkizilcik A, Sharma A, Muresanu DF, Lafuente JV, Tian ZR, Patnaik R, Mössler H, Sharma HS. Timed Release of Cerebrolysin Using Drug-Loaded Titanate Nanospheres Reduces Brain Pathology and Improves Behavioral Functions in Parkinson's Disease. *Molecular Neurobiology*. 2017 Sep 5:1-1. (Impact Factor: 6.1)
31. Sharma HS, Muresanu DF, Lafuente JV, Patnaik R, Tian ZR, Ozkizilcik A, Castellani RJ, Mössler H, Sharma A. Co-Administration of TiO<sub>2</sub> Nanowired Mesenchymal Stem Cells with Cerebrolysin Potentiates Neprilysin Level and Reduces Brain Pathology in Alzheimer's Disease. *Molecular Neurobiology*. 2017 Aug 26:1-2. (Impact Factor: 6.1)
32. Sharma A, Muresanu DF, Lafuente JV, Sjöquist PO, Patnaik R, Tian ZR, Ozkizilcik A, Sharma HS. Cold environment exacerbates brain pathology and oxidative stress following traumatic brain injuries: potential



- therapeutic effects of nanowired antioxidant compound h-290/51. *Molecular neurobiology*. 2017 Aug 30:1-0. (Impact Factor: 6.1)
33. Kumar G, Paliwal P, Patnaik R. Withania somnifera Phytochemicals Confer Neuroprotection by Inhibition of the Catalytic Domain of Human Matrix Metalloproteinase-9. *Letters in Drug Design & Discovery*. 2017;14:1-0. (Impact Factor: 0.974)
  34. Lafuente JV, Sharma A, Muresanu DF, Ozkizilcik A, Tian ZR, Patnaik R, Sharma HS. Repeated Forced Swim Exacerbates Methamphetamine-Induced Neurotoxicity: Neuroprotective Effects of Nanowired Delivery of 5-HT<sub>3</sub>-Receptor Antagonist Ondansetron. *Molecular Neurobiology*. 2017 Aug 31:1-3.
  35. Kumar G, Patnaik R. Inhibition of Gelatinases (MMP-2 and MMP-9) by Withania somnifera Phytochemicals Confers Neuroprotection in Stroke: An In Silico Analysis. *Interdisciplinary Sciences: Computational Life Sciences*. 2017. DOI: 10.1007/s12539-017-0231-x (IF:0.853)
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  39. Nishant Kumar Singh, Sanjay Kumar Rai, Amit Rastogi, "Possible vascular injury due to screw eccentricity in minimally invasive total hip arthroplasty", *Indian Journal of Orthopaedics*, july-Aug 2017, vol.51.
  40. Kumar, C., Gaur, A., Rai, S.K. and Maiti, P., 2017. Piezo devices using poly (vinylidene fluoride)/reduced graphene oxide hybrid for energy harvesting. *Nano-Structures & Nano-Objects*, 12, Elsevier pp.174-181. (Impact Factor: 2.98)
  41. Gaur, A., Kumar, C., Shukla, R. and Maiti, P., 2017. Induced Piezoelectricity in Poly (vinylidene fluoride) Hybrid as Efficient Energy Harvester. *ChemistrySelect*, 2(27), Wiley online library pp.8278-8287. (Impact Factor: 1.505).
  42. Anupama Gaur, Chandan Kumar, Shivam Tiwari, Pralay maiti "Efficient Energy Harvesting Using Processed Poly (vinylidene fluoride) Nanogenerator. *ACS*; (DOI 10.1021/acsaem.8b00483).

#### Patents

1. A Three Dimensional Porous Psyllium Husk-based Composite Scaffold, National Patent (filed) Application No. 201811004845. Date of Filing: February 8, 2018. Indian Patent.

#### Sponsored Project

- Prasun K Roy. Spatiotemporal Dynamics of the Neural System: Feasibility Study of Perceptual Spatiotemporal Mapping & Information Flux Imaging with clinical applicability. Ministry of Electronics & Information Technology, New Delhi. 2014-19. Rs. 68 lakhs.

#### Proceedings of International Conferences

1. Rakesh Kumar Sidu, Vajanthri, K. Y., Mahto, S.K.; Controlling Skeletal Muscle Cell Behaviour using Topologically Controlled Environment; International Symposium on Emerging Areas in Biosciences and Biomedical Technologies (eBBT-2018); IIT Indore 2018.
2. Kiran Yellappa Vajanthri, Sidu, R.K., Poddar, S., Sahi, A.K., Mahto, S.K; Understanding the Dynamics of Skeletal Muscle Differentiation, Fusion and Myotube- Myotube Interaction In Vitro; Microfluidics and Lab On A Chip; Mumbai 2018.
3. Singh M., Bhattacharjee R., Verma A. & Sharma N. (2017). An improved Xie-Beni index for cluster validity measure, In Image Information Processing International Conference on, (pp. 95-99). IEEE.



4. Singh, M., Sharma N., & Verma, A. (2017, February). Effect of image transformations on dynamic stochastic resonance based MR image enhancement. In Electronics and Communication Systems (ICECS), 2017 4th International Conference on (pp. 1-6). IEEE.
5. Uvanesh Kasiviswanathan, Suruchi Poddar, Chandan Kumar, Satyabrata Jit, Sanjeev K. Mahto and Neeraj Sharma, "In-house Developed Electric Cell-Substrate Impedance Sensing (ECIS) System for Studying Dynamic Behaviour of Myoblast cells", Advanced Nano Materials Conference (ANM-2018), University of Aveiro, Portugal. (Support by DBT-CTEP Scheme Vide No: DBT/CTEP/02/201800285).
6. S Saxena, S Sharma, N Sharma; Study of Parallel Image Processing with the Implementation of vHGW Algorithm using CUDA on NVIDIA'S GPU Framework; Proceedings of the World Congress on Engineering, 2017
7. Pareek V, Pal S, Rallabandi V, Roy P K. Radiological Correlates of White Matter Integrity changes of Corpus Callosum in High-Grade Glioma using Diffusion Tensor Imaging Study. Proc. Brain Modes: Spatiotemporal Networks, Mechanisms, Models. Dec. 2017.
8. P K Roy, National-level Brain Initiative Programs across countries: Building the Synergism, Proc. Int. Conf. Translational Neuroscience & Mental Health, IANCON, Oct. 2017
9. P K Roy, How the Brain Strives to Heal its Damage: Towards a Healthy Lifespan for a Greying World, Proc. International Conference on Advances in Dementia, ARDSICON, Sept. 2017.
10. Gaurav Kumar, Ranjana Patnaik. In-silico screening of Withaniasomnifera phytochemicals for dual inhibition of iNOS and nNOS: A neuroprotective approach. IBRO-APRC Associate School on Computational Approaches in Neuroprotection and Neurorehabilitation, Department of Biomedical Engineering, North-Eastern Hill University, Shillong, India. June 05-10, 2017.
11. Gaurav Kumar, Ranjana Patnaik. Virtual screening of Withania somnifera to search potent neuroprotectant by inhibiting GluN2B-containing NMDA receptors. IBRO-APRC Banasthali School of Neuroscience, Banasthali University, Jaipur, India. August 21-26, 2017.
12. Gaurav Kumar, Sumedha Mukherjee, Ranjana Patnaik. Identification of chlorogenic acid as a potent multi-pathway inhibitor to combat ischemic stroke: a molecular docking simulation study. Emerging Trends in Drug Discovery and Development, IIT (BHU), Jan 18-20, 2018.
13. S Mukherjee, G Kumar, A K Tripathi, R Patnaik. Withania somnifera phytochemicals inhibit PARP-1 for combating neurotoxicity: An in-silico approach. Emerging Trends in Drug Discovery and Development, IIT (BHU), Jan 18-20, 2018.
14. S Mukherjee, G Kumar, B Vermani, A K Tripathi, R Patnaik. The ability of Stigmasterol to inhibit PARP-1 makes the phytochemical a potent choice for neurotherapeutics designing. 4th BSSE Annual Research Symposium, IISc, Bangalore, Jan 24-25, 2018.
15. Gaurav Kumar. Brain uptake of chlorogenic acid after intranasal and intravenous administration in rats. 4th BSSE Annual Research Symposium, IISc, Bangalore, Jan 24-25, 2018.
16. B Vermani, S Mukherjee, G Kumar, R Patnaik. Prolactin ameliorates cerebral ischemia in adult rat brain: an in-vivo study. 4th BSSE Annual Research Symposium, IISc, Bangalore, Jan 24-25, 2018.
17. Gaurav Kumar. Chlorogenic acid as a potent neuroprotectant for stroke: an in vivo and in silico approach. BioSangam 2018 (An International Conference) on Innovation and Translational Dimensions: Food, Health and Environmental Biotechnology, MNNIT, Allahabad, March 9-11, 2018.
18. Sumedha Mukherjee. Estradiol acts as a neuroprotectant by inhibiting RIP-1 Kinase: An in-silico study. BioSangam 2018 (An International Conference) on Innovation and Translational Dimensions: Food, Health and Environmental Biotechnology, MNNIT, Allahabad, March 9-11, 2018.
19. Sumedha Mukherjee. Withaferin A inhibits PARP-1, a mediator of caspase independent neuronal cell death: a molecular docking study. IBRO-APRC School of Neuroscience on Recent Advances in Tools and Techniques in Neuroscience Research, SPPU, Pune, 26th -31st March, 2018.
20. Gaurav Kumar, Sumedha Mukherjee, Ranjana Patnaik. Withanolide-G: A potent candidate in Neurotherapeutics. Institute Day, Indian Institute of Technology (BHU), Varanasi, India. Feb 16-17, 2018.
21. Juhi Jaiswal, Lagan Pathania, KK Mahto, Kazi Arshad Aslam, Marshal Dhayal, 'Biocompatible metal ion





- impregnated polymeric nanocomposite films as efficient antibacterial materials', International Conference on Nano Science and Technology (ICONSAT-2018), March 2018.
22. Kaushal Kumar Mahato, Kyong Hee Park, Nira Misra, Marshal Dhayal, 'Surface Modification of Graphene Oxide Via Chemical Reduction Process for Biomedical Applications', XXVII National Conference and the 6th Asian Biomaterials Congress with a them 'Innovative Biomaterials: Technologies for Life and Society' October 2017.
  23. Chandan Kumar, Sanjay Kumar Rai and Pralay Maiti "Energy Harvesting from Polyvinylidene Fluoride /reduced Graphene Oxide(PVDF/rGO) Composites for Biomedical applications" International Symposium on Functional materials: Energy and Biomedical applications (ISFM-2018) , Chandigarh, India, April 2018.
  24. Chandan Kumar, Sanjay Kumar Rai and Pralay Maiti. Energy Harvesting from Polyvinylidene Fluoride /reduced Graphene Oxide(PVDF/rGO) Composites for Biomedical applications in 10<sup>th</sup> APA, New Delhi, India, 2018.

#### Proceedings of National Conferences

1. P K Roy, Harnessing Endogenous Neuroprotection during Cerebral Insults: Evidence from MRI and Brain Connectomics. Proc. Advances in Research on Ageing and Neurological Disorders, Society of Neurochemistry of India, Sept. 2017.

#### International collaboration/achievements by the Department/School

- Collaboration of Prasun K Roy with Clinical Neuroscience Division, University of Cambridge, U.K.: Newton International scheme project on: "Microglia Dynamics and its Modulation in Traumatic Brain Injury: Enhancing the Window of Neuroprotection", sponsored by Royal Society, London.
- Cooperation of Prasun K Roy with Council of Science, Technology & Infrastructure (CTSI), International Neuroinformatics Coordination Facility, Karolinska Institute, Stockholm, Sweden, in the area of clinical informatics applied to neuroscience (as Council member of CTSI).
- Dr Marshal collaborated with Professor K H Park, Department of Chemical Engineering, Chonnam National University, Gwangju, South Korea.

#### Foreign Students Visits in the Department/School

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr. Sanjeev Kumar Mahto (Name of Student: Mr. Mrugesh Krishna Parasa from Purdue University, USA)	IUSSTF- Research Internship in Science and Engineering (RISE) program	May-July, 2017 at Tissue Engineering and Biomicrofluidics Laboratory, School of Biomedical Engineering, IIT (BHU), Varanasi

#### Any other Information

- Demonstrated the project prototype in Festival of innovation and Entrepreneurship, 2018 held at Rashtrpati Bhawan, New Delhi.
- Prasun K. Roy is Advisory Panel Member for speciality panel of the Fellowship of National Academy of Medical Sciences, India (FNAMS), New Delhi.
- Dr Marshal is Committee Member for MEMS and NEMS Group, American Vacuum Society (AVS) 64th International Symposium & Exhibition, October 29, 2017 - November 3, 2017, Tampa Convention Center, Tampa, FL, United States.
- Dr. Neeraj Sharma acted as Expert member in BIRAC, Shastri Indo Canadian Institute, and Science and Engineering Research Board for evaluation of project proposal.



## 22. School of Materials Science and Technology

Year of Establishment : 1978

**Head of the Department/School :** Dr. Akhilesh Kumar Singh

### Brief Introduction of the Department/School

- 1 The School of Materials Science and Technology is an internationally renowned Centre of Materials Research and Education. It was established in 1978 following the recommendations of the V Plan Visiting Committee of the UGC. It serves as Institute's nodal center for fostering interdisciplinary teaching and research in the field of materials science and technology. School runs successful Ph.D., M.Tech. and Integrated Dual Degree programmes since 1982, 1984 and 2005, respectively. All these students are gainfully employed, several of them in premier R & D organizations, industry and teaching institutions. The syllabi are revised periodically to include topics of current significance in the field. Five year dual degree programme leading to B.Tech. & M.Tech. Degrees together has been initiated from the session 2005-06 with an annual intake of 19 students through JEE.
- 2 The School has a modest building of about 16,000 sq. ft. floor area. The laboratories are equipped with modern and sophisticated equipment for materials preparation, characterization, processing and phase transformation studies. Working in these frontiers areas the faculty members of the School have generated nearly Rs. 7.2 crores during the last five years through various projects/schemes funded by agencies like DST, SERB, DBT, DIT, DRDO, UGC-DAE-CSR, IUAC etc. and have published more than 242 research papers in reputed journals such as Phys. Rev. Lett., Appl. Phys. Lett., Phys. Rev. B, J. Phys. Cond. Matter, J. Appl. Phys., Acta Materialia, Macromolecules, Dalton Trans., J. Controlled Release, J. Mater. Chem, J. Phys Chem., Nanoscale, RSC Advances, Polymer, Electroanalysis, Langmuir, Sensors and Actuators B. etc.

### Major areas of Research

Functional Materials,  
Ferroics and Multiferroics,  
X-ray and Neutron Crystallography  
Polymer Nanocomposites,  
Biomaterials and Biodegradable polymer  
Self-assembly,  
Conducting Polymer and Composites  
Organic Devices  
Sensors and Biosensors  
Nanomagnetics and Magnetism in Low Dimensional System  
Dilute Magnetic Semiconductors  
Semiconducting Nanostructured Materials  
Structural Phase Transitions,  
Low voltage-low power electronics,  
Collidalnanocrystal quantum dot and sol-gel metal oxides and  
Synthesis and Characterization of Advanced Ceramics

**Area of the Department/School (in square meters):** The School has a modest building of about 16,000 sq. ft. floor area.

### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	01
2	No. of Lecture Halls	01
3	No. of Laboratory	19
4	No. of Computers available for students in the Department/School	35



## Unique Achievement / Preposition of the Department/School

### Academic Programmes offered

Ph.D., M. Tech. and Integrated Dual Degree (IDD)

### New Courses Introduced

The complete course structure of the UG and PG programs is under revision and several new courses are being introduced.

### Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech/B. Pharm	---	---	---	---	---
2	Dual Degree	18	19	16	14	11
3	M. Tech/ M. Pharm	17	10	---	---	---
4	Ph. D (Under Institute Fellowship)	37	---	---	---	---
5	Ph. D (Under Project Fellowship)	23	---	---	---	---
6	Ph. D (Under Sponsored Category)	01	---	---	---	---

### Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India.

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From
<b>INDIA</b>					
1.	Ms. Pinki Singh	13111006	ABSMSNW-2017	Feb. 19-22, 2017	Varanasi
2.	Ms. Preeti Tiwari	13111008	ABSMSNW-2017	Feb. 19-22, 2017	Varanasi
3.	Ms. Preeti Tiwari	13111008	ICONN-2017	Aug. 09-11, 2017	Chennai
4.	Ms. Vinita	15111009	ICONN-2017	Aug. 09-11, 2017	Chennai
5.	Ms. Richa Mishra	14111010	ICONN-2017	Aug. 09-11, 2017	Chennai
6.	Mr. Arun Kumar	13111002	IUCr Congress & General Assembly	Aug. 21-28, 2017	Hyderabad
7.	Mr. Chandra Jeet Verma	15111001	NFM-2017	Nov. 16-18, 2017	BITS PILANI, Rajasthan
8.	Mr. Om Prakash	15111503	RMST-2017	Nov. 22-23, 2017	Gujrat, India
9.	Ms. Anupama Gaur	14111002	Advances in Polymer Science & Technology	Nov. 23-25, 2017	New Delhi, India
10.	Ms. Aparna Shukla	14111003	Advances in Polymer Science & Technology	Nov. 23-25, 2017	New Delhi, India
11.	Mr. Dinesh Kumar	13111504	Condensed Matter & Applied Physics, ICC 2017	Nov. 24-25 2017	Bikaner, Rajasthan



12.	Mr. Narendra Kumar Verma	13111005	Condensed Matter & Applied Physics, ICC 2017	Nov. 24-25 2017	Bikaner, Rajasthan
13.	Ms. Manjari Shukla	15111003	Condensed Matter & Applied Physics, ICC 2017	Nov. 24-25 2017	Bikaner, Rajasthan
14.	Ms. Pinki Singh	13111006	Condensed Matter & Applied Physics, ICC 2017	Nov. 24-25 2017	Bikaner, Rajasthan
15.	Ms. Priyanka Tiwari	14111009	International Conference of Nanotechnology, ICN:31-2017	Dec. 06-08, 2017	Roorkee, India
16.	Mr. Anand Sharma	14111001	International Conference of Nanotechnology, ICN:31-2017	Dec. 06-08, 2017	Roorkee, India
17.	Mr. Sandeep Kumar	14111011	International Conference of Nanotechnology, ICN:31-2017	Dec. 06-08, 2017	Roorkee, India
18.	Mr. Satya Veer Singh	14111013	International Conference of Nanotechnology, ICN:31-2017	Dec. 06-08, 2017	Roorkee, India
19.	Mr. Nitesh Kumar Chourasia	15111006	International Conference of Nanotechnology, ICN:31-2017	Dec. 06-08, 2017	Roorkee, India
20.	Mr. Shyam Babu	16111010	45th National Seminar on Crystallography -2017	July 09-12, 2017	IIT(BHU), Varanasi
21.	Mr. Shyam Babu	16111010	International Conference of Nanotechnology, ICN:31-2017	Dec. 06-08, 2017	Roorkee, India
22.	Mr. Arun Kumar	13111002	International Symposium on Integrated Functionalities ISIF-2017	Dec. 13-10, 2017	New Delhi, India
23.	Mr. Dinesh Kumar	13111504	62nd DAE Solid State Physics Symposium	Dec. 26-30 2017.	Mumbai, India
24.	Mr. B Bharti	14111004	62nd DAE Solid State Physics Symposium	Dec. 26-30 2017.	BARC Mumbai, India
25.	Ms. Monika Singh	15111004	62nd DAE Solid State Physics Symposium	Dec. 26-30 2017.	BARC Mumbai, India
26.	Mr. Arpan Biswas	13111001	Symposium on Advances in Sustainable Polymers ASP-2017	Jan. 08-11, 2018	Guwahati, India

### Names of Students/Scholars who went for foreign Internship

Mr. Kushagra Agrawal

### Faculty & their Activity

### Faculty and their areas of specialisation

S. No.	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
<b>PROFESSORS</b>		
1	Rajiv Prakash	Materials Chemistry and Nanotechnology Conducting Polymer and Composites Sensors and Biosensors and Organic Devices
2	Pralay Maiti	Polymer Nanocomposites, Biomaterials, and Biodegradable polymer, Polymer for renewable resource and Fuel cell membrane



#### ASSOCIATE PROFESSORS

1	Mrs. Chandana Rath	Nanomagnetics, Dilute Magnetic Semiconductors, Ion Irradiation, Semiconducting Nanostructured Materials
2	Akhilesh Kumar Singh	Smart Materials, Structural Phase Transitions in Electroceramics, Synthesis and Characterization of Novel Electroceramics, CMR Manganites, Nanomaterials
3	Chandan Upadhyay	Ferroic and Multiferroic Materials, Magnetism in Low Dimensional System, Spin dynamics, Self assembly and Organic Electronics

#### ASSISTANT PROFESSORS

1	Bhola Nath Pal	Optoelectronics and organic devices, Low voltage-low power electronics, Collidal nanocrystal quantum dot and sol-gel metal oxide
2	Ashish Kumar Mishra	Design of carbon & 2D nanostructures, Electron microscopy & Raman spectroscopy analysis, Energy and Environmental application of nanostructures
3.	Shrawan Kumar Mishra	Energy efficient quantum materials and phase change materials, Magnetic materials and nano magnetism, Magnetic memory devices and spintronics, Charge, lattice and spin dynamics.
4.	Sanjay Singh	Magnetic shape memory alloys Caloric materials, Magneto-structural transitions Aperiodic crystallography, X-ray and neutron diffraction, Magnetism, Spintronics Multiferroic Device

#### INSTITUTE/VISITING PROFESSORS

1	Prof. Dhananjai Pandey	Ferroics and Multiferroics, Functional Materials, X-ray and Neutron Crystallography
2	Prof. Jitendra Kumar	Magnetism and Magnetic Materials
3	Dr. Shri Ram Singh	Metallography, Electron Microscopy

#### Short-term courses/workshops/seminars/symposia/conferences organised by faculty members:

S.N.	Conference/ Seminars/Workshops	Convener	Funding Agencies	Date
1.	45 National Conference on Crystallography	Dr. Akhilesh Kumar Singh and Dr. Chandan Upadhyay	DRDO, SERB, TTP Lab Tech India Pvt. & Rigaku Corporation	July 19 to 12 2017 SMST, IIT-(BHU).

#### Special lectures delivered by faculty members in other institutions

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1.	Prof. Dhananjai Pandey	ICME 2017 (International Conference of Materials Engineering)	IIT Kanpur	June 02-04, 2017
2.	Prof. Dhananjai Pandey	Conference (IUCC-2017)	Hyderabad, Andhra Pradesh	Aug. 21-28, 2017
3.	Prof. Dhananjai Pandey	Science Day Lecture at CSIR-CIMER	Dhanbad Jharkhand	Feb. 27- 28, 2018



4.	Prof. Dhananjay Pandey	Deliver key note National Conference AMN-2018	JIIT, Noaida	Mar. 15-17, 2018
5.	Prof. Rajiv Prakash	Invited Talks	IIT(ISM), Dhanbad	June 02-03, 2017
6.	Prof. Rajiv Prakash	Invited talk in workshop on Engg. Materials & devices	MNIT, Jaipur	July 27-29, 2017.
7.	Prof. Rajiv Prakash	Invited Talk International Conference on Advanced Engineering Functional Materials	GITA, Bhubaneswar, Odisha	September 25, 2016
8.	Prof. Rajiv Prakash	Invited Talk RDSO	Lucknow	February 23-24, 2017
9.	Prof. Pralay Maiti	Asp 17 Advance in Sustainable polymers	IIT, Guwahati	January 08-11 2017
10.	Dr. (Mrs) Chandana Rath	Invited Talk CMDAYS 17	Tezpur University	August 29-31, 2017
11.	Dr. (Mrs) Chandana Rath	International conference ICEMA	Allahabad, University	February 20-22, 2017
12.	Dr. (Mrs) Chandana Rath	QEIP	Department of Physics, CEIT, Bhubaneswar	24-27 April 2018
13.	Dr. (Mrs) Chandana Rath	Invited Lecture	Department of Physics, University of Girona, Spain	21-12-2017
14.	Dr. Akhilesh Kumar Singh	Delivered invited talk international conference Nano & Functional Materials (NFM-2017)	Birla Institute of Technology & Science, Pilani (Rajasthan)	November 16-18, 2017
15.	Dr. Akhilesh Kumar Singh	Deliver invited talk 6th International Conference (ISIF 2017)	New Delhi	December 10-13, 2017
16.	Dr. Akhilesh Kumar Singh	Deliver invited talk 2nd International Conference (ICSEM 2018)	Greater Noida	January 06-08, 2018
17.	Dr. Akhilesh Kumar Singh	Deliver invited talk National conference on Advanced Materials and Nanotechnology (AMN-2018)	(JIIT), Noaida	March 15-17 2018
18.	Dr. Chandan Upadhyay	To deliver talk at one day workshop in TEQIP Program	AICTE-Kolkata	July 05, 2017
19.	Dr. Chandan Upadhyay	To deliver talk at one day workshop in TEQIP Program	AICTE-Mumbai (Indore branch)	Sept 21-23, 2017
20.	Dr. Chandan Upadhyay	To deliver an invited talk in an international conference.	Birla Institute of Technology, Pilani, India	Nov. 15-18, 2017
21.	Dr. Chandan Upadhyay	Talk in International short term course on "Synthesis characterization and application of Nanomaterials	JN College, Lucknow, India	March 05-08, 2018





22.	Dr. Chandan Upadhyay	To deliver an invited talk in National Conference	IIT (ISM) Dhanbad	March 14, 2018
23.	Dr. Chandan Upadhyay	To attend Selection committee meeting of PMRF	IIT Hyderabad	May 19-22, 2018
24.	Dr. Bhola Nath Pal	Collaborative work	Kolkata	December 26-29, 2017
25.	Dr. Bhola Nath Pal	Collaborative work	IISc. Bengaluru	January 18-20, 2017
26.	Dr. Bhola Nath Pal	4th Thematic (TSC-3), BSC BRNS	BARC, Mumbai	March 13-15, 2017
27.	Dr. Ashish Kumar Mishra	Collaborative work	ICT Mumbai	May 15-29, 2017
28.	Dr. Ashish Kumar Mishra	Invited Talk	University of Allahabad	Feb. 21, 2018
29.	Dr. Sanjay Singh	CSR Collaborative	Indore	Aug. 19-20, 2017.
30.	Dr. Shrawan K. Mishra	Invited Talk in DST Inspire Camp	Gazipur, Uttar Pradesh	Dec. 22, 2017
31.	Dr. Ashish Kumar Singh	Invited talk Hydrogen Energy	RARIET 2017 at AP Goyal Shimla University	November 17-18, 2017

#### Visits abroad by faculty members

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1.	Prof. Dhananjai Pandey	Germany	July 01, 2017	July 06, 2017	Carry out experiment at PETRA-III	DST
2.	Prof. Rajiv Prakash	Rome and Germany	June 19, 2017	June 26, 2017	Invited Talk and Collaborative research programme	IIT (BHU)
3.	Dr. Chandana Rath	Italy	May 05, 2017	May 12, 2017	International workshop on "Spectroscopy and Dynamics of Photo-induced Electronic Excitations"	ICTP and IIT(BHU)
4.	Dr. Chandana Rath	Germany	May 21, 2017	May 30, 2017	Diffused Neutron Scattering (DNS) experiment	DST
5.	Dr. Chandana Rath	Spain	Dec 12, 2017	Dec 30, 2017	Collaborative research programme	IIT(BHU)
6.	Dr. Chandan Upadhyay	Germany	May 07, 2017	May 18, 2017	Carry out experiment at PETRA-III	DST
7.	Dr. Bhola Nath Pal	Singapore	June 18, 2017	June 23, 2017	To Attend (ICMAT-2017)	IIT(BHU)
8.	Dr. Shrawan Kumar Mishra	London (United Kingdom)	June 20, 2017	June 28, 2017	Diamond Light Sources, Didcot, Oxfordshire OX110DE.	IIT (BHU)



9.	Dr. Sanjay Singh	Germany	May 07, 2017	May 18, 2017	Carry out experiment at PETRA-III	DST
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### Honours and awards

(a) **Young Scientist Medal** of Indian National Science Academy (INSA) to Dr. Sanjay Singh

(b) **Ramanujan Fellowship** to Dr. Sanjay Singh, Science and Engineering Research Board- Dept. of Science and Technology, Government of India.

### Books, monographs authored/co-authored

S. No.	Name of Author/Co- Author	Title	Publisher
1	Ashish Kumar Singh, Akhilesh Kumar Singh & Abhinav Kumar	Reversible hydrogen storage formic acid economy	Combert Academic Publishing 978-613-985671-8

### Editorial boards of journals

### Design and Development Activities

### New facilities added

S. No.	Details (Infrastructure, Equipment, etc.)	Value (in Lakhs of Rupees)
1	Dynamic Mechanical analyser	45,00,000.00
2	Surface Plasmon Resonance Spectrometer	45,00,000.00
3	HPLC/GPC-SEC	13,00,000.00
4	Raman Spectrometer	45,00,000.00
5	Arc Melting Furnace	10,00,000.00

### Patents filed

S. No.	Name of Faculty Member	Title of Patent
1.	Rajiv Prakash, Monika Srivastava, Narsingh R. Nirala Patent Application No. 201711035660 Dated: 07-10-2017	A PSA Bio-sensing Platform with Graphene Quantum dot-gold nano-particle Electrode and A Method Thereof.
2.	Rajiv Prakash, Vinita, Narsingh R. Nirala. Patent Application No. 201811009239 Dated: 13-03-2018	A portable test kit for detection of glucose in biological fluids and a method thereof.
3.	Rajiv Prakash and Rajiv K. Pandey. Patent Application No. 201811013068 Dated: 05-04-2018	Ultrafast formation of Self-assembled, large area, polymers/2d nano-materials composite thin film via Floating Film Transfer Method at air-liquid interface and process thereof.
4.	Rajiv Prakash, Vinita, Narsingh R Nirala. Patent Application No. 201811010352 Dated: 20-03-2018	A portable biosensing system and method for visual detection of glucose in biological fluids.
5.	Shivam Tiwari, Anupama Gaur, Chandan Kumar and Pralay Maiti	Nanohybrid with High Energy Harvesting Efficiency Indian Patent Application No. 201811018838 filed on May 19, 2018
6.	Chandan Kumar, Anupama Gaur, Shivam Tiwari, Sanjay Kumar Rai and Pralay Maiti	A Bio-waste Polymer Hybrid with High Energy Harvesting Efficiency Indian Patent Application No. 201811016816 filed on May 3, 2018



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| 7. | Ajit V. Parihar, Sadhana Swaraj, Pralay Maiti, Sudipta Senapati, T. P. Chaturvedi | A Bioactive Glass as an Orthodontic Adhesive and a Method of Production Thereof Indian Patent Application No. 201811014080 filed on April 12, 2018 |
| 8. | Pralay Maiti, Sudipta Senapati and Dinesh K. Patel                                | Functionalized Graphene Oxide Based Nanoprobes   |

### Research and Consultancy Sponsored research projects

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-coordinator
1.	Advanced Polymer Composites for AC blower Fans and Bushes for Railway Coaches	2016-2018	RDSO, Lucknow and Railway Malaviya Chair (IIT-BHU)	17 lakhs	Rajiv Prakash
2.	Polymeric Nanobiohybrids for Tissue Engineering and Drug Delivery	2016-	SERB,DST	24.00 Lakhs	Pralay Maiti
3.	Polarised neutron reflectometry of HfO <sub>2</sub> thin films deposited through MBE and E-beam evaporation techniques: Nanoscience Foundries and Fine Analysis	2017	Europe	3700 Euro	Chandana Rath
4.	Cation distribution in A and B sites of Fe substituted CoCr <sub>2</sub> O <sub>4</sub> multiferroic by EXAFS	2015-2018:	UGC-DAE Consortium for Scientific Research, Indore	1.5 Lakhs + Travel	Chandana Rath
5.	Growth of Nanowires and Nanotubes of Transition Metal Doped TiO <sub>2</sub> : Structure, Properties and Photocatalytic Application	2015	UGC, New Delhi	11.50 Lakhs	Chandana Rath
6.	Ramanujan Fellowship research grant	2017	SERB	35.00 Lakhs	Sanjay Singh
7.	Developing strategic for efficient hydrogen generation from chemical hydrogen storage material	2016-2021	DST Inspire	85.00 Lakhs	Ashish Kumar Singh

### Industrial consultancy projects

#### Faculty members' participation with other universities under MoUs

- Prof. Rajiv Prakash collaboration with Kyushu Institute of Technology, Kitakyushu, Japan on organic electronics.
- Prof. Rajiv Prakash collaboration with University of Applied Sciences, Russelsheim, Germany on environment and biosensors.



- Dr. B.N. Pal collaboration with Ming Chi University of Technology on solution processed optoelectronic device fabrication and characterization including solar cell and light emitting device.

### Research Publications

Sl. No.	No.
1. Total Number of Papers Published in Refereed National Journals	00
2. Total Number of Papers Published in Refereed International Journals	55
3. Total Number of Papers Presented in National Conferences	03
4. Total Number of Papers Presented in International Conferences	23

### Refereed International Journals

- C.K. Balavigneswaran, S.K. Mahto, B. Subia, A. Prabhakar, K. Mitra, V. Rao, M. Ganguli, B. Ray, P. Maiti, N. Misra, Tailored Chemical Properties of 4-Arm Star Shaped Poly(D,L-lactide) as Cell Adhesive Three-Dimensional Scaffolds, *Bioconjugate Chemistry*, 28 (2017) 1236-1250.
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- V. Chaudhary, R.K. Pandey, R. Prakash, A.K. Singh, Self-assembled H-aggregation induced high performance poly (3-hexylthiophene) Schottky diode, *Journal of Applied Physics*, 122 (2017) 225501 -7.
- A. Gaur, C. Kumar, R. Shukla, P. Maiti, Induced Piezoelectricity in Poly(vinylidene fluoride) Hybrid as Efficient Energy Harvester, *Chemistryselect*, 2 (2017) 8278-8287.
- S. Ghosh, U.P. Azad, A.K. Singh, A.K. Singh, R. Prakash, Facile Synthesis of MoS<sub>x</sub> and MoS<sub>x</sub>-rGO Composite: Excellent Electrocatalyst for Hydrogen Evolution Reaction, *Chemistryselect*, 2 (2017) 11590-11598.
- K.K. Jana, V.K. Tiwari, D.K. Avasthi, T.K. Paine, P. Maiti, New Generation Fuel Cell Membrane Using Swift Heavy Ions, *Chemistryselect*, 2 (2017) 6413-6437.
- P. Jena, S.K. Gupta, N.K. Verma, A.K. Singh, R.M. Kadam, Energy transfer dynamics and time resolved photoluminescence in BaWO<sub>4</sub>:Eu<sup>3+</sup> nanophosphors synthesized by mechanical activation, *New Journal of Chemistry*, 41 (2017) 8947-8958.
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4. M. Srivastava, S.K. Srivastava, N.R. Nirala, R. Prakash, A chitosan-based polyaniline-Au nanocomposite biosensor for determination of cholesterol, *Analytical Methods*, 6 (2014) 817-824.

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**Distinguished Visitors**

1. Prof. Tarasankar Pal, Department of Chemistry, Indian Institute of Technology Kharagpur
2. Dr. Andy Fitch, Scientist Incharge, ID22 – High resolution powder diffraction beamline, ESRF France.

**Foreign Faculty Visits in the Department/School/School**

Dr. Andy Fitch Scientist Incharge, ID22 – High resolution powder diffraction beamline, ESRF France



**Sputtering Deposition System:** Sputtering is a versatile kind of physical vapour deposition (PVD) technique, which is used to deposit various kinds of thin films of a variety of materials (e.g. insulator, metal, alloy, ceramic, etc.) onto a wide range of material surfaces (a.k.a. “substrate”). The technique is based upon ion bombardment of a source material (a.k.a. “target”) in the presence of high vacuum through the process of momentum transformation.



**Chemical Vapor Deposition Set-up:** Chemical vapor deposition (CVD) is a chemical process used to produce high quality, high-performance, solid materials. The process is often used to produce thin films like Graphene, MoS<sub>2</sub>, WS<sub>2</sub>, MoSe<sub>2</sub>, WSe<sub>2</sub> on a desired substrate. In CVD, the substrate is exposed to one or more precursors, which react on the substrate surface to produce the desired deposit.



**18 KW Rotating Anode X-Ray Diffractometer:** The RINT 2000/ PC series of Rigaku is an 18 kW rotating anode based powder X-ray diffractometer (XRD) using Cu K radiation with Bragg-Brentano geometry fitted with a graphite monochromator in the diffracted beam. This can record XRD patterns at standard room temperature, high temperatures (up to 1600 K) and low temperatures (up to 12 K). These studies enable us to perform structural analysis of crystalline materials in a wide temperature range and study their nature of structural phase transition.

## 23. Centre for Computing and Information Services

Year of Establishment : 2017

**Head of the Centre :** Prof. Rajeev Srivastav

### Background

Centre for Computing and Information Services inaugurated on 6<sup>th</sup> April 2017 has been established as a central facility to provide 24x7 digital backbone to the Computing, Web, Email and Network services of the institute. Centre for Computing and Information Services offers high-end computational servers, high availability web servers, network services and provides a robust platform for various academic and research importunities of the institute. Licensed software, email services and in-house software development for the institute needs are also managed by the Centre. CCIS is one of the growing unit and projects are in early stage for developing it into a facility centre poised horizontally to meet the crescent demand of computerization and software solution required for scientific and research infrastructure of the institute.

### Services Offered

#### 1. Computing Services

Management of the user login and authentication to all the compute nodes. Running multiple software and their license servers. We have licenses of following software running on our servers:

Matlab, Mathematica, Ansys, Statistica, Origin Lab, CST- Studio, Gaussian, Chem Office, MedeA VASP, CASA XPS, Simula Abacus etc. User can login to the compute nodes and run their application using available purchased licensed software or open source software.

##### Hardware

Three Compute Servers are available for providing the computing facility to all the students and faculty members of the Institute. Server are having following configuration:

- 1x Dell R-930 Server: Populated with 4x18 core of Intel Xeon E7-8870 v3 @ 2.10 GHz processor with 45MB L3 Cache, 256GB DDR4 RAM, 8 x 1.2TB 15K hot plug SAS, 01 NVIDIA Tesla P4 GPU
- 3xDell R-730 Server: Populated with 2x10 core of Intel® Xeon® processor E5- 2660v3 @ 2.60 GHz with 25MB L3 Cache, 2U Form factor, 128 GB DDR4 RAM, 3 X 600GB 15K hot plug SAS, 01 NVIDIA Tesla K 40C

#### 2. Storage Services

Providing space for the storage requirement for running scientific and research applications of the faculty and students. It is integrated with web servers to provide space for Institute website and other portals, network Servers/ Switches over NAS, being managed by CCIS.

##### Hardware

- Dell SC4020 Storage with FS8600 NAS: Two controllers running in an active-active mode with automatic failover to each other in case of one controller failure with 20 TB on SAS 10K RPM drives and 100 TB on NL-SAS drives with 105 TB raw capacity (Approx. 70TB usable considering the RAID overhead).

#### 3. Web Services

Two primary web servers are running in High Availability for hosting our Institute website. These servers are configured with RHEL Operating System. Institute's website is built in-house and it has replaced several small websites running earlier on different domain and servers making it a truly one website of IIT(BHU). It incorporates all the departments, school, units, offices and covers all the activities governed by the institute placing a uniform structure throughout. In addition, it has decentralized access for website content modification and individual login for all the faculties to maintain their profile.

##### Hardware

- 2xDell R-730 Server: Populated with 2x10 core of Intel® Xeon® processor E5- 2660v3 @ 2.60 GHz with 25MB L3 Cache, 2U Form factor, 128 GB DDR4 RAM, 3 X 600GB 15K hot plug SAS





#### 4. Email Services

Facilitating with email services to the all faculty members, students and staff of the institute using G Suite for Higher Academic Institution. Services includes email services, classroom, unlimited google drive space etc. The entire users are allocated in various groups as per their department, section, offices, and designation, restricting them access over individual groups for sending emails.

#### People at CCIS

S. No.	Name	Designation
1	Prof. Rajeev Srivastava	Professor & Head of the Department
2	Mr. Roshan Singh	System Analyst
3	Mr. Mahesh Pandey	System Analyst
4	Mr. Ritesh Singh	Junior Assistant

#### Conclusion

As per the available statistics, the software facilities hosted on the servers are being heavily used by the students, faculty members and other research staff of the Institute. After establishment of the unit, further an extended server area has been created for hosting more servers and we are planning to add more compute node, web servers and licensed software to improve the services available at CCIS



## 24. Library

Year of Establishment : 1978

### Introduction/Outline/Goal

The Indian Institute of Technology (Banaras Hindu University), Varanasi library system consists of the Main Library, and five departmental libraries, which collectively support teaching, research and extension programs of the institute. All students, faculty members and employees of the institute are entitled to make use of the library facilities on taking library membership. The library, besides having an excellent print collection of over 1,38,000 volumes of books, bound volume of journals, theses, reports, standards, pamphlets, it also provides access to over 8,000 electronic journals and more than 2000 of electronic books and databases in science, engineering and technology.

### Acquisition Unit

Collection building is one of the important functions of the library that supports academic and research work of the students, faculty, staff and other users. Library collection comprising of books, journals, theses, reports, standards, pamphlets and other reading material in science, engineering, technology, humanities, social sciences and management is considered one of the best in the country and is its greatest asset. The total collection of the library as on March 2018 stands as follows:

Books (Reference and General)	= 90,231
Text Book Bank	= 22,049
ST/SC Book Bank	= 8,740
Bound Volume of periodicals	= 17,738
Theses	= 445
Compact Disc	= 1065

Total Rs. 9,90,857 were utilized for purchase of books, and 359 volumes were added during this financial year. This year Rs. 29,355 has been deposited against the loss of 21 books and Rs. 9,811 against the overdue charges. The library administration motivated retired faculty and passed out students to donate books to the library. As a result, this year library received 214 references and Text Books.

### Periodical Section

Periodical Section procures and maintains print and online journals for the academic need of the Institute. The Senate Library Committee has decided to subscribe online version of journals if it is available. Therefore, we have a subscription to very few print journals. In this financial year Rs. 6,65,48,997/- have been utilized for the subscription and renewal of online/print journals, standards, databases and e-books. The following Newspapers and Magazines are subscribed by Main Library:

### Research Support Tools

1.	Grammarly (Writing Enhancement Tools)	Premium Version Unlimited User
2.	Turnitin (Anti-Plagiarism Software)	Unlimited paper check, 127 Instructor and 250 students
3.	Endnote (Reference Tool)	Premium Version

The Main Library provides web-based access to more than 8,000 full-text journals and 04 databases 24x7 on the institute-wide network as follows:

Name of Publisher/Journal	Remarks
ACM Digital Library	The ACM Digital Library (DL) is a complete collection of all of ACM's publications, including ACM journals (42+), conference proceedings, magazines, newsletters, and multimedia titles.
Actapress	International Journal of Power and Energy Systems
American Concrete Institute	Materials, Structural, Concrete International & Symposium Volume ACI MCP, Materials Journals, ACI Structural Journal, ACI Concrete International, ACI Symposium Volumes



American Chemical Society	The Publications Division of the American Chemical Society provides the worldwide scientific community with a comprehensive collection of the most-cited, peer-reviewed journals in the chemical and related sciences. The consortium provides access to Collection of 49 journals with Legacy Archive for Universities.
American Institute of Physics	The American Institute of Physics (AIP) is a non-profit corporation chartered in 1931 to advance and diffuse the knowledge of physics and its application to human welfare. An umbrella organization for 10 Member Societies, AIP represents more than 134,000 scientists, engineers, and educators and is one of the world's largest publishers of physics journals. It provides access to 19 full-text journals in the area of physics <b>Backfiles access: 1997+</b>
American Mathematical Society	AMS peer-reviewed journals are of the highest quality in mathematical research is published since 1891 and cover a broad range of mathematics. The AMS journals package includes 15 online journals published by AMS including 6 open access journals. <b>Backfiles Access: 1999 onwards</b>
American Physical Society	The American Physical Society (APS) is the world's second largest organization of physicists. The Society publishes more than a dozen scientific journals, including prestigious Physical Review and Physical Review Letters, and organizes more than twenty science meetings each year. The current collection includes access to 13 leading peer-reviewed research journals which includes Physical Review Letters, Physical Review X, Physical Review, and Reviews of Modern Physics. The collection also includes Physical Review Fluids from 2018. <b>Backfile Access: All</b>
American Scientific Publishers	Advance Science, Engineering and Medicine
American Society of Civil Engineers (ASCE)	American Society of Civil Engineers (ASCE) represents more than 1,40,000 members of the Civil Engineering profession worldwide, and is America's oldest national engineering society. It publishes 33 journals, periodicals and transactions that cover a comprehensive range of the civil engineering profession. ASCE contains over 1, 70,000 bibliographic records of everything ASCE has published since 1970.
American Society of Mechanical Engineers (ASME)	ASME is the premier Professional organization for more than 1,20,000 mechanical engineers and associated members worldwide. ASME also conducts one of the world's largest technical publishing operations in the world, offering thousands of titles including some of the profession's most prestigious journals, conference proceedings, and ASME Press books
De Gruyter	1. International Journal of Nonlinear Sciences and Numerical Simulation 2. Functional calculus and Applied Analysis
Emerald Engineering Collection	Emerald's leading Management database provides you with breadth and depth across all management disciplines, including the latest peer-reviewed, international research in both established and emerging areas of interest. <b>Backfiles Access: 1994 Onwards</b>



Foundry Trade Journal	Foundry Trade Journal
IEEE - IEEE/IET Electronic Library (IEL)	The IEEE Xplore digital library is a powerful resource for discovery of scientific and technical content published by the IEEE (Institute of Electrical and Electronics Engineers) and its publishing partners. IEEE Xplore provides web access to more than four-million full-text documents from some of the world's most highly-cited publications in electrical engineering, computer science, and electronics.
IET	IET Journals offers a range of over 30 research titles, 3 letters journals and a gold open access mega journal, the IET Journals portfolio offers a wealth of research and information in a wide range engineering and technology fields. The consortium package offered IET Complete Journal package A (Including Conferences) <b>Backfiles Access: 10 years back files</b>
Inderscience	1. International Journal of Exergy 2. International Journal of Nano manufacturing
Indian Geotechnical Society	Indian Geotechnical Journal
Informa Healthcare	1. Drug Development and Industrial Pharmacy 2. Pharmaceutical Biology 3. Expert Opinion on Drug Delivery
Institute of Materials, Minerals and Mining	Advances in Applied Ceramics: Structural, Functional and Bio ceramics
IOP	The Institute of Physics is a leading international professional body and learned society, established to promote the advancement and dissemination of physics. It provides access to 76 full-text journals in the area of physics. <b>Backfiles Access: 10 years rolling back</b>
Jove	1. Jove Bio-Engineering 2. Jove Engineering
JSTOR	JSTOR Archive provides access to more than 2500 journals and primary content on access fee basis. The collections available to the members of the Consortium are Art & Sciences I-XII, Life Sciences, Ireland, Ecology & Botany II, Global Plants, 19th-Century British Pamphlets, Struggles for Freedom: Southern Africa, World Heritage Sites: Africa, Business IV.
Microwave Journals	Microwave Journals
NACE International	Corrosion
NRC Research Press	Canadian Journal of Civil Engineering Back File: 1996 onward
Nature	Nature
Royal Society of Chemistry	The Royal Society of Chemistry (RSC) is the professional body for chemists and the learned society for chemistry. It provides access to RSC Gold 2018 Excluding Archives with 51 full-text journals/magazines/alerting services. <b>Backfiles Access: 2008</b>
SAGE	SAGE is the world's 5th largest journals publisher with more than 1000 journals spanning the Humanities, Social Sciences, and Science, Technology, and Medicine, and more than 400 journals that are published on behalf of learned societies and institutions. <b>Please click here for subscribed titles.</b>



ScienceDirect	Nine Subject collections (Access to 1233 titles) Chemical Engineering Chemistry Computer Science Engineering Environmental Science Material Science Mathematics Pharmacology, Toxicology and Pharmaceutics Physics and Astronomy
Science Online	Only Science Magazine
SIAM	SIAM was incorporated in 1952 as a nonprofit organization to convey useful mathematical knowledge to other professionals who could implement mathematical theory for practical, industrial, or scientific use. Through publications, research, and community, the mission of SIAM is to build cooperation between mathematics and the worlds of science and technology. SIAM publishes 17 peer-reviewed journals. <b>Backfile Access: 1997 onwards</b>
SPIE Digital Library	Journal of Applied Remote Sensing
Springer	Springer: 1700 titles
Springer Nature	<b>Please click here for subscribed titles.</b>
Taylor & Francis	<b>Please click here for subscribed titles.</b>
The Optical Society of America	The Optics InfoBase package provides access to 17 flagship, partnered, and co-published journals; OSA's magazine, Optics & Photonics News; and the conference proceedings from all of OSA's Topical Meetings <b>Backfiles access: Vol 1. Issue 1</b>
Wiley Online Library	<b>Please click here for subscribed titles.</b>

## Database

MathSciNet	MathSciNet is an electronic publication offering access to a carefully maintained and easily searchable database of reviews, abstracts and bibliographic information for much of the mathematical sciences literature. Over 80,000 new items are added each year, most of them classified according to the Mathematics Subject Classification.
SciFinder Scholar	SciFinder Web provides bibliographic and patent information from Chemical Abstracts Service (CAS) from 1907 to the present. It is available 24 hours per day, 7 days per week.
Scopus	Scopus, launched in November 2004, is the largest abstract and citation database containing both peer-reviewed research literature and quality web sources. With over 19,500 titles from more than 5,000 international publishers, Scopus offers researchers a quick, easy and comprehensive resource to support their research needs in the scientific, technical, medical and social sciences fields and, more recently, also in the arts & humanities.
Web of Science	The world's leading citation databases provide authoritative, multidisciplinary coverage from more than 12,000 high impact research journals worldwide, including open access journals. Cover-to-cover indexing of content is provided by the Science Citation Index Expanded, Social Science Citation Index Expanded, Conference Proceedings Citation Index, and Arts & Humanities Citation Index.



## Standards

ACI MCP	The American Concrete Institute (ACI) is a leading authority and resource worldwide for the development and distribution of consensus-based standards
ASME	ASME is the leading international developer of codes and standards associated with the art, science, and practice of mechanical engineering
ASTM Standards	ASTM International (ASTM), originally known as the American Society for Testing and Materials, is one of the largest voluntary standards development organizations in the world, a trusted source for technical standards for materials, products, systems, and services. Known for their high technical quality and market relevance, it has a collection of more than 12,000 test methods and standards. Through its Digital Library, one can have instant access to 1,000+ Special Technical Publications, 50+Manuals and Monographs and 10,000+Journal Articles.
Indian Standards	The Bureau of Indian Standards (BIS) is the National Standards Body of India working under the aegis of the Ministry of Consumer Affairs, Food & Public Distribution, Government of India
IEC	The International Electro-technical Commission is a non-profit, non-governmental international standards organization that prepares and publishes International Standards for all electrical, electronic and related technologies
ISO	ISO 12 technical committee ISO/TC 17 Steel ISO/TC 30 Measurement of Fluid Flow in closed conduits ISO/TC 44 Welding and Allied process ISO/TC 69 Application of statistical methods ISO/TC 107 metallic and other inorganic coatings ISO/TC 113 Hydrometry ISO/TC 155 Nickel and nickel alloys ISO/TC 164 Mechanical testing of metals ISO/TC 192 Gas Turbines ISO/TC 199 Safety of machinery ISO/TC 201 Surface chemical analysis ISO/TC 256 Pigments, Dyestuffs and extenders

## E-Books

ASM Hand Book Online	ASM Handbooks Online features the complete content of twenty-eight ASM Handbook volumes, several ASM Handbook supplements, and two ASM Desk Editions.
Wiley Online	Having Access to 117 Selected Titles Only
Royal Society of Chemistry	Having access to all RSC titles published till 2016
World eBook Library	
South Asia Archive	

## Technical Services Unit

Even after an acute shortage of staff at the technical section, we decided to switch over to the DDC classification scheme from the existing CC classification scheme. More than 10,000 volumes have been classified and catalogued using the classification scheme DDC. We have planned to convert all the books into DDC in due course of time.



**Circulation Unit**

Main Library is open from 9am to 10.30 pm hrs on all working days except Sundays. The library membership increased by about 15% to more than 6000 including students, faculty and staff. From this year, the upper limit of borrowing of books for students, faculty and staff was increased by more than 50% and the loan period extends for 180 days for faculty and class one staff and 90 days for other grade staff.

**Computer Aided Reference Service Unit**

Until date, we are not able to develop a computer-aided reference service unit. However, an email “libraryservices@iitbhu.ac.in” dedicated to all types of reference has been created for any type of ready reference services.

**Library Automation**

Library provides OPAC and circulation services using the library software “LibSys7”. The Web OPAC address is <http://172.23.0.12:8280/opac/> where anyone can search the available list of books using the Institute internet facility. The mobile app “Lsearch” is also active now and can be downloaded on the Android platform from play store. This mobile app uses your Cellular data to search the library collection. The users are getting a notification through the mail for their check-ins, checkouts, a reminder for overdue of issue books.

**Initiative for Digital Library**

The Library is the part of the Institute Network and has adequate computing infrastructure including 60 computers to cater to the needs of the users. The library home page ([www.iitbhu.ac.in/library](http://www.iitbhu.ac.in/library)) a single window to all its resources and services, serves as a popular interface between users and the library. The library has its Institutional Digital Repository. The Library has also created a separate digital library section which has 48 desktop computers. The Library campus is fully Wi-Fi enabled.

**Regional (South-III) Workshop on Institutional Digital Repository**

The two days' workshop is organized at IIT(BHU) with collaboration to Main Library IIT (BHU) and National Digital Library (NME-ICT Project), IIT Kharagpur from 2<sup>nd</sup> to 3<sup>rd</sup> June 2017. The objective of the program was to provide the awareness about the National Digital Library Project, to provide a hands-on training for the development of Institutional Digital Repository and to provide appropriate skill so that e-contents of individual institutions can be harvested and indexed by the NDL server. Near about 80 participants had participated and got benefited with the knowledge of developing IDR and managing the contents.



National Digital Library Workshop participants at ABLT HALL, IIT (BHU) Varanasi.



Conference, refresher course attended/ article published/Book chapter contribution by Staff.

The Deputy Librarian Dr. Navin Upadhyay's contribution during the year 2107

Sharma, Navneet, Upadhyay, N & Tripathi, A. (2017) "Discover, learn and connect through library learning commons" IASLIC 31<sup>st</sup> All India Conference on Public Libraries in India in 21<sup>st</sup> Century, November 7-9, 2017, BHU Varanasi.

Upadhyay, N. & Maurya, S. (2017) "Role of libraries in the promotion of Quality publication and research: A case study of Main Library IIT(BHU) Varanasi". National Conference on conceptualizing the social responsibilities of libraries, 19-20, March 2017, BHU Varanasi.

#### **Conference/ workshop attended**

- UNESCO-NDL International Workshop on "Knowledge Engineering for Digital Library Design" from 25-27 October 2017 in New Delhi.
- "Go Digital!! Transforming Libraries with ProQuest at Pune, Maharashtra, India, September 14, 2017.
- Springer-Nature E-Books summit at Kolkata, 28<sup>th</sup> August 2017.
- 3<sup>rd</sup> Librarian appreciation Day and RSC Advisory Committee Meeting at Jaipur, 28<sup>th</sup> July 2017.

#### **Lecture/Talk Delivered as an Expert/Resource Person/Chaired Session**

- Resource person and delivered a lecture at 77<sup>th</sup> Orientation Course {Theme – Higher Education: University and Governance} organized by the UGC-Human Resource Development Center, BHU for college and university teachers from May 15 to June 2017.

#### **Seminar /Conference/Workshop Organized**

- Organized (Joint Secretary) IASLIC 31<sup>st</sup> All India conference on "Public Libraries in India in 21<sup>st</sup> Century" jointly with Department. Of Library and Information Science, BHU Varanasi November 7-9, 2017.
- Organized "Regional (North III) Workshop on Institutional Digital Repository For National Digital Library" Jointly with IIT Kharagpur on 2-3 June 2017.

#### **Infrastructure/facility developed during the year**

The first floor of the library building is fully functional with the seating capacity of 500 students. The reading halls are well furnished and every table has a power extension so that the students can charge their laptops. The Library building is fully Wi-Fi enabled. There is also a separate room for faculty to use the rich library resources. The periodical Section and the digital library section is benefiting the students to enhance their knowledge.



Periodical Section



Reading Hall

**Hindi Book Exhibition during Hindi Pakhwara**

The Main Library had exhibited Hindi book from 4<sup>th</sup> to 15<sup>th</sup> September 2017 to celebrate the Hindi Pakhwara. Beside engineering collection, the Library has a collection of Hindi fiction, biographies, history, sociology, reminiscences etc.



## 25. Student Life

### Best of Cult Council

The Cultural Council, IIT (BHU) introduced a fresh series called "Best Of Cultural Council" where the aim was to showcase the finest works of talented members from each of the seven clubs. The series kept the IIT(BHU) fraternity in awe for the whole summer break. It not only served as a platform for talented student members to showcase their skills in front of a large online audience but also inspired the freshers' community to get involved in the various cultural activities that happen in the campus once they joined.

### Instagram Page Launch

Culture is best appreciated when it is presented in a visual format. So, to encourage our talented members by winning the praise of a much larger community, we decided to broaden our online reach. August 3rd, 2017 marked the entry of the Cultural Council, IIT(BHU) on Instagram, the world where visuals rule. The Instagram page provides the perfect platform to showcase the initiating aspects of each of the hues that make up the magnificent rainbow that the Council is. The page updates the Instagram followers about all workshops, events, competitions, and guest talks conducted by all the seven clubs of the council as well as posts their masterpieces as a treat for the eyes of its followers.

### Online Events

To engage the students year long and stay connected, we believe that there cannot be a better way than online competitions. The Council encouraged each club to conduct its own online competition during the summer break.

### Fine Arts Club- Kalakriti

The Fine Arts Club, IIT BHU presented, KALAKRITI 17', a summer online painting competition: an open invitation for the art enthusiasts to unleash their creativity based upon the theme 'Dreams'.

### Quiz Club- Fuq Of

The very first competition in the year presented by Quiz Club is "FUQ OF" or Frequently Unanswered Questions On Friday. A competition open for all, this was a chance to win instant PayTM money every Friday.

### Masquerades - Vineyard

The dramatics society of IIT BHU, conducted an online competition named Vineyard which provided the perfect opportunity for the budding artists to showcase their talent and create an identity for themselves. The interested participants had to send their vines/ videos to the mail id provided along with their name, title of the vine and this video/ vine was then published on the Facebook page of Masquerades. This competition started on 27th of June.

### IMC - Tarang

The Indian Music Club, IIT BHU presented the first edition of 'Tarang', an online instrumental competition which was launched on 22nd June. The prize money was as high as 30,000. It was open for everyone, regardless of their college or age. All genres and instruments were permitted. The interested people had to send a video of not more than three minutes, which was then posted on the official Facebook page of IMC. Keeping in mind the importance of reviews of the public, the videos were judged on the reactions on the post. Mixed tracks and studio recordings were not allowed. Entries were allowed till 25 th July. The winners were announced on August 15.

### LIT Club

#### 1. Penbound Rockstars:

The Lit Club, IIT BHU, in association with Penbound, an IIM Bangalore based start-up, brought out the online writing competition: Penbound Rockstars? Be a Literary Sensation. The topic being "Sexism is a social disease. Here's the cure". The participants had an opportunity to paint the summer canvas with the rainbow hues of their ideas in about 1,000 words.

#### 2. Short Story Writing Contest

After the overwhelming response to the PenboundRockstars Writing Contest, Penbound—in association with The Lit Club, IIT BHU, got back with a Short Story Writing Contest. The stakes being high this time, with a total prize money of \$200 to be given out! The participants were to write a short story in more than 1000 but less





than 10,000 words, starting with "I'm not sure if they should be doing that..." or "It was only for that one night..."

### 3. #IWriteForDiversity—a Creative Writing Competition At IIMB Eximius 2017

This was a chance to get the writer's hat on and stand up as an Ambassador for Diversity & Inclusion. Attractive prizes that could be won included a chance to be considered for the "25 Writers for Change" publication to be released in January, 2018, ONE Critics' Choice Winner (Cash Prize – INR 5,000/-) and TWO Popular Choice Winners (Cash Prize – INR 2,500/- each) to be announced on the final day of Eximius '17 [Prize Sponsor: Interweave].

### 4. Alfaaz'17

Alfaaz by The Lit Club, IIT BHU was an online poetry writing competition with a total prize money of INR 3,000 to be won. The contest, open for all saw a large participation and made Alfaaz a great success.

### Freshers' Orientation

The Cultural Council Orientation which took place on 22 Aug'17 marked the Freshers' first step towards joining the Cultural Council family. The orientation took place out in the open Gymkhana ground, a set up never seen before. The orientation comprised of live performances and interactive sessions by the seven clubs, and freshers' first formal introduction to Kashiyaatra.

The Cultural council had in store a dazzling array of events for the freshers of IIT(BHU) which unfolded through the various club orientations. The first shade of this alluring rainbow to which they were introduced was the QUIZ CLUB, which on 25th August, invited them to explore the world; one question at a time. The next day turned out to be a musical delight with both the WMC and IMC having their introductory workshops giving insights into several genres of music; Indian and western alike with mesmerizing live performances. It was then time to move on to the world of colours and creativity with the FAC introductory workshop. Following this, the freshers got a chance to get grooving with the DFZ workshop themed "Dance First-Think Later". The LIT CLUB organized Le Debut – A day's affair that saw freshers getting involved in fierce debating, word games, creative writing, Hindi poetry slam and an engrossing MUN workshop. These fun workshop sessions came to an end with splendid stage acts and extravagant street plays by the THEATRE CLUB on 29th August.

### IITBHU MUN'17

Model United Nations is an academic simulation of the United Nations work sessions for the students where they play the representative delegates of different countries assigned in various committees.

MUNs aim at attempting to solve real world issues, keeping in mind the diplomatic relations and the foreign policies of the respective countries. The delegates debated and discussed for over two days under the Executive Board, before freezing on to certain solutions and drafting a resolution for the committee.

The IIT BHU MUN 2017 saw an all-time-high participation of 500+ delegates from across the country, with the participants taking back an enriching experience.

### AAGMAN'17

After couple of years with their heads buried in the books, the freshers finally got an extraordinary opportunity to unveil their talents and showcase them in an array of inter-branch cultural competitions, collectively called as AAGMAN'17. A wide range of events were organized under the banner, touching all spheres of creativity including dance, Indian music, western music, theatre, fine arts, quiz and literary events. AAGMAN'17 successfully laid down the foundation of the budding bed of creativity for the fresher's who will continue embellishing the name of the institute in the coming years.

### Hosting Intra-varanasi Auditions for Effervescence'17

Effervescence is the college cultural fest of IIT Allahabad. Banaras being the cultural capital of India was chosen as the perfect place to start the mystic journey of Effervescence 2017. The Multi-city auditions for Dance, Drama and Music were hosted in Varanasi at IIT(BHU) under the adept management of the Cultural Council, IIT(BHU) on 9th and 10th September.





### Best Of Cult Council 2.0

The Cultural Council houses immense talent within its seven clubs and one series is surely not enough to showcase what all we do. So, we brought out another round of excellent creations of our council members as 'Best of Cultural Council 2.0' in the month of September. This edition of the series saw an immense hike in the online reach of all the seven clubs of the Council.

### Aagaaz

AAGAAZ, another novel initiative of the Council, was an event planned to showcase our preparations for Inter IIT Cultural Meet and the various out station fests. The event commemorated a wonderful weekend showcasing some of the most phenomenal cultural performances we have ever witnessed. The program started with Band, Acoustic and Choir performances by IMC, which would be performed at Waves'17, BITS Goa. WMC presented the band that performed at Effervescence, IIIT Allahabad and last year's Inter IIT performance. Every beat of the drum raced the hearts, the singers made the audience gasp in amazement. It was followed by a stupendous Group Dance performance by the Dance Club, which is going to be performed at Waves'17, BITS Goa. The heart touching Shayaris, poetry slam and a rib tickling stand up performance presented by the very best of the Lit Club (Inter IIT Contingent and Antaragini, IIT Kanpur) made the evening cherishable and mesmerizing. The Art exhibition by the Fine Arts Club kept the audience engaged all through. AAGAAZ was summed up by a Nukkad Natak performance which is going to be performed at Oasis, BITS, Pilani by Masquerades, The Theatre Club.

### Rhetorica

The literary club, IIT (BHU) organized a special event, Rhetorica on 14th & 15th October, 2017. The event saw the freshers compete with the senior students for the first time, also serving as a screening for the formation of the contingent of the inter-IIT Cultural meet. Events like English debate, vaad vivaad, standup comedy and creative writing ( poems and prose) in both Hindi and English took place. Rhetorica also had a workshop on phonetics and punctuation by the secretary of the Lit Club, Ankit Aryan, to enhance command over the language and enriching of knowledge. Post the event, the experienced and elite judging panel presented a deep analysis and encouraged everybody to improve their skills.

### Inter IIT Cultural Meet 2017

IIT Kanpur hosted the second 'Inter IIT Cultural Meet' in December, 2017, with various IITs participating in this cultural extravaganza. Competitions encompassing all avenues of the Council were organized giving the participants a very broad horizon to showcase their talent and like-minded people from all IITs to come together.

The IIT BHU Contingent bagged the fifth position in the overall championship winning the following laurels:  
Stood first in Street Play Competition along with being the OVERALL DRAMATICS WINNER among all other IITs.

Overall 3rd position in the Quiz events with the following positions in individual quizzes :

1. Shreyas Sarkar, Priyanshu Singh, Richi Mishra (2nd, Sports Quiz)
2. Shreyas Sarkar, Priyanshu Singh, Ved Vineet (2nd, General Quiz)
3. Shreyas Sarkar, Priyanshu Singh, Devang Rastogi (5th, India Quiz)
4. Ankit Kumar, Yatharth Dahiya, DVS Aditya (4th, Sci-Tech Quiz)

The DFZ secured the 4th position in the group dance, 2nd in duo dance and 3rd position in the street dance. Dance Freakz bagged the 3rd position overall in the Dance Event at the Inter IIT.

Hindi Story Writing: First Position;

Hindi Poetry Slam, Second Position;

English Book Review, Third Position.

5th position in the band competition at Inter IIT Cultural Meet 2017.

6th position in Pair On Stage Event at Inter IIT Cultural Meet 2017.



### Kashiyatra'18

Kashiyatra 2018, the annual cultural festival of IIT(BHU) was held from January 19, 2018 to January 21, 2018, was three day long extravaganza, blending the disciplines of music, literature and arts into a fest of gargantuan proportions. The events witnessed a multi-fold increase in the participation this year, which was the reward of extensive efforts put in by Team KY and the Cultural Council together. All the seven clubs of the Council organised and participated in a wide variety of events, the details of which are as follows.

### Quiz Club

Enquizta was organised by the Quiz Club during Kashiyatra'18 which for the first time had a total of 5 quizzes (BizTech, General, India, 90s & SpEnt) and 3 quizmasters from outside. The event was a grand success with huge participation.

A special mention to India Quiz the flagship event of Enquizta which has grown to be one of the most sought after quizzes in the country.

### Dance Club

The dance club organised Natraj, one of the flagship events of Kashiyatra 2018. It consisted of 3 different competitions, namely, Bliss (Group Dance), Ecstasy (Duet Dance) and Cut-A-Rug (Solo Dance). All the events saw a huge surge in participation compared to the previous editions of Kashiyatra. The club secured the first prize both in the group and duo dance. The first prize in Duo Dance was acquired by Rohit Chaudhary and Sai Pavan.

### Dramatics Club

"ABHINAY" event was conducted by Masquerades which comprised of Street Play ("HULLAD"), Stage Play ("RANGMANCH") and Mono Acts ("ASMITA") Competition. 1st Position in Hullad was bagged by "TAKE -2" by Masquerades based on the concept of second chance. Along with this Stage Play "HATAK" by Masquerades bagged the 3rd position in Rangmanch.

### Indian Music Club

Bandish, the Indian Music Event of Kashiyatra, rose to a whole new level this year. 19th-21st Jan saw the culmination of over a month of preparations. Bandish had five categories of events : Advaita-the Battle of Bands, Sur-the Solo Singing event, Sanlayan-the Solo Instrumental event and Kriti- the Original Composition competition and Sargam being the new

one : The group song competition. All the events received overwhelming participation of the kind never witnessed before.

### Western Music Club

Crosswindz'18 was organized by the club during Kashiyatra'18.

The zonals for Crosswindz were successfully held across two cities viz. Guwahati and Kolkata and Varanasi. Both the events saw great turnouts and participation from the local bands. The event saw bands from many different regions participating and making a great show.

### Fine Arts Club

Kashiyatra, the annual socio cultural festival of IIT BHU proves to be the matter of excitement for the students inside and out of the college. All the club members of FAC and volunteers started working 20 days prior to the fest. This KY 2018 was a tremendous success and the artworks details are as follows:

- Made a Giant Bird which was hanged on LC using bamboo, paper and wires.
- Made the character Ryuk (Death Note) which was put up on LC tea shop.
- Made a Giant Skull Structure using PVC pipes and wires and put up outside SB.
- Made a structure of a Horror Lady sitting on a chair, which was loved by all.
- Made 2 paintings of about 8ft X 4ft put up on SB Foyer.
- Made a charcoal sketch of famous horror character, 'IT' of height 7ft put up on SB Foyer.
- Made a Lamp Ghost of height approx 7 ft.



- Made 3D 'KY'18' and 3D hands of wire to be put up outside SB.
- Made a Flex Painting depicting theme of Kashiyaatra of about 15ft X 7ft and put up on LC.

### **Toolika**

Toolika, the official Fine Arts competition of Kashiyaatra was conducted which comprised of 6 major events namely Soap Carving, Clay Modeling, T- shirt Painting, Rangbaazi, Paper Costume designing, Artmarathon ( PaperCutting, Doodling and Face Painting). The necessary materials for the events were provided by us. This year Toolika saw a participation of around 300 students and was a big success. We also organized an informal event of Tattoo Making which saw huge enthusiastic participation from the students.

### **Online Competition**

The Fine Arts Club conducted an online fine arts competition 'Kalakriti' for the 2nd time sponsored by Souled Store and Art Lounge. It had a general theme "Dreams", prizes worth 20000 INR and was open to all. Any form of artworks be it painting, sketches, doodling, etc. were permitted. We got around 200 entries from all over India and a few from outside India too.

### **Literary Club**

The Literary Club organised Samwaad which contained a plethora of events such as Shipwreck, Debate, Poetry and Creative Writing in both hindi and english. It saw a massive participation from colleges across India.

### **Cultural Weekend' 2018( 29th March – 1st April 2018)**

- KSHITIJ: Conducted a showcase event under the banner of Cultural Weekend organised by Masquerades. Brought up a deluge of events including Mime, Monoacts, Stage Plays & Skits. Amidst these, well acclaimed theatre artist "SHILPI MARWAHA" from Sukhmanch Theatre performed an exclusive masterpiece "A WOMAN ALONE" written by Dario Fo and Franca Rame.
- The first ever Quiz Fest was also organised during the Cultural Weekend, with 6 quizzes being organised, namely the India Quiz, SpEnt Quiz, HELM Quiz, General Quiz, BizTech Quiz, Bollywood Quiz.
- JHANKAAR-2018- The club conducted an intra college group dance competition. Silver Steppers bagged the first position, RDX bagged the second and WeDefy bagged the third position.
- FAC Open: This year FAC Open, conducted under Cultural Weekend was a big success as it was celebrated for 4 days i.e. 29th March – 1st April comprising workshops, Art Exhibition and Fine Arts Events.
  - 2 workshops were conducted namely, Brush Lettering and Doodling by Pragya Gulatee and Kartheek Peela respectively.
  - An Art Exhibition 'The Canvas' was organized for the first time ever at LC which showcased more than 200 artworks of the club members along with a Live Painting on 30th March.
  - Fine Arts events were conducted namely, Sketching and Scroll Making on 31st March and Poster Making and Soap Carving on 1st April.
- Music Fest by the IMC and WMC.
- The Banaras Litfest, conducted by the LIT CLUB saw various competitions this year. The Parliamentary Debate was conducted for the first time at the Inter College level and saw a number of enthralling discussions. The Hindi and English Poetry Slams were a huge success too. Prizes won by IIT(BHU) students: English Poetry Slam, Second Position; English Debate Adjudication, Second Position.

**ABHIVYAKTI-2018** (14th April-15th April 2018)- Conducted the Annual Stage Play event, a remarkable show of skills via Stage Plays. The two day event comprised of 2 Stage Plays i.e "THE MAN FROM EARTH" and "BANKELAL SATYAGRAHI" based on 2 different plots.

**KRITI-2018**( 21st Feb- 22nd Feb 2018)- Conducted first time, the annual flagship event of Masquerades, for social cause which included a street play performance, mural painting sessions and Kavi Sammelan(Open Mic) at ASSI GHAT along with the help of the associates of the event. The Street Play "GUDIA" was based on Girl Child Safety, reviving the true spirit of nukkad natak and educating the common public about girl child trafficking.

**Workshops by FAC**

- Origami Workshop - An introductory workshop of Origami was held on 27th August at LT 1 taken by Sonali Mourya, 3rd year Metallurgy, a member of Fine Arts Club.
- Scribbling Workshop - A workshop of Scribbling was held on 12th October at LT3 taken By Utkarsh Singh Rawat, 3rd year Mining Dept., a member of Fine Arts Club.
- Brush Lettering Workshop –A workshop of Brush Lettering was held on 29th March at LT1 taken by Pragya Gulatee, Faculty of Visual Arts (FOVA), BHU.
- Doodling Workshop –A workshop of Doodling was held on 30th March at LT1 taken by Kartheek Peela, 4th year Mechanical Dept., a member of Fine Arts Club.

**Strings Eve**

It enthralled the audience with the grooving music involving several individual and band performances at Limbdi Corner. The musical evening turned out to bring in surprises with several impromptu performances from the audience as well.

**Achievements At Outstation Fests**

Apart from all the talent showcases we organized this semester, the clubs also participated in various outstation fests and won accolades for the institute. The following were the achievements:

1. The Western Music Club IIT BHU secured the first position in Unplugged- the acoustic event at Effervescence, IIIT Allahabad.
2. IIT BHU Quiz Club added another feather to the Council's cap by securing the following positions at MNNIT Allahabad and Effervescence, IIIT Allahabad :
  - a. Third position, Business Quiz, MNNIT Allahabad : Aditya Dhavala, Ankit Kumar, Yatharth Dahiya
  - b. Third position, Sports Quiz, MNNIT Allahabad : Shreyas Zidane Sarkar, Priyanshu singh, Richi Mishra
  - c. Third position in India Quiz, MNNIT Allahabad: Shreyas Sarkar, Priyanshu Singh, Niket Khandelwal
  - d. The freshers' team ( Rishi Raj and Kaustubh Singh) representing the Quiz Club at IIIT Allahabad, bagged the first position in Cognoscentia (general Quiz).
3. Vaibhav Dixit, sophomore, Chemical Engineering, a member of the The Lit Club, IIT BHU won the English Poetry Slam at Antaragni, IIT Kanpur.
4. Shubham Shriram Yadav, Mechanical Engineering (Part 3) and a member of the The Lit Club, IIT BHU bagged the third position in Hindi Debate at Antaragni, IIT Kanpur.
5. Siddhartha Shukla, Ceramic Engineering (Part 2) of the The Lit Club, IIT BHU secured the second position in Hindi Extempore at Antaragni, IIT Kanpur.
6. Yatharth Dahiya, Ved Vineet and Aditya Dhavala secured the third position in Movie Quiz, Antaragni, IIT Kanpur.
7. Yatharth Dahiya, Richi Mishra and Ved Vineet, members of the IIT BHU Quiz Club, secured the third position in TV Shows Quiz at Antaragni, IIT Kanpur.
8. Yudhishtar Charan from the Indian Music Club, IIT - BHU , Varanasi reached the top three of the solo singing event- Jukebox(western) at Waves, BITS Pilani Goa
9. Indrajeet Pala, a first-yearite in pharmaceutical engineering, of the Indian Music Club, IIT BHU , Varanasi , secured second position in the solo singing competition, Jukebox (Indian).
10. Yash Shukla, joint secretary of the Indian Music Club, IIT - BHU , Varanasi, secured the third position in solo instrumental event(non-percussion category).
11. The Indian Music Club, IIT - BHU , Varanasi stood second in the classical choir event at Waves, BITS Pilani Goa!
12. DFZ - Dance Club, IIT (BHU) won Natyanjali, the dance event of Waves, BITS Pilani Goa.
13. Vikrant Shivalik (1st Year Pharmaceutical Engineering and Technology) won the High Commendation award at IITK MUN '17.
14. Rohan Bhardwaj (2nd Year Pharmaceutical Engineering and Technology) won the Best Delegate award at





IIMUN Varanasi.

15. 2nd position in rock band competition at Elixir 2018 (IMS BHU)
16. At Alcheringa, IIT Guwahati, The Lit Club won the Third and Fourth Positions in English Debate Adjudication.
17. Spandan: English Elocution, First Position.
18. The trip to Anwesha, IIT Patna brought glory to the college as the club bagged 1st Position in Satanz Tantrum- The Rock Band Competition!  
What also makes this win special was that the band consisted of 9 first yearites!.
19. At Alcheringa, our FAC team secured 2nd position in State Of Dress, 1st and 3rd position in Rangoli and two 3rd positions in Lip Art. We also participated in 2 online events namely, Doodle Pad and Minimalist grabbing 1st and 2nd positions in the latter.
20. The Dance Club bagged the 2nd prize in group dance in Anwesha with a magnificent performance.
21. Contingent of 17 people participated in Nihilanth 2018, the annual Inter IIT - IIM Quiz fest, held at IIM Ahmedabad.
22. The Varanasi Edition of TATA Crucible was also held at IIT BHU on 25th May, 2018 with Ankit Kumar and Yash Bhadauria from the Quiz Club securing the 2nd position.
23. At Anwesha, Theatre Club participated in Street Play Competition "MAIDAN-E-JUNG" by presenting "FAANSIVAAD" and bagged the 1st Position among all the teams.

The following is the list of activities undertaken by four clubs under the banner of Social Service Council, IIT (BHU) Varanasi in the academic session 2017-18.

#### KASHIUTKARSH

##### 1. Navodaya Classes in Lahartara Basti

Classes for preparation of Navodaya Entrance Exam was run for children of Lahartara basti. Classes were started in the month of October and were taken till mid-April. A teacher from basti was hired to do the needful.

##### 2. Medical camp in Kakarmatta basti

A medical camp was Organised in Kakarmatta basti to solve the health-related problems of the people of basti on 25/03/2018. About 300 people of the basti were benefitted by general physicians, eye specialists etc from Sir Sunderlal Hospital.

##### 3. Sports Fest in Lahartara Basti

A sports fest was conducted in Lahartara basti in order to educate them about the importance of games and sports and implant the spirit of playing with rules and in harmony. The fest was conducted on 26/01/2018 and about 150 students of basti participated in it.

##### 4. Hand Wash and Nail Cutting Activities

Hand washing and Nail cutting are being done in regular visits to basti in order to implant healthy habits in basti children.

##### 5. Moral Story Telling Sessions

A story with a moral conclusion is told to children on visits in order to ensure the development of good moral values in children.

##### 6. Craft Making Activities

Craft making activities were regularly done on occasions like Friendship day, Teachers day, etc and during Craft Competitions. Their crafts were showcased in Kashiyaatra.

##### 8. Regular Study works

New methods like notebook maintaining was implemented to keep track on academics of children in a better way.





## Health and Hygiene Club

### 1. Blood Donation Camp

People enrolled in large numbers and made the initiative a success. 76 units of blood were collected which helped to save many precious lives. Most of the students in University are from the non-medical background, so this camp also aimed to clear the common misconceptions of blood donation and create awareness among the mass.

### 2. Menstrual Hygiene

A survey was conducted related to menstrual hygiene in Bastis, volunteers worked to educate the women. We also made a video on menstruation which was liked by hundreds on social media and shared multiple times, thus accomplishing its motive to create awareness & break the taboo adhered to the topic.

### 3. Marathon Against Drug Abuse

The idea of the marathon was to give a message to the young generation that people in large numbers can stand against these unethical things. It was joined by many professors as well, carrying a message for all, especially youngsters, to desist from drug abuse.

### 4. Medicine Collection Drive

More than 3 Kg of medicines including a blood pressure monitor was collected from 13 hostels of IIT BHU. These collected medicines will then be distributed to the needy peoples residing in the slum areas or construction workers in our campus under the supervision of Dr. Reena Mukherjee.

### 5. Surveys and Visits

Surveys by visiting villages and identifying the conditions of people more closely. This helped to come out with more radical and practical solutions to their grievances. A visit was made to a school to create awareness about personal hygiene. The students were educated about small things to do regularly to stay healthy by the volunteers of the club.

## Sahyog Club

### 1. School visits

We visited government schools every Saturday. In these 2 hours of school visit, we try to develop the interest of students towards studying through several activities like Storytelling, profession telling, good thoughts explanation, science experiments, sports events, events related to art and crafts, model making etc.

### 2. Daan Utsav

From 2-8th oct last year we celebrated Daan Utsav in which we conducted Rachna- a greeting card competition and also collected books from our college students.

### 3. Library establishment

From the collected books, we made a library in one of our working schools.

### 4. Gram mela

We did a Gram Mela in Ravidas basti near seer gate which was a public awareness camp related to various beneficial government schemes. We had also invited some NGOs related to different schemes.

### 5. Wall painting

We conducted wall painting in a government school so that small children get some motivation from it to come to school.

### 6. Sports day celebration

We conducted a sports day in one of our working schools in which we had planned several games like spoon race, sack race etc to aware students about games and sports.

### 7. Social Conclave

In this conclave, we had invited 5 NGOs from nearby areas to share their work experience with us. It was a good idea exchanging program which provided a lot of learning experience to all of us.



## Social Projects' Club

### 1. Thermoelectric Generator (TEG)

The implementation of our project can have a great impact on energy conservation in society. Also, the people in rural areas facing lack of electricity can be helped to a certain extent. We had set some milestones in our project like remodeling TEG according to our project requirements, to verify the input source and output energy we get using the TEG, Efficiency calculation. Could not be completed due to lack of resources.

### 2. MATK – Mosquito Attract Trap Kill

The project aimed at building a device which can attract and trap mosquitoes without the use of electricity. The Project ran successfully to a certain extent but cannot be implemented at a larger scale which is a shortcoming.

### 3. SkitsUp

Weekly workshops were taken in some orphanages. The children were exposed to different skills and knowledge in a larger domain. The list of workshops successfully conducted is provided –

- Conservation of natural resources and waste management
- Introductory workshop on Aerodynamics and Terradynamics
- Introductory workshop on Arduino
- Introduction of optics
- Workshop on basics of Astronomy
- Art of cartoon making
- Workshop on Fundamentals of Computers.

### 4. Green Energy

The aim of the project is to generate a device which produces electrical energy by the use of ecological waste. Our goal is to make a device which should have a reasonable cost and small size so that it can be conveniently used in a household. The prototype of the project is ready but the implementation cost is too high.

### 5. Event conducted by Social Projects' Club:

- Collection drive – Mechanical and electronic waste was collected from the hostels of the college for Ex Nihilo event of Abhiprāya 2018. The door to door collection was done.
- Abhiprāya - The first social celebratory event, Abhiprāya'18, was conducted on 8th April 2018 by Social Projects' Club under Social Service Council, IIT BHU Varanasi.

*Subevent 1* – Ex Nihilo was an event in which innovative working models (from mechanical and circuit scrap) made by underprivileged children and mentored by IIT (BHU) students were showcased and awarded.

*Subevent 2* – Kōan was an event which enabled the participants to come face to face with the ground reality of social problems. They extensively explored and brainstormed upon the solutions of most dreadful social stigmas of society.

The problem statements were –

- Veshant - A CASE STUDY EVENT FOR INCREASED FARMER SUICIDES IN INDIA
- Scourge- A CASE STUDY EVENT FOR INCREASING INFLATION AND ITS EFFECTS
- Praudh and Proud- A CASE STUDY EVENT BASED ON EDUCATION FOR ADULTS

## Games and Sports Council

### Achievements of Session 2017-18

#### External Tournaments

##### Aquatics

Inter Iit (IIT Madras)

- Karthik Gajjala (4<sup>th</sup> position, 200m Back Stroke)

**Aavhan 18 (IIT Bombay)**

- Silver Medal in 4×50 Medley Relay

**Athletics (MEN)****Spardha (IIT BHU)****a. Gold**

- Vaibhav Ratnam (400m)
- Nitish Kumar (110m Hurdle)
- Nitish Kumar (400m Hurdle)
- Abhishek Singh (Javelin)
- Chandrashekhar Pandey (Hammer)
- Chandrashekhar Pandey (Discus throw)
- Anant Singh (High Jump)
- Vipin Kumar (Gold)
- Vipin Kumar (Triple Jump)
- Vaibhav Ratnam, Nitish Kumar, Shashank Yadav, Prabhakar Kumar (4\*400 Relay)

**b. Silver**

- Shashank Yadav (200m)
- Ajit Kumar (1500m)
- Amit Barwal (5000m)
- Prabhakar Kumar (110m Hurdle)
- Vipin Kumar (400m Hurdle)
- Vinod Rajak (Javelin)
- Chandrashekhar Pandey (Shotput)
- Vinit Raju (Hammer)
- Rahul Yadav (Discus throw)
- Sachin Singh (High Jump)
- Vinod Rajak (Silver)

**c. Bronze**

- Nitish Kumar (200m)
- Shashank Yadav (400m)
- Rahul Sharma (800m)
- Amit Barwal (1500m)
- Ajit Kumar (5000m)
- Sanket Singh (110m)
- Jitendra Meena (400m Hurdle)
- Kamal (Discus)
- Vinod Rajak (Triple Jump)

Best Athlete (Men) of Spardha'17: Vipin Kumar

**INTER IIT (IIT Madras)**

- Nitish Kumar (Bronze, 110m Hurdle)

**Aavhan 18 (IIT Bombay)**

- Gold - CS Pandey
- Silver - Nitish
- Bronze - CS Pandey, Vinod
- Relay Bronze - Nitish, Manoj, Prabhakar, Vipin



## **Sportech 18 (IIT Delhi)**

Second Runner up

### **Athletics (Women)**

#### **Spardha (IIT BHU)**

##### **a. Gold**

- Namrata Bhagat (400m)
- Namrata Bhagat (800m)

##### **b. Silver**

- Pragati Tyagi (Discus Throw)
- Namrata Bhagat, Ratnadeepa, Bhavna Awashya, Pranti Tyagi (4\*100m)

##### **c. Bronze**

- Ratnadeepa (100m)
- Akshita Khandelwal (200m)
- Ratnadeepa (400m)
- Shrishti Raj (High Jump)

### **Cricket**

Spardha (IIT BHU):

- Gold

### **Boxing**

Spardha (IIT BHU)

- Gold

### **Badminton (Men)**

Spardha (IIT BHU)

- Silver

### **Basketball (Men)**

SPARDHA (IIT BHU):

- Silver

### **Basketball (Women)**

SPARDHA (IIT BHU):

- Gold

### **Udhgosh (IIT Kanpur)**

- Bronze

### **Chess**

Aavhan 18 (IIT Bombay)

- Abhishek Ganesh won 10th place out of 208 players and won a cash prize of 1400
- Ankit Goel won 2nd in rating category 1400-1600 and won cash prize of 1200

### **Football**

Dlw Five A Side Tournament (Varanasi)

- Silver

### **Varanasi B-division Football League**

- Silver

#### **Spardha (IIT BHU)**

- Gold



Inter IIT(IIT Madras)

- Gold

### **Hockey**

Spardha (IIT BHU)

- Gold

Inter IIT(IIT Madras):

- Bronze

### **Weightlifting**

District Weightlifting Competition

**a. Gold**

- Parash Sonowal
- Akash Aggrawal
- Pawan Kumar

**b. Bronze**

- Piyush Agarwal
- Deep Chauhan

**State Weightlifting Competition**

- Parash Sonowal(4<sup>th</sup> Position)

**Spardha (IIT BHU)**

**a. Gold**

- Pawan Kumar
- Piyush Agarwal
- Parash Sonowal

**b. Silver**

- Akash Aggrawal

**c. Bronze**

- Omkar Nath
- Deep Chauhan

**Inter IIT (IIT Madras)**

- Parash Sonowal (Silver)
- Pawan Kumar (Bronze)
- Akash Aggrawal (4<sup>th</sup> position)
- Piyush Agarwal (5<sup>th</sup> position)

### **Powerlifting**

**Spardha (IIT BHU)**

**a. Gold**

- Parash Sonowal
- Akash Aggrawal
- Pawan Kumar

**b. Silver**

- Deep Chauhan
- Piyush Agarwal





**c. Bronze**

- Omkar Nath
- Amit Kumar
- Rahul Singh

**Aavhan 18 (IIT Bombay)**

- **Gold** - Parash Sonowal
- **Silver** - Pawan Suryawanshi
- **Silver** - Akash Aggarwal

**Taekwondo (Women)**

**Spardha (IIT BHU)**

- **Indivisual Junior Girls Poomsae**
  - NishaMeena(Silver)
- **Senior Girls Poomsae**
  - Kriti Ajay Garg(Silver)
- **Sparring Girls**
  - NishaMeena(Gold)
  - SimranGupta(Gold)
  - ShashiPrabha(Silver)
  - Neha Raj(Silver)
  - Kriti Ajay Garg(Silver)
  - Shrishti Sharma(Bronze)
  - Chhawi Prasad(Bronze)
- **Team Game**
  - Nisha Meena (Gold)
  - Kriti Ajay Garg (Silver)

**Taekwondo (Men)**

**Spardha (IIT BHU)**

- **Indivisual Junior Boys Poomsae**
  - Adarsh Prammar (Bronze)
- **Senior Boys Poomsae**
  - Rajkumar Meena (Silver)
  - Sarthak Tiwari (Bronze)
- **Sparring Boys**
  - Adarsh Prammar (Gold)
  - Gaurav Kumar (Gold)
  - Johari Nikhilesh Sanjay (Gold)
  - Shaurya Vats (Gold)
  - Harish Rathnam R (Gold)
  - Avil Sonone (Silver)
  - Vaibhav Saini (Silver)
  - Prayas Tanwar (Silver)
  - Shikharkant Sharma (Bronze)
  - Vikrant Singh Mahawar (Bronze)
  - Yogendra Meena (Bronze)



- Harshit Aggrawal (Bronze)
- Sarthak Tiwari (Bronze)
- Anupam Pal (Bronze)
- **Group Poomsae**
  - Rajkumar Meena (**Gold**)
  - Johari Nikhilesh Sanjay (**Gold**)
  - Vaibhav Saini (**Gold**)
  - Vikrant Singh Mahawar (**Bronze**)
  - Gaurav Kumar (**Bronze**)
  - Shikharkant Sharma (**Bronze**)
- **Team Game**
  - Rajkumar Meena (Gold)
  - Johari Nikhilesh Sanjay (Gold)
  - Vaibhav Saini (Gold)
  - Vikrant Singh Mahawar (Gold)
  - Shaurya Vats (Gold)
  - Shikharkant Sharma (Silver)
  - Avil Sonone (Silver)
  - Harshit Aggrawal (Silver)
  - Adarsh Parmar (Silver)
  - Prarabdh Jain (Silver)

**Lawn Tennis (Men)**

Spardha (IIT BHU)

- **Gold**

**Lawn Tennis (Women)**

SPARDHA (IIT BHU)

- Silver

**Volleyball (Men)**

Sparhda (IIT BHU)

- Gold

**Inter IIT (IIT Madras)**

- Silver

**Volleyball (Women)**

Sparhda (IIT BHU)

- Gold

**Inter IIT (IIT Madras)**

- Silver

**Kho-Kho (Men)**

Spardha (IIT BHU)

- Gold

**UDHGOSH (IIT Kanpur)**

- Silver

**Kho-Kho (Women)**

Spardha (IIT BHU)



- Gold

### **Handball**

Spardha (IIT BHU)

- Gold

### **Udhgosh (IIT Kanpur)**

- Gold

### **Squash**

Spardha (IIT BHU)

- Gold

### **Internal Tournaments**

- Girls Weekend
- Intrafreshers
- INTERHOSTEL SPORTS MEET
- Athletics Meet
- Inter year
- Adel Memorial
- Invitational Hockey League

### **Results of Athletics Meet**

Winner: Vishwakarma Hostel (40 Points)

Runner Up: Ramanujan Hostel (34 Points)

Best Athlete:

Boys - AmitBaRwal & CS Pandey

Girls - Pranati Tyagi

### **Social Event**

- Self Defence Camp( for 5 days in which more than 120 girls participated)

### **Infrastructure**

- Two lawn tennis courts were constructed.
- Toilets in ADV Ground were constructed.
- Two Volleyball Court were constructed.
- Two Basketball courts were constructed.

### **New Proposals**

- Multi purpose Indoor stadium
- Swimming Pool
- Hockey lights
- Stood 2<sup>nd</sup> in INTERIIT March Past.
- Launching of Games and Sports Council Website.
- Purchase of diesel roller.

## 26. Scholarship

### Scholarship to B.Tech/IDD Students

Sl. No.	Name of Scholarship	2014-15 Batch for 2017-18	2015-16 Batch for 2017-18	2016-17 Batch for 2017-18	2017-18 Batch	Total Students
1.	Merit-cum-Means Scholarship	184	197	-	-	381
2.	Central Sector Scholarship Top Class Student	SC 6	6	-	-	12
	ST	1	4	-	-	5
3.	National Scholarship Portal	-	-	-	173	173
4.	IPA Ramabhai Foundation Scholarship	-	1	-	1	2
5.	BENCO-64 Scholarship	1	1	1	-	3
6.	N.C. Jain Scholarship	-	2	6	6	14
7.	76 Batch Scholarship	-	-	1	1	2
8.	Jag Mohan and Manju Bansal Scholarship	-	-	-	4	4
9.	Kasi 1981 Alumni Foundation Scholarship	-	-	-	12	12
10.	Bihar Scholarship	-	-	-	40	40
11.	Post-matric Scholarship, U.P	-	-	-	122	122
12.	MMVY Scholarship, M.P	-	-	-	26	26
13.	National Scholarship (Bihar, SC, ST, Minority etc.)	-	-	-	-	173173
14.	Rajasthan Scholarship	-	-	-	33	33
15.	E-kalyan Scholarship, Jharkhand	-	-	-	4	4
16.	E-Pass Scholarship, Himachal Pradesh	-	-	-	2	2
17.	PMSSS Scholarship, J&K	-	-	-	3	3
18.	UGC Ishaan Uday Scholarship for NER	-	-	-	2	2
19.	ONGC Scholarship	-	-	-	2	2
20.	EIL Scholarship	6	4	-	1	11
21.	Samsung Star Scholarship	-	-	-	12	12
22.	NHFDC Scholarship	-	-	-	18	18
<b>Total</b>		<b>198</b>	<b>215</b>	<b>8</b>	<b>635</b>	<b>1056</b>

## 27. Student Placements

### Introduction

### About Placement Week

#### Details Of Placement

Starting Date Of Placements	01st December, 2017
Total No. Of Companies Visited For Placements	150
Total Job Offers Made	790
Students Receiving 2 Offers	66
Students Receiving More Than 2 Offers	12
Students Receiving More Than 3 Offers	2
Pre Placement Offers	101
Highest Placement Package Offered	138.00 LPA
Lowest Placement Package Offered	3.20 LPA
Average Package For Eligible Students	13.30 LPA

### Total Eligible Students for Placements

Name of Department/School	B. Tech	IDD	IMD	M. Tech	M. Pharma	Ph. D
Ceramic Engg.	27	10	-	9	-	9
Chemical Engg.	91	-	-	34	-	16
Civil Engg.	70	19	-	23	-	2
Computer Engg.	60	14	-	-	-	4
Electrical Engg.	87	20	-	18	-	14
Electronics Engg.	79	-	-	27	-	12
Mechanical Engg.	103	17	-	31	-	15
Metallurgical Engg.	50	14	-	22	-	6
Mining Engg.	63	11	-	21	-	2
Pharmaceutics	10	11	-	-	31	9
Biochemical Engg.	-	9	-	8	-	15
Biomedical Engg.	-	10	-	2	-	4
SMST	-	13	-	8	-	2
Chemistry	-	-	7	-	-	8
Mathematics	-	-	23	-	-	6
Physics	-	-	11	-	-	6
<b>TOTAL</b>	<b>640</b>	<b>148</b>	<b>41</b>	<b>203</b>	<b>31</b>	<b>130</b>

**Total Eligible Students = 1193**



**Details of the number of students placed during 2017-18:**

Name of Department/School	B. Tech	IDD	IMD	M. Tech	M. Pharma	Ph. D
Ceramic Engg.	23	7	-	1	-	-
Chemical Engg.	78	-	-	5	-	3
Civil Engg.	34	12	-	3	-	-
Computer Engg.	70	10	-	-	-	2
Electrical Engg.	97	18	-	5	-	6
Electronics Engg.	96	-	-	11	-	5
Mechanical Engg.	89	13	-	7	-	7
Metallurgical Engg.	35	10	-	7	-	-
Mining Engg.	47	7	-	3	-	2
Pharmaceutics	2	6	-	-	12	-
Biochemical Engg.	-	4	-	-	-	-
Biomedical Engg.	-	7	-	2	-	-
SMST	-	11	-	-	-	-
Chemistry	-	-	5	-	-	-
Mathematics	-	-	18	-	-	1
Physics	-	-	7	-	-	2
<b>TOTAL</b>	<b>571</b>	<b>105</b>	<b>30</b>	<b>44</b>	<b>12</b>	<b>28</b>

**Total No. of Students Placed in the year 2017-18 = 790**

## 28. International and Alumni Relations (2017-18)

### Introduction

The Resource & Alumni office of the Institute works for the functions as delineated by the Director of the Institute (Vide letter No. IIT (BHU)/2014-15/504/L Dated 9<sup>th</sup> September 2014 and Subsequent modification. The following works/functions are carried out as

- I. Planning, Allocation and Monitoring of existing infrastructure and reorganization.
- II. Institute Works Committee related resource functions. (through Chair, IWC)
- III. (a). Alumni Processes and Functions (through Alumni Committee)
- IV. (b). Gandhi Technology Alumni Centre-Guest Houses Including GRTA. (Through Coordinator, GTAC).
- V. Local and Regional (Varanasi) Alumni Interaction.
- VI. Seeking and Raising Endowments.
- VII. (a) MoUs with other Academic Institutions.
- VIII. (b) Newer Dimensions.
- IX. Green Cell (through Chair Green Committee).

### Vision

The vision is to fuel academic and functional processes of the institute by galvanizing alumni activity and purposeful organization of resources. Our vision is also at involvement of alumni in such a manner so as to attract best of minds from India and abroad to work with us for achieving excellence in Research and Innovation driven Engineering Sciences Education.

Vision of the Institute: “Excellence in Education with Character Building”- चरित्र निर्माण युक्त उत्कृष्ट शिक्षा

### Mission

We aim at involvement of Alumni in mentoring, evaluation and hand holding of students in Design and Innovation and Entrepreneurship activities of the Institute, apart from encouraging them to participate in the organization of academic processes.

We have the mission of involving our undergraduate, postgraduate students research personnel and faculty colleagues to put concerted efforts in processing and creation of knowledge, application of knowledge and development of solutions to problems for the purpose of addressing professional issues and concerns of society through innovative ways for sustainable and humanistic development.

### Events

- Reunion of 1974 Batch during 3, 4, 5 November 2017
- Reunion of 1976 Batch during 8, 9, 10 December 2017
- Reunion of 1992 Batch during 23, 24, 25 December 2017
- Reunion of 1997 Batch during 26, 27, 28 December 2017
- Reunion of 1968 Batch (Golden Jubilee) 21 – 23 February 2018.
- Reunion of 1993 Batch (Chemical, Electrical) 25, 27 November 2017
- **Launching of Centenary Celebration:** As a part of the Centenary Celebrations, IIT(BHU) Varanasi Launched of Centenary Initiatives was held on 22nd February 2018 in Swatantrata Bhawan. The launch event was graced by the presence of Alumni of 1968 batch on account of their Golden Jubilee Alumni Reunion organized by Students Alumni Interaction Cell (SAIC) of our institute.

### Other Activities

The work regarding the following Centres under Centenary Initiatives of the Institute, were started during the period:

1. Centre for Dependability Engineering, CDE.
2. Centre of Excellence on Nuclear Energy for Food Security and Rural Development.
3. Centre for Instrumentation and Control - Industry 4.0 Centre for Research on Planetary Science.
4. Centre for Advance Bio-Material and Tissue Engineering .
5. Advanced Centre for Green Manufacturing.
6. Centre for Research in AI and its Applications.

### Brain Storming Workshop Held at the Institute

1. **Centre for Dependability Engineering, CDE.:** was held on 10-11<sup>th</sup> February 2018.



2. **Centre of Excellence on Nuclear Energy for Food Security and Rural Development:** was held on February 17, 2018
3. **Centre for Advance Bio-Material and Tissue Engineering:** was held on 19th May 2018

### Lecture Series

Details of Institute Lecture held during the period(2017-18)

Sl. No.	Lecture No & Date	Speaker	Topic
1.	28th Institute Lecture 26, May, 2017	शंकराचार्य स्वामी निश्चलानंद सरस्वती पुरी पीठधीश्वर	महायंत्रों की आधारशिला, उनकी उपयोगिता और उनके उपयोग से प्राप्त विभीषिका
2.	29th Institute Lecture 29th January, 2018	Professor Seeram Ramakrishna	Functional Nanofibers
3.	30th Institute Lecture 6th February, 2018	CA. Dr. Varadraj Bapat	Understanding Union Budget-2018
4.	31st Institute Lecture 8th March, 2018	Professor Tarasankar Pal	Metal and Metal Chalcogenide Nanoparticles
5.	32nd Institute Lecture 9th March, 2018	Professor Arun Tiwari	The Life & Works of Dr APJ Abdul Kalam: A Modern testimony of the Sthitpragya Doctrine

### Funds received

S. No.	Name of Person/Trust	Amount Donated	In favour of	Type	Purpose
1.	IBGAA	Rs. 12,28,990/-	Registrar, IIT (BHU)	Endowment	Jagmohan & Manju Bansal Scholarship
2.	Sri Hari Bans Singh (Alumnus of 1976 Batch)	Rs. 20,000/-	Registrar, IIT (BHU)	Endowment	76 Batch Scholarship (Additional)
3.	Sri Vaikunth & Sujata Gupta (through IBGAA)	Rs. 31,79,341/-	Registrar, IIT (BHU)	Endowment	Indo AmArican Endowment Fund
4.	KASHI -1981 Alumni Fondation	Rs. 3,96,584/- & Rs. 2,00,000/-	Registrar, IIT (BHU)	Endowment	KAF-1981 Scholarship
5.	Alumni of 1997 Batch	Rs. 3,13,350/- & Rs. 6,94,379/-	Registrar, IIT (BHU)	Endowment	MEC- 97 Scholarship
6.	Sri Arun Mehta	Rs. 21,000	Registrar, IIT (BHU)	Endowment	Shatabdi Kosh

### Year- wise funds & Donors

	Total Funds from Alumnus (in lakhs of Rupees)	Total No. of Donors
2009-10	NA	NA
2010-11	NA	NA
2012-13	NA	NA
2013-14	NA	NA



2014-15	Approximately Rs. 60 Lakhs	1 (IBGAA)
2015-16	Rs. 524.55 Lakhs	10
2016-17	Rs. 122.14826 Lakhs	9
2017-18	Rs. 60,53,644/-	6

### About

Gandhi Technology Alumni Centre (GTAC) has been established in 2007 with the help of alumni's of IIT(BHU) for the purpose of providing stay to guests which includes alumni's, employees, students etc. Since then it has been a long journey till now. It has developed a lot from then.

### Present Admin

Dr. Rajeev Kumar Singh  
(Coordinator)

### Total No. of Rooms

There are total 72 rooms in GTAC, which includes 4 suites and 68 rooms. All rooms are air conditioned and have basic facility like TV, telephone, two beds, table and chairs etc.

### Canteen

A canteen is also there to provide breakfast, lunch, dinner, tea, snacks etc. to the staying guest.

### Waiting Room

A waiting room is also there so that guest can meet someone or wait for the time being. Also it serves purpose of meeting room in required condition.

### Hall or Conference room

A large hall is also there for conferences, meeting, seminars etc. for the student or faculty.

### Programmes & Activities in GTAC

- Provides stay to the Alumni's and guest during alumni meet of IIT (BHU) alumni's.
- Provides stay to the participants Of QIP programmes of different departments of IIT (BHU).
- Provides stay to the participants of IIT cultural programmes like Spardha and Kashi Yatra.
- Provides stay to the participants of programmes like Technex.
- Provides stay to the parents of the students taking admission in IIT (BHU) or parents coming to meet their children.
- Provides stay to the friends and relatives of the IIT's faculty member and non-faculty members.
- Provides stay for the departmental programmes of IIT (BHU).

### Development works since 1<sup>st</sup> April, 2017 to 31<sup>st</sup> March, 2018

- Initially all rooms of second floor were Non-AC rooms that caused too much problems to the staying guest in summer seasons. Now it has been turned to air conditioned rooms. So all the rooms in guest house are now fully air conditioned.
- Ground floor rooms were renovated and maintained. Like painting of walls, polishing of mosaic floors, maintenance of wardrobes, windows, doors etc. has been done. Bathrooms were renovated too.
- For the regularity and punctuality of the employees of guest house, Biometric attendance machine has been installed and working. This allows keeping track of each and every employee of GTAC.
- All the room attendants and canteen were given proper dress to wear during working hour.
- Provided stay to the IIT's director during All India Director Meet held in IIT, BHU during March 2018.
- Two gardeners were appointed on contract basis for maintaining the garden/lawn in the guest house. Earlier they were working but not as employees of the guest house.
- Card payment method adopted in guest house.

## 29. Research and Development

### Institute Research Project/Grants to Individual Faculty granted in F.Y. 2017-18

Sl. No.	Name of Faculty	Designation	Departments	Amount Sanctioned	Topic of Research Proposal
1	Prof. Pradeep Srivastava	Professor	School of Biochemical Engineering, IIT(BHU).	1,466,250.00	Novel multilayered tissue engineered construct for the treatment of osteochondral tissue defects and diseases therein
2	Prof. R.S. Singh	Professor	Department of Chemical Engineering & Technology, IIT(BHU).	1,495,000.00	Development of hybrid system for removal of organic waste
3	Prof. A.P. Harsha	Professor	Department of Mechanical Engineering, IIT(BHU).	1,500,000.00	Effect of surface roughness and topography on galling resistance of different grades of steel
4	Prof. Santosh Kumar	Professor	Department of Mechanical Engineering, IIT(BHU).	1,500,000.00	Additive manufacturing of functional assembly
5	Dr. Shail Upadhyay	Associate Professor	Department of Physics, IIT(BHU)	1,495,000.00	Synthesis optical and electrical characterization of layered perovskite oxides for multifunctional applications
6	Dr. Rampada Manna	Associate Professor	Department of Metallurgical Engineering, IIT(BHU)	1,466,250.00	Development of Bulk Nanostructured materials
7	Dr. M. Thottappan	Associate Professor	Department of Electronics Engineering, IIT(BHU)	1,500,000.00	Analysis, Design, Fabrication and Measurement of Metal Photonic Band Gap (PBG) Waveguide for Millimeter Wave Gyro-TWT Amplifiers
8	Dr. Arnab Sarkar	Associate Professor	Department of Mechanical Engineering, IIT(BHU)	1,495,000.00	Wind Simulation for Fatigue Failure Analysis and Design Wind Load Specification for High Rise Buildings and Slender Structures in India
9	Dr. Satya Vir Singh	Associate Professor	Department of Chemical Engineering, IIT(BHU)	1,092,500.00	Development of technology for making (a) Bitter gourd juice to powder by spray drying (b) green chilli powder through spray drying
10	Dr. C.K. Behera	Associate Professor	Department of Metallurgical Engineering, IIT(BHU)	1,483,500.00	Electro-chemical corrosion and oxidation behaviour of lead-free solder alloys





11	Dr. Kalyani Mohanta	Associate Professor	Department of Ceramic Engineering, IIT(BHU)	1,460,500.00	Fabrication of low cost ceramic foam with wide range of porosity and microstructure for high temperature applications
12	Dr. Santanu Das	Assistant Professor	Department of Ceramic Engineering, IIT(BHU)	1,500,000.00	Development of functionalized graphene electrode for high energy density supercapacitor applications
13	Dr. M.S. Muthu	Assistant Professor	Department of Pharmaceutical Engineering, IIT(BHU)	1,500,000.00	Chitosan-folate cross linked TPGS nanomedicine for site specific cancer therapy
14	Dr. Hari Prabhat Gupta	Assistant Professor	Department of Computer Science & Engineering, IIT(BHU)	1,500,000.00	Designing of a real-time crowd monitoring system using sensing techniques
15	Dr. Ashutosh Kumar Dubey	Assistant Professor	Department of Ceramic Engineering, IIT(BHU)	1,500,000.00	Development of electrically active dense and porous hydroxyapatite-CaTiO <sub>3</sub> -SiO <sub>2</sub> composite for orthopaedic implant applications
16	Dr. Avanish Singh Parmar	Assistant Professor	Department of Physics, IIT(BHU)	1,500,000.00	Tuning interaction for designing hybrid materials of graphene and proteins for dental (enamel) protection under acidic conditions
17	Dr. Mohammad Imteyaz Ahmad	Assistant Professor	Department of Ceramic Engineering, IIT(BHU)	1,500,000.00	One-step vapour phase processing of tunable mesoporous titania for perovskite solar cells
18	Dr. Ashish Kumar Singh	Assistant Professor	School of Biochemical Engineering, IIT(BHU)	1,466,250.00	Bioremediation approach for removal of atrazine herbicide from faring field
19	Dr. Sweta	Assistant Professor	Department of Chemical Engineering & Technology, IIT(BHU)	1,500,000.00	Synthesis and characterization of core shell nanoparticles for high temperature reactions
20	Dr. Supriya Mohanty	Assistant Professor	Department of Civil Engineering, IIT(BHU)	1,465,560.00	Measurement of shear wave velocity using bender element tests for earth-quake response analysis
21	Dr. J.P. Chakraborty	Assistant Professor	Department of Chemical Engineering & Technology, IIT(BHU)	1,500,000.00	Catalytic Pyrolysis of Lignocellulosic Biomass for the Production of Bio-oil
22	Dr. Manoj Kumar	Assistant Professor	Department of Chemical Engineering & Technology, IIT(BHU)	1,437,500.00	Inexpensive Diagnostic Platform for Detection of Disease

**List of Sponsored Projects in the Indian Institute of Technology (BHU) Till 31/03/2018**

S. No.	Title of Project	Period of the Project Sanction	Name of the Funding Agency	Total Cost of Project (in Rs.)	Name of the PI/Co-PIs
1.	Development of Microfluidic tools for neuromuscular synatogenesis and nanotoxicological studies	5 Years	DST	35,00,000.00	Dr. Sanjeev Kumar Mahto
2.	Development and evaluation of an innovative poly herbal Bi layer wound dressing material	3 Years	DRDO	32,03,200.00	Dr. Pradeep Srivastava
3.	Development of Sheet Hydro-forming Process for missile Components	2 Years	Defence Research & Development Lab (DRDL), Hyderabad	9,80,000.00	Prof. Santosh Kumar, P.I.
4.	Technology and Fabrication of Tabletop CNC Machine for Micro-Tubular Hydro forming Setup	2 Years Extended till 2018	BARC, Mumbai	49,32,000.00	Prof. Santosh Kumar, P.I.
5.	Assessment of residual stress upon friction stir welding of steel	3 Years	SERB	45,00,000.00	Dr. Mohd. Zaheer Khan Yusufzai
6.	Quenching behavior of dry heated ord with nanofluid	2 Years Extended till 2018	BRNS	33,56,800.00	Dr. Pradyumna Ghosh
7.	Cognitive Linguistic study of perception verbs in Hindi and English: In the context of machine translation	2 Years	DST (CSRI)	13,64,000.00	Dr. Swasti Mishra
8.	Design of High Temperature Facility for Graphite Dust Formation and Transport.	2 years Extended till 2018	BRNS (DAE)	51,84,000.00	Dr. Prasant Shukla
9.	Development & evaluation of nanocarrier for enhanced anti-microbai activity of anacrdic acid against human and plant pathogens	3 Years Extended till 30.09.2018	DST	58,66,996.00	Dr. Sanjay Singh
10.	Centre for Energy and Resources Development	2 Years Extended till 2018	MHRD FAST Scheme	2,50,00,000.00	Dr. S.K. Shukla
11.	J.C. Bose Fellowship	5 Years	SERB	68,00,000.00	Prof. Dhananjay Pandey
12.	Design and Synthesis of novel Matrix Metallo Proteinase (MMP-2 & 9) Inhibitors as therapeutic agents for Alzheimer's Disease	3 Years	Deptt. of Biotechnology	60,52,000.00	Dr. S.K. Singh
13.	Neutron diffraction studies on nanoparticles of Cobalt Chromite by A/B Site Mixing	3 Years	uGC, New Delhi	11,22,000,.00	Dr. Chandana Rath



14.	Electromagnetic Analysis, Design and simulation of an X-band Gyro-Twystron Amplifier	3 Years	SERB	29,10,448.00	Dr. M.Thottappan/ Prof. P.k. Jain
15.	Design Development and Fabrication of an Incremental Sheet Hydro forming Machine Setup	3 Years	SERB	48,00,000.00	Dr. Santosh Kumar
16.	Delineating the molecular interactome of Calcineurin, post phagosome formation in mycobacterial pathogenesis	3 Years	SERB-DST	21,30,000.00	Dr. Somdeb Das Gupta
15.	Polymeric Nanobiohybrids for Tissue Engineering and Drug Delivery	3 Years	SERB	23,11,000.00	Prof. Pralay Maiti
16.	Development of a Rubber based sheet Hydro forming setup	2 Years Extended upto 24.05.2019	DRDL, CARS Hyderabad	9,84,000. 00	Prof. Santosh Kumar
17.	Evaluation of some compounds in experimental Alzheimer Disease	2 years	Natreon Inc., U.S.A.	29,40,000.00	Dr. Sairam Krishnamurthy
18.	Experimental Evaluation of Geroprotective Activity of Some Compounds	2 years	Natreon Inc., U.S.A.	22,06,800.00	Dr. Sairam Krishnamurthy
19.	Design Investigations of High Power MM Wave W Band Gyatron	2 Years	DRDO, CARS, Begalooru	9,90,000.00	Prof. P.K. Jain/ Dr. M. Thottappan
20.	Development of low voltage, low power, colloidal quantum dot light-emitting transistors for next generation display technology	3 Years	SERB	55,52,323.00	Dr. Bhola Nath Pal/ Prof. p. Maiti
21.	Pharmacological Effect of novel formulation in experimental allergic encephalomyelitis rodent model	1 Years	DISTO Pharmaceuticals	5,04,000.00	Dr. Sairam Krishnamurthy
22.	Co2 Capture in Carbon nanocomposites	5 years	DST, New Delhi	35,00,000.00	Ashish Kumar Mishra
23.	"Design and development of miniaturized pattern/ frequency reconfigurable MIMO antennas and its performance improvement using artificial electro-magnetic material"	3 Years	SERB, New Delhi	42,52,000.00	Dr. Manoj Kr. Meshram
24.	Construction of Cold Inducible Expression System	3Years	DBT, New Delhi	36,10,300.00	Dr. Ashish Kr.Singh



25.	Enhancement of Lipid Content in Microalga <i>Scenedesmus Obliquus</i> Using Genetic Engineering Tool: a step towards biodiesel	3 Years	CST, U.P.	4,50,000.00	Dr. Ashish Kr. Singh
26.	Characterization and validation of Schlieren Technique for Capturing Shock Wave	2 Years	DRDO, New Delhi	17,84,800.00	Dr. Amitesh Kumar
27.	Development of Polymer and Quantum Dots Blended Tandem Solar Cells Using Low Cost Solution Processed Method	3 Years	SERB	4486000	Prof. Satyabrata Jit
28.	Screening of Novel Psychrophilic alkaline Protease from the metagenome of Antarctic soil	3 Years	SERB	19,04,410	Dr. Ashish Kumar Singh
29.	Design & investigation of thermal conducting two dimensional heterostructures.	3 yrs	SERB	5480840	Dr. Ashish Kumar Mishra
30.	Propagation & Mitigation model of mixed road traffic noise for planning of mid-sized Indian Cities	3 Years	MHRD	373 Lakhs	Dr. Brind Kumar
31.	Physical Layer Security for LTE based Wireless Networks to increase Jamming Margins	1 year	CRL- BEL	33.6 Lakhs	Dr. K.V. Srinivas
32.	Identification of Gene Responsible for Degradation of Poly (ethylene terephthalate) in <i>Ideonella sakalensis</i>	3 yrs	DBT	4043200	Dr. Ashish Kumar Singh
33.	Nanoparticles supported self Assembled Conducting Polymer Monolayer Based Platform for Rapid Detection of Monosodium Glutamate in Food Products	3 Years	DBT	8920000	Dr. Marshal
34.	Neem seed based nano-capsules and nanomedicine for targeted drug delivery and cancer therapy	3 Years	SERB	4046000	Dr. Pradip Paik
35.	Functional-hollow-porous-bipolymer based Nanoformulations and Interventions for treatment of Cancer and prevention of Tuberculosis, concept of nanomedicine with multiple drugs for multiple diseases.	3 Years	DST	52,18 ,094	Dr. Pradip Paik



36.	INSPIRE Faculty Award	5 Years	DST	35,00,000	Dr. Manash Chakraborty
37.	Design & Development of Combined Cooling and Power Generation system	2 Years	CST-UP	9,60,000	Prof. S.K. Shukla
38.	Smart & Integrated Pedestrian System Design	3 Years	MHRD, MoUD, GMR Airport Developers (Ltd), Vikram Solar Pvt. Ltd	2,12,77,100	Dr. Ankit Gupta (Co- P.I.)
39.	Flow and segregation of granular materials out of hoppers and two & three dimensional devices	3 Years	CST-UP	10,44,000	Dr. Vishal Mishra
40.	Screening of novel antibiotics from the metagenome of Himalayan glacial soil	3 Years	LSRB / DRDO	39,87,500	Dr. Ashish Kumar Singh

**List of Sanctioned Projects in IIT(BHU) during FY 2017-18**

S. No.	Title of Project	Period	Funding Agency	Total Cost of Project (in Lakhs of Rs.)	Name of the PI & Co-PI
1	Development of rare earth free ceramic magnet with high energy and curie temperature for motor applications	3Yrs	SERB	4522100	Dr. Pradip Kr. Roy
2	Development of an energy-efficient wireless sensor networks for precision agriculture	3 Years	DST	3417130	Dr. H.P. Gupta
3.	Development and structural characterization of Bi <sub>2</sub> -xMx <sub>3</sub> +(y-3)/2 coating for protection against coolant & sensors	3 yrs	UGC DAE-CSR	NA	Dr. Joysurya Basu
4.	Development of portable electrochemical sensor hydrogen peroxide	3 Yrs	BRNS Mumbai	3492750	P.C. Pandey
5.	Investigation of Glass-Ceramic for Capacitive Energy Storage Applications	3 Yrs	CSIR	NA	Prof .Prabhakar Singh
6.	Incorporating Intelligence in Email System	2 Years	BRNS	13,68,000	Dr. Ruchir Gupta
7.	Electronic Structure evolution across quantum critical point in Li(Ti <sub>1-x</sub> V <sub>x</sub> ) <sub>2</sub> O <sub>4</sub> Li <sub>1-x</sub> Zn <sub>x</sub> )V <sub>2</sub> O <sub>4</sub>	03 Yrs	SERB	5500000	Dr. Swapnil Patil





8.	Robust Adaptive Mesh Methods for Singularly Perturbed Problems in Ordinary and Partial Differential Equations	03 Yrs	SERB	2095279	Dr. Sunil Kumar
9.	Collection of self-propelled particles in inhomogeneous environment : numerical & analytical Studies	03 Yrs	SERB	2459600	Dr. Shradha Mishra
10	Design Development & characterization of porous Ti/SiO <sub>2</sub> composite with tailored microstructure fabricated by powder metallurgy using rice husk and sucrose as space holder for orthopaedic applications	1.5 Yrs	DBT	1560000	Dr. Kalyani Mohanta
11.	In situ electron microscopy at atomic scale for understanding nucleation growth and interfaces of omega phase	3 Yrs	SERB	6584600	Dr. Joysurya Basu
12.	Optimization of recovery of valuable metals from waste printed circuit boards (WPCBs) through modified hydrometallurgical route	2 Yrs	UGC	1016400	K.K.Singh

#### List of Running Sponsored Projects in IIT(BHU) Till Date:31/03/2018

S. No.	Title of Project	Period	Funding Agency	Total Cost of Project (in Lakhs of Rs.)	Name of the PI & Co-PI
1.	Fractional Calculus approached for Two Dimensional Ground Water Contamination in Unsaturated Porous Media	3 Years	BRNS, BARC, Mumbai	22,95,750.00	Dr. Subir Das
2.	DST-INSPIRE Fellow	5 Years	DST	35,00,000.00+ 80,000/month salary	Dr. Bratindranath Mukherjee, P.I.
3.	Design, Development and Performance Analysis of Silicon Carbide Converter for Aerospace Application	3 Years	SERB	23,92,000.00	Dr. Santosh Kumar Singh, PI
4.	DAE-Raja Ramanna Fellow	12.01.2016	DAE	18,01,764.00	Prof. S.N. Upadhyay (Emeritus Professor), P.I.
5.	Development of technology for the generation of biological hydrogen: a second generation fuel	3 Years	DST	12,77,438.00	Mr. Neha Srivastava under guidance of Prof. P.K. Mishra



6.	DST/INSPIRE Faculty Award (IFA-12-PH-21)	5 Years	DST	95,00,000.00	Dr. S.K. Singh
7.	IFA-12-Ph-22 DST/INSPIRE FACULTY Award/2012 INPIRE FACULTY AWARD	5 Years	DST	76,00,000.00	Shri Sunil Kumar Mishra
8.	A Systematic Study on the Correlation Between Structural, Magnetic and Properties of Multiferroric $\text{Cd}_{1-x}\text{AxV}_2\text{O}_4$ and $\text{Bi}(\text{Mn}_{1-x}\text{Ax})\text{O}_3$ [A=Fe,Co,Ni]	3 Years	BRNS-DAE	19,28,500.00	Dr. Sandip Chatterjee
9.	Study of Magnetospheric Wave-Particle interaction, Aurora, Airglow and Conductivities on Planets and their Satellites	3 Years	ISRO	38,03,000.00	Dr. D. Giri/ R.P. Singhal/ O.N. Singh
10.	FIST Programme under the Head, Department of Chemical Engineering, IIT(BHU)	5 Years	DST (INSPIRE & First Division)	2,40,00,000.00	The Head
12.	INSPIRE Faculty Award	5 Years	DST, New Delhi	76,00,000.00	Dr. Neha Agnihotri
13.	Design and Development of a smart Energy Grid Architecture with Energy storage	3 Years	DST	2,13.86,000.00	Prof. R.K. Pandey
14.	Evaluation and Optimisation of Biodiesel Production from Microalgae	3 Years	DST	5192400.00	Prof. Yogesh Chandra Sharma
15.	Development of $\text{SrTiO}_3$ based Anode Materials for Intermediate Temperature Solid Oxide Fuel Cells	3 Years	BRNS	29,74,400.00	Dr. Prabhakar Singh/Prof. A.S.K. Sinha
16.	Study and Analysis of Mathematical Models of Nonlinear Fractional Order Diffusion Equations"	3 Years	SERB		Dr. Subir Das
17.	$\text{NO}_x$ Removal from Diesel Exhaust by combined $\text{NO}_x$ storage Reduction and $\text{NH}_3$ SCR System	3 Years	SERB	16,92,000.00	Dr. Sweta
18.	Development of Electro-pulsing Facility for Synthesis of Bulk Nanostructured Materials	2 Years	B.R.N.S.		Dr. Rampada Manna Prof. G.V.S. Sastry/ Prof. R.K. Pandey/ Prof. S.N. Ojha
19.	De Novo Synthesis of orthogonally protected uronic acid building blocks: Access to various important oligosaccharides	3 Years	SERB	27,35,000.00	Dr. Jeyakumar Kandasamy



20.	MHD Waves in the Solar Atmosphere and Refined Magneto-seismology	3 Years	ISRO	26,48,400.00	Dr. Abhishek Kr. Srivastava/ Dr. Anita Mohan
21.	Development & Evaluation of Infrared Nanoparticles for Cellular-wide sensitive E-field Mapping	3 Years	DST Nano Mission	28,00,000.00	Dr. Manoj Kumar
22.	Efficient Generation of a Query-Specific Extractive Summary on Multiple Documents - A Distributive Approach	3 Years	SERB	24,23,000.00	Dr. Ravindranath Chowdary
23.	Pyrolysis of Biomass for the Production of Bio-oil: Experimental and Computational Study	3 Years	DST	51,52,965.00	Dr. J.P. Chakraborty
24.	Observations and Modeling of solar transients & space weather candidates	3 Years	SERB		Dr. Abhishek Kr. Srivastava
25.	Studies on Improvements in Stiffness of Aluminum Alloy Fibres	18 months	D.R.D.O.,	16,64,000.00	Dr. Rampada Manna/Dr. K. Chattopadhyay
26.	Photolabile Protected Monosaccharides: Synthesis and Application to Oligosaccharides Synthesis Using a Continuous flow	3 year	CARS, Jodhpur	23,50,000.00	Dr. Jeyakumar Kandasamy
27.	Development of high Thorough put Processing route for CIGS PV absorber films by spray pyrolysis of Pre-synthesised Nanoparticle Ink	3 Years	Germany	(T/F Case)	Dr. M.I. Ahmand/ Dr. S. Das
28.	Fabrication of low-cost High-through out Flow Cytometer using tunable nanolenses.	3 Years	DST, New Delhi	52,09,600.00	Dr Ankur Verma
29.	Numerical methods for integral equations and differential equations by using Wavelets and operational matrix	3 Years	SERB, New Delhi	6,93,000.00	Dr. Vineet Kumar Singh
30.	Seamless synthesis of large-area 2D transition metal dichalcogenide semiconductors and their applications in next-generation high-performance optoelectronic devices	3 Years	SERB, New Delhi	49,89,600.00	Dr. Santanu Das/ Dr. Bhola Nath Pal
31.	Development of solution methods for Abel's integral equations and generalized Abel's integral equation	3 Years	DAE, Mumbai	3,32,500.00	Dr. Rajesh Kr. Pandey



32.	Photolabile Protected Monosaccharides: Synthesis and Application to Oligosaccharides Synthesis Using a Continuous flow	3 year	DST, New Delhi	45,70,400.00	Dr. Jeyakumar Kandasamy
33.	Development of nickel free nitrogen austenitic stainless steel for biomedical applications	3 Years	Min. of Steel, GoI	2,84,44,800.00	Dr G.S. Mahobia/ Dr. Kausik Chattopadhyay/ Prof. Vakil Singh
34.	On characterizing and Obtaining the Complete Efficient Solution Set of an Interval Optimization Problem under a D-Dominance and a variable Dominance Structure	3 Years	SERB, New Delhi	15,02,500.00	Dr. Debdas Ghosh
35.	DST-INSPIRE Faculty Award (IFA-13 PH 54)	5 Years	DST, New Delhi	35,00,000.00	Dr. Prasun Dutta
36.	Combined effect of dynamic electrical stimulation and surface charge on cellular functionality of electrovector and piezoelectrically toughened bioceramics	3 YEARS	SERB	4322680	Dr. Ashutosh Kr. Dubey
37.	Cold sintered ferroelectric polymer Ceramic Nano composites for Energy Storage	3 Years	SERB	5491695	Dr. Akanksha Dwivedi
38..	Development of rare earth free ceramic magnet with high energy and curie temperature for motor applications	3Yrs	SERB	4522100	Dr. Pradip Kr. Roy
39.	Development of an energy -efficient wireless sensor networks for precision agriculture	3 Years	DST	34,17,130	Dr. H.P. Gupta
40.	Development and structural characterization of Bi <sub>2</sub> -xMx <sub>3</sub> +(y-3)/2 coating for protection against coolant & sensors	3 yrs	UGC DAE-CSR	NA	Dr. Joysurya Basu
41.	Development of portable electrochemical sensor hydrogen peroxide	3 Yrs	BRNS Mumbai	3492750	P.C. Pandey
42.	Investigation of Glass-Ceramic for Capacitive Energy Storage Applications	3 Yrs	CSIR	NA	Prof .Prabhakar Singh
43.	Incorporating Intelligence in Email System	2 Years	BRNS	1368000	Dr. Ruchir Gupta



44.	Electronic Structure evolution across quantum critical point in $\text{Li}(\text{Ti}_{1-x}\text{V}_x)\text{VO}_4$	03 Yrs	SERB	5500000	Dr. Swapnil Patil
45.	Robust Adaptive Mesh Methods for Singularly Perturbed Problems in Ordinary and Partial Differential Equations	03 Yrs	SERB	2095279	Dr. Sunil Kumar
46.	Collection of self-propelled particles in inhomogeneous environment : numerical & analytical Studies	03 Yrs	SERB	2459600	Dr. Shradha Mishra
47.	Design Development & characterization of porous $\text{Ti}/\text{SiO}_2$ composite with tailored microstructure fabricated by powder metallurgy using rice husk and sucrose as space holder for orthopaedic applications	1.5 Yrs	DBT	1560000	Dr. Kalyani Mohanta
48.	In situ electron microscopy at atomic scale for understanding nucleation growth and interfaces of omega phase	3 Yrs	SERB	6584600	Dr. Joysurya Basu
49.	Optimization of recovery of valuable metals from waste printed circuit boards (WPCBs) through modified hydrometallurgical route	2 Yrs	UGC	1016400	K.K.Singh

#### List of Sanctioned Project in FY 2017-18

S. No.	Title	Period	Funding Agency	Amount (in Rs.)	Principal Investigator
1	Development of Polymer and Quantum Dots Blended Tandem Solar Cells Using Low Cost Solution Processed Method	3 Years	SERB	31,70,000.00	Prof. Satyabrata Jit
2	Design & investigation of thermal conducting two dimensional heterostructures.	3 Years	SERB	54,80,840.00	Dr. Ashish Kumar Mishra
3	Propagation & Mitigation model of mixed road traffic noise for planning of mid-sized Indian Cities	3 Years	MHRD	3,73,00,000.00	Dr. Brind Kumar





4	Identification of Gene Responsible for Degradation of Poly (ethylene terephthalate) in Ideonella sakalensis	3 Years	DBT	40,43,200.00	Dr. Ashish Kumar Singh
5	Neem seed based nano-capsules and nanomedicine for targeted drug delivery and cancer therapy	3 Years	SERB	40,46,000.00	Dr. Pradip Paik
6	Functional-hollow-porous-bipolymer based Nano-formulations and Interventions for treatment of Cancer and prevention of Tuberculosis, concept of nanomedicine with multiple drugs for multiple diseases	3 Years	DST	52,18,094.00	Dr. Pradip Paik
7	INSPIRE Faculty Award	5 Years	DST	35,00,000.00	Dr. Manash Chakraborty
8	Design & Development of Combined Cooling and Power Generation system	2 Years	CST- UP	9,60,000.00	Prof. S.K. Shukla
9	Flow and segregation of granular materials out of hoppers and two & three dimensional devices	3 Years	CST- UP	10,44,000.00	Dr. Vishal Mishra
10	Screening of novel antibiotics from the metagenome of Himalayan glacial soil	3 Years	DRDO	39,87,500.00	Dr. Ashish Kumar Singh
11	Development of low cost sodium ion battery: Fabrication and application of NASICON based electrodes	3 Years	DST	82,89,600.00	Prof. Rajiv Prakash
12	Understanding the mechanism of action through cell biology and upgradation of herbal drug in solution and biodegradable patch for the treatment of diabetic foot ulcer	1.5 years	BIRAC	28,60,000.00	Prof. Pralay Maiti
13	Elastocaloric effect measurement setup to study caloric effect in shape memory alloy	3 Years	UGC-DAE	2,39,880.00 per year	Dr. Sanjay Singh



### Consultancy Projects 2017-18

Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
1	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Mr. Parshuram, Sr. Manager Engg. (C) O/O Airport Director, Varanasi	Soil stabilization and Job Mix Design Laboratory charges Testing of Soil and Aggregate	115,000.00	Rupees One Lakh Fifteen Thousand Only
2	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Upper Project Manager, UPRNN Ltd., Unit-1, Gomati Nagar, Lucknow	Testing of Bricks Coarse aggregates Fine aggregate Testing of Cement Steel Testing Cube Testing	64,050.00	Rupees SixtyFour Thousand Fifty Only
3	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	AEE, BHU Project, SD-2, CPWD, Varanasi	Testing of Cement, Ceramic Wall Tiles, Vitrified Tiles	100,000.00	Rupees One Lakh Only
4	Prof. V. Kumar	AE/Const./ NCR Gwalior	Vetting of design and drawing of 30 m steel fish bely girder - Welded Type for construction of ROB in lieu of existing level crossing No. 381-B with 2/18.00 m + 1/30.0 m Composite girder with deck slab at kms 1152/32-34 near Datia Station in Jhansi Galior section of North Central Railway	86,250.00	Rupees EightySix Thousand Two Hundred Fifty Only
5	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	AEE, BHU Project, SD-2, CPWD, Varanasi	Testing of water sample for construction works as per IS: 3025 Report on suitability of water as per IS: 456 Cube Testing Testing of Bricks, Steel Testing , Testing of Cement	94,290.00	Rupees Ninety Four Thousand Two Hundred Ninety Only
6	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Project Manager, M/s. AFCONS Infrastructure Ltd., C/o IWT Terminal Ram Nagar, Varanasi	Steel Testing	28,350.00	Rupees Twenty Eight Thousand Three Hundred Fifty Only
7	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	AE, BHU Project, SD-2, CPWD, Varanasi	Concrete Mix Design M-25 grade with plasticizer and M-25 grade Sieve analysis & fineness modulus, Bulk Density, Specific Gravity, Water absorption of aggregates and Physical properties of cement	52,900.00	Rupees Fifty Two Thousand Nine Hundred Only
8	Prof. V. Kumar	Director, M/s. Sporsh Engg. Co. (R) Ltd., Anantpur, doranda, Ranchi, Jharkhand	Composite Girder, Bow String Girder, Voided Slab, Solid Slab	850,500.00	Rupees Eight Lakh Fifty Thousand Five Hundred Only
9	Prof. V. Kumar	Director Project, M/s JKM Indra Project Ltd., A-28, Sector-9, Noida	Vetting of structural design and drawing of 3 group of pile of pier P2 & P4 of R.O.B. and P6 of Sai River bridge	115,000.00	Rupees One Lakh Fifteen Thousand Only



10	Prof. V. Kumar	Structural Engineer M/s ATS Structural Consultants, D-27, Indira Nagar, Lucknow	Vetting of Structural design and drawing of EWS/LIG at Naini Allahabad	34,500.00	Rupees Thirty Four Thousand Five Hundred Only
11	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	JGM/ Project Rail Vikash Nigam Ltd. DLW, Varanasi	Concrete Mix Design M-35 grade for slump 100-150 mm size of aggregate 20 mm with Dala and Chattarpur aggregates sieve analysis & fineness modulus, Bulk Density, Specific Gravity, Water absorption of aggregates and Physical properties of cement	62,100.00	Rupees Sixty Two Thousand One Hundred Only
12	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	EE, Chandra Prabha Division, Mughalsarai, Chandauli	Concrete Mix Design M-15 grade and M-20 grade Sieve analysis & fineness modulus, Bulk Density, Specific Gravity, Water absorption of aggregates and Physical properties of cement	52,900.00	Rupees Fifty Two Thousand Nine Hundred Only
13	Prof. V. Kumar, Prof. Rajesh Kumar	EE, Chandra prabha Division, Mughalsarai, Chandauli	Inspection, remedial measures as well as vetting of structural design and drawings of Muzaffarpur Weir	86,250.00	Rupees Eighty Six Thousand Two Hundred Fifty Only
14	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	M/s. G.S. Infra construction Ltd., Imarti colony, Rabartsganj, Sonebhadra	Concrete Mix Design M-15 grade for Dry Lean Concrete Sieve analysis & fineness modulus, Bulk Density, Specific Gravity, Water absorption of aggregates and Physical properties of cement	59,800.00	Rupees Fifty Nine Thousand Eight Hundred Only
15	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	B.P. Sharma, Project Hindalko, Renukoot, Sonebhadra	Mis design of DBC using aggregate size 20 mm DN; 10mm DN; 6.3 mm DN; Stone dust and Cement Stage inspection during construction for workmanship Calibration of HMP Final inspection and "Fit to use" certification	362,250.00	Rupees Three Lakh Sixty Two Thousand Two Hundred Fifty Only
16	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	GM(T) Project Director, NHM, Project Implement Unit, DIG Colony, Varanasi	Concrete Mix Design M-25 grade D.L.CM-40 grade PQC Sieve analysis & Fineness modulus, Bulk Density, Specific Gravity, Water absorption of aggregates and Physical properties of cement	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only
17	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Mr. Pankaj Kumar, Team Leader M/s. V. International, Navalpur, Shivpur, Varanasi	Third party testing of DBM and BC mix material for maintenance works of NH-56 from Sultanpur to Babatpur in Uttar Pradesh Bitumen extraction Gradation after extraction	251,275.00	Rupees Two Lakh Fifty One Thousand Two Hundred Seventy Five Only
18	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	M/s. TATA Project Ltd., C/o P.M. M/s PEMS Engg. Consultant, DLW, Varanasi	Steel Testing	20,160.00	Rupees Twenty Thousand One Hundred Sixty Only



19	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Incharge (QC)/Civil, NCL, HQ, Singrauli, Sonebhadra	Testing of Gabion Box Dia of Mesh wire, Dia of selvage wire, Zinc Coating, Tensile strength of mesh	103,500.00	Rupees One Lakh Three Thousand Five Hundred Only
20	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Incharge (QC)/Civil, NCL, HQ, Singrauli, Sonebhadra	Testing of Gabion Box Dia of Mesh wire, Dia of selvage wire, Zinc Coating, Tensile strength of mesh	25,875.00	Rupees Twenty Five Thousand Eight Hundred Seventy Five Only
21	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Incharge (QC)/Civil, NCL, HQ, Singrauli, Sonebhadra	Testing of Gabion Box Dia of Mesh wire, Dia of selvage wire, Zinc Coating, Tensile strength of mesh	51,750.00	Rupees Fifty One Thousand Seven Hundred Fifty Only
22	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Incharge (QC)/Civil, NCL, HQ, Singrauli, Sonebhadra	Testing of Gabion Box Dia of Mesh wire, Dia of selvage wire, Zinc Coating, Tensile strength of mesh	25,875.00	Rupees Twenty Five Thousand Eight Hundred Seventy Five Only
23	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Incharge (QC)/Civil, NCL, HQ, Singrauli, Sonebhadra	Testing of Gabion Box Dia of Mesh wire, Dia of selvage wire, Zinc Coating, Tensile strength of mesh	51,750.00	Rupees Fifty One Thousand Seven Hundred Fifty Only
24	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Incharge (QC)/Civil, NCL, HQ, Singrauli, Sonebhadra	Testing of Gabion Box Dia of Mesh wire, Dia of selvage wire, Zinc Coating, Tensile strength of mesh	25,875.00	Rupees Twenty Five Thousand Eight Hundred Seventy Five Only
25	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Incharge (QC)/Civil, NCL, HQ, Singrauli, Sonebhadra	Testing of Gabion Box Dia of Mesh wire, Dia of selvage wire, Zinc Coating, Tensile strength of mesh	51,750.00	Rupees Fifty One Thousand Seven Hundred Fifty Only
26	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Incharge (QC)/Civil, NCL, HQ, Singrauli, Sonebhadra	Testing of Gabion Box Dia of Mesh wire, Dia of selvage wire, Zinc Coating, Tensile strength of mesh	51,750.00	Rupees Fifty One Thousand Seven Hundred Fifty Only
27	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Chief Manager (HVDC) PGCIL, Vindhyanagar, Singrauli	Coarse aggregate 20 mm Sieve Analysis, Flakiness Index, Crushing strength value, Aggregate Impact value, Presence of Deleterious Material Soundness, Cube Testing, Testing of Cement	32,200.00	Rupees Thirty Two Thousand Two Hundred Only
28	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Dy. G.M. (Alumina) Hindalco Industries Ltd., Renukoot, Sonebhadra	Stability analysis of Red Mud Dam 10 after completion of raising in phase-2 at Hindalco Industries Limited, Renukoot	420,000.00	Rupees Four Lakh Twenty Thousand Only
29	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	EE., PD, PWD, Sonebhadra	Mix design of GSB, WMM, DBM and BC for widening and strengthening of road from Chopan to Madhya Pradesh border under inter-state connectivity Structural design of PQC slab	414,000.00	Rupees Four Lakh Fourteen Thousand Only



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30	Dr. P.R. Maiti and other faculty member of Structural Engg., Section, Dr. P.B. Ramudu	AGM (FOA), Mejaurja Nigam Pvt. Ltd., MTPP sangam Place, Civil Lines, Allahabad	Grain Size Distribution, Specific Gravity, Density Minimum, Density Maximum, Water Absorption, Consultancy Charges for Filter Criteria, Coarse aggregate, Fine aggregate	39,900.00	Rupees Thirty Nine Thousand Nine Hundred Only
31	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	AEE, BHU Project, SD-1, CPWD, Varanasi	Testing of Cement, Steel Testing	31,280.00	Rupees Thirty One Thousand Two Hundred Eighty Only
32	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Assistant Manager, M/s RITES Ltd., UPRVUNL Colony, Anpara, Sonbhadra AEE, BHU Project, SD-2, CPWD, Varanasi	Testing of railway track ballast of M/s Mehrotra buildcon Pvt. Ltd., LOA No. GM(C) /NCL/SGR/LOA-33/15/1638 Sieve analysis, Water absorption, Aggregate impact value, Aggregate abrasion value, Testing of Flush Door Shutter	28,225.00	Rupees Twenty Eight Thousand Two Hundred Twenty Five Only
33	Prof. V. Kumar and Dr. P.R. Maiti	General Director Tourism U.P. State Tourism, Gomtinagar, Lucknow	Steel Testing	136,500.00	Rupees One Lakh Thirty Six Thousand Five Hundred Only
34	Prof. V.Kumar, Dr. K.K. Pandey	Project Director, M/s. EMS Infra Con. Pvt. Ltd., Ambedkar Vihar, Allahabad	Vetting of structural drawing, hydraulic flow diagram and calculation of kalindipuram SPS, Allahabad	92,000.00	Rupees Ninety Two Thousand Only
35	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	A.E., BHU Project, SD-3, CPWD, Varanasi AEE, BHU Project, SD-1, CPWD, Varanasi	Steel Testing	59,800.00	Rupees Fifty Nine Thousand Eight Hundred Only
36	Prof. V.Kumar	Upper Project Manager, UPRNN Ltd., K.G. Medical University, Unit-10, Lucknow	Inspection, quality check and report preparation of Dr. Ram Manohar Lohiya State Administration and Management Academy, Chakganjariya, Sultanpur Road, Lucknow	52,500.00	Rupees Fifty Two Thousand Five Hundred Only
37	Prof. V.Kumar	Upper Project Manager, UPRNN Ltd., K.G. Medical University, Unit-10, Lucknow	Inspection, quality check and report preparation of 100 bedded M.C.H. wing at King George Medical University, Lucknow	52,500.00	Rupees Fifty Two Thousand Five Hundred Only
38	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Unit Incharge PGI, Unit-I, UPRNN Ltd, SPFI, Compus, Lucknow	Coarse aggregates 20 mm & 10 mm Fine aggregate Steel Testing Cube Testing	86,100.00	Rupees Eighty Six Thousand One Hundred Only
39	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	DGM (FOA), NTPC Nabinagar PGC Pvt. Ltd., Ankorha Aurangabad (Bihar)	Coarse aggregate 40 mm, 20 mm & 10 mm Fine Aggregate Concrete Mix Design	184,000.00	Rupees One Lakh Eighty Four Thousand Only
40	Prof. Rajesh Kumar	Design Director, M/s. Gayatri Project Ltd. Vill-Koirajpur, Harahua, Varanasi	Vetting of Structural design and drawing of Bridge for 4 laning of Ghaghara Bridge to Varanasi section of NH-23 from Km. 180.420 to Km. 299.350 in the state of U.P.	460,000.00	Rupees Four Lakh Sixty Thousand Only





41	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	DGM, IPDS, PGCIL, Varanasi	Cube Testing	21,735.00	Rupees Twenty One Thousand Seven Hundred Thirty Five Only
42	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	M/s. Ganesh International Pvt. Ltd., Lawrens Road, New Delhi	Concrete Mix Design M-25 grade (Sieve analysis & fineness modulus, Bulk Density, Specific Gravity, Water absorption of aggregates and Physical properties of cement)	26,450.00	Rupees Twenty Six Thousand Four Hundred Fifty Only
43	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	A.E., BHU Project, SD-2, CPWD, Varanasi	Testing of Cement, Steel Testing, Cube Testing	60,900.00	Rupees Sixty Thousand Nine Hundred Only
44	Dr. P.B. Ramudu	Manager (FOA)/Civil, NTPC Tanda, Vidyutnagar, Ambedkar Nagar	Testing of Soil Sample Organic Matter, Calcium Carbonate, pH Value, Total soluble sulphate Testing of water sample for construction works as per IS: 3025 Report on suitability of water as per IS: 456 Grain Size Distribution, Atterberg's Limits, Free Swell Index, Light Compaction Test	28,750.00	Rupees Twenty Eight Thousand Seven Hundred Fifty Only
45	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	A.E., BHU Project, SD-2, CPWD, Varanasi	Concrete Mix Design M-25 grade (Sieve analysis & fineness modulus, Bulk Density, Specific Gravity, Water absorption of aggregates and Physical properties of cement)	50,000.00	Rupees Fifty Thousand Only
46	Prof. V. Kumar	Addl. Project Manager, Unit-21 'A' UPRNN Ltd., Vidhan Sabha Marg, Lucknow-01	Inspection, quality check and report preparation of Extension of Secretariat building at Darulshafa Compound, Vidhan Sabha Marg, Lucknow	57,630.00	Rupees Fifty Seven Thousand Six Hundred Thirty Only
47	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Resident Construction Manager, TATA Projects Ltd. C/o Govt. Allopathic Medical College Project, Saddiqupur, Jaunpur	Concrete Mix Design M-25 grade and M-30 grade with admixture (Sieve analysis & fineness modulus, Bulk Density, Specific Gravity, Water absorption of aggregates and Physical properties of cement)	48,300.00	Rupees Forty Eight Thousand Three Hundred Only
48	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Mr. Arvind Singh, VK Warehousing Enterprises Journalist Colony Jabilee Hills, Hyderabad-33	CBR value including OMC and MDD	20,700.00	Rupees Twenty Thousand Seven Hundred Only
49	Dr. P.R. Maiti and other faculty member of Structural Engg., Section	Regional Head-Technical Service M/s. Dalmia Cement Ltd., Nepali Kothi, Varuna Bridge, Varanasi	Testing of Cement	34,500.00	Rupees Thirty Four Thousand Five Hundred Only



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50	Prof. V. Kumar	EE, Electricity, Transmission Division, UPPTC Ltd., Manduadih, DLW, Varanasi	Structural Design and Drawing of Pile/Well Foundations at Ganga River Crossing of 132 KV SC Bhadhoura-Kundaser Transmission line	345,000.00	Rupees Three Lakh Fourty Five Thousand Only
51	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Section Engineer (W) E.C. Railway, Chopan	Sieve analysis & fineness modulus, Bulk Density, Specific Gravity, Water absorption of aggregates and Physical properties of cement	28,750.00	Rupees Twenty Eight Thousand Seven Hundred Fifty Only
52	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	A.E., BHU Project, SD-2, CPWD, Varanasi	Steel Testing Testing of Cement	46,690.00	Rupees Fourty Six Thousand Six Hundred Ninety Only
53		Project Manager, U.P. Jal Nigam, GPPD, Bhagwanpur, Varanasi	Inspection and report preparation of hydraulic & structural design of laid sewer at Assi Nala at (chainage 0.00 to 1694 and chainage 4148 to 4712)	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only
54	Dr. P. Bala Ramudu	M/s ALSTOM C/o Sr. Manager, NTPC Ltd., Vindychal, Vindyanagar, Singrauli	Heavy Compaction Test CBR Test	24,150.00	Rupees Twenty Four Thousand One Hundred Fifty Only
55	Dr. P. Bala Ramudu	E.E., CD-1, PWD, Gazipur	Site inspection for assessment of site condition Design of PJCC pavement as per IRC-58	293,020.00	Rupees Two Lakh Ninety Three Thousand Twenty Only
56	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	A.E., BHU Project, SD-2, CPWD, Varanasi	Testing of water sample (1 No.) for construction works as per IS : 3025 Report on suitability of water as per IS : 456 Testing of Cement Steel Testing	74,520.00	Rupees Seventy Four Thousand Five Hundred Twenty Only
57	Prof. V.Kumar	Project Manager, M/s. JKM Infra Project Ltd., A-28 sector-9, Noida	Vetting of structural design and drawing of RE Wall at Ch 4+015, 7+406.074, 15+404.921, 17+227.746	460,000.00	Rupees Four Lakh Sixty Thousand Only
58	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	AYEN/CoN/Chopan, E.C. Railway, Chopan E.E., Kanhat Construction Division-3, Pipari, Sonebhadra	Steel Testing Cube Testing - Compressive strength	43,655.00	Rupees Fourty Three Thousand Six Hundred Fifty Five Only
59	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	A.E., BHU Project, SD-2, CPWD, Varanasi	Steel, Cement	83,720.00	Rupees Eighty Three Thousand Seven Hundred Twenty Only
60	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	AEE, BHU Project, SD-1, CPWD, Varanasi	Steel, Cement	31,510.00	Rupees Thirty One Thousand Five Hundred Ten Only
61	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	A.E., BHU Project, SD-2, CPWD, Varanasi	Steel, Cement, Cube	62,580.00	Rupees Sixty Two Thousand Five Hundred Eighty Only



62	Prof. V. Kumar	GM (Project) M/s. Cent. Odorstray (India) Pvt. Ltd., Sector-19, Dwaraka, New Delhi	Vetting of structural desing and drawing for Rehabilitation and upgradation from Km. 285.00 to 326.00 of NH-76 to two lane with Paved Shoulder on EPC mode in the stete of Uttar Pradesh	157,500.00	Rupees One Lakh Fifty Seven Thousand Five Hundred Only
63	Prof. Rajesh Kumar	Design Director, M/s. Gayatri ProjectLtd. Vill-Koirajpur, Harahua, Varanasi	ROB at NH chainage Km. 137+625 ROB at NH chainage Km. 224+360 ROB at NH chainage Km. 235+145	862,500.00	Rupees Eight Lakh Sixty Two Thousand Five Hundred Only
64	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	AE, BHU, Project, SD-2, CPWD, Varanasi	Testing of Cement - Physical Properties of Cement Steel Testing Ceramic Wall Tiles - Water absorption, Breaking strength Testing of Flush Door Shutter - End Immersion Test, Knife Test	41,895.00	Rupees Fourty One Thousand Eight Hundred Ninety Five Only
65	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	AE, BHU Project, SD-3, CPWD, Varanasi	Testing of Cement - Physical Properties of Cement Steel Testing	117,300.00	Rupees One Lakh Seventeen Thousand Three Hundred Only
66	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	M/s. Riya Builolers and Developers Pvt. Ltd., Vill & Post- Jamuha (Rohtas), Bihar	Sieve analysis & fineness modulus, Bulk Density, Specific Gravity, Water absorption of aggregates and Physical properties of cement	28,750.00	Rupees Twenty Eight Thousand Seven Hundred Fifty Only
67	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	E.E., Chandrabrabha Division, Mughalsarai, Chandauli Manager, NTPC Tanda	Design Mix of Grout Testing of water sample (1No.) for construction works as per IS : 3025 Report on suitability of water as per IS : 456	37,490.00	Rupees Thirty Seven Thousand Four Hundred Ninety Only
68	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	G.M. EPC/EHV M/s. KEI Industries Ltd., Okhlo Industrial Area, Phase-1, New Delhi	Cube Testing - Compressive strength	28,980.00	Rupees Twenty Eight Thousand Nine Hundred Eighty Only
69	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	AEE, BHU Project, SD-2, CPWD, Varanasi	Testing of water sample (1 No.) for construction works as per IS : 3025 Report on suitability of water as per IS : 456 Testing of Cement - Physical Properties of Cement Testing of Bricks - Compressive strentgh, Water Absorption and Efflorescence Test Steel Testing	45,080.00	Rupees Fourty Five Thousand Eighty Only
70	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	G.M., Sidhi Singrauli Road Project Ltd., North Karondia, Sidhi	Testing of DBM core sample for Sidhi Singrauli Road Project in M.P. - Bitumen Extraction, Gradation after extraction	66,125.00	Rupees SixtySix Thousand One Hundred Twenty Five Only
71	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	E.E., P.D., PWD, Sonebhadra	Mix design of stabilized WMM and SDBC-25 for repair of Rajgarh-Shahganj (ODR), Km 4 to 6, and Km 10.500, 11, 12 Consultancy charges for Job Mix Desigh - WMM, SDBC-25, BM-50	264,500.00	Rupees Two Lakh Sixty Four Thousand Five Hundred Only



72	Prof. V. Kumar	M/s. H.G. Infra Engineering (P) Ltd., Tilok Marg, Jaipur	Vetting of structural design and drawing for Upgradation of Uncha-Nagla-Khanuawa-Roppas-Dholpur Project under NHDP in the state of Rajasthan / Uttarpradesh Abutment Foundation, Abutment Shaft, Abutment cap and Return wall, Pier Foundation, Pier Shaft & Pier cap	406,875.00	Rupees Four Lakh Six Thousand Eight Hundred Seventy Five Only
73	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	GM/Civil, M/s. RITES Ltd., Lucknow-Sitapur Road, Lucknow	Steel Testing	48,760.00	Rupees Fourty Eight Thousand Seven Hundred Sixty Only
74	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Mr. Dinesh Rai, Sr. Manager, (Civil - Construction), NTPC, Tanda	Laboratory charges - BM, SDBC, Flakiness index, Elongation index, Deleterious materials, Stripping value	140,300.00	Rupees One Lakh Fourty Thousand Three Hundred Only
75	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Manager (TS), Bhartiya Rail Bijlee Co. Ltd., NTPP, Aurangabad, Bihar	Petrography and Alkali Reactivity test by petrography method of coarse aggregate 20 mm - Crushing strength value, Aggregate Impact value, Los Angeles Abrasion Value, Deleterious Material, Soundness	27,300.00	Rupees Twenty Seven Thousand Three Hundred Only
76	Prof. V. Kumar	Unit Incharge, UPRNN Ltd., Govt. Medical College, Residential Unit, Kannauj	Inspection, quality check and report preparation of Forensic Lab Talgram at Kannauj	69,000.00	Rupees Sixty Nine Thousand Only
77	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	DGM, TPDS, PGCIL, IPDS office, Varanasi	Cube Testing - Compressive strength Steel Testing Testing of Cement	46,575.00	Rupees Fourty Six Thousand Five Hundred Seventy Five Only
78	Dr. P. Bala Ramudu	APM/MGS, DFCCIL, Susuwahi, Post-Susuwahi, P.S.- Lanka, Varanasi	Soil Inverstigation Charges - Grain size distribution, Heavy Compaction Test, Triaxial Shear Test, Permeability Test	37,950.00	Rupees Thirty Seven Thousand Nine Hundred Fifty Only
79	Dr. P. Bala Ramudu	M/s. HES Infra Pvt. Ltd., Reddy Colony Road No. 14, Banjara Hills, Hyderabad	Soil Investigation Charges - Grain size Distribution, Light Compaction Test, Triaxial Shear Testi, Consolidation Test, Recommendation for Bearing Capacity	142,600.00	Rupees One Lakh Fourty Two Thousand Six Hundred Only
80	Prof. V. Kumar, Dr. P. Maiti and other faculty members of Structural Engg. Section	Director-Project, M/s. JKM Infra Projects Ltd., A-28 Sector-9, Noida	Steel Testing Vetting of structural design and drawing of substructure and foundation of span P5 & P6 of ROB for Ring Road for Raebareli City on eastern side of NH-24 B	117,300.00	Rupees One Lakh Seventeen Thousand Three Hundred Only



81	Prof. V. Kumar, Dr. P. Maiti and other faculty members of Structural Engg. Section	E.E., Const. Divn., U.P. Jal Nigam, Sonebhadra	Checking of Hydraulic and structural design & drawing of 26 MLD water treatment at the Kachahari, U.P. Jal Nigam, Sonebhadra	195,500.00	Rupees One Lakh Ninety Five Thousand Five Hundred Only
82	Dr. P. Maiti and other faculty members of structural Engg. Section	E.E., ECTD, UPTC Ltd., 132 KV S/S. Manduadih, DLW, Varanasi E.E., Construction Division, PWD, Azamgarh AXEM/Con/Chopan, East Central Railway, Chopan	Mix Desing of WMM for four-laning of Allahabad-Jaunpur-Azamgarh in Azamgarh district - Laboratory charges of mix design - WMM Steel Testing	125,350.00	Rupees One Lakh Twenty Five Thousand Three Hundred Fifty Only
83	Dr. P.R. Maiti and other faculty members of Structural Engg. Section, Dr. P. Bala Ramudu	E.E., Bansagar Canal Const. Divn.-8, Mirzapur E.E., Bansagar Canal Const. Divn.-8, Mirzapur AXEN/Con./Chopan, East Central Railway, Chopan	Soil Investigation Charges - Grain size Distribution, Light Compaction Test, Permeability Test Technical Suggestion oand report submission regarding use of Stone Dust in place of Sand in filter between lining of RCC work of Meja Zirgo Link Canal from KM 13.100 to KM 54.280 Steel Testing	156,400.00	Rupees One Lakh Fifty Six Thousand Four Hundred Only
84	Prof. V. Kumar	Structural Engineer, M/s ATS Structural Consultants, D-27, Indira Nagar, Lucknow	Vetting of structural design and drawing of group housing over Arazi No 575 Kh 575 GH, 550 KA, 570 KA Mauza-Bhullanpur, Pargana- dehat Amanat Ward-Dashaswamedh, Varanasi	201,250.00	Rupees Two Lakh One Thousand Two Hundred Fifty Only
85	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	A.E., BHU Project, Sd-2, CPWD, Varanasi A.E., VCSD, CPWD, Varanasi M/s. J.P. Yadav, VIP road Obra, Sonebhadra	Testing of water sample (1 No.) for construction works as per IS : 3025 Report on suitability of watera as per IS : 456 Testing of Cement Cube Testing Testing of Fly Ash Bricks - Compressive Strength	25,990.00	Rupees Twenty Five Thousand Nine Hundred Ninety Only
86	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Project Engineer, U.P. Cooperative Processing & Cold Storage Federation Ltd., coutam Buddha Marg, Lucknow A.E., Duda/Nagar Nigam, District Urban Devi Aurhority, Varanasi Project officer, District Urban Dev. Authority, Varanasi	Interlocking bricks - Compressive Strength	23,000.00	Rupees Twenty Three Thousand Only
87	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	E.E., Kanhar Construction, Divn.-3, Pipari, Sonebhadra A.E., VCSD, CPWD, Varanasi A.E., Dudal Nagar Nigam, District Urban Dev. Authority, varanasi	Cement	24,195.00	Rupees Twenty Four Thousand One Hundred Ninety Five Only





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88	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	S.E. (Civil) M/s. HSGE (India) Ltd., Sector-9, Noida AE., Dudal Nagar Nigam, District Urban Dev. Authority, varanasi E.E., Construction Divn.- 1, PWD, Ghazipur	Testing of Cement : Physical Properties of Cement Interlocking Bricks - Compressive strength	20,930.00	Rupees Twenty Thousand Nine Hundred Thirty Only
89	Dr. P. Maiti and other faculty members of structural Engg. Section, Dr. P.Bala Ramudu	M/s. KPS C/o Sr. Manager (FQA) NTPC, SSTPS, Shaktinagar, Sonebhadra M/s. R.J. Traders, Assi, Varanasi RCM, TATA Projects Ltd. C/o Govt. Alopatic Medicl College Project, Jaunpur E.E., U.P. Awas Evam Vikash parishad, Bhelupur, Varanasi	Soil Investigation Charges - Atterberg's Limites, Marsh Viscosity, pH Value, Density, differintail Free Swell Index, Loss of Drying of 110, Grain Size Distribution Testing of Dalla aggregate 50 mm for railway works - Aggregate abrasion value, Aggregate impact value, Aggregate water absorption, Breaking charge Cube Testing - Compressive strength	35,190.00	Rupees Thirty Five Thousand One Hundred Ninety Only
90	Dr. P. Maiti and other faculty members of structural Engg. Section	Manager/Civil/NSTPP, IRCON International Ltd., NSTPP, Aurangabad, Bihar	Steel Testing	29,900.00	Rupees Twenty Nine Thousand Nine Hundred Only
91	Dr. Ankit Gupta	Bhadohi Industrial Dev. Authority BIDA Bhawan, Orai Road, Bhadohi	Desing and Drawing of RCC Roads with 20, 18, 15 and 9 meter wide sections and site visit	690,000.00	Rupees Six Lakh Ninety Thousand Only
92		EE, Irrigation Division, PMGSY, Bageehwar	Wetting of abutment Desings/ Drawing of bridge	92,000.00	Rupees Ninety Two Thousand Only
93	Prof. Rajesh Kumar	Managing Director, M/s. PNG Planning Structural Consultants Pvt. Ltd., Rohani, Delhi-85	Vetting of structural desing and drawing of following ROB for 4 laning of Ghaghra Bridge to Varanasi seciton of NH-233 form Km 180.420 to Km 240.340 in the state U.P.	632,500.00	Rupees Six Lakh Thirty Two Thousand Five Hundred Only
94	Dr. P.B. Ramudu	M/s. Kanwar Enterprises Pvt. Ltd., C/o Sr. Manager, (FQA)/Civil, NTPC Ltd., Tanda, Vidyutnagar, Ambedkar Nagar	Soil Investigation Charges - Grain Size Distribution, Density Min & Man, Recommendation for Filter Criteria	167,900.00	Rupees One Lakh Sixty Seven Thousand Nine Hundred Only
95	Dr. P. Maiti and other faculty members of structural Engg. Section, Dr. P.Bala Ramudu	AGM (FES/FQA), NTPC Ltd., NKSTPP, Hazaribagh, Lucknow	Testing of Cement Coarse aggregate 20 mm Fine aggregate Concrete Mix Design Testing of Soil Sample as per IS 2720 - Organic Matter, Calcium Carbonate, pH Value, Total Soluble sulphate	363,975.00	Rupees Three Lakh Sixty Three Thousand Nine Hundred Seventy Five Only
96	Dr. P. Maiti and other faculty members of structural Engg. Section, Dr. P.Bala Ramudu	AGM (FES/FQA), NTPC Ltd., NKSTPP, Hazaribagh, Lucknow	Testing of cement sample as per IS : 4030 Report on suitability of cement as per IS 1489 : 1991	41,400.00	Rupees Fourty One Thousand Four Hundred Only



97	Dr. P. Maiti and other faculty members of structural Engg. Section	A.E. BHU Project, SD-2, CPWD, Varanasi	Testing of Cement - Physical Properties of Cement M-30 grade with plasticizer and M-30 grade without plasticizer Cube Testing - Compressive strength Steel Testing	102,060.00	Rupees One Lakh Two Thousand Sixty Only
98	Dr. P. Maiti and other faculty members of structural Engg. Section	A.E., BHU Project, SD-2, CPWD, Varanasi	Testing of Cement - Physical Properties of Cement M-30 grade with plasticizer and M-30 grade without plasticizer Cube Testing - Compressive strength Steel Testing	48,300.00	Rupees Forty Eight Thousand Three Hundred Only
99	Dr. P. Maiti and other faculty members of structural Engg. Section	Assistant Project Manager, MGS/ALD (E)/ DFCCIL, DGCCIL, Allahabad	Concrete Mix Design M-35 grade with admixture for Raft & Pile, M-35 grade with admixture for Pier & Pier cap M-35 grade with admixture for Pile M-40 grade with admixture for super structure	115,000.00	Rupees One Lakh Fifteen Thousand Only
100	Dr. P. Maiti and other faculty members of structural Engg. Section	Dy. G.M. Project, Implimentation Unit, Bihar Building const. Corpn. Ltd., Bihar Mr. Umesh Singh, Vill-Narahampur, Naipura, Varanasi Project Manager const. M/s. Dharamraj contracts (I) Pvt. Ltd., New Delhi AEE, BHU Project, SD-2, CPWD, Varanasi	Testing of Cement - Physical Properties of Cement Concrete Mix Design - Flexural strength for M-40 grade PQC of Road Cine Testing - Compressive strength	28,750.00	Rupees Twenty Eight Thousand Seven Hundred Fifty Only
101	Dr. P. Maiti and other faculty members of structural Engg. Section	Director, M/s. Arch-Aid Architect & Engineers Pvt. Ltd., South Gandhi Maidan, Patna	Vetting of structural design and drawing of G.M. Building & PHOD Building E.C. railway at Digha, Patna	46,000.00	Rupees Forty Six Thousand Only
102	Prof. V. Kumar	Director, M/s. Sparsh Engineering Co. (Pvt.) Ltd., Doranda, Ranchi, Jharkhand	Vetting of Structural Design and Drawing of Pier (1No.) and abutment (1 No.) of Bridge No. 28 at Ch. 9.955 in Tori-Shivpur section under east central railway	52,500.00	Rupees Fifty Two Thousand Five Hundred Only
103	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Project Manager, M/s Afcon Infrastructure Ltd. C/o M/s IWT, Varanasi	Aggregates	76,755.00	Rupees Seventy Six Thousand Seven Hundred Fifty Five Only
104	Prof. V.Kumar	M/s. Patel Infrastructure Pvt. Ltd., Near Indira Gandhi Stature, Anand-01, Gujrat	Vetting of Design and drawing of Super Structure, Sub structure, foundations and bearing etc of ROB 38+660 Railway protion between pier P1 and P2	201,250.00	Rupees Two Lakh One Thousand Two Hundred Fifty Only
105	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	JGM/Projects, Rail Vikash Nigam Ltd., Old Kareri School Complex, DLW, Varanasi	Mix Design, Materials	159,600.00	Rupees One Lakh Fifty Nine Thousand Six Hundred Only



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106	Prof. V. Kumar	Project Manager, UPRNN Ltd., Allahabad Unit - 1, Allahabad	Inspection, quality check and report preparation of 30 Court room and 20 chamber in Hon'ble High Court Campus Allahabad	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only
107	Dr. P. Maiti and other faculty members of structural Engg. Section	M/s. TATA Project Ltd., C/o P.M. M/s PEMS Engg. Consultant, DLW, Varanasi	Steel Testing	20,160.00	Rupees Twenty Thousand One Hundred Sixty Only
108	Dr. P. Maiti and other faculty members of structural Engg. Section	E.E., Construction Division, U.P. Jal Nigam, Sonebhadra	Vetting of design and drawing of CWR under Robertsganj Nagar palika parishad payjal Youjana Yojana	115,000.00	Rupees One Lakh Fifteen Thousand Only
109	Dr. P. Maiti and other faculty members of structural Engg. Section, Dr. P.Bala Ramudu	Engineer (TS/FQA) Bharatiya Rail Bijlee Co. Ltd., NTPP, Aurangabad, Bihar M/s. KNIL C/o Manager (FQA), NTPC Ltd., Lara STPP, Raigarh	Coarse aggregate 20 mm and 10 mm:- Sieve Analysis, Specific Gravity, Water absorption, Crushing strength value, Aggregate Impact value, Los Angeles Abrasion value, Deleterious Material, Soundness, Flakiness Index, Elongation Index Soil Investigation Charges:- rain Size Distribution, Atterberg's Limites, Shrinkage Limites, Specific Gravity, Free Swell index, Light Compaction Test, Peemeability Test, Recommendation for Filter Criteria	143,520.00	Rupees One Lakh Fourty Three Thousand Five Hundred Twenty Only
110	Dr. P. Maiti and other faculty members of structural Engg. Section, Dr. P.Bala Ramudu	Staff Officer (C), NCL Krishna Shita Project, Bina, Sonebhadra G.M. (FQ/QC) DOOSAN Power System India Pvt. Ltd., Obra, Sonebhadra E.E, Kanhar Construction Division - 3, Pipari, Sonebhadra	Concrete Mix Design: M-25 grade and M-30 (Sieve analysis & fineness modulus, Bulk Density, Specific Gravity, Water absorption of aggegates and Physical properties of cement) Soil Investigation Charges:- Grain Size Analysis, Gight Compaction Test, Free Swell Index, Atterberg's Limits Cube Testing	92,920.00	Rupees Ninety Two Thousand Nine Hundred Twenty Only
111	Dr. P. Maiti and other faculty members of structural Engg. Section	A.E., BHU Project, SD-2, CPWD, Varanasi	Concrete Mix Design: M-25 grade with plasticizer and M-25 without plasticizer (Sieve analysis & fineness modulus, Bulk Denisty, spefcific Gravity, Water absorption of aggregates and Physical properties of cement)	52,900.00	Rupees Fifty Two Thousand Nine Hundred Only
112	Dr. P.R. Maiti and Dr. Anurag Ohri	S.E., U.P. State const. and Infrastructure Dev. Corpn. Ltd., DIG Colony, Varanasi	Structural analysis and Design of the statue column Drawing/details (3 Nos.)	67,800.00	Rupees Sixty Seven Thousand Eight Hundred Only
113	Prof. Rajesh Kumar and Dr. P.R. Maiti	M/s. Nalarda Engicon Pvt. Ltd., Main Road, Konkarbagh, Patna	Vetting of design and drawing of 1200KL RCC Elevated Service Reservoirs at Chhapra Tower	69,000.00	Rupees Sixty Nine Thousand Only



114	Dr. P. Maiti and other faculty members of structural Engg. Section	Unit Incharge, UPRNN Ltd., Darsan Nagar, Faizabad	Steel Testing	35,420.00	Rupees Thirty Five Thousand Four Hundred Twenty Only
115	Prof. V. Kumar	E.E., BHU Project SD-2, CPWD, Varanasi	Inspection, quality check and report preparation of Construction of Instrumentation Central Discovery Centre near computer centra (kendriya Anusandhan kendra) at BHU, Varanasi	34,500.00	Rupees Thirty Four Thousand Five Hundred Only
116	Prof. V. Kumar	Sr. Manager (E-C) Airport Authority of India, Chaudhary Charan Singh International Airport, Lucknow	Job Mix Design of Dense Bituminous Macadam, Semi Dense Asphaltic Concrete & Dense Asphaltic Concrete for recarpetting of runway at CCSI Airport, Lucknow	172,500.00	Rupees One Lakh Seventy Two Thousand Five Hundred Only
117	Dr. P. Maiti and other faculty members of structural Engg. Section	Resident Construction Manager, TATA Projects Ltd., Jaunpur E.E., Rural Engineer Deptt., Division, Bhadohi E.E., Nagar Nigam, Varanasi	Testing of Fly Ash Bricks: Compressive Strength, Water Absorption Cube Testing: Compressive Strength Testing of Bricks, Coarse aggregate, Coarse sand	21,275.00	Rupees Twenty One Thousand Two Hundred Seventy Five Only
118	Dr. P. Maiti and other faculty members of structural Engg. Section	Sr. Manager (Civil), NTPC Ltd., Unchahar, Raebareli (U.P.)	Proof Checking /design audit of following RCC OHT capacity as follows: 225 KL, 450 KL	70,150.00	Rupees Seventy Thousand One Hundred Fifty Only
119	Dr. P. Maiti and other faculty members of structural Engg. Section	Project Manager, M/s AFCONS Infrastructure Ltd. C/o Inland waterways Authority of India IWT Terminal, Vill - Ralhupur, Ramnagar, Varanasi	Proof Checking /design audit of following RCC OHT capacity as follows: 225 KL, 450 KL	31,500.00	Rupees Thirty One Thousand Five Hundred Only
120	Prof. Arun Prasad	Dy. Chief Project Manager, Dedicated Freight Corridor Corp. Of India Ltd., Susuwahi, Lanka, Varanasi	Proof Checking /design audit of following RCC OHT capacity as follows: 225 KL, 450 KL	241,500.00	Rupees Two Lakh Fourty One Thousand Five Hundred Only
121	Prof. Arun Prasad	Kichul Park/G.M. of QA/AC M/s. Doosan Power System India Pvt. Ltd., Obra, Sonebhadra	Petrography Test & Alkali Reactivity Test by petrography method of coarse aggregate 20 mm to 10 mm	72,450.00	Rupees Seventy Two Thousand Four Hundred Fifty Only
122	Dr. P. Maiti and other faculty members of Structural Engg. Section	Project Manager, Const. Division and Design Services, U.P. Jal Nigam, Bajardiha, Varanasi	Testing of Bricks, Coarse aggregate, Coarse Sand, Testing of Cement, Steel Testing	52,325.00	Rupees Fifty Two Thousand Three Hundred Twenty Five Only
123	Dr. P. Maiti and other faculty members of Structural Engg. Section	Chief Manager, DGCIL, Rihand HVDC Station, Rihand Nagar, Sonebhadra	Coarse aggregate 20 mm: Hardness test Fine Aggregate (Sand): Sieve Analysis, Silt Content, Deleterious material, soundness Testing of Cement	34,000.00	Rupees Thirty Four Thousand Only



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124	Prof. V. Kumar and Dr. P.R. Maiti	A.E. (C), Prasar Bharati Indicis Public Service A.I.R, Varanasi	Checking of drawings and design for stability of the construction of Phase "B" work at JNV Chitrakoot	86,250.00	Rupees Eighty Six Thousand Two Hundred Fifty Only
125	Prof. Gautam Banarjee and Dr. P.R. Maiti	E.E, Const. Divn., U.P. Jal Nigam, Sonbhadra	Site visit to water treatment plant at Sonbhadra, UP Jal Nigam Preparation of visit report	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only
126	Prof. Rajesh Kumar	Design Director, M/s. Gayatri Project Ltd. Vill- Koirajpur, Harahua, Varanasi	Vetting of Structural design and drawing of following Bridge for 4 laning Sultanpur to Varanasi section of NH-56 from Ch: 134+700 to 263+00 and Ghaghara bridge to Varanasi section of NH-233 from Km. 180.420 Km. 299.350 in the state of UP	270,250.00	Rupees Two Lakh Seventy Thousand Two Hundred Fifty Only
127	Prof. V. Kumar	E.E., Electricity Civil Transmission Division, UPPTC Ltd., 132 KV S/S. Manduadih, DLW, Varanasi	Structural Design and Drawing of Well Foundation at Ganga River Crossing of 220 KV Rajakatalab- Sahupuri Transmission line, Tower location (RX-1) at Rajakatalab side. Structural Design and Drawing of Well Foundation at Ganga River Crossing of 220 KV Rajakatalab -Sahupuri Transmission line, Tower location (RX-2) at Shahupuri side.	345,000.00	Rupees Three Lakh Fourty Five Thousand Only
128	Dr. P. Maiti and other faculty members of Structural Engg. Section	G.M.-EPC/EHV, M/S KEI Industries Ltd., D-90, Okhla Industrial Area, New Delhi-20	Cube Testing; Testing of Bricks	48,300.00	Rupees Forty Eight Thousand Three Hundred Only
129	Prof. Rajesh Kumar	E.E., UPSLIDC Ltd., Danish Nagar, Hashangabad Road, Bhopal-26 MP	Vetting of Structural design and drawing of Additional Class Room of Kendriya Vidyalaya Beena (M.P.)	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only
130	Dr. P. Maiti and other faculty members of Structural Engg. Section	Project Manager, Const. and Design Services, U.P. Jal Nigam, Bajardiha, Varanasi	Material	58,995.00	Rupees Fifty Eight Thousand Nine Hundred Ninety Five Only
131	Dr. P. Maiti and other faculty members of Structural Engg. Section	AEE, BHU Project, SD-2, CPWD, Varanasi	Cement, Steel, Cube	71,760.00	Rupees Seventy One Thousand Seven Hundred Sixty Only
132	Dr. P. Maiti and other faculty members of Structural Engg. Section	Sr. Manager (FQA), FQA- NTPC, Vindhyachal, Vindhyanagar, Singrauli	Paver Block	62,600.00	Rupees Sixty Two Thousand Six Hundred Only
133	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Project Manager, MGS/ALD© DFCCIL, Nasab Yusuf Road, Allahabad	Steel	42,090.00	Rupees Forty Two Thousand Ninety Only





134	Prof. V. Kumar	M/s. H.G. Infra Engineering (P) Ltd., Tilok Marg, Jaipur	Vetting of Structural design and drawing of following of Two lanning with paved shoulder from K. 0.00 to 62.318 of Manoharpur to Dausa section of NH-11A in the state of Rajasthan under NHDP Phase-I of EPC Mode	603,750.00	Rupees Six Lakh Three Thousand Seven Hundred Fifty Only
135	Prof. V. Kumar	Vice-President M/s. JITF Water Infrastructure Ltd. 28, Shivaji Marg, New Delhi	Vetting of Structural design and drawing of 125 KL OHT with 9 m staging for Niwadi Multi Village WSS in dist Tikamgarh, M.P	26,250.00	Rupees Twenty Six Thousand Two Hundred Fifty Only
136	Dr. P. Bala Ramudu	M/s. KNIL C/o The Engineering (TS/FQA), Bhartiya Rail Bijlee Co. Ltd., Navinagar Power Project, Aurangabad	Soil Investigation Charges	40,480.00	Rupees Fourty Thousand Four Hundred Eighty Only
137	Prof. V. Kumar	M/s. L&T Limited, NCL-CHP, Khadia Site Phase-II, U.P	Vetting of Structure design and drawing of railway crossing coal conveyors on eastern end of Shakti Nagar Railway Station.	287,500.00	Rupees Two Lakh Eighty Seven Thousand Five Hundred Only
138	Prof. V. Kumar	Vice-President M/s. JITF Water Infrastructure Ltd., Jindal ITF Centre, New Delhi	Vetting of Structure design and drawing of railway crossing coal conveyors on eastern end of Shakti Nagar Railway Station.	52,500.00	Rupees Fifty Two Thousand Five Hundred Only
139	Prof. V. Kumar	Director Project, M/s JKM Indra Project Ltd., A-28, Sector-9, Noida	Vetting of structural design and drawing of 2 Major Bridge are to be constructed at chainages 2.152 & 6.521	920,000.00	Rupees Nine Lakh Twenty Thousand Only
140	Prof. V. Kumar	M/s. Baghel Infrastructure Pvt. Ltd., C/o. Sr. Manager (FQA), NTPC, Vindhyachal, Singrauli (M.P.)	Soil Investigation Charges	151,800.00	Rupees One Lakh Fifty One Thousand Eight Hundred Only
141	Dr. P. Bala Ramudu, Dr. P. Maithi and other faculty members of Structural Engg. Section	AGM (FES/FQA), NTPC Ltd., NKSTPP, Hazaribagh, Lucknow	Cement, Aggregate, Mix design	159,505.00	Rupees One Lakh Fifty Nine Thousand Five Hundred Five Only
142	Prof. Gautam Banarjee	Capila Engineering Corpn. J-1/78 Khirkee Extension, New Delhi	Checking and Vetting of CIPP Lining Design for sewer section from Adampur police station to Hanuman Phatak, Varanasi	28,750.00	Rupees Twenty Eight Thousand Seven Hundred Fifty Only
143	Dr. P. Maiti and other faculty members of Structural Engg. Section	Sr. Sec. Engineer (works) N.C. Railway, Churk Sr. Manager (Civil) NTPC Ltd., Unchahar, Raebareli AM/CP/RITES, Rites Ltd., Maharaja Nagar, Colony, Mahmoorganj, Varanasi	Cube	23,690.00	Rupees Twenty Three Thousand Six Hundred Ninety Only



144	Prof. V. Kumar and Prof. Rajesh Kumar	M/s. Somo Enterprises Ltd., Near Chupal Sagar (ITC) Mall, Ganjikhwaja Chandauli, U.P.	Schmidt Hammer test (NDT) on Girder cast at loacation 815+200 LHS	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only
145	Prof. V. Kumar and Prof. Rajesh Kumar	M/s. DEW OPC Pvt. Ltd. Plot No.1-1, Chippalamadygu Anantpur, Andhra Pradesh	Schmidt Hammer test (NDT) on Girder cast at loacation 815+200 LHS	31,625.00	Rupees Thirty One Thousand Six Hundred Twenty Five Only
146	Dr. P. Maiti and other faculty members of Structural Engg. Section	Manager, Civil, PGCIL, IPDS Office, Varanasi	Concrete Mix Design: Sieve Analysis & Finesess modulus, Bulk Density, Specific Gravity, Water absorption of aggregates and Physical properties of cement Coarse aggretgate 20mm & 10mm Fine Aggregate Testing of Cement Cube Testing	137,467.00	Rupees One Lakh Thirty Seven Thousand Four Hundred Sixty Seven Only
147	Dr. P. Maiti and other faculty members of Structural Engg. Section	Manager (FOA), NTPC-LARA, Raigarh (C.G.) Engineer (TS/FOA) BRBCL Project, Nabinagar TPP, Aurangabad, Bihar Engineer (TS/FOA), BRBCL Project, Nabinagar TPP, Aurangabad, Bihar	Testing of Soil sample as per IS 2720 Organic Matter, Calcium Carbonate, pH Value, Total soluble sulphate Testing of water sample (1 No.) for construction works as per IS: 3025 Report on suitability of water as per IS: 456	42,320.00	Rupees Forty Two Thousand Three Hundred Twenty Only
148	Dr. P. Bala Ramudu	Project Manager, AFCON Infrastructure Ltd., C/o. Inland waterwage Authority of India, IWI Terminal, Ramnagar, Varanasi	Soil Inverstigation Charges - Heavy Compaction Test, Grain Size Distribution, Atterberg's Limits	25,515.00	Rupees Twenty Five Thousand Five Hundred Fifteen Only
149	Dr. P. Maiti and other faculty members of Structural Engg. Section	Prime Hartiagro Project Ltd., 32 A, Trihhuvan Complex, Friends Colony (W), Mathura Road, New Delhi	Structural Steel & Steel Tubular Pipes: Tensil strength 0.2% proof stress, and percentage elongation Bend and Re-bend Test of above sample	143,980.00	Rupees One Lakh Forty Three Thousand Nine Hundred Eighty Only
150	Dr. P. Maiti and other faculty members of Structural Engg. Section	E.E., Mirzapur Canal Division, Deptt. Of Irrigation and water Resources, U.P.	Vetting of Hydraulic & Structural design of Drainage siphon ar Km 6.800 of Bakahar Marithan Feeder Canal	57,225.00	Rupees Fifty Seven Thousand Two Hundred Twenty Five Only
151	Prof. V. Kumar	E.E., Thirteenth Division, (V/Y), U.P. Jal Nigam, Indira Nagar, Lucknow	Vetting of design and drawing of steel structure 3.0m staging height for 5000 Litre PVC Tank under solar based mini Payjal Yojana in Lucknow Division under Rashtriya Grameen Payjal Yojana	28,750.00	Rupees TwentyEight Thousand Seven Hundred Fifty Only



152	Prof. V. Kumar	Addl. Project Manager, Office of the Project Manager, Delhi Zone, UPRNN Ltd., Safdarjung Enclave, New Delhi	Third party inspection and report preparation of following buildings Forensic Science Lab, Niwari, Ghaziabad Regional Training Centre, Mohan Nagar, GZB Medical College, Basaidarapur, New Delhi U.P. Guest House, Dwarka, New Delhi	157,500.00	Rupees One Lakh Fifty Seven Thousand Five Hundred Only
153	Prof. V. Kumar	Addl. Project Manager, Office of the Project Manager, Delhi Zone, UPRNN Ltd., Safdarjung Enclave, New Delhi	Third party inspection and report preparation of following buildings Forensic Science Lab, Niwari, Ghaziabad Regional Training Centre, Mohan Nagar, GZB Medical College, Basaidarapur, New Delhi U.P. Guest House, Dwarka, New Delhi	172,500.00	Rupees One Lakh Seventy Two Thousand Five Hundred Only
154	Prof. V. Kumar and Prof. Rajesh Kumar	Project Manager (I), Office of G.M. GPCU, U.P. Jal Nigam, Allahabad	Inspection, quality check and report preparation of the RCC structures of SPS for the Sewage Works in Sewerage District-A, Allahabad Inspection, quality check and report preparation of the RCC structures of SPS for the Sewage works in Sewerage District-B, Allahabad	103,500.00	Rupees One Lakh Three Thousand Five Hundred Only
155	Dr. P. Maiti and other faculty members of Structural Engg. Section	A.E.E., BHU Project, SD- 3, CPWD, Varanasi	Testing of water sample (1 No.) for construction works as per IS : 3025 Report on suitability of water as per IS : 456 Cube Testing, Testing of Cement, Testing of Bricks	62,580.00	Rupees Sixty Two Thousand Five Hundred Eighty Only
156	Dr. P. Maiti and other faculty members of Structural Engg. Section	Kichul Park/G.M. of QA/QC M/s. Doosan Power system India Ltd., UPRVUNL, Sonbhadra	Concrete Mix Design: M-10 grade and M-15 grade with admixture sieve analysis & fineness modulus, Bulk Density, Specific Gravity, Water absorption of aggregates and Physical properties of cement	48,300.00	Rupees Forty Eight Thousand Three Hundred Only
157	Prof. V. Kumar and Prof. Rajesh Kumar	Project Manager (I), Office of G.M. GPCU, U.P. Jal Nigam, Allahabad	Inspection, quality check and report preparation of the RCC structures of SPS for the Sewage works in Sewerage District - C, Allahabad	51,750.00	Rupees Fifty One Thousand Seven Hundred Fifty Only
158	Dr. P. Maiti and other faculty members of Structural Engg. Section	Project Manager, C&D services, U.P. Jal Nigam, Unit-3, Azamgarh	Coarse Sand, Coarse Aggregate 12-20mm, Testing of Cement, Steel Testing, Testing of Bricks, Cube Testing	104,995.00	Rupees One Lakh Four Thousand Nine Hundred Ninety Five Only



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159	Prof. V. Kumar	E.E., CD-2, PWD, Faizabad	Schmidt Hammer test (NDT) of slab of Civil Judge junior Sadar and Judicial building of Haveli Report Preparation	92,000.00	Rupees Ninety Two Thousand Only
160	Dr. P. Maiti and other faculty members of Structural Engg. Section	Incharge (QC)/Civil, NCL, HQ, Singrauli, Sonebhadra	Testing of Gabion Box: Dia of mesh wire, Dia of selvedge wire, Zinc Coating- Mesh wire, Selvedge wire Tensile strength of mesh	25,875.00	Rupees Twenty Five Thousand Eight Hundred Seventy Five Only
161	Dr. P. Maiti and other faculty members of Structural Engg. Section	GM (Engg.), NBCC (India) Ltd., TFC&CM Works, Vns. Chief Manager (HVDC) PGCIL, Rihand HVDC Station Rihand Nagar, Sonebhadra	Testing of water sample (1 No.) for construction works as per IS 3025 Report on suitability of water as per IS: 456 Coarse aggregate (stone) 20 mm Nominal size	43,430.00	Rupees Forty Three Thousand Four Hundred Thirty Only
162	Dr. P. Maiti and other faculty members of Structural Engg. Section	M/s APCO Infratech Pvt. Ltd., Vill & post - Udaypur, Tehsil-Sadar, Varanasi	Petrography Test & Alkali Reactivity Test by petrography method of coarse aggregate Specific gravity, Water absorption, Crushing strength test, Aggregate impact value test, Soundness test, Presence of deleterious material	26,450.00	Rupees Twenty Six Thousand Four Hundred Fifty Only
163	Dr. P. Maiti and other faculty members of Structural Engg. Section	A.E., BHU Project SD-3, CPWD, Varanasi	Testing of Cement, Testing of Bricks, Structural Steel, Steel Testing	82,845.00	Rupees Eighty Two Thousand Eight Hundred Forty Five Only
164	Dr. P. Maiti and other faculty members of Structural Engg. Section	Incharge (QC)/Civil, NCL, HQ, Singrauli, Sonebhadra	Testing of Flush Door shutter: End Immersion Test, Knife Test Testing of Panelled shutter/Mosquito Proof shutter, Moisture content, Identification	72,450.00	Rupees Seventy Two Thousand Four Hundred Fifty Only
165	Dr. P. R. Maiti and other faculty members of Structural Engg. Section	E.E., PMGSY Project Division, CPWD, Gorakhpur	Concrete Mix Design: Sieve analysis & fineness modulus, Bulk Density, Specific Gravity, Water absorption of aggregates and Physical properties of cement	52,900.00	Rupees Fifty Two Thousand Nine Hundred Only
166	Dr. P. Maiti and other faculty members of Structural Engg. Section	A.E., Duda/Nagar Nigam, District Urban Dev. Authority, Varanasi Site Engineer, Prime Hortagro Project Ltd., Mathura Road, New Delhi AEE, Patna Central Sub division-II, CPWD, Patna	Interlocking bricks - Compressive Strength Testing of water sample (1 No.) for construction works as per IS: 3025 Report on suitability of water as per IS: 456 Testing of Wood	27,140.00	Rupees Twenty Seven Thousand One Hundred Forty Only
167	Dr. P. Bala Ramudu, Dr. P. Maithi and other faculty members of Structural Engg. Section	M/s. Raj Brothers, Ramashankar Nagar Colony, Chuppepur, Shivpur, Varanasi	Cube Testing: Compressive Strength Soil investigation charges: Light Compaction Test	23,000.00	Rupees Twenty Three Thousand Only
168	Dr. P. R. Maiti and other faculty members of Structural Engg. Section	A.E., BHU Project, SD-2, CPWD, Varanasi	Testing of Cement: Physical Properties of Cement	34,500.00	Rupees Thirty Four Thousand Five Hundred Only



169	Prof. V. Kumar, Prof. Pr. K. Singh and Prof. Rajesh Kumar	Project Manager (I), Office of G.M. GPCU, U.P. Jal Nigam, Allahabad	Review of Project and report Preparation Field visit, Inspection, quality check and report preparation	258,750.00	Rupees Two Lakh Fifty Eight Thousand Seven Hundred Fifty Only
170	Prof. V. Kumar, Prof. Pr. K. Singh and Prof. Rajesh Kumar	M/s. C.S. Infra Const. Ltd., Vill & P.O- Khanwar, Ballia	Review of Project and report Preparation Field visit, Inspection, quality check and report preparation	31,050.00	Rupees Thirty One Thousand Fifty Only
171	Dr. K.K. Pandey and Prof. V. Kumar	E.E., Ban Sagar Canal Const. Division-3, Mirzapur	Vetting of design of proposed Baffled Apron Drop at KM 25.600 of Adwa-Meja Link Canal: Hydraulic Desing, Structural Desing	397,900.00	Rupees Three Lakh Ninety Seven Thousand Nine Hundred Only
172	Prof. V. Kumar and Prof. Rajesh Kumar	Sr. Engineer (Civil), BHEL, Heavy Equipment Repair Plant, Varanasi	Site visit and report preparation for re-construction of boubary wall along NH-56	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only
173	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	A.E., BHU Project, SD-2, CPWD, Varanasi	Testing of Cement: Physical Properties of Cement, Steel Testing	124,950.00	Rupees One Lakh Twenty Four Thousand Nine Hundred Fifty Only
174	Prof. Rajesh Kumar and Dr. P.R. Maiti	M/s. Nalanda Engicon Pvt. Ltd., Sri Ram Tower, Main Road, Kankarbagh, Patna	vEtting of designa and drawing of 1200 KL RCC Elevated Service Reservoirs ar 21 m staging for drinking water supply scheme at Rauza, Shyamchak, ajayabganj & Police Line Chhapra Town	138,000.00	Rupees One Lakh Thirty Eight Thousand Only
175	Prof. V. Kumar and Prof. Rajesh Kumar	Unit Incharge, Varanasi Unit-1 (Suda Unit), UPRNN Ltd., Nadesar, Varanasi	Inspection, quality check and report preparation of community Health Centre, Chahaniya Chandauli	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only
176	Dr. P. Bala Ramudu	M/s. HES Infra Pvt. Ltd., H.No0 25, Ward No. 11, Dudhinagar, Sonebhadra	Testing of Cement: Physical properties of Cement Vitrified Tiles, Ceramic Tiles, Rectified Ceramic Tiles	51,750.00	Rupees Fifty One Thousand Seven Hundred Fifty Only
177	Dr. P. R. Maiti and other faculty members of Structural Engg. Section	A.E., BHU Project, SD-3, CPWD, Varanasi	Testing of Cement: Physical properties of Cement Vitrified Tiles, Ceramic Tiles, Rectified Ceramic Tiles	39,375.00	Rupees Thirty Nine Thousand Three Hundred Seventy Five Only
178	Prof. V. Kumar and Prof. Rajesh Kumar	Project Manager, UPRNN Ltd., Azamgarh Unit, Civil Lines, Azamgarh	Testing of rock samples Recommendation for Bearing Capacity Inspection, quality check and report preparation of Collectorate Building Azamgarh	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only
179	Prof. V. Kumar	Project Manager, UPRNN Ltd., Azamgarh Unit, Civil Lines, Azamgarh	Inspection, quality check and report preparation of construction of Male Hostel, 2nd phase of Agriculture Degree College, Kotawa, Azamgarh	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only





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180	Prof. V. Kumar	Project Manager, UPRNN Ltd., Azamgarh Unit, Civil Lines, Azamgarh	Inspection, quality check and report preparation of construction of 100 Bedded Maternity Wingh (NRHM), Azamgarh	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only
181	Prof. V. Kumar	Project Manager, UPRNN Ltd., Azamgarh Unit, Civil Lines, Azamgarh	Inspection, quality check and report preparation of Construction of Bus Terminal, Azamgarh	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only
182	Prof. V. Kumar	Project Manager, UPRNN Ltd., Azamgarh Unit, Civil Lines, Azamgarh	Inspection, quality check and report perparation of construction of Dak Bunglow under work of Shada Van Vikash	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only
183	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Sr. Manager (FOA), FOA-NTPC, Vindhyachal, Vindhyanagar, Singrauli	Kota Stone: Specific Gravity, Water absorption Steel Testing Testing of water sample (1 No.) for construction works as per IS: 3025 Report on suitability of water as per IS: 456	25,415.00	Rupees Twenty Five Thousand Four Hundred Fifteen Only
184	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Sr. Manager, Field Quality Assurance, NTPC, CSTPS, Shaktinagar, Sonebhadra	Steel Testing Testing of stone boulder for Singrauli Small Hydro Project	47,150.00	Rupees Fourty Seven Thousand One Hundred Fifty Only
185	Prof. V.Kumar	Unit Incharge, UPRNN Ltd., Saifai Unit - 1 (Etawah), Saifai	Inspection, quality check and report preparation of following building of Paramedical Science Degree College saifai	172,500.00	Rupees One Lakh Seventy Two Thousand Five Hundred Only
186	Prof. V. Kumar	M/s. Patel Infrastructure Pvt. Ltd., Patel House, Chhani Road, Chhani, Vadodra	Vetting of structural design and draw gin of super structure, sub-structure and foundation of Major bridge ar Ch. 16 + 123 for Development of Four-lanes with paved side shouldeers of Lambra-Shahkot section of NH-71 in the state of Pubjab.	230,000.00	Rupees Two Lakh Thirty Thousand Only
187	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Project Manager (IV) GPCU, U.P. Jal Nigam, Allahabad	Steel Testing	28,750.00	Rupees Twenty Eight Thousand Seven Hundred Fifty Only
188	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	A.E.,BHU Project, SD-3, CPWD, Varanasi	Testing of Cement: Physical Properties of Cement	69,000.00	Rupees Sixty Nine Thousand Only
189	Prof. K.K. Pathak	M/s. Technospan Structures Pvt. Ltd., Bellandur, Bangalore	Vetting of structural design and drawing of Canopy work for Jammu Airport	61,000.00	Rupees Sixty One Thousand Only
190	Dr. P.R. Maiti and other Faculty Members of Structural Engg. Section	M/s. Prakash Enterprises, Shahpru, Sema, Jahanaganj, Azamgarh	Interlocking Brick (Paver Block): Compressive Strength	23,000.00	Rupees Twenty Three Thousand Only



191	Dr. P.R. Maiti and other Faculty Members of Structural Engg. Section	E.E., P.D., PWD, Ghazipur Sr. Manager (Civil-Const.) NTPC tando, TTPS Ambedkarnagar A.E., VCSD, CPWD, Varanasi	Interlocking Bricks (paver block): Compressive Strength Testing of Water sample (1 No.) for construction works as per IS: 3025 Report on suitability of water as per IS: 456 Testing of Cement: Physical Properties of Cement	21,390.00	Rupees Twenty One Thousand Three Hundred Ninety Only
192	Dr. P. Bala Ramudu, Dr. P. Maithi and other faculty members of Structural Engg. Section	M/s. Ashish Construction Ghorawal, Sonebhadra M/s. Saraswti, Nears Reliance Petrol Pump, Mahmooorganj, Varanasi	Soil Investigation Charges: Grain Size Distribution, Atterberg's Limits, Heavy Compaction Test Interlocking Bricks (Paver Block): Compressive Strength	23,230.00	Rupees Twenty Three Thousand Two Hundred Thirty Only
193	Dr. P. Bala Ramudu, Dr. P. Maithi and other faculty members of Structural Engg. Section	M/s. Bihari Prasad, Vill. & Post- Kirhil, Distt.- Sonebhadra	Soil Investigation Charges: Grain Size Distribution, Atterberg's Limits, Heavy Compaction Test Interlocking Bricks (Paver Block): Compressive Strength	23,000.00	Rupees Twenty Three Thousand Only
194	Dr. P. R. Maiti and other faculty members of Structural Engg. Section	M/s. Enviro Solaire Pvt. Ltd., 203, Pentagonoon Tower-3 Magarpatta, Dadopsar Sr. Manager (Civi-Const.) NTPC-Tanda, Ambedkar nagar	Concrete Mix Design: Sieve analysis & fineness modulus, Bulk Density, Specific Gravity, Water absorption of aggregates and Physical properties of cement	37,490.00	Rupees Thirty Seven Thousand Four Hundred Ninety Only
195	Dr. P. Bala Ramudu, Dr. P. Maithi and other faculty members of Structural Engg. Section	M/s. Simplex Infrastructure Ltd., C/O NTPC Ltd., tandawa, Jharkhand Project Manager, GPCU, U.P. Jani Nigam, Allahabad Project Manager, U.P. Jal Nigam (M/s. Passwant Energy & Env.)	Soil Investigation Charges: Grain Size Distribution (Soil) Atterberg's Limits Free Swell index Light compaction Test Permeability Test	94,855.00	Rupees Ninety Four Thousand Eight Hundred Fifty Five Only
196	Dr. P.R. Maiti and other Faculty Members of Structural Engg. Section	JGM/Projects, Rail Vikash Nigam Ltd., Old Kareri School Complex, DLW, Varanasi	Steel Testing	49,450.00	Rupees Forty Nine Thousand Four Hundred Fifty Only
197	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	A.E., BHU Project, SD-2, CPWD, Varanasi	Testing of Bricks: Compressive Strength, Water Absorption and Efflorescence Test Testing of Cement Cube Testing	31,050.00	Rupees Thirty One Thousand Fifty Only
198	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	M/s. Accrete Consulting Engineers (P) Ltd., Sector-23 Gurgaon-122017	Vetting of revised design & drawing for Pier Well-P13 due to additional tilt & shift for cConstruction of Ghaghara Bridge at Dhemuwa Ghat on Nawabganj-Dhemuwa Road in Dsit. Faizabad	42,000.00	Rupees Forty Two Thousand Only



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199	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	A.E., BHU Project, SD-3, CPWD, Varanasi	Cube Testing Testing of Bricks: Compressive Strength, Water Absorption and Efflorescence Test	51,980.00	Rupees Fifty One Thousand Nine Hundred Eighty Only
200	Prof. V. Kumar and Dr. P.R. Maiti	A.E. (C), Prasar Bharati India Public Broadcaster, All India Radio, Varanasi	Inspection and report preparation of stability of the construction of Phase "B" work at JNV Chitrakoot, U.P.	69,000.00	Rupees Sixty Nine Thousand Only
201	Dr. P.R. Maiti and Other Faculty Members of Structural Engg. Section	A.E., BHU Project, SD-2, CPWD, Varanasi	Testing of Cement Steel Testing Cube Testing	83,580.00	Rupees Eighty Three Thousand Five Hundred Eighty Only
202	Dr. P.R. Maiti and Other Faculty Members of Structural Engg. Section	A.E., BHU Project, SD-2, CPWD, Varanasi	Concrete Mix Design: Sieve analysis & fineness modulus, Bulk Density, Specific Gravity, Water absorption of aggregates and Physical properties of cement	48,300.00	Rupees Forty Eight Thousand Three Hundred Only
203	Dr. P.R. Maiti and Other Faculty Members of Structural Engg. Section	A.E., BHU Project, SD-3, CPWD, Varanasi	Testing of water sample (1 No.) for construction works as per IS: 3025 Report on suitability of water as per IS: 456 Steel Testing Testing of Bricks: Compressive Strength, Water absorption and Efflorescence Test Cube Testing Testing of cement Testing of Flush Door Shutter	110,860.00	Rupees One Lakh Ten Thousand Eight Hundred Sixty Only
204	Dr. P.R. Maiti and Other Faculty Members of Structural Engg. Section	A.E., BHU Project, SD-2, CPWD, Varanasi	Testing of Bricks: Compressive Strength, Water Absorption and Efflorescence Test Steel Testing	53,590.00	Rupees Fifty Three Thousand Five Hundred Ninety Only
205	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	E.E., Rural Engineering Department, Division, Varanasi A.E., BHU Project, SD-3, CPWD, Varanasi	Interlocking Bricks (Paver Block)	20,470.00	Rupees Twenty Thousand Four Hundred Seventy Only
206	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Project Manager (II), GPCU, U.P. Jal Nigam, Allahabad	Alkali Reactivity Test by petrography method of coarse aggregate 20 mm and 10 mm	23,000.00	Rupees Twenty Three Thousand Only
207	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Project Manager (II), GPCU, U.P. Jal Nigam, Allahabad	Testing of Cement Coarse aggregate 20mm & 10mm Fine Aggregate Cube Testing Steel Testing	45,885.00	Rupees Forty Five Thousand Eight Hundred Eighty Five Only
208	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Project Manager, M/s. L&T Ltd. Construction, Mount Pannarmalle Road, Manapakham, Chennai	Job Mix Design for widening and strengthening of Bhojuveer to Sindhora road under Varanasi district-DBM, Grading-I Cube Testing Steel Testing	34,860.00	Rupees Thirty Four Thousand Eight Hundred Sixty Only
209	Prof. Rajesh Kumar	Design Director, M/s.	Vetting of Structural design and	517,500.00	Rupees Five Lakh



		Gayatri Project Ltd. Vill-Koirajpur, Harahua, Varanasi	drawing of following Bridge for 4 laning sultanpur to Varanasi section of NH-56		Seventeen Thousand Five Hundred Only
210	Prof. V. Kumar	Project Incharge, M/s. Megha Engineering Infrastructure Ltd., 52 Technocart Indl. Estate Banglore, Hyderabad	Inspection, quality check and report preparation of following building: 100 Bedded Maternity wing Ghazipur, 100 Bedded Maternity wing Ballia	105,000.00	Rupees One Lakh Five Thousand Only
211	Prof. V. Kumar	Project Incharge, M/s. Megha Engineering Infrastructure Ltd., 52 Technocart Indl. Estate Banglore, Hyderabad	Inspection, quality check and report preparation of following building: 100 Bedded Maternity wing Ghazipur, 100 Bedded Maternity wing Ballia	34,810.00	Rupees Thirty Four Thousand Eight Hundred Ten Only
212	Prof. V. Kumar	Upper Project Manager, UPRNN Limited, Azamgarh Unit, New Collectorate Campus, Civil Lines, Azamgarh	Inspection, quality check and report preparation of following building: 100 Bedded Maternity wing Ghazipur, 100 Bedded Maternity wing Ballia	277,310.00	Rupees Two Lakh Seventy Seven Thousand Three Hundred Ten Only
213	Prof. V. Kumar	Upper Project Manager, UPRNN Limited, Azamgarh Unit, New Collectorate Campus, Civil Lines, Azamgarh	Witness of pile testing and report preparation of Construction of Rajkiya Allopathic Medical College, Jaunpur Inspection. Quality check and report preparation of Rajkiya Balika Inter College (Science Laboratory and class room), Ataraulia Azamgarh	140,168.00	Rupees One Lakh Fourty Thousand One Hundred Sixty Eight Only
214	Prof. V. Kumar	Upper Project Manager, UPRNN Limited, Azamgarh Unit, New Collectorate Campus, Civil Lines, Azamgarh	Witness of pile testing and report preparation of Construction of Rajkiya Allopathic Medical College, Jaunpur Inspection. Quality check and report preparation of Rajkiya Balika Inter College (Science Laboratory and class room), Ataraulia Azamgarh	21,168.00	Rupees Twenty One Thousand One Hundred Sixty Eight Only
215	Prof. V. Kumar	Upper Project Manager, UPRNN. Limited, Rajkiya Allopathic Medical College Campus, Narini Road, Banda	Witness of pile testing and report preparation of Construction of Rajkiya Allopathic Medical College, Jaunpur Inspection. Quality check and report preparation of Rajkiya Balika Inter College (Science Laboratory and class room), Ataraulia Azamgarh	64,800.00	Rupees Sixty Four Thousand Eight Hundred Only
216	Prof. V. Kumar and Prof. Rajesh Kumar	Upper Project Manager, UPRNN. Limited, Rajkiya Allopathic Medical College Campus, Narini Road, Banda	Inspection, verification of materials quality reports, workmanship check and report preparation as part of Third Party Quality Inspection of following: 1. Rajkiya Allopathic Medical College, Banda 2. 200 Bedded District Hospital, Banda	375,800.00	Rupees Three Lakh Seventy Five Thousand Eight Hundred Only



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217	Prof. V. Kumar and Prof. Rajesh Kumar	Unit Incharge, UPRNN Limited Govt. Medical College Residential Unit, Tirwa, kannauj	Inspection, verification of materials quality reports, workmanship check and report preparation as part of Third Party Quality Inspection of following: 1. Rajkiya Allopathic Medical College, Banda 2. 200 Bedded District Hospital, Banda	43,740.00	Rupees Forty Three Thousand Seven Hundred Forty Only
218	Prof. V. Kumar and Prof. Rajesh Kumar	Unit Incharge, UPRNN Limited Govt. Medical College Residential Unit, Tirwa, kannauj	Inspection, verification of materials quality reports, workmanship check and report preparation of following projects: 1. Para Medical College, Kannauj 2. Cancer Hospital, Kannauj 3. Cardiology Hospital, Kannauj 4. Forensic Lab Talgram at Kannauj	312,110.00	Rupees Three Lakh Twelve Thousand One Hundred Ten Only
219	Prof. V. Kumar and Prof. Rajesh Kumar	Upper Project Manager, UPRNN Limited, Kaushambi Unit, Camp Office, Lal Bahadur Shastri Homeopathic Medical College and Hospital Campus, Fafamau, Allahabad	Inspection, verification of materials quality reports, workmanship check and report preparation of following projects: 1. Para Medical College, Kannauj 2. Cancer Hospital, Kannauj 3. Cardiology Hospital, Kannauj 4. Forensic Lab Talgram at Kannauj	143,560.00	Rupees One Lakh Forty Three Thousand Five Hundred Sixty Only
220	Prof. V. Kumar and Prof. Rajesh Kumar	Upper Project Manager, UPRNN Limited, Kaushambi Unit, Camp Office, Lal Bahadur Shastri Homeopathic Medical College and Hospital Campus, Fafamau, Allahabad	Inspection, verification of materials quality reports, workmanship check and report preparation of Library / Examination Hall / Lecturer Theatre and Common Hall of Medical College, Allahabad	92,880.00	Rupees Ninety Two Thousand Eight Hundred Eighty Only
221	Prof. V. Kumar and Prof. Rajesh Kumar	M/s V.K. Sood Engineers & Contractors, Siddharthapuram Taramandal, Sector-12, AC Gorakhpur	Vetting of design and drawing of erection scheme for assembling & launching of open Web girders of Br. No. 16 (18x61.0m) span welded type 25 t loading girders	165,200.00	Rupees One Lakh Sixty Five Thousand Two Hundred Only
222	Prof. V. Kumar	M/s V.K. Sood Engineers & Contractors, Siddharthapuram Taramandal, Sector-12, AC Gorakhpur	Vetting of design and drawing of erection scheme for assembling & launching of open Web girders of Br. No. 16 (18x61.0m) span welded type 25 t loading girders	185,320.00	Rupees One Lakh Eighty Five Thousand Three Hundred Twenty Only
223	Prof. V. Kumar	Project Manager UPRNN Limited medical College Unit District Hospital Campus Bahraich	Vetting of design and drawing of erection scheme for assembling & launching of open Web girders of Br. No. 16 (18x61.0m) span welded type 25 t loading girders	29,500.00	Rupees Twenty Nine Thousand Five Hundred Only
224	Prof. V. Kumar	ADEN/HQ/MGS East Central Railway Division (Om Shanti Enterprises)	Inspection, verification of materials quality reports, workmanship check and report	100,890.00	Rupees One Lakh Eight Hundred Ninety Only





		M/s KNIL C/o Engineer (TS/FQA) BRBCL Nabinagar Thermal Power Project Aurangabad, Bihar M/s KEPL C/o The Sr. Manager, NTPC Tanda, Ambedkarnagar	preparation of Rajkiya Allopathic Medical College at Distt. Bahraich as part of Third Party Quality Inspection.		
225	Prof. V. Kumar	M/s KEI Industries Ltd., SA/15/2B, Ashapur Moiya, Sarnath, Varanasi	Vetting of design and drawing of erection scheme for assembling & launching of open Web girders of Br. No. 16 (18x61.0m) span welded type 25 t loading girders	190,570.00	Rupees One Lakh Ninety Thousand Five Hundred Seventy Only
226	Prof. V. Kumar	M/s KEI Industries Ltd., SA/15/2B, Ashapur Moiya, Sarnath, Varanasi	Vetting of design and drawing of erection scheme for assembling & launching of open Web girders of Br. No. 16 (18x61.0m) span welded type 25 t loading girders	32,400.00	Rupees Thirty Two Thousand Four Hundred Only
227	Prof. V. Kumar	M/s KEI Industries Ltd., SA/15/2B, Ashapur Moiya, Sarnath, Varanasi	Vetting of design and drawing of erection scheme for assembling & launching of open Web girders of Br. No. 16 (18x61.0m) span welded type 25 t loading girders	35,640.00	Rupees Thirty Five Thousand Six Hundred Forty Only
228	Prof. V. Kumar	M/s KEI Industries Ltd., SA/15/2B, Ashapur Moiya, Sarnath, Varanasi	Vetting of design and drawing of erection scheme for assembling & launching of open Web girders of Br. No. 16 (18x61.0m) span welded type 25 t loading girders	22,680.00	Rupees Twenty Two Thousand Six Hundred Eighty Only
229	Prof. V. Kumar	RMC Redymix, Prism Cement Ltd., Vidyangari, Mumbai Deputy General Manager Project Implementation (M/s Shiva Fabcon)	Vetting of design and drawing of erection scheme for assembling & launching of open Web girders of Br. No. 16 (18x61.0m) span welded type 25 t loading girders	21,060.00	Rupees Twenty One Thousand Sixty Only
230	Prof. V. Kumar	Project Manager (I) Office of the General Manager Ganga Pollution Control Unit U.P. Jal Nigam, Allahabad	Vetting of design and drawing of erection scheme for assembling & launching of open Web girders of Br. No. 16 (18x61.0m) span welded type 25 t loading girders	32,968.00	Rupees Thirty Two Thousand Nine Hundred Sixty Eight Only
231	Prof. V. Kumar	Project Manager, M/s AFCONS Infrastructure of Multimodal IWT Terminal at Varanasi Ramnagar, Varanasi	Third Party Inspection of structures under construction of ongoing project in District-B at Allahabad under NGRBA/Namami Gange Programme	107,970.00	Rupees One Lakh Seven Thousand Nine Hundred Seventy Only
232	Prof. V. Kumar	Project Manager, U.P. Jal Nigam Construction Unit, U.P. Jal Nigam Varanasi (M/s Shriram EPC Ltd. Vinay Kunj Apartment Siga, Varanasi)	Third Party Inspection of structures under construction of ongoing project in District-B at Allahabad under NGRBA/Namami Gange Programme	34,070.00	Rupees Thirty Four Thousand Seventy Only
233	Prof. V. Kumar	Chief Plant Manager Indance LPG Bottling Plant NH-31, Babatpur	Third Party Inspection of structures under construction of ongoing project in District-B at	88,500.00	Rupees Eighty Eight Thousand Five Hundred



		Road, Varanasi Adhishashi Abhiyanta, Nagar Nigam, Varanasi (M/s Sanjay Construction) Adhishashi Abhiyanta, Nagar Nigam, Varanasi (M/s Akhilesh Associates) Adhishashi Abhiyanta, Nagar Nigam, Varanasi (M/s Hind Associates)	Allahabad under NGRBA/Namami Gange Programme		Only
234	Prof. V. Kumar	Chief Plant Manager Indance LPG Bottling Plant NH-31, Babatpur Road, Varanasi Adhishashi Abhiyanta, Nagar Nigam, Varanasi (M/s Sanjay Construction) Adhishashi Abhiyanta, Nagar Nigam, Varanasi (M/s Akhilesh Associates) Adhishashi Abhiyanta, Nagar Nigam, Varanasi (M/s Hind Associates)	Third Party Inspection of structures under construction of ongoing project in District-B at Allahabad under NGRBA/Namami Gange Programme	88,500.00	Rupees Eighty Eight Thousand Five Hundred Only
235	Prof. V. Kumar	Executive Engineer, BHU Project Division-2, CPWD, Behind Central Office, Varanasi Upper Project Manager, UPRN Limited, Jhansi Unit, Jhansi, B.I.E.T. Campus, Kanpur, Road, Jhansi	Third Party Inspection of structures under construction of ongoing project in District-B at Allahabad under NGRBA/Namami Gange Programme	53,100.00	Rupees Fifty Three Thousand One Hundred Only
236	Prof. V. Kumar and Prof. Rajesh Kumar	Director, M/s Sparsh Engineering Company (P) Limited, Flat No. 504, Midland Apartment (West), Anantpur, Near Overbridge, Doranda, Ranchi, Jharkhand	Vetting of structural design and drawings of proposed Residential Complex of Mahamana Pt. Madan Mohan Malviya Cancer Centre at BHU, Varanasi Inspection, verification of materials quality reports, workmanship check and report preparation of Sanik School, Jhansi and Vidhi Vigyan Prayogshala, Jhansi as part of Third Party quality Inspection	1,136,576.00	Rupees Eleven Lakh Thirty Six Thousand Five Hundred Seventy Six Only
237	Prof. V. Kumar and Prof. Rajesh Kumar	Assistant Engineer, U.P. Aawas Evam Vikas Parishad Construction Divison-34 office cum shopping complex, Bhelupur Mr. Shiv Prasad, Assistant Engineering, UP Aawas & Vikash	Vetting of Structural design and drawing of following sub structure ROB in between Chhota Ambana- Pradhankunta section ROB at CH- 31.200Km in Koderma-Girdih Section ROB at Hazaribagh Road Keshwari ROB in between Matari-Gomoh Station, ROB between Gomoh-	999,400.00	Rupees Nine Lakh Ninety Nine Thousand Four Hundred Only



		Parishad Nirman Khand-34 (M/s Akhilesh Infrastructure Pvt. Ltd. Varanasi)	Telo, ROB in between Gomoh-Khanudih		
238	Dr. P. Maiti and other faculty members of Structural Engg. Section	Project Manager, U.P. Aawas Evas Parishad Construction Unit Varanasi, Bhelupur	Cube	71,980.00	Rupees Seventy One Thousand Nine Hundred Eighty Only
239	Dr. P. Maiti and other faculty members of Structural Engg. Section	Adhishsashi Abhiyanta, Nagar Nigam, Varanasi (M/s Sainik Construction) M/s Royal Readlity Near Chauri Mai Mandir, Chitaipur, Varanasi HDPL Infrastructure Ltd Mr. J.K. Srivastava, Sr. Manager, NTPC-Tanda (M/s JK & Company, Mirzapur Tanda Ambedkar Nagar)	Cube	31,860.00	Rupees Thirty One Thousand Eight Hundred Sixty Only
240	Dr. P. Maiti and other faculty members of Structural Engg. Section	Mr. A.K. Singh Bhadoria Adhishsashi Abhiyanta, Ramakhand No. 1 Buddha Vihar Mall Road, Cant. Varanasi Assistant Engineer, BHU Proejct Sub division-1, CPWD, Varanasi (M/s Balaji Construction)	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	1,052,560.00	Rupees Ten Lakh Fifty Two Thousand Five Hundred Sixty Only
241	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, BHU Proejct Sub division-1, CPWD, Varanasi (M/s Balaji Construction) M/s Jai Prakash Associates Ltd., Gorakhpur EE, Provincial Division, Public Works Department, Bhadohi	Testing of Bricks	69,030.00	Rupees Sixty Nine Thousand Thirty Only
242	Dr. P. Maiti and other faculty members of Structural Engg. Section	M/s R.S. Agency Lane No-1, Ravindrapuri Colony Bhelupur EE., Electricity Civil Transmission Division-11, UP Power Corporation Ltd., Newada, Sunderpur	Testing of Bricks	67,590.00	Rupees Sixty Seven Thousand Five Hundred Ninety Only
243	Dr. P. Maiti and other faculty members of Structural Engg. Section	Mr. A.K. Singh Bhadoria Adhishsashi Abhiyanta, Ramakhand No. 1 Buddha Vihar Mall Road, Cant. Varanasi M/s ACC Basant Clearing Agency Lahartara, Varanasi	Testing of Bricks	80,240.00	Rupees Eighty Thousand Two Hundred Fourty Only



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244	Dr. P. Maiti and other faculty members of Structural Engg. Section	Dy. Chief Engineer, Northern Railway Khalispur, Varanasi Assistant Engineer, BHU Project Sub Division-2, CPWD, Varanasi	Testing of Bricks	92,040.00	Rupees Ninety Two Thousand Fourty Only
245	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, BHU Project Sub Division-2, CPWD, Varanasi	Testing of Bricks	70,328.00	Rupees Seventy Thousand Three Hundred Twenty Eight Only
246	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant General Manager Engineering, Airport Authority of India of Airport Director, LBS International Airport, Varanasi(M/s Enkebee Infratech India Pvt. Ltd.) M/s Sparsh Engineering Company (p) Ltd., Midland Apartment (West) Anantpur, New Overbridge, Ranchi, Jharkhand	Testing of Bricks	67,260.00	Rupees Sixty Seven Thousand Two Hundred Sixty Only
247	Dr. P. Maiti and other faculty members of Structural Engg. Section	Upper Project Manager, UPRNN Limited, Jhansi Unit-1, Para Medical Campus, Kanpur Road, Jhansi	Testing of Bricks	108,100.00	Rupees One Lakh Eight Thousand One Hundred Only
248	Prof. V. Kumar and Prof. Rajesh Kumar	Upper Project Manager, UPRNN Limited, Jhansi Unit-1, Para Medical Campus, Kanpur Road, Jhansi	Inspection, verification of materials quality reports, workmanship check and report preparation of Extension of 500 Bedded Hospital at Maharani Lakshmi Bai Medical College, Jhansi as part of Third Party Quality Inspection Inspection, verification of materials quality reports, workmanship check and report preparation of Academic Block Building of Dr. Ram Manohar Lohiya, Institute of Medical Science, Vibhuti Khand, Gomati Nagar, Lucknow as part of Third Party Quality Inspection Inspection, verification of materials quality reports, workmanship check and report preparation of Dr. Ram Manohar Lohiya State Administration and Management Academy, Chakganjaria, Sultanpur Road, Lucknow	194,400.00	Rupees One Lakh Ninety Four Thousand Four Hundred Only
249	Prof. V. Kumar	M/s Shree Bankej Behari RCC Products Pvt. Ltd., Kaimur, Bihar	Inspection, verification of materials quality reports, workmanship check and report preparation of	82,400.00	Rupees Eighty Two Thousand Four Hundred



		M/s S&S sunil Hitech Engineer Ltd., C/o AGM (Civil Construction Dept.NTPC Ltd. Lara Super Thermal Power Proejct, Chattisgarh)	Trade Tax Office building, at Sector 148, Noida (Gautam Buddha Nagar) as part of Third party quality Inspection.		Only
250	Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	AGM (FQA) NTPC Ltd., NKSTPP Tanduwa, Jharkhand Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Kashyapi Infrastructre Pvt. Ltd.)	Interlocking Bricks (Paver Block)	54,280.00	Rupees Fifty Four Thousand Two Hundred Eighty Only
251	Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	Assistant Engineer, BHU Project Subdivision-4 CPWD, Varanasi (Kamaladitya Construction Pvt. Ltd.)Project Office, Duda, 106 Vikas Bhavan, Varanasi Adhishashi Abhiyanta, Nagar Nigam, Varanasi (M/s Siddharth Construcction)	Interlocking Bricks (Paver Block)	217,620.00	Rupees Two Lakh Seventeen Thousand Six Hundred Twenty Only
252	Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	Addl. Project Manager, Unit-21 'A', UPRNN Limited Secretariat Building Extension Work, Darulshafa Campus, Vidhansabha Marg, Lucknow	Interlocking Bricks (Paver Block)	56,050.00	Rupees Fifty Six Thousand Fifty Only
253	Prof. V. Kumar	Hindustan Prefab Limited, New Delhi Assistant Executive Engineer, BHU, Project Division-2, CPWD, Varanasi (M/s Gayatri Electrical Works) Chief Manager, Power Grid Corporation of India Limited Sonebhadra	Inspection, verification of materials quality reports, workmanship check and report preparation of Extension of Secretriarte building at Darulshafa Compound, Vidhan Sabha Marg, Lucknow, as part of Third Pary Quality Inspection	328,000.00	Rupees Three Lakh Twenty Eight Thousand Only
254	Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	Chief Manager, Power Grid Corporation of India Limited, Rihand HVDC Station office inside, Sonebhadra (Sanjay Kumar Singh)	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	119,770.00	Rupees One Lakh Nineteen Thousand Seven Hundred Seventy Only
255	Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	Chief Manager, Power Grid Corporation of India Limited, Rihand HVDC Station office inside, Sonebhadra (Sanjay Kumar Singh)	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	51,330.00	Rupees Fifty One Thousand Three Hundred Thirty Only





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256	Dr. P. Maiti and other faculty members of Structural Engg. Section	Addl. General Manager M/s Hndustan Pratab Limited, Jangpura, New Delhi Unit Incharge, Office of the Project Manager, UPRNN Limited, Rajkiya Allopathic Medical College	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	116,230.00	Rupees One Lakh Sixteen Thousand Two Hundred Thirty Only
257	Dr. P. Maiti and other faculty members of Structural Engg. Section	Chief Manager (HVDC) Power Grid Corporation of India Limited, Rihand HVDC Station Office, Sonebhadra Sr. Manager (FQA) Meja Thermal Power Plant, Allahabad Dr. A.K.Srivastava, Joint Development Commissioner, Varanasi Mandal, Varanasi	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	179,760.00	Rupees One Lakh Seventy Nine Thousand Seven Hundred Sixty Only
258	Dr. P. Maiti and other faculty members of Structural Engg. Section	AXEN/Con/Chopan office of the Dy. Chief Engineer/Con East Central Railway (M/s S.T. Construction Pvt. Ltd.) Assistant Engineer, Duda, Nagar Nigam, 106 Vikas Bhawan, Varanasi Sr. Manager (Civil), NTPC Limited, Unchahar Power Project (M/s Trivedi Enterprises) Executive Engineer, Construction Division Building, PWD, Varanasi	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	187,200.00	Rupees One Lakh Eighty Seven Thousand Two Hundred Only
259	Dr. P. Maiti and other faculty members of Structural Engg. Section	Executive Engineer, Construction Division Building, PWD, Varanasi Mr. SBP Singh, Senior Project BSC C & C JV DFCC Project Word Udani Nagar Saiyadraja, Chanduli Sr. Project Manager, DFCC Project Word No. - 4, Dindayal Nagar, Saiyadraja, Chandauli	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	118,590.00	Rupees One Lakh Eighteen Thousand Five Hundred Ninety Only
260	Dr. P. Maiti and other faculty members of Structural Engg. Section	Adhishashi Abhiyanta, Nagar Nigam, Varanasi (M/s Hind Associates) General Manager, Doosan Power System India, Pvt. Ltd., UPRVNL, Obra M/s SMEC India Pvt. Ltd.	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	28,320.00	Rupees Twenty Eight Thousand Three Hundred Twenty Only



		Chandal Automobiles, PNB Bank 1 Floor, Bichhiya Kahan GT Road, Chandauli			
261	Dr. P. Maiti and other faculty members of Structural Engg. Section	AM/CP/RITES, RITES Ltd., Maharana Nagar Colony, Mahmoorganj, Varanasi Assistant Engineer Duda/Nagar Nigam District Urban Development Authority, Vikash Bhawan Superintending Engineer, University Works Department, BHU (M/s Anand Enterprises)	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	67,260.00	Rupees Sixty Seven Thousand Two Hundred Sixty Only
262	Dr. P. Maiti and other faculty members of Structural Engg. Section	Supreintending Engineer, University Works Department, BHU (M/s Anand Enterprises) Supreintending Engineer, University Works Department (M/s Harco Mall) Dy/CPM/DPCCIL/ALD (East) Dedicated Freight Corridor Corporation of India Limited, Allahabad	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	41,890.00	Rupees Forty One Thousand Eight Hundred Ninety Only
263	Dr. P. Maiti and other faculty members of Structural Engg. Section	Executive Engineer, Nagar Nigam Varanasi (M/s A.K. Associates) General Manager, M/s Ircon International Limited, Dev Prabhakar, Duddaram Jabalpur Road, Katni Project Manager, Construction & Design Services, UP Jal Nigam, Unit-3, Azamgarh	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	145,730.00	Rupees One Lakh Fourty Five Thousand Seven Hundred Thirty Only
264	Dr. P. Maiti and other faculty members of Structural Engg. Section	Project Manager Construction & Design servicesk, UP Jal Nigam, Unit-3, Polytechnic, Azamgarh	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	107,970.00	Rupees One Lakh Seven Thousand Nine Hundred Seventy Only
265	Dr. P. Maiti and other faculty members of Structural Engg. Section	Project Manager Construction & Design servicesk, UP Jal Nigam, Unit-3, Polytechnic, Azamgarh Executive Engineer, Nagar Nigam, Varanasi (M/s BBJ Correct India) Project Manager, U.P. Awas Evam Vikash	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	225,970.00	Rupees Two Lakh Twenty Five Thousand Nine Hundred Seventy Only



Parishad, Construction Unit, Varanasi					
266	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	86,730.00	Rupees Eighty Six Thousand Seven Hundred Thirty Only
267	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	70,740.00	Rupees Seventy Thousand Seven Hundred Fourty Only
268	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company, Lucknow)	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	44,820.00	Rupees Fourty Four Thousand Eight Hundred Twenty Only
269	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	91,800.00	Rupees Ninety One Thousand Eight Hundred Only
270	Dr. P. Maiti and other faculty members of Structural Engg. Section	DGM (Civil), NTPC-Tanda, Vidyut Nagar, Ambedkar Nagar M/s Duggal Associates, Krishna Park Road, Khanpur, New Delhi M/s Jaiprakash Associates Ltd., Varanasi-Gorakhpur Road Project (NH-2), Rampur, Dhanauli, Mau	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	75,600.00	Rupees Seventy Five Thousand Six Hundred Only
271	Dr. P. Maiti and other faculty members of Structural Engg. Section	Project Manager, M/s AFCONS Infrastructure Ltd. C/o Inland waterways, Authority of India, Ramnagar, Varanasi	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	229,995.00	Rupees Two Lakh Twenty Nine Thousand Nine Hundred Ninety Five Only
272	Dr. P. Maiti and other faculty members of Structural Engg. Section	G.M. Construction & Design Services, U.P. jal Nigam, Gomati Nagar, Lucknow	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	135,700.00	Rupees One Lakh Thirty Five Thousand Seven Hundred Only
273	Dr. P. Maiti and other faculty members of Structural Engg. Section	DGM, NBCC, Plot No. D 59/143 A-48, Sant Raghubar Nagar, Varanasi	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	59,000.00	Rupees Fifty Nine Thousand Only
274	Dr. P. Maiti and other faculty members of Structural Engg. Section	M/s Capital Engineering Corpn. J 1/178, Khirkee Extension, New Delhi	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	33,120.00	Rupees Thirty Three Thousand One Hundred Twenty Only
275	Dr. P. Maiti and other faculty members of Structural Engg. Section	EE, Construction Division-2, PWD,	Vetting of structural design and drawing of High Rise Building in	23,600.00	Rupees Twenty Three Thousand



Section	Mirzapur	Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	Six Hundred Only
276 Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	A.E., BHU Project, SD-1, CPWD, Varanasi AE, BHU Project, SD-2, CPWD, Varanasi	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	23,600.00 Rupees Twenty Three Thousand Six Hundred Only
277 Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	DGM (Civil), NTPC-Tanda, Vidyut Nagar, Ambedkarnagar EE., S.H. Division, PWD, Ghazipur AGM (FES/FQA), NTPC Ltd., Near Indrapuri Chowk, Hazaribagh, Jharkhand	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	57,584.00 Rupees Fifty Seven Thousand Five Hundred Eighty Four Only
278 Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	CPM/Engg./MGS, DFCC of India Ltd., Allahabad (East)	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	531,000.00 Rupees Five Lakh Thirty One Thousand Only
279 Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	EE, Provincial Division, Sonebhadra	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	1,022,700.00 Rupees Ten Lakh Twenty Two Thousand Seven Hundred Only
280 Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	DGM/Project/BSB, Rail Vikas Nigam Ltd., Old Kavevi School Complex, DLW, Varanasi	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	34,500.00 Rupees Thirty Four Thousand Five Hundred Only
281 Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	A.E., BHU Project, SD-2, CPWD, Varanasi	Vetting of structural design and drawing of High Rise Building in Awalespur Mauja S.M. Plot No. 5518 & 549 in Chitaipur, Varanasi	33,748.00 Rupees Thirty Three Thousand Seven Hundred Fourty Eight Only
282 Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	M/s HES Infra Pvt. Ltd., H. No. 25, Ward No. 11, Dudhinagar, Sonebhadra	Inspection, quality check and report preparation Shopping Mart of Rajpura Industrial Residential Scheme	37,692.00 Rupees Thirty Seven Thousand Six Hundred Ninety Two Only
283 Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	M/s APCO Infratech Pvt. Ltd., APCO House, Gomati Nagar, Lucknow	Inspection, quality check and report preparation Shopping Mart of Rajpura Industrial Residential Scheme	23,600.00 Rupees Twenty Three Thousand Six Hundred Only
284 Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	DGM (O&M Civil), NTPC Ltd., TTPC, Vidyutnagar, Ambedkar Nagar	Inspection, quality check and report preparation Shopping Mart of Rajpura Industrial Residential Scheme	29,500.00 Rupees Twenty Nine Thousand Five Hundred Only
285 Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	M/s Dugal Associated Pvt. Ltd., Lane-2, Estend Marg, Saidulajaib, Bew Delhi	Inspection, quality check and report preparation Shopping Mart of Rajpura Industrial Residential Scheme	23,600.00 Rupees Twenty Three Thousand Six Hundred Only
286 Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	EE., Bhadohi Industrial Dev. Authority, Beeda Bhawan, Aurai Road, Bhadohi	Inspection, quality check and report preparation Shopping Mart of Rajpura Industrial Residential Scheme	90,624.00 Rupees Ninety Thousand Six Hundred Twenty Four Only



287	Dr. P. Maiti and other faculty members of Structural Engg. Section	President, A Infrastructure Ltd, A-9A, Green Park Main, New Delhi-16	Inspection, quality check and report preparation Shopping Mart of Rajpura Industrial Residential Scheme	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only
288	Dr. P. Maiti and other faculty members of Structural Engg. Section	Structural Engineering M/s ATS structural Consultant, D-27, Indira Nagar, Lucknow	Inspection, quality check and report preparation Shopping Mart of Rajpura Industrial Residential Scheme	52,500.00	Rupees Fifty Two Thousand Five Hundred Only
289	Dr. P. Maiti and other faculty members of Structural Engg. Section	M/s KEI Industries Ltd., SA/15/2B, Ashapur Moiya, Sarnath, Varanasi	Vetting of Structural Design and drawing of Swimming Pool Building, High Court at Allahabad	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only
290	Dr. P. Maiti and other faculty members of Structural Engg. Section	S.E., UWD, BHU (M/s Anand Enterprises)	Vetting of Structural Design and drawing of Swimming Pool Building, High Court at Allahabad	127,440.00	Rupees One Lakh Twenty Seven Thousand Four Hundred Forty Only
291	Dr. P. Maiti and other faculty members of Structural Engg. Section	EE, PWD, Gyanpur, Bhadohi	Vetting of Structural Design and drawing of Swimming Pool Building, High Court at Allahabad	26,550.00	Rupees Twenty Six Thousand Five Hundred Fifty Only
292	Dr. P. Maiti and other faculty members of Structural Engg. Section	AE, BHU Project, SD-2, CPWD, Varanasi AE, BHU Project, SD-3, CPWD, Varanasi	Vetting of Structural Design and drawing of Swimming Pool Building, High Court at Allahabad	87,792.00	Rupees Eighty Seven Thousand Seven Hundred Ninety Two Only
293	Dr. P. Maiti and other faculty members of Structural Engg. Section	Mr. Sant Lal Maurya, APCO Infratech Pvt. Ltd., Udaypur, Varanasi M/s. Dugal Associates Pvt. Ltd. Estend Marg, Saidulajaib, New Delhi Sr. Manager (FQA) FQA NTPC Vindhyachal, Vindhyanagar, Singrauli	Vetting of Structural Design and drawing of Swimming Pool Building, High Court at Allahabad	25,960.00	Rupees Twenty Five Thousand Nine Hundred Sixty Only
294	Dr. P. Maiti and other faculty members of Structural Engg. Section	Project Officer, District Urban Dev. Authority, Varanasi EE., Kanhar Const. Divn-2, Pipari, Sonebhadra	Vetting of Structural Design and drawing of Swimming Pool Building, High Court at Allahabad	23,718.00	Rupees Twenty Three Thousand Seven Hundred Eighteen Only
295	Dr. P. Maiti and other faculty members of Structural Engg. Section	Mr. Sant Lal Maurya, APCO Infratech Pvt. Ltd., Udaypur, Azamgarh Road, Cholaipur, Varanasi	Vetting of Structural Design and drawing of Swimming Pool Building, High Court at Allahabad	106,000.00	Rupees One Lakh Six Thousand Only
296	Dr. P. Maiti and other faculty members of Structural Engg. Section	Sr. Manager-Technical, RMC Readymix (India) (A Division of Prism Cement Ltd.), bangalore	Vetting of Structural design and drawing of Academic Block, Staff Quarters and boundary wall of proposed Kendriya Vidyalaya at Gopeshwar (U.K.)	188,800.00	Rupees One Lakh Eighty Eight Thousand Eight Hundred Only
297	Prof. V. Kumar	General Manager, Consulting Engineering Service (India) Pvt. Ltd., Udayog Vihar, Phase-I, Gurgaon, Haryana	Vetting of Structural design and drawing of Academic Block, Staff Quarters and boundary wall of proposed Kendriya Vidyalaya at Gopeshwar (U.K.)	436,320.00	Rupees Four Lakh Thirty Six Thousand Three Hundred Twenty Only





298	Prof. V. Kumar	Assistant Engineer, BHU Project Division CPWD, Varanasi	Vetting of Structural design and drawing of Academic Block, Staff Quarters and boundary wall of proposed Kendriya Vidyalaya at Gopeshwar (U.K.)_	460,000.00	Rupees Four Lakh Sixty Thousand Only
299	Prof. V. Kumar	MK U.P. Developers construction corp. 551/347, GA13A Azad Nagag, Lucknow Sr. Engineer, V chal power Grid Corporation of India, NH-3, NTPC township Vindyanagar, Singrauli (M/s GET & D India Ltd.)	Vetting of Structural design and drawing of Academic Block, Staff Quarters and boundary wall of proposed Kendriya Vidyalaya at Gopeshwar (U.K.)_	48,380.00	Rupees Forty Eight Thousand Three Hundred Eighty Only
300	Prof. V. Kumar	Assistant Manager, RITES Ltd, 13 KM, Lucknow Project Manager, UP Jal Nigam Ganga Pollution, Prevenstion Division, Bhagwanpur, Varanasi	Vetting of Structural design and drawing of Academic Block, Staff Quarters and boundary wall of proposed Kendriya Vidyalaya at Gopeshwar (U.K.)_	86,730.00	Rupees Eighty Six Thousand Seven Hundred Thirty Only
301	Prof. V. Kumar	AGM (FQA) Meja Urja Nigam Pvt. Ltd., NTPP, Allahabad Proejct Manager, Unit-21 A, UPRNN Ltd., sBuilding Enterprises, Lucknow RITES/RITES Limited, Maharanja Nagar Colony, Assistant Manager, Varanasi DGM (Hriday-Varanasi) NBCC Ltd. Unit Office, Plot No.-D 59/143, A-48, Sant Raghuvvar Nagar, Sigra, Varanasi	Vetting of Structural design and drawing of Academic Block, Staff Quarters and boundary wall of proposed Kendriya Vidyalaya at Gopeshwar (U.K.)_	144,872.00	Rupees One Lakh Forty Four Thousand Eight Hundred Seventy Two Only
302	Prof. V. Kumar	Assistant Engineer, BHU Project Sub Division-3, CPWD, Varanasi (M/s Anil Enterprises)	Vetting of Structural design and drawing of Academic Block, Staff Quarters and boundary wall of proposed Kendriya Vidyalaya at Gopeshwar (U.K.)_	100,982.00	Rupees One Lakh Nine Hundred Eighty Two Only
303	Prof. V. Kumar	Assistant Executive Engineer, Central Division-II, CPWD, Patna Sr. Manager (FQA) NTPC-Vindhychal, Vindhynagar, Singrauli	Vetting of Structural design and drawing of Academic Block, Staff Quarters and boundary wall of proposed Kendriya Vidyalaya at Gopeshwar (U.K.)_	290,430.00	Rupees Two Lakh Ninety Thousand Four Hundred Thirty Only
304	Prof. V. Kumar	M/s HES Infra Pvt. Ltd. 39. BN Reddy Colony, Road No. 14, Banjaradills, Hyderabad	Vetting of Structural design and drawing of Academic Block, Staff Quarters and boundary wall of proposed Kendriya Vidyalaya at Gopeshwar (U.K.)_	35,636.00	Rupees Thirty Five Thousand Six Hundred Thirty Six Only



305	Prof. V. Kumar	Sr. Manager (Civil), NTPC Ltd., Unchahar, Distt. Rae Bareilly (UP) (M/s Power Mech. Projects Limited)	Vetting of Structural design and drawing of Academic Block, Staff Quarters and boundary wall of proposed Kendriya Vidyalaya at Gopeshwar (U.K.)_	283,200.00	Rupees Two Lakh Eighty Three Thousand Two Hundred Only
306	Prof. V. Kumar	AFCON Infrastructure Limited, Construction of Multimodal terminal at Varanasi	Vetting of Structural design and drawing of Academic Block, Staff Quarters and boundary wall of proposed Kendriya Vidyalaya at Gopeshwar (U.K.)_	37,800.00	Rupees Thirty Seven Thousand Eight Hundred Only
307	Prof. V. Kumar	Assistant Engineer, Varanasi Central Subdivision CPWD, Kendranchal, Badalapur, Lamhi, Varanasi	Vetting of Structural design and drawing of boundary wall of New Stadium Ghazipur	47,200.00	Rupees Forty Seven Thousand Two Hundred Only
308	Prof. V. Kumar	Assistant Engineer BHU Project Sub division, 3 CPWD Varanasi (M/s Winner Construction Pvt. Ltd.)	Vetting of Structural design and drawing of boundary wall of New Stadium Ghazipur	32,450.00	Rupees Thirty Two Thousand Four Hundred Fifty Only
309	Prof. V. Kumar	M/s Hindustan Prefab Limited Jangpura, New Delhi (M/s Universal Contract as and Engineer pvt. Ltd.)	Vetting of Structural design and drawing of boundary wall of New Stadium Ghazipur	121,776.00	Rupees One Lakh Twenty One Thousand Seven Hundred Seventy Six Only
310	Prof. V. Kumar	Assistant Engineer, BHU Project Subdivision-3, CPWD, Varanasi (M/s Gupta Construction Pvt. Ltd.)	Vetting of Structural design and drawing of boundary wall of New Stadium Ghazipur	62,540.00	Rupees Sixty Two Thousand Five Hundred Forty Only
311	Prof. V. Kumar	Project Manager UPRNN Limited Azamgarh Unit New Collaborate Campus Civil Lines, Azamgarh	Vetting of Structural design and drawing of boundary wall of New Stadium Ghazipur	59,000.00	Rupees Fifty Nine Thousand Only
312	Prof. V. Kumar	Assistant Engineer, BHU Project Sub Division-2, CPWD, Varanasi (M/s Devindra Singh)	Vetting of Structural design and drawing of boundary wall of New Stadium Ghazipur	53,100.00	Rupees Fifty Three Thousand One Hundred Only
313	Prof. V. Kumar	Unit Incharge Uttar Pradesh Rajkiya Nirman Nigam Limited, Court Residential Area, Kushi Nagar	Vetting of Structural design and drawing of boundary wall of New Stadium Ghazipur	106,200.00	Rupees One Lakh Six Thousand Two Hundred Only
314	Prof. V. Kumar	Project Manager, UPRNN Limited, Bhadohi Unit, House No. 2, Vivekanand Nagar Colony, Lohamandi, Varanasi	Inspection, verification of materials quality report, Workmanship check and report preparation of Boundary Wall and Kitchen of Central Jail Varanasi	59,000.00	Rupees Fifty Nine Thousand Only
315	Dr. P. Maiti and other faculty members of Structural Engg. Section	Chief Manager, Rihand Power Grid Corporation of India Limited, Rihand	Vetting of Structural design and drawing of boundary wall of New Stadium Ghazipur	30,680.00	Rupees Thirty Thousand Six Hundred Eighty



		HVDC Station Office Inside RHSTPP, Rihand Nagar			Only
316	Dr. P. Maiti and other faculty members of Structural Engg. Section	Chief Manager, Rihand Power Grid Corporation of India Limited, Rihand HVDC Station Office Inside RHSTPP, Rihand Nagar	Vetting of Structural design and drawing of boundary wall of New Stadium Ghazipur	30,680.00	Rupees Thirty Thousand Six Hundred Eighty Only
317	Dr. P. Maiti and other faculty members of Structural Engg. Section	Adhishashi Abhiyanta Prakhanda Vibhag, Varanasi	Vetting of Structural design and drawing of boundary wall of New Stadium Ghazipur	68,440.00	Rupees Sixty Eight Thousand Four Hundred Forty Only
318	Dr. P. Maiti and other faculty members of Structural Engg. Section	Chief Manager, Rihand Power Grid Corporation of India Limited, Rihand HVDC Station Office Inside RHSTPP, Rihand Nagar Adhishashi Abhiyanta Nagar Nigam, Varanasi Bhadoli Carpets, Mayopatti, Opposite Ram Talkah, Bhadohi	Vetting of Structural design and drawing of boundary wall of New Stadium Ghazipur	35,518.00	Rupees Thirty Five Thousand Five Hundred Eighteen Only
319	Dr. P. Maiti and other faculty members of Structural Engg. Section	R.J. Traders Railway Contractor Shiv Prasad Gupta Colony, Lane No. 8, Samneghat, Lanka, Varanasi. MESCO (Multi Engineering & Scientific Corporation), Katari Hill, Road Gaya, Si[eromtemdomg Emgomeer, University work Department, BHU (M/s Singh Building Material & Hardware Parts)	Vetting of Structural design and drawing of boundary wall of New Stadium Ghazipur	44,840.00	Rupees Forty Four Thousand Eight Hundred Forty Only
320	Dr. P. Maiti and other faculty members of Structural Engg. Section	Superintending Engineer University works department, BHU Executive Engineer, Nagar Nigam, Varanasi (Shri Sai Associates) Chief Manager (HVDC), Power Grid Corporation of India Ltd., Rihand HVDC Station, Office Inside , Rihand Nagar, Sonebhadra	Vetting of Structural design and drawing of boundary wall of New Stadium Ghazipur	32,450.00	Rupees Thirty Two Thousand Four Hundred Fifty Only
321	Dr. P. Maiti and other faculty members of Structural Engg. Section	Indian Builders and contractor pvt. Ltd., C-39, D.B. City, Sachin Tendulkar Marg, Gwa;opr. MP AGM (FQA), NTPC	Vetting of Structural design and drawing of boundary wall of New Stadium Ghazipur	31,270.00	Rupees Thirty One Thousand Two Hundred Seventy Only



Limitd North Katanpura,  
MR Complex Near  
Indrapuri, Chowk,  
Hazaribagh, Jharkhand  
E.E., Nagar Nigam,  
Varanasi  
V.P. Singh, DGM  
(FQA)/Nabi Nagar Power  
Generating Company  
Pvt. Ltd., NSTPP Stage

322	Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	AVP Design D&E, M/s GIL-SILJV GMR Infrastructure Ltd., JBC Knowledge, Park Phase-2 "D" Block 10th floor Bangalore VEW-SMC JV, K-1/37, 2nd Floor, Model Town, New Delhi	Vetting of Structural design and drawing of boundary wall of New Stadium Ghazipur	728,600.00	Rupees Seven Lakh Twenty Eight Thousand Six Hundred Only
323	Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	Project Manager Haldwani Unit, UPRNN Ltd., Medical College Campus Rampur Road, Haldwani, Uttrakhand	Inspection, Verification of materials quality reports, workmanship check and report preparation of Govt. Degree College, Debidhoora (Champawat). Inspection, verification of materials quality reports, workmanship chech and report preparation of 50 Bedded Ayurvedic Hospital, Haldwani Inspection, verification of materials quality reports, workmanship check and report preparation of Govt. Industrial Training Institute, Kaladhungi (Nainital)	205,200.00	Rupees Two Lakh Five Thousand Two Hundred Only
324	Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	Addl, General Manager, Safederjing Enclave, New Delhi Unit Incharge, UPRNN Ltd., BASE Hospital Campur Unit Almora, Uttarakhand Director, M/s Raitani Engg. Works Pvt. Ltd., M.M. Choudhary's Compound (En C.M. Assam) P.B. Road, Rehabari, Guwahati	Vetting of reinforcement details for 8 nos of Limited Height Subway (LHS) tobe constructed in lieu of existing Level crossing nos. 44/C, 48/C, 518/C, 52/C, 54/C, 57/C and 64/C in between KMD-DGO in Mughalsarai Division inspection, verification of materials quality reports, workmanship check and report preparation of Govt. Medical College Almora. Inspection, verification of materials quality reports, workmanship check and report preparation of UP State Guest House of Sector 13, Dwarka, New Delhi	559,200.00	Rupees Five Lakh Fifty Nine Thousand Two Hundred Only
325	Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	Unit Incharge, Basti Unit UPRNN Limited, Side of Commissioner's	Inspection, verification of materials quality reports, workmanship check and report	104,760.00	Rupees One Lakh Four Thousand Seven Hundred



		Residence Circuit House, Basti Project Manager/Team Leader M/s Intercontinental Consultants and Technocrats Pvt. Ltd. C/o. Harendra Kumar Singh, S/o Late Satyari arayan Singh Thakur Chunnu Singh Path, New Dillya (Lal Colony) (Bihar)	preparation of Rajkiya Allopathic Medical College Basti, as part of Third Party Quality Inspection		Sixty Only
326	Dr. P. Maiti and other faculty members of Structural Engg. Section	Dy. Project Manager, UP State Bridge Corporation Ltd. Bridge Construction Unit, Varanasi Old Normal School, Shivpur, Varanasi Regional Water Testing Laboratory Ganga Pollution Control Unit Campus, UP Jal Nigam, Bhagwanpur, Lanka, Varanasi	To verify the methodology of load test and result of Ganga Bridge Samneghat for Span 120M	106,200.00	Rupees One Lakh Six Thousand Two Hundred Only
327	Dr. P. Maiti and other faculty members of Structural Engg. Section	Upper Project Manager, UPRNN Limited TV Tower, Campus, Manpuri Unit, Mainpuri Unit Incharge, Office of the Project Manager, UPRNN Limited, Rajkiya Allopathic Medical College, Ganja, Faizabad Project Manager (I) Office of the General Manager, Ganga pollution Control Unit, UP Jal Nigam, Allahabad	Inspection, verification of materials quality reports, workmanship check and report preparation of Rajkiya Allopathic Medical College, Firozabad as part of Third Party Quality inspection.	409,750.00	Rupees Four Lakh Nine Thousand Seven Hundred Fifty Only
328	Dr. P. Maiti and other faculty members of Structural Engg. Section	V.P. Singh, DGM (FOA) NTPC (Nabinagar) Power Generating Company Pvt. Ltd., NSTPP Stage Shivanpur, Ankorha Aurangabad, Bihar Deputy General Manager Project Implementation Unit Bihar State Building Constructor Corporation Ltd., Patna, Bihar		33,040.00	Rupees Thirty Three Thousand Fourty Only
329	Dr. P. Maiti and other faculty members of Structural Engg. Section	Project Manager, UP Rajkiya Nirman Nigam Limited, Allahabad Unit-1 Construction of 24 Court Room, District court campus Allahabad	Inspection, quality check and report preparation of 30 Court room and 20 chamber in Hon'ble High Court Campus Allahabad	59,000.00	Rupees Fifty Nine Thousand Only





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330	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, BHU Project Subdivision-3, CPWD, Varanasi (M/s Gupta Construction Pvt. Ltd.) Assistant Engineer, BHU Project Subdivision-3, CPWD, Varanasi (M/s Anil Enterprises) Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Anil Enterprises)	CBR value including OMC and MDD	38,760.00	Rupees Thirty Eight Thousand Seven Hundred Sixty Only
331	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, BHU Project Subdivision-3, CPWD, Varanasi (M/s Anil Enterprises) Assistant Engineer, BHU Project Subdivision-3, CPWD, Varanasi (M/s Anil Enterprises)	CBR value including OMC and MDD	22,680.00	Rupees Twenty Two Thousand Six Hundred Eighty Only
332	Dr. P. Maiti and other faculty members of Structural Engg. Section	Superintending Engineer, Irrigation works Circle Varanasi Bundelkhand University Jhansi (UP)	Testing of Cement	802,400.00	Rupees Eight Lakh Two Thousand Four Hundred Only
333	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s R.K. The Aluminium People) Assistant Engineer, BHU Project Subdivision-3, CPWD	CBR value including OMC and MDD	99,120.00	Rupees Ninety Nine Thousand One Hundred Twenty Only
334	Dr. P. Maiti and other faculty members of Structural Engg. Section	Sr. Manager (FOA-Civil), NTPC Tanda, Vidyut Nagar, Ambedkar Nagar (M/s Gannon Dunkerley) DGM (Civil), NTPC Limited, Tanda Vidhyut Nagar, Ambedkar Nagar, (M/s Gannon Dunderley)	Testing of Cement	97,468.00	Rupees Ninety Seven Thousand Four Hundred Sixty Eight Only
335	Dr. P. Maiti and other faculty members of Structural Engg. Section	Project Manager/ Team Leader Thakur Chunnu Singh Path, New Delhi (Lala Colony) Rohtas, Bihar Project Manager/Team Leader	CBR value including OMC and MDD	23,128.00	Rupees Twenty Three Thousand One Hundred Twenty Eight Only
336	Dr. P. Maiti and other faculty members of Structural Engg. Section	Dy. CPM/ DFCCIL/ALD (East Dedicated Freight Corridor corporation of India Ltd, Allahabad (East) 1 Floor Old GM Building N.C. Railway, Valmiki Chauraha, Nawab Yusuf Road,	Testing of Cement	43,416.00	Rupees Forty Three Thousand Four Hundred Sixteen Only



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337	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer BHU Project Subdivision-3, CPWD, Varanasi (M/s Phakhacol Hasan)	CBR value including OMC and MDD	78,470.00	Rupees Seventy Eight Thousand Four Hundred Seventy Only
338	Dr. P. Maiti and other faculty members of Structural Engg. Section	WAPCOS Ltd. RVNL Projects Rail Vikash Nigam Limited Ghazipur, UP (M/s S.P. Singha Construction Pvt. Ltd.) Medinipur, Ghazipur, UP	Soil Inverstigation Charges - Heavy Compaction Test, Grain Size Distribution, Atterberg's Limits	708,590.00	Rupees Seven Lakh Eight Thousand Five Hundred Ninety Only
339	Dr. P. Maiti and other faculty members of Structural Engg. Section	M/s Ultratech Cement Ltd., Varanasi UP, Ultratech Cement Ltd. RH Tower, 201 A 2nd Floor, Cantonment Near Clark Hotel, Varanasi	Soil Inverstigation Charges - Heavy Compaction Test, Grain Size Distribution, Atterberg's Limits	59,400.00	Rupees Fifty Nine Thousand Four Hundred Only
340	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Executive Engineer BHU Proejct Sub Division-2, CPWD, Varanasi (M/s Kashyapi Infrastructure Ltd.)	Soil Inverstigation Charges - Heavy Compaction Test, Grain Size Distribution, Atterberg's Limits	178,888.00	Rupees One Lakh Seventy Eight Thousand Eight Hundred Eighty Eight Only
341	Dr. P. Maiti and other faculty members of Structural Engg. Section	Dy. Project Manager UP State Bridge Corporation Ltd. Bridge Construction Unit Sonebhadra	Soil Inverstigation Charges - Heavy Compaction Test, Grain Size Distribution, Atterberg's Limits	176,410.00	Rupees One Lakh Seventy Six Thousand Four Hundred Ten Only
342	Dr. P. Maiti and other faculty members of Structural Engg. Section	Pravidhik Parikshak, Pravidhik Sampreksha Koshtn Irrigation and Water Resource Secretary Branch, 610 Indira Bhawan, Lucknow Executive Officer, Nagar Panchayat, Gangapur, Varanasi M/s Jai Ambey Constrction N14/49, F-5, Krishna Deo Nagar Sarai Nandan, Varanasi Dy. Chief Electrical Engineer Railway Electrification, Danapur (Near Jagjiwan Stadium)	Soil Inverstigation Charges - Heavy Compaction Test, Grain Size Distribution, Atterberg's Limits	60,180.00	Rupees Sixty Thousand One Hundred Eighty Only
343	Dr. P. Maiti and other faculty members of Structural Engg. Section	ATS Structural Consultant D-27, Indira Nagar, Lucknow Assistant Executive Engineer BHU Project Division-2, CPWD, Varanasi (M/s Gayatri Electrical Works) Adhishashi Abhiyanta, Nagar Nigam, Varanasi	Vetting of Structural design and drawing of Group Housing Building Plan at SM Plot No. 45,33,59 Village/Mauja-Ganeshpur, Pargana Dehat Amanat, Tehsil, Varanasi	560,500.00	Rupees Five Lakh Sixty Thousand Five Hundred Only
344	Dr. P. Maiti and other faculty	Mahade Construction	Vetting of Structural design and	92,040.00	Rupees Ninety



	members of Structural Engg. Section	Company B27/70, 2nd Floor, Barhar Kashi, Gurudham Crossing Durgakund Road, Varanasi Adhishashi Abhiyanta, Nagar Nigam, Varanasi	drawing of Group Housing Building Plan at SM Plot No. 45,33,59 Village/Mauja-Ganeshpur, Pargana Dehat Amanat, Tehsil, Varanasi	Two Thousand Forty Only
345	Dr. P. Maiti and other faculty members of Structural Engg. Section	Adhishashi Abhiyanta, Nagar Nigam, Varanasi M/s Jwala Mukhi, Construction Assistant Divisional Engg., N. Railway Varanasi UP (M/s Parmanand Adani, Sindnu Nagar, Baroing (UP) Sr. Manager CCD, NTPC Ltd., North Karanpur, STPP Agarwal REst House Malviya Marg, Jhanda Chowk, Hazaribagh (M/s BHEL)	Vetting of Structural design and drawing of Group Housing Building Plan at SM Plot No. 45,33,59 Village/Mauja-Ganeshpur, Pargana Dehat Amanat, Tehsil, Varanasi	41,418.00 Rupees Forty One Thousand Four Hundred Eighteen Only
346	Dr. P. Maiti and other faculty members of Structural Engg. Section	AGM, NBCC (India) Ltd. Plot No. D-59/143, A-48 Sant Raghavar Nagar, Sigra, Varanasi (M/s Syncott International Shop NO. 19B, 2nd Floor, Shopping Plaza, Kasana Road, Gautam Buddh Nagar, UP Project Manager, M/s Infracon Private Limited S 10/64-6/8 Shree Kanth Nagar Colony M.A. Road, Chaukaghat, Varanasi	Vetting of Structural design and drawing of Group Housing Building Plan at SM Plot No. 45,33,59 Village/Mauja-Ganeshpur, Pargana Dehat Amanat, Tehsil, Varanasi	147,500.00 Rupees One Lakh Fourty Seven Thousand Five Hundred Only
347	Dr. P. Maiti and other faculty members of Structural Engg. Section	DGM/Project/RVNL/Varanasi, Varanasi Project Implementation Unit Office of the Chief Project Manager, Rail Vikas Nigam Limited, Old Kaveri School, Western Twonship, DLW, Varanasi The Executive Engineer, RED, PIU, Bhadohi	Vetting of Structural design and drawing of Group Housing Building Plan at SM Plot No. 45,33,59 Village/Mauja-Ganeshpur, Pargana Dehat Amanat, Tehsil, Varanasi	78,900.00 Rupees Seventy Eight Thousand Nine Hundred Only
348	Dr. P. Maiti and other faculty members of Structural Engg. Section	Geothech Technical Associates Pvt. Ltd., 7 Mahamanapuri, ITI Road BHU, Varanasi	Vetting of Structural design and drawing of ROB 373+200 span 1x17m + 1x36 + 1x17m on Tulsipur-Barhni Section	17,700.00 Rupees Seventeen Thousand Seven Hundred Only
349	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, (C) ROB 30 AC Office of the Dy. Project Manager, UP State Bridge Corporation	Vetting of Structural design and drawing of ROB 373+200 span 1x17m + 1x36 + 1x17m on Tulsipur-Barhni Section	23,600.00 Rupees Twenty Three Thousand Six Hundred Only



		Limited, Bridge Construction Unit-1, Near Ram Krishna Sewa Hospital, Lohia Talab, Mirzapur			
350	Dr. P. Maiti and other faculty members of Structural Engg. Section	DGM (FQA) NTPC/Nabinagar Power Generating Company Pvt. Ltd., NSIPP Stage I Shivanpur Ankorha, Aurangabad, Bihar (M/s NBCC/India Limited)	Vetting of Structural design and drawing of ROB 373+200 span 1x17m + 1x36 + 1x17m on Tulsipur-Barhni Section	353,410.00	Rupees Three Lakh Fifty Three Thousand Four Hundred Ten Only
351	Dr. P. Maiti and other faculty members of Structural Engg. Section	Chief Manager (HVDC) power Grid Corporation of India HVDC Station, Office Inside RH. STPP Rihand Nagar, Sonbhadra (M/s Sanjay Kumar Singh)	Vetting of Structural design and drawing of ROB 373+200 span 1x17m + 1x36 + 1x17m on Tulsipur-Barhni Section	30,680.00	Rupees Thirty Thousand Six Hundred Eighty Only
352	Dr. P. Maiti and other faculty members of Structural Engg. Section	Project Manager, Azamgarh Unit, UPRNN Limited, New Collectorate Campus Civil Lines, Azamgarh	Vetting of Structural design and drawing of ROB 373+200 span 1x17m + 1x36 + 1x17m on Tulsipur-Barhni Section	50,370.00	Rupees Fifty Thousand Three Hundred Seventy Only
353	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer BHU Project Division-2, CPWD, Varanasi (M/s R.K. The Aluminium People)	Vetting of Structural design and drawing of ROB 373+200 span 1x17m + 1x36 + 1x17m on Tulsipur-Barhni Section	64,900.00	Rupees Sixty Four Thousand Nine Hundred Only
354	Dr. P. Maiti and other faculty members of Structural Engg. Section	Suprintending Engineer, University Work Department, BHU (M/s Anand Enterprises)	Vetting of Structural design and drawing of ROB 373+200 span 1x17m + 1x36 + 1x17m on Tulsipur-Barhni Section	37,170.00	Rupees Thirty Seven Thousand One Hundred Seventy Only
355	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Devinder Singh)	Vetting of Structural design and drawing of ROB 373+200 span 1x17m + 1x36 + 1x17m on Tulsipur-Barhni Section	53,690.00	Rupees Fifty Three Thousand Six Hundred Ninety Only
356	Dr. P. Maiti and other faculty members of Structural Engg. Section	M/s Anmol Associates Carlton Tower No- 2 Omani Height Vibhuti Khand Gomati Nagar, Lucknow	Vetting of Structural design and drawing of ROB 373+200 span 1x17m + 1x36 + 1x17m on Tulsipur-Barhni Section	295,000.00	Rupees Two Lakh Ninety Five Thousand Only
357	Dr. P. Maiti and other faculty members of Structural Engg. Section	The Resident Construction Manager, TATA Project Limited, Govt. Allopathic Medical College Project, Shahganj Road	Testing of Bricks Coarse aggregates Fine aggregate Testing of Cement Steel Testing Cube Testing	25,488.00	Rupees Twenty Five Thousand Four Hundred Eighty Eight Only
358	Dr. P. Maiti and other faculty members of Structural Engg. Section	Addl. Project Manager, Bareilly unit-1, UPRNN Ltd. 300 Bedded Joint Hospital Campus Opp. Merital Hospital Campus Khurram Gautiya Road,	Testing of Bricks Coarse aggregates Fine aggregate Testing of Cement Steel Testing Cube Testing	88,500.00	Rupees Eighty Eight Thousand Five Hundred Only



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359	Dr. P. Maiti and other faculty members of Structural Engg. Section	Executive engineer, U.P. Awas Evam Vikas Parishad Construction Unit-Etawah Spinning Mill Campus etawah	Testing of Bricks Coarse aggregates Fine aggregate Testing of Cement Steel Testing Cube Testing	69,000.00	Rupees Sixty Nine Thousand Only
360	Dr. P. Maiti and other faculty members of Structural Engg. Section	Project Manager, UPRNN Ltd. Varanasi Unit-2, Pandeypur, Varanasi	Testing of Bricks Coarse aggregates Fine aggregate Testing of Cement Steel Testing Cube Testing	57,500.00	Rupees Fifty Seven Thousand Five Hundred Only
361	Dr. P. Maiti and other faculty members of Structural Engg. Section	Addl. Project Manager, UPRNN Ltd., Engineering College Unit, Govt. Allopathic Medical College, Sadorpur, Tanda Road, Ambedkarnagar	Testing of Bricks Coarse aggregates Fine aggregate Testing of Cement Steel Testing Cube Testing	69,600.00	Rupees Sixty Nine Thousand Six Hundred Only
362	Dr. P. Maiti and other faculty members of Structural Engg. Section	Authorized Signatory, jaiprakash Associates Ltd., Varanasi, Gorakhpur Road Project (NH-29), Base Camp. Rampur, Dhanuli, Near Dohrighat, Mau, UP	Steel Testing	67,968.00	Rupees Sixty Seven Thousand Nine Hundred Sixty Eight Only
363	Dr. P. Maiti and other faculty members of Structural Engg. Section	Unit Incharge, UPRNN Ltd., Machinery and Structural Centre, D-6 & D-7, Naini, Allahabad	Steel Testing	177,000.00	Rupees One Lakh Seventy Seven Thousand Only
364	Dr. P. Maiti and other faculty members of Structural Engg. Section	General Manager (Projects) M/s Construction India Pvt. Ltd., Project Dim-133, First Floor, Sector-19, Dwarka, New Delhi	Steel Testing	59,000.00	Rupees Fifty Nine Thousand Only
365	Dr. P. Maiti and other faculty members of Structural Engg. Section	Sr. Manager-Technical, RMC Readymix (India) (A Division of Prism Cement Ltd.), bangalore	Steel Testing	107,028.00	Rupees One Lakh Seven Thousand Twenty Eight Only
366	Dr. P. Maiti and other faculty members of Structural Engg. Section	Upper Project Manager, UPRNN Limited, Gorakhpur Unit Auditorium Site Front of Karmal School, Civil Lines, Gorakhpur	Steel Testing	259,600.00	Rupees Two Lakh Fifty Nine Thousand Six Hundred Only
367	Dr. P. Maiti and other faculty members of Structural Engg. Section	General Manager (Projects) M/s Construction India Pvt. Ltd., Project Dim-133, First Floor, Sector-19, Dwarka, New Delhi	Steel Testing	59,000.00	Rupees Fifty Nine Thousand Only





368	Dr. P. Maiti and other faculty members of Structural Engg. Section	M/s NIP Credit & Development Ltd., 201 Mahalanmi Apartment, Mahmoorganj, Varanasi	Steel Testing	64,900.00	Rupees Sixty Four Thousand Nine Hundred Only
369	Dr. P. Maiti and other faculty members of Structural Engg. Section	Site Engineer (C) I/C Hindustan Steel Works Construction Limited, HSCL Araj No- 70, Usharpurwa, Agrasen Chauraha, Shivpur, Bypass, Shivpur, Varanasi	Density Minimum & Maximum, Interlocking Bricks	44,250.00	Rupees Forty Four Thousand Two Hundred Fifty Only
370	Dr. P. Maiti and other faculty members of Structural Engg. Section	AM/CP/RITES, RITES Limited B-38/3 B-2, Maharaja nagar Colony, Mahmoorganj, Varanasi	Density Minimum & Maximum, Interlocking Bricks	44,840.00	Rupees Forty Four Thousand Eight Hundred Forty Only
371	Dr. P. Maiti and other faculty members of Structural Engg. Section	M/s Bandhu Enterprises 456/786, Sajjad Bagh Colony Dawatganj, Lucknow	Density Minimum & Maximum, Interlocking Bricks	47,200.00	Rupees Forty Seven Thousand Two Hundred Only
372	Dr. P. Maiti and other faculty members of Structural Engg. Section	DGM (Civil) NTPC Limited, Tanda Thermal Power, Vidyutnagar, Ambedkarnagar Executive	Density Minimum & Maximum, Interlocking Bricks	30,090.00	Rupees Thirty Thousand Ninety Only
373	Dr. P. Maiti and other faculty members of Structural Engg. Section	EE, Varanasi Vikas Pradhikaran, Varanasi (M/s Purvanchal Costruction) The ADEN, Northern Railway Varanasi M/s Solairedirect India LLP 75MW Solar Power Plant Project, Vijaypur, Mirzapur	Density Minimum & Maximum, Interlocking Bricks	43,660.00	Rupees Forty Three Thousand Six Hundred Sixty Only
374	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, UP Awas Evam Parishad Corporation Division-4, Office cum shopping, Bhelupur EE, Public Works Department, Bhawan Khand, Varanasi Manager, M/s ISGEC Heary Engineering Ltd., A4 Section-24, Noida Indian Builders & Contractors Pvt. Ltd., 208, Vardhaman times Plaza, Delhi	Density Minimum & Maximum, Interlocking Bricks	26,660.00	Rupees Twenty Six Thousand Six Hundred Sixty Only
375	Dr. P. Maiti and other faculty members of Structural Engg. Section	Superintending Engineer, UWD, BHU (M/s Jai Bajrang Enterprises) Project Manager (IV), Office of the General	Density Minimum & Maximum, Interlocking Bricks	37,760.00	Rupees Thirty Seven Thousand Seven Hundred Sixty Only



		Manager, Pollution Control Unit, UP Jal Nigam, Allahabad (M/s Passvant Energins & Env.) Resident Construction Manager, TATA Project Ltd., Govt. Allopathic Medical College Supretending Engineer, UWD, BHU (M/s Jai Bajranj Enterprises)			
376	Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	Nagar Nigam, Varanasi (M/s Brazkaya Construction) M/s GDCL C/o Sr. Manager (FQA-Civil) NTPC Ltd., Tanda Vidyutnagar, Ambedkar Nagar Superintending Engineer, UWD, BHU (M/s Singh Building)	Density Minimum & Maximum, Interlocking Bricks	24,780.00	Rupees Twenty Four Thousand Seven Hundred Eighty Only
377	Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	Project Manager, Balli Unit, UPRNN Ltd., Collectorate campus, Ballia	Density Minimum & Maximum, Interlocking Bricks	105,000.00	Rupees One Lakh Five Thousand Only
378	Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	Supreintending Engineer, Irrigation works circle, Varanasi EE, P.D., PWD, Chandauli	Density Minimum & Maximum, Interlocking Bricks	913,750.00	Rupees Nine Lakh Thirteen Thousand Seven Hundred Fifty Only
379	Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	Resident Engineer (Sub. Structure), M/s WAPCOS Ltd., RVNL Project Ghazipur Sr. Manager (FQA-Civil), NTPC Tanda, Thermal Power Station, Vidyut Nagar M/s IGSEC, Heavy Engineering Ltd., C/o AGM (Mechanical) RVNL 'Old Kaveri School complex' Western Township, Varanasi	Density Minimum & Maximum, Interlocking Bricks	112,048.00	Rupees One Lakh Twelve Thousand Fourty Eight Only
380	Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	Ram Prasad Pal, House No. 10/70, New Colony Kakarmatta, Varanasi S.K. Singh, Dy. CPM/DFCCCIL/ALD, 1 Floor, Old G.M. Building, N.C. Railway, Allahabad	Interlocking Brick (Paver Block): Compressive Strength	128,984.00	Rupees One Lakh Twenty Eight Thousand Nine Hundred Eighty Four Only
381	Dr. P. Maiti and other faculty memebrrs of Structural Engg. Section	Project Manager, UP Awass Evam Vikas Parishad Construction	Interlocking Brick (Paver Block): Compressive Strength	126,850.00	Rupees One Lakh Twenty Six Thousand Eight



		Unit, Varanasi office cum shopping Complex, 2 Floor, Jawahar Nagar, Bhelupur, Varanasi M/s AKS-HCIL (JV) 2/101 Vivek Khand, Gomti Nagar, Lucknow			Hundred Fifty Only
382	Dr. P. Maiti and other faculty members of Structural Engg. Section	Adhishashi Abhiyanta, Nagar Nigam, Varanasi Project Manager/Team Leader M/s Intercontinental Consultants & Technocrats Pvt. Ltd. (M/s Riya Builders Developers Pvt. Ltd.) Add. General Manager (Engg.), NBCC (India Ltd.) TFC & CM works, Kendrachal Colony, Badalapur, Varanasi	Interlocking Brick (Paver Block): Compressive Strength	137,696.00	Rupees One Lakh Thirty Seven Thousand Six Hundred Ninety Six Only
383	Dr. P. Maiti and other faculty members of Structural Engg. Section	Adhishashi Abhiyanta, Nagar Nigam, Varanasi	Interlocking Brick (Paver Block): Compressive Strength	57,820.00	Rupees Fifty Seven Thousand Eight Hundred Twenty Only
384	Dr. P. Maiti and other faculty members of Structural Engg. Section	Project Manager, ISGEC, Heay Engineering Ltd., A-4, Sector-4, Noida	Interlocking Brick (Paver Block): Compressive Strength	63,484.00	Rupees Sixty Three Thousand Four Hundred Eighty Four Only
385	Dr. P. Maiti and other faculty members of Structural Engg. Section	Vice Precident, M/s JITF Water Infrastructure Ltd., ACR Residency, Plot No. - 126, Neerav Nikunj, Sikandra, Agra Structural Engineer, M/s ATS Structural Consultant, D-27, Indira Nagar, Lucknow	Interlocking Brick (Paver Block): Compressive Strength	319,200.00	Rupees Three Lakh Nineteen Thousand Two Hundred Only
386	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Eastern Construction Company)	Interlocking Brick (Paver Block): Compressive Strength	179,820.00	Rupees One Lakh Seventy Nine Thousand Eight Hundred Twenty Only
387	Dr. P. Maiti and other faculty members of Structural Engg. Section	Supreintending Engineer, UWD BHU (M/s Anand Enterprises) Assistant Engineer, BHU Project Division-2 (M/s Anand Enterprises)	Interlocking Brick (Paver Block): Compressive Strength	30,090.00	Rupees Thirty Thousand Ninety Only
388	Dr. P. Maiti and other faculty members of Structural Engg. Section	Unit Incharge, UPRNNL, Court Residential Area, Ravindra Nagar, Dhusikusinagar	Interlocking Brick (Paver Block): Compressive Strength	318,600.00	Rupees Three Lakh Eighteen Thousand Six Hundred Only



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389	Dr. P. Maiti and other faculty members of Structural Engg. Section	Project Manager, M/s WAPCOS Ltd., RVNL Project Ghazipur (M/s S.P. Singla, Construction Pvt. Ltd., Medinipur, Ghazipur MGR, IPDS, Power Grid Corporation of India Ltd., IPDS Office Varanasi & KEI Industries Ashapur, Moiya Sarnath, Near Dirghayu Hospital, Varanasi	Interlocking Brick (Paver Block): Compressive Strength	199,964.00	Rupees One Lakh Ninety Nine Thousand Nine Hundred Sixty Four Only
390	Dr. P. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, BHU Project Subdivision-3 CPWD, Varanasi (M/s Immediate Construction Company Pvt. Ltd.)	Interlocking Brick (Paver Block): Compressive Strength	114,696.00	Rupees One Lakh Fourteen Thousand Six Hundred NinetySix Only
391	Prof. A. Jamal, Prof. S.K. Sharma and Prof. S. Ratan	Avaal, Power Company Pvt. Ltd., IGSTPP, Jhal, Haryana	Grading of Coal	27,300.00	Rupees Twenty Seven Thousand Three Hundred Only
392	Dr. G.S.P. Singh	M/s Gayatri Projects Limited, Hyderabad	Stability of the barrier pillars	190,429.00	Rupees One Lakh Ninety Thousand Four Hundred Twenty Nine Only
393	Prof. B.K. Shrivasta, Dr. Rajesh Rai	NCL, Singrauli	Slope Stability	700,000.00	Rupees Seven Lakh Only
394	Prof. S.K. Sharma, Dr. G.S.P. Singh	WCL, Nagpur	Study of slope stability and analysis of existing internal and external OB dump of the fire opencast project "M/s. Northern Coalfields Ltd., Singrouli"	500,000.00	Rupees Five Lakh Only
395	Prof. S.K. Sharma, Dr. G.S.P. Singh, Dr. Tarun Verma and Dr. Nawal Kishore	Krishna Mining works, Sonebhadra	Scientific study for design of blast pattern and ground vibration monitorin	300,000.00	Rupees Three Lakh Only
396	Prof. S.K. Sharma, Dr. G.S.P. Singh, Dr. Tarun Verma and Dr. Nawal Kishore	Baghel Infra (P) Ltd.	Blast optimization in Rock Blasting work of BIPL at DPSI Obra	125,000.00	Rupees One Lakh Twenty Five Thousand Only
397	Prof. A. Jamal, Prof. S.K. Sharma, Dr. A.K. Singh and Prof. S.Ratan	M/s D.B. Power Ltd., Mumbai	Grading of Coal	144,900.00	Rupees One Lakh Forty Four Thousand Nine Hundred Only
398	Prof. B.K. Shrivasta, Dr. Rajesh Rai and Dr. Ashok Jaiswal	M/s Indigo Infra projects pvt. Ltd., New delhi	Slope stability, Shoring, Soil Nailing, Desing and build slope stabilization	161,000.00	Rupees One Lakh Sixty One Thousand Only
399	Prof. B.K. Shrivasta, Dr. Rajesh Rai and Dr. Ashok Jaiswal	M/s Indigo Infra projects pvt. Ltd., New delhi	Shoring desing, Soil Nailing, Support Design & Build Shoring system for DLF	161,000.00	Rupees One Lakh Sixty One Thousand Only
400	Prof. S.K. Sharma, Prof. A. Jamal and Dr. A.K. Singh	M/s NCL Singrauli	Sampling and Analysis of all coal seems of all the coal mine grading of coal for 2016-17	554,112.00	Rupees Five Lakh Fifty Four Thousand One



					Hundred Twelve Only
401	Prof. A. Jamal Prof. S.K. Sharma	M/s Aravali Power Company Pvt. Ltd., Haryana	Grading of Coal	21,840.00	Rupees Twenty One Thousand Eight Hundred Forty Only
402	Prof. Piyush Rai, Dr. Suresh Kr. Sharma	M/s. SNS (Minerals Ltd.) Satna	Study ground vibration and fly rock	29,500.00	Rupees Twenty Nine Thousand Five Hundred Only
403	Prof. B.K. Shrivastava, Dr. Ashok Jaiswal	M/s SECL, Bilaspur	Study ground vibration and fly rock	1,683,000.00	Rupees Sixteen Lakh Eighty Three Thousand Only
404	Prof. B.K. Shrivastava, Dr. Rajesh Rai, Dr. Ashok Jaiswal	M/s IndigoInfra Projects Pvt. Ltd., New Delhi	Shoring desing, Soil Nailing, Support Design & Build Shoring system for DLF	118,000.00	Rupees One Lakh Eighteen Thousand Only
405	Prof. S.K. Sharma, Dr. GSP Singh, Dr. T. Verma, Dr. N. Kishore	M/s SECL, Bilaspur	Blast optimization in Rock Blasting work of BIPL at DPSI Obra	1,105,169.00	Rupees Eleven Lakh Five Thousand One Hundred Sixty Nine Only
406	Prof. B. K. Srivastava, Dr. Rajesh Rai, Dr. Ashok Jaiswal	M/s Indigo Infra projects pvt. Ltd., New delhi	Shoring desing, Soil Nailing, Support Design & Build Shoring system for DLF	147,500.00	Rupees One Lakh Fourty Seven Thousand Five Hundred Only
407	Prof. A. Jamal, Prof. S.K. Sharma	M/s CCL, Dhori Area	Grading of Coal	184,080.00	Rupees One Lakh Eighty Four Thousand Eighty Only
408	Prof. A. Jamal, Prof. S.K. Sharma	M/s Haldia energy Ltd. & Dhariwal Infra. Ltd	Grading of Coal	56,160.00	Rupees Fifty Six Thousand One Hundred Sixty Only
409	Prof. A. Jamal, Prof. S.K. Sharma	M/s Jhajjar Power Limited, Haryana	Grading of Coal	38,350.00	Rupees Thirty Eight Thousand Three Hundred Fifty Only
410	Prof. A. Jamal, Prof. S.K. Sharma	M/s U.P. Rajya Vidyut Utpadan Nigam Limited, Sonebhadra	Grading of Coal	283,790.00	Rupees Two Lakh Eighty Three Thousand Seven Hundred Ninety Only
411	Dr. Vijay Laxmi Yadav	Asstt. Engg. Kanhar Niranman Sub division - 3, Pipari, Sonebhadra	Spilve construction OPD/ PPC testing	85,100.00	Rupees Eighty Five Thousand One Hundred Only
412	Prof. P.K. Mishra	Lohia Corp. Ltd., Lohia Ind. Complex, Chaupepur, Kanpur	Chemical Work related - Consultancy	258,750.00	Rupees Two Lakh Fifty Eight Thousand Seven Hundred Fifty Only





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413	Prof. P.K. Mishra	Asstt. Engg. BHU, Project Subdivision - 2, CPWD, Varanasi	CPCB Sponsored Project Converted into Consultancy & Testing Project	2,919,932.00	Rupees Twenty Nine Lakh Nineteen Thousand Nine Hundred Thirty Two Only
414	Prof. P.K. Mishra	Asstt. Engg. BHU, Project Subdivision - 2, CPWD, Varanasi	CPCB Sponsored Project Converted into Consultancy & Testing Project	6,175,200.00	Rupees Sixty One Lakh Seventy Five Thousand Two Hundred Only
415	Prof. B.N. Rai	General Manager, Kakari Project, NCL, Kakari Project Sonebhadra	Water Testing	54,280.00	Rupees Fifty Four Thousand Two Hundred Eighty Only
416	Prof. P.K. Mishra	Surya Mani Tiwari, Director Chandra Woollen Pvt. Ltd., Ugapur, Awrai, Bhadohi	Chemical Testing	160,000.00	Rupees One Lakh Sixty Thousand Only
417	Dr. Vijay Laxmi Yadav	General Manager, Khadia Project, Shaktinagar, Sonebhadra	Chemical Testing	22,080.00	Rupees Twenty Two Thousand Eighty Only
418	Prof. P.K. Mishra	Director, Modinagar Paper Mills Ltd., Modinagar	Chemical Testing	64,800.00	Rupees Sixty Four Thousand Eight Hundred Only
419	Prof. B.N. Rai	General Manager, NCL, Bina Project, Sonebhadra	Water Testing	55,224.00	Rupees Fifty Five Thousand Two Hundred Twenty Four Only
420	Prof. B.N. Rai	Gourav Upadhyay, B.Tech. Part III, Mechanical Engg., IIT(BHU)	Water Testing	46,000.00	Rupees Forty Six Thousand Only
421	Dr. C.K. Behara, Prof. (Smt.) NCS Srinivas	M/s NCL, Singrauli, MP	Chemical Analysis, Physical Testing	59,570.00	Rupees Fifty Nine Thousand Five Hundred Seventy Only
422	Dr. C.K. Behara	M/s. JKM, Infra Projects Ltd., Noida, UP	Chemical Analysis	23,000.00	Rupees Twenty Three Thousand Only
423	Dr. C.K. Behara	M/s. Ircon International Ltd., New Delhi	Chemical Analysis	23,000.00	Rupees Twenty Three Thousand Only
424	Dr. C.K. Behara, Prof. (Smt.) NCS Srinivas	M/s. Techno Electric & Engg. Co. Ltd., Vindhyanagar, Singrauli	Chemical Analysis, Physical Testing	70,840.00	Rupees Seventy Thousand Eight Hundred Forty Only
425	Dr. C.K. Behra	Dy. Chief engineer/ Eastern Central Railway, Chopan	Chemical Analysis	27,600.00	Rupees Twenty Seven Thousand Six Hundred Only



426	Prof. NC Santhi Srinivas	M/s. Airport Authority of India	Mechanical Testing	55,650.00	Rupees Fifty Five Thousand Six Hundred Fifty Only
427	Prof. G.V.S. Sastry	M/s L.P.S.C. NMC, Valiamala	TEM Analysis	193,230.00	Rupees One Lakh Ninety Three Thousand Two Hundred Thirty Only
428	Dr. C.K. Behera	M/s. Jaiprakash Associates Ltd., Gorakhpur	Chemical Testing	33,040.00	Rupees Thirty Three Thousand Fourty Only
429	Dr. R. Manna	M/s SAIL, RDCIS, Ranchi	Study of SALIMA 550 HI Steel	1,036,158.00	Rupees Ten Lakh Thirty Six Thousand One Hundred Fifty Eight Only
430	Dr. R. Manna	M/s SAIL, RDCIS, Ranchi	TEM Analysis, Mecahnical Testing	1,036,158.00	Rupees Ten Lakh Thirty Six Thousand One Hundred Fifty Eight Only
431	Dr. R. Manna	M/s Rail Vikas Nigam Ltd., Medinipur, Ghazipur	Study of SALIMA 550 HI Steel	121,540.00	Rupees One Lakh Twenty One Thousand Five Hundred Fourty Only
432	Prof. R.K. Srivastava	Proclaim Risk & Allied service Pvt. Ltd., Gurgaon, Haryana	Analyzing the cause of damage to 150 MW Generator at Shree Mega power	30,680.00	Rupees Thirty Thousand Six Hundred Eighty Only
433	Prof. R. Mahanty	Project Manager High Courth Electrical Unit, UPRNN Ltd. Gomti Nagar, Lucknow	Quality control inspection of Const. of Hon'ble High Court and 3 additional block of advocate chamber and multilevel parking in new permises of Hon'ble High Court Building at Lucknow	151,200.00	Rupees One Lakh Fifty One Thousand Two Hundred Only
434	Dr. Rajeev Kumar Singh	Project Manager UPRNN Ltd. Govt. Medical College Residential Unit, kannouj	Inspection and verificaton of electrical work, air conditioning work, fire fighting work, networking work etc.	295,000.00	Rupees Two Lakh Ninety Five Thousand Only
435	Dr. Rajeev Kumar Singh	Additional Project Manager UPRNN Ltd. Electrical Unit, Kanpur	Inspection and verification of the work at Govt. Medical College, Banda	486,000.00	
436	Prof. S.K. Sinha, Prof. A.K. Agrawal, Dr. Debashis Khan	The Chief General Manager, Nigahi Project, NCL, Singrauli	Investigation of the causes of failure of boom assembly of Bajrang 20/90 Russian Dragline working at the Nigahi Project, NCL, Singrauli	172,500.00	Tupees One Lakh Seventy Two Thousand Five Hundred Only



437	Prof. V.K. Srivastava	The Chief General Manager, Nigahi Project, NCL, Singrauli	Investigation of the causes of failure of boom assembly of Bajrang 20/90 Russian Dragline working at the Nigahi Project, NCL, Singrauli	115,000.00	Rupees One Lakh Fifteen Thousand Only
438	Dr. S.K. Panda	MEJA Thermal Power Project, Naine, Allahabad	Investigation of the causes of failure of boom assembly of Bajrang 20/90 Russian Dragline working at the Nigahi Project, NCL, Singrauli	105,000.00	Rupees One Lakh Five Thousand Only
439	Dr. S.K. Panda	MEJA Thermal Power Project, Naine, Allahabad	Investigation of the causes of failure of boom assembly of Bajrang 20/90 Russian Dragline working at the Nigahi Project, NCL, Singrauli	420,000.00	Rupees Four Lakh Twenty Thousand Only
440	Miscellaneous Consultancy Expenses of All Department / Schools			1,543,983.00	

#### Faculty Member's who participated with other Universities under MoUs

Sl. No.	Particulars	Faculty Members	Date of Signed MoUs
1	Louisiana State University Health Sciences Centre - New Orleans, USA (LSUHSC-NO)	Prof. S.K. Shrivastava, Deptt. of Pharmaceutical Engg. & Tech., IIT(BHU)	06.05.2017
2	Institute of Inorganic and Materials Chemistry, University of Cologne, Cologne, Germany	Dr. Indranil Sinha, Deptt. of Chemistry, IIT(BHU)	29.06.2017
3	Pennsylvania State University, College Park, US	Prof. P.K. Jain, Deptt. of Electronics Engg., IIT(BHU)	10.11.2017
4	Indian Institute of Roorkee, Roorkee, Uttarakhand	Dr. Brind Kumar, Deptt. Of Civil Engg., IIT(BHU)	27.02.2018

#### International MoUs

Sl. No.	Particulars	Year
1	Louisiana State University Health Sciences Centre - New Orleans, USA (LSUHSC-NO)	06.05.2017
2	Institute of Inorganic and Materials Chemistry, University of Cologne, Cologne, Germany	29.06.2017
3	Palmsens BV, Randhoeve 221, 3995 GA Houten, The Netherlands	19.10.2017
4	Pennsylvania State University, College Park, US	10.11.2017

**National MoUs**

Sl. No.	Particulars	Year
1	M/s Baijnath Pharmaceuticals Pvt. Ltd., Paprola, Tehsil Baijnath, Distt. Kangra (H.P.)	08.06.2017
2	Indian Refractory Makers Association (IRMA), Kolkata	17.10.2017
3	TATA Motors Limited, Mumbai	31.08.2017
4	HP India Sales Pvt. Ltd., No. 24, Salarpuria Arena, Hosur Main Road, Adugodi, Bangalore, Nalanda Foundation, D-35 Defence Enclave, New Delhi, Drstikona Consultancy and Program Management Services Pvt. Ltd., F-124, Sarita Vihar, New Delhi	12.01.2018
5	Council of Science & Technology, UP (CST, UP), Luknow	17.01.2018
6	Indian Institute of Roorkee, Roorkee, Uttarakhand	27.02.2018

## 30. Institute Works Department

The Institute Works Department, IIT(BHU) has been established in 2014, it is entrusted with the responsibility of repair, renovation and maintenance of hostel and administrative building and providing various services. This department also awards contracts in a transparent manner and in the best interest of the Institute by ensuring that all round integrity as well as the best possible standard are maintained, with adequate supervision. In this context, Institute Works Department has issued several number of work orders upto Rs. 5.00 Lakhs in respect of minor repair, renovation and maintenance works related to Civil and Electrical wing total amounts of Rs. 2,05,01,308.00 and Rs. 1,56,68,349.00 respectively in the financial year 2017-18.

Under the Institute Works Department, the following works above of Rs. 5.00 Lakh are in progress during the period April, 2017 to March, 2018.

### Major works (Civil)

Sl. No.	Name of Work	Amount (in Rs.)
1	Providing and fixing vitrified tile flooring, Scraping, putty, distempering Work of Class Room no. (222, 223, 224 & 225), Library, Faculty Room 10 nos. & Guest Room 2 nos. and tile flooring in Potico of Department of Electronics Engineering, IIT(BHU), Varanasi	1591637.00
2	Special repair of slab and beam (Gunniting work) of power electronics lab and its front, back, right corridor at 1st floor in department of electrical Engineering, IIT(BHU), Varanasi- Phase-I	2214557.37
3	Repair to patch Plaster, Scraping, distempering and painting works of common place area & all Room, PF of glass pan in door & window, construction of sewer line mess side & construction Volleyball court in Vishwakarma hostel, IIT(BHU), Varanasi	2320806.00
4	Repair to patch plaster, scraping, distempering and painting works of common place area & all room and construction of ramp in Vivekanand Hostel, IIT(BHU), Varanasi	2228163.50
5	Renovation of toilets (6 nos), construction of ramp, re-construction of sewer line of mess area, balance barbed wire fencing, PF of M.S. grill in window, repairing of C.C. road & painting of common place area (Mess, Toilets) in C.V. Raman Hostel of IIT(BHU), Varanasi	2079209.00
6	Repair to patch Plaster, Scraping, distempering and painting works of common place area & all Room, surface dressing (West side ground) & Aluminum door (New mesh Toilet) in Vishwesharaiya Hostel, Varanasi	2473117.75
7	Repair to patch plaster, scraping, distempering and painting works of common place area & all room in Rajputana Hostel, Varanasi	2578924.00
8	Construction of chain link fencing 5' height above 1' brick work of 9" thick including pipe, flats at behind LT-2 towards Bio-medical, Mathematics and Computer Engineering Science, IIT(BHU), Varanasi	1813430.00
9	Construction of chain link fencing 5' height above 1' brick work of 9" thick including pipe, flats at Proctor Office to SMST to DSS-A and DSS-A to Bio-Chemical Gate, IIT(BHU), Varanasi	2487203.00
10	Providing and lying vitrified tile flooring, kota stone, false ceiling, aluminium partition and painting work of Tribology lab, Dynamics lab, CIMS and Ergonomic Labs Department of Mechanical Engineering, IIT(BHU)	2208206.00
11	Construction of Cafe Coffee Day Building at south side of Vivekanand Hostel, IIT (BHU).	2810429.00
12	Providing & fixing puff panel roofing after removing of old asbestos sheet of Black smithy and Fitting shop & welding shop of Main Workshop, IIT(BHU), Varanasi	2308423.00





13	Construction of chain link fencing 5' height above 1' brick work of 9" thick including pipe, flats starting from Civil Engineering to Electrical Engineering upto Cafeteria Gate, IIT(BHU), Varanasi	2292035.00
14	Providing & fixing corrugated puff panel roofing after removing of old asbestos sheet of Carpentry & sheet metal shop of Main workshop, IIT(BHU), Varanasi	2131454.00
15	Purchase & Installation of Library Furniture	6800000.00
16	Construction of chain link fencing 5' height above 1' brick work of 9" thick including pipe, flats from Cafeteria gate to Electronics Department including LT-1 and front of NCC building, IIT(BHU), Varanasi	2214982.00
<b>TOTAL AMOUNT Rs.</b>		<b>40552576.62</b>

### Major works (Electrical)

Sl. No.	Name of Work	Order Value
1	Connectivity of 33kV Bays (2-Nos) of IIT(BHU) at 132 kV BHU Substation, Varanasi	727335.00
2	Electrical illumination and rewiring of G-11 Multipurpose Hall, IIT(BHU)	830646.00
3	Power point insatallation of 100 rooms on ground floor & general repair & maintenance of the morvi Hostel, IIT(BHU)	860248.00
4	Quotation are invited from EWSS, BHU empanelled contractors and who have executed similar type of electrical works in IWD, IIT(BHU), Varanasi.	910789.00
5	Supply & installation of Power Cables in Tennis court, Baketball & Vollyball ground near Rajputana ground Hostel, IIT(BHU), Varanasi	908300.00
6	Electrical work of furnace Room and XRD in ARCIS, Department of Metallurgical Engineering, IIT(BHU), Varanasi	545936.00
7	Street & Area lighting work of the IIT(BHU), Varanasi	1653146.00
8	Electrical work of provide power supply or UPS & Server Switch of various places of IIT(BHU), Varanasi	728441.00
9	Electrical illumination, rewiring, power point and cabling work in the Production Lab of Mechanical Engineering, IIT(BHU), Varanasi	770520.00
10	supply & laying of Cable from DSS-A to Department of Chemical Engineering, IIT(BHU), Varanasi	672300.00
11	supply & installation of power cable for dedicated power supply from New Science DSS BHU to Department of Metallurgical Engineering, IIT(BHU), Varanasi	987550.00
12	street & area lighting work of the IIT(BHU), Varanasi	597700.00
13	street & area lighting work of the IIT(BHU), Varanasi	597701.00
14	electrical work of furnace Room and XRD in ARCIS, Department of Metallurgical Engineering, IIT(BHU), Varanasi	683949.00
15	Supply & installation of Air condition in the top floor of the Department of Humanistic studies, IIT(BHU)	987426.00
<b>TOTAL AMOUNT Rs.</b>		<b>1,24,61,987.00</b>



**The following major works completed by CPWD (Civil) during the year 2017-18:**

Sl. No.	Name of Work	Amount (Rs. in lacs)
1.	Construction of Transit Married Hostel (Block C) at IIT(BHU), Varanasi.	451.560
2.	Construction of 1st & 2nd floor of Department of Mathematical Science Building at IIT(BHU), Varanasi.	253.430
3.	Construction of 2nd floor of Computer Engineering Annexe building and 2nd & 3rd floor of Computer Engineering building at IIT(BHU), Varanasi.	285.670
4.	Construction of Control room building i/c internal E.I. at IIT(BHU), Varanasi.	124.379
<b>Grand Total</b>		<b>1115.039</b>

**The following major works in progress through CPWD (Civil) during the year 2017-18**

Sl. No.	Name of Work	Amount (Rs. in lacs)
1.	Construction of Faculty Apartment (G+5) of 1st block at IIT(BHU), Varanasi.	1204.720
2.	Construction of Faculty Apartment (G+5) of 2nd block at IIT(BHU), Varanasi.	1171. 200
3.	Construction of Girls Hostel (G+6) along with boundary wall at IIT(BHU), Varanasi.	3692.154
4.	Construction of Lift and CC road including SITC of 13 passengers lift in NCC building at IIT(BHU), Varanasi.	60.719
5.	Renovation and up-gradation of ground floor of existing Library building and construction of boundary wall i/c electric installation/fan fittings, air conditioning and fire alarm system at IIT(BHU), Varanasi.	297.535
6.	C/o Chain link fencing & C.C. road in 33 kV GIS & DSS (A) around SCADA Building, (Control Room Building) at IIT(BHU), Varanasi.	47.021
<b>Grand Total</b>		<b>6473.349</b>

## 31. Main Workshop

Year of Establishment : 1978

### Introduction

The vision of the founder of Banaras Hindu University, Pt. Madan Mohan Malviya ji, regarding the engineering education in this university can be seen in his own Wordings as stated below.

**“To advance and diffuse such scientific, technical and professional knowledge combined with necessary practical training as is best calculated to help in promoting indigenous industries and in developing the material resources of the country.”**

It is with this idea that Malviya ji went for a full scale Workshop in this engineering college, which was christened as Banaras Engineering College (BENCO). This workshop was used to produce every engineering item that was used in construction of producing machine tools – such as, Lathe and other product like electric fans, etc. This unit was providing technical assistance to Martin Burn Electricity Co. and also Diesel Locomotive Works for the maintenance and fabrication of their several items. It may kindly be noted that for a long time, this unit was a part of teaching department, i.e., the Mechanical Engineering Department. To make good use of the resources, both in terms of machines and manpower with the unit, it was providing technical and on the job technical training to less privileged section of the society. This was making extra manpower available to the University for producing useful products and taking various kinds of maintenance work, thereby saving enormous amount of money of the University. For example, the whole fleet of University vehicles was maintained by this workshop.

### Activities (IIT-Main Workshop 2017–2018)

The Main Workshop of the Indian Institute of Technology (BHU) is offering the following services to the Institute/University/Outsiders.

#### At Institute Level

1. Training to B.Tech. Pt-I students of all branches and B.Tech. Pt-II Mech. Engg. Students to expose them to various manufacturing practice and processes.
2. Providing facilities for fabrication involved in project work to all the engineering students.
3. Helping students by way of fabricating the models and equipments for research.
4. Helping students by way of fabricating the models for Institutional Tech. Fest & Department fest like: Technex, Comet, etc.
5. Helping students in shaping the product that come out of their creative & innovative thinking.

#### At The Institute Level

1. Inspecting the furniture supplied to the different hostels of IIT (BHU).
2. Providing technical and support services in purchase and maintenance of the University vehicles of all types.
3. Providing facilities and also the technical know-how for development of industrial and innovative products.

#### To Outsiders

1. Training to the students of other engineering colleges.
2. Providing processing and production facilities to outsiders.
3. Providing Summer Training to the undergraduates of different
4. Engineering College.

### Core Team of The Main Workshop

1. Prof. V.K. Srivastava (Prof. Incharge)
2. Dr. Sankara Rao L. (Sr. Technical Officer)
3. Shri Basudeb Rajak (Sr. Technical Officer)
4. Dr. S.K. Mandal (Sr. Technical Officer)



**Data of Staff Details (Name of Shop)**

Sl. No.	Emp. No.	Name of Employee	Designation	Shop/Lab.
1.	50090	Sri Ravi Kumar Sonkar	Junior Asstt.	Office
2.	18669	Sri Arvind Kumar Singh	Junior Technical Supdt.	C.N.C
3.	13668	Sri G.K. Shukla	Senior Technician	C.N.C
4.	19268	Sri Ravi Shankar Singh	Junior Technical Supdt.	C.N.C
5.	13628	Sri Shree Kumar	Junior Technical Supdt.	Carpentry
6.	13632	Sri Jagdish Prasad	Junior Technical Supdt.	Carpentry
7.	13633	Sri Vikrama Prasad	Junior Technical Supdt.	Carpentry
8.	18070	Sri Chandra Bhushan	Senior Technician	Carpentry
9.	18675	Sri Jagdish	Senior Technician	Carpentry
10.	13637	Sri Haldhar Vishwakarma	Junior Technical Supdt.	Black Smithy
11.	18664	Sri Brijesh Kumar Singh	Senior Technician	Black Smithy
12.	11561	Sri Bhola Nath	Junior Technical Supdt.	Black Smithy
13.	13999	Sri Yamuna Ram	Junior Technical Supdt.	IDC
14.	18676	Sri Ashwani Kumar Tiwari	Senior Technician	IDC
15.	18671	Sri Dheeep Kumar B.	Senior Technician	IDC
16.	13615	Sri K.N.A Choudhary	Technical Supdt.	IDC
17.	18607	Sri Karun Vishwakarma	Senior Technician	IDC
18.	13636	Sri Lallan Prasad	Junior Technical Supdt.	Fitting
19.	13630	Sri R.K. Sharma	Junior Technical Supdt.	Fitting
20.	18670	Sri Kunwar Bahadur	Senior Technician	Fitting
21.	18665	Sri Bipin Kumar Rai	Senior Technician	Fitting
22.	18032	Sri Sunil Kumar	Senior Technician	Fitting
23.	16534	Sri Ram Bhaju Prasad	Senior Technician	Foundry
24.	13623	Sri L.B. Singh	Technical Supdt.	Foundry
25.	13631	Sri Lal Prakash Singh	Junior Technical Supdt.	Foundry
26.	18606	Sri Rajendra P. Vishwakarma	Senior Technician	Foundry
27.	19274	Sri Gopal Rana	Senior Technician	Foundry
28.	13626	Sri Mahendra Kumar	Junior Technical Supdt.	Foundry
29.	13629	Sri Bechai Prasad	Junior Technical Supdt.	Machine Shop
30.	18603	Sri Vijay Kumar Singh S/o Sri R.P.Singh	Senior Technician	Machine Shop
31.	18605	Sri Ajay Kumar Yadav	Senior Technician	Machine Shop



32.	18051	Sri Vijay Kumar S/o Sri Sohan	Senior Technician	Machine Shop
33.	19267	Sri Chandra Mohan Singh	Junior Technical Supdt.	Machine Shop
34.	18031	Sri Lakhmi Chand	Technical Supdt.	Auto
35.	18663	Sri Jitendra Kumar	Senior Technician	Auto
36.	18667	Sri Banarasi Rao	Senior Technician	Auto
37.	18602	Sri Ravindra Kumar	Senior Technician	Auto
38.	18052	Sri Dilip Kumar Sharma	Senior Technician	Welding
39.	18040	Sri Vijay Kumar Singh S/o Sri Ram Alam Singh	Senior Technician	Welding
40.	18666	Sri Billu Guria	Senior Technician	Welding
41.	13619	Sri Munna Lal	Technical Supdt.	Sheet Metal
42.	18646	Sri Gopal Kumar Kharwar	Senior Technician	Sheet Metal
43.	13634	Sri T.B. Singh	Junior Technical Supdt.	Sheet Metal
44.	18604	Sri Anil Kumar Vishwakarma	Senior Technician	Electroplating
45.	18044	Sri Santosh Kr. Maurya	Junior Technical Supdt.	Electroplating

### Library Facilities

85 Nos. of Video CDs related to Power Hand Tools, Welding, CNC, Foundry, Carpentry, Mechanical Engineering manufacturing techniques & Safety are available in Workshop for instruction to the students of B. Tech during workshop practice classes.



## 32. Malaviya Centre for Innovation, Incubation & Entrepreneurship (MCIIE)

Year of Establishment : 1978

Malaviya Centre for Innovation Incubation and Entrepreneurship (MCIIE) was registered in the year 2008 as a not-for-profit society under India's society registration act of 1860. Till the year 2014-15 it remained largely supported by National Science and Technology Entrepreneurship Development Board (NSTEDB) under Department of Science & Technology (DST), Government of India. Onward, since 1 April 2015 the recurring expenditure of MCIIE is being met by fund provided by IIT (BHU) Varanasi.



### Indian Institute of Technology (BHU) Varanasi

- Registered since 2008, as not for profit society under society registration act 1860
- Governed through its own Governing body
- Office Bearers (As on date)
  - President : Prof. Rajeev Sangal, Director, IIT (BHU)
  - Secretary : Prof. P.K. Mishra
  - Treasurer : Dr. Pradeep Srivastava

### Partners

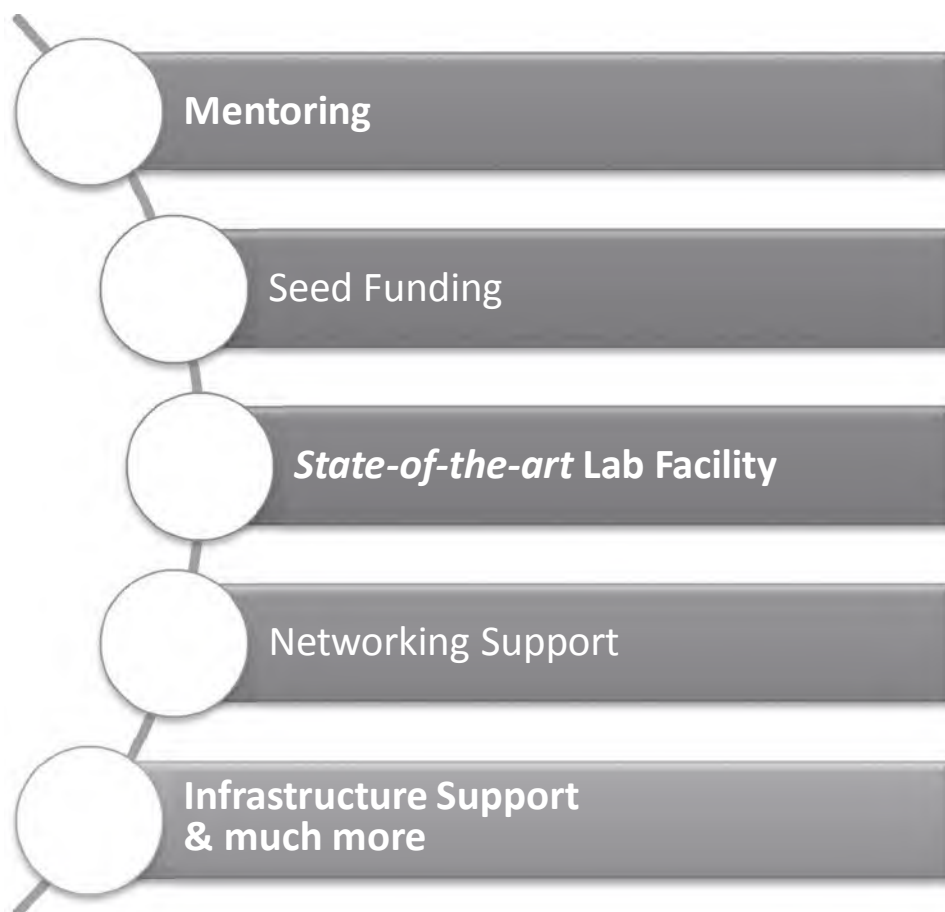
- NSTEDB, Department of Science & Technology, Govt. of India, New Delhi
- DSIR, Govt. of India, New Delhi
- TIFAC, New Delhi
- Ministry of MSME, Govt. of India
- EDII, Ahmedabad



**About**

The Malaviya Centre for Innovation and Incubation (MCIIE) at IIT (BHU) Varanasi is functional since 2011. The MCIIE aims to promote Techno-Entrepreneurship and enterprise creation. One of our key interventions is to provide Business Incubation to technology start-ups.

We nurture potential ideas through an ambit of support services and requisite infrastructure support and help them grow from idea to flourishing businesses. The support services offered to incubate have been depicted as under:



MCIIE also offers office infrastructure support including work space, shared office services, access to high speed internet, access to its laboratory and specialized equipment and value added services like mentoring, seed support, access to finance, technical assistance and networking support.

**Objectives**

MCIIE at IIT-BHU aims to achieve the following:

- New Venture Creation through providing incubation and host of other support in the areas of Information and Communication Technology (ICT), Biotechnology, Food Technology, Agriculture and allied sectors.
- Technology commercialization, targeted at providing a much needed platform for speedy commercialization of technologies developed in the academic and R&D institutions to reach the end users.
- Interfacing and Networking between academic, R&D institutions, industries and financial institutions.
- Value Addition through its services provided to its incubates as well as to the existing technology dominated SMEs, MCIIE aim at value addition.
- Creating value added jobs & services,



- Fostering the entrepreneurial spirit.

### For Whom?

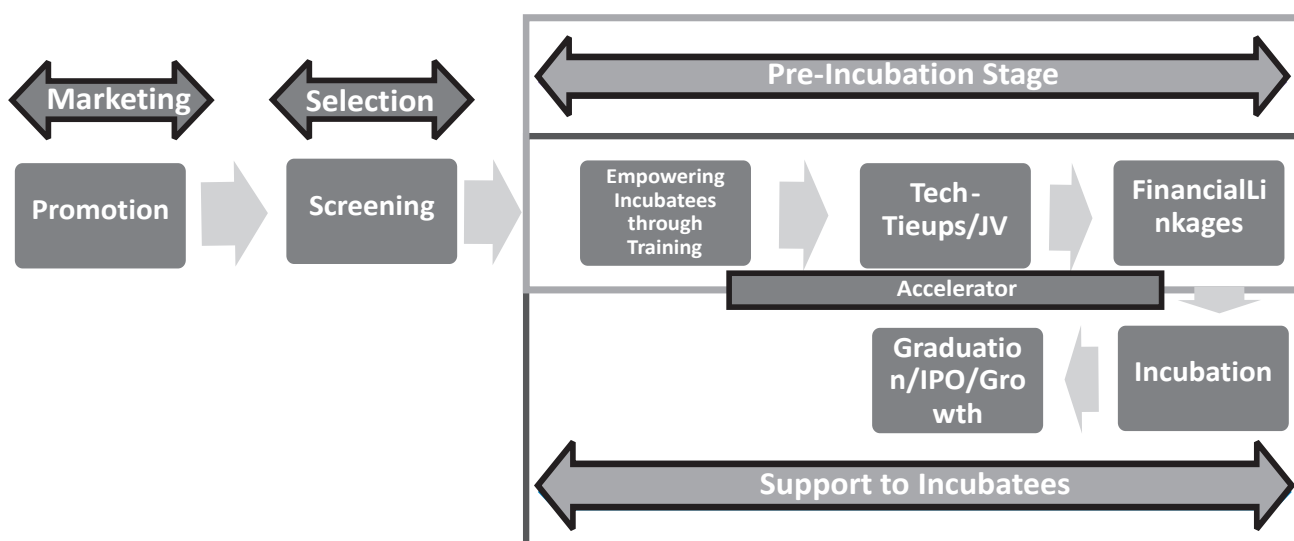
The admission to MCIE is open to aspiring start-ups in the areas of, Information and Communication Technology (ICT), Biotechnology, Food Technology, Agriculture and allied sectors, promoted by:

- Students and alumni of IIT (BHU).
- Faculty members (present or former) of IIT (BHU)
- R & D partners (sponsors of R&D and consultancy projects),

MCIE designed and also implemented a new process for selection of Startup-preneurs.

### New Process for Incubatees selection/Screening:

1. Promotion – School, Engineering Colleges of Purvanchal region
2. Screening – Psychometric Testing, Presentation, Interview, Counselling to rejected applications
3. Training & Empowering Incubatees- Business Training, Administrative training, Setting up a small enterprise (rules, procedures, formalities), Business opportunity identification (screening, firming-up), Market assessment, Entrepreneurial competencies (strengthening soft skills), Business plan preparation, Essentials of managing a small enterprise, Inputs on how to implement a project
4. Counselling / Technology Tie-up & JV – Counselling, Consultancy, Coaching, Mentor identification, Tie up for grey areas, Finalizing their business ideas, Developing their own business plans, The process of project implementation, Technology tie-ups, Business partnerships (Joint Venture collaborations, Seeking necessary licenses and completing legal documentation including IPR services
5. Financial Linkages – Linking with Financial Institutions, Govt. funds and grants, appropriate financial linkages is identified based on project requirements and entrepreneur investment capability, Need based advice and support is provided by the financial counsellor, “Venture Capital Fund for Selected Incubatee”.
6. Incubation – Prototyping, Business and Technology Consultancy, Marketing, Promotion, Essential linkages are facilitated with institutions dealing with infrastructure operators, Guidance and support on issues related to procurement, installation and commissioning,
7. Graduation/Growth/Exit Access to information and data / Developing growth business plans, Business Counseling, Co-entrepreneurship & Angels Program, Technology upgrading: Raw materials sourcing, sourcing of technology, Quality management & upgrading to ensure adherence to international markets, Legal support, networking, networking with Gov. Organization (both Financial & Non-Financial Institutions) Business Counsellor and Financial Counsellor closely monitor the project implementation process.





## Incubation Status

### Present and Graduate Incubates at TBI, IIT (BHU)

Sr. No	Name of Start-up	Promoter/ Innovator	Product/Services
1.	Agati Health Care	Mamta Sharma [ PhD, Biochemistry, BHU, 1998]	Nutraceutical Products Colostrum based Products
2.	Kashi Handicrafts	Prince Diwakar OshoSidhant Sonveer Singh	[Pursuing B Tech, from IIT (BHU)]Craft Emporio aims to do online selling of art and crafts made by indigenous artisans and craftsmen of India. It brings on scene the local designers/artists from the hinterland of India to showcase their talent to a bigger audience.
3.	iMinBitTechIndia	Naveen Kumar [B Tech, IIT (BHU), Civil Engg.; 2014 ] Rohit Mittal [B Tec & MTech, IIT (BHU), Civil Engg. ; 2015]	Water saving RO water filters
4.	Shrimali Organics	Abhijeet Kushwaha, M.Tech, Chem. Engg., IIT (BHU)	Water based adhesive
5.	Rosehub Edutainment	Ramkesh Patel and Sagar Das	Rosehub promotes innovation and creativity in Education.
6.	Tech-Machinery & More	Gaurav Kedia and Binod Daga	Machine and more is an online market place for trading of new and used machinery and related services. The idea of the market place is to create one stop for all the needs related to machinery. So if you want to buy a new machinery or you want to sell a used machinery or you need a spare part, or need any other service related to machinery, you can do all at machineandmore.com.
7.	Vyala Technologies	Rishabh Gupta	We aim at providing better healthcare facilities in hand of common man. We are on mission to provide best health supplement technology to enhance facilities.
8.	Innovative TracksPvt. Ltd.	Harshit K. Pandey	We at InoTracks Pvt Ltd work towards developing smart solutions to a legion of problems pertaining to transport systems, ranging from real-time tracking of vehicles to ensuring safety checks in school buses.
9.	iRegalia Online	Gaurav Jain	iRegalia is a P2P e-commerce marketplace for trading of premium clothes and accessories. Promotes the monetization of one's wardrobe and maximizing the use of cloth to reduce the unnecessary impact on environment by textile industry.



10.	Matrade Pvt. Ltd.	Sujit Kumar Singh & Ait Kumar	Our Business is related to milk industry. they are committed to provide pure unprocessed healthy milk in different way. Today most of the people are trying hard to get healthy drink but it is very rare to get unprocessed pure milk.
12	Sariska Logistics Pvt. Ltd.	Gaurav Rathore	Logistics
13.	Clean Electric	Akash Gupta	E-Van & Refrigerated Battery Pack
18.	Smurlikanti Technologies Pvt. Ltd.	Shantanu Sinha	E-Commerce
19.	Ringel Web Technologies	Harshit Bhatt	Travel and tourism
20.	Cobra Online Services	Mrityunjay	Cyber security
21.	Experience Zone	Akhouri Anand	Augmented and Virtual reality
22.	Freshnic Agribusiness	Hemant Singh	Fresh fruit juice without preservatives and sugar
23.	Garden on Concrete	Avishek Kumar	Innovative gardening ideas
24.	Shoppingkart 24	Prateek Singh	Online shopping platform

## Graduated Companies of MCIE

1.	ET Media Labs <a href="http://etlabs.in/">http://etlabs.in/</a> <b>Annual Turnover - 4 Crore</b> <b>Job created- 27 nos.</b>	Raghav Kansal [B Tech, IIT (BHU), Civil Engg.; 2011]	Digital Marketing Solutions	Various services offered by the company includes online media buying, social media marketing, search engine marketing, mobile marketing, e-commerce solutions, mobile applications and corporate blogging among others.
2.	Sigrid Education Services Private Ltd. <a href="http://www.sigrideducation.com/">http://www.sigrideducation.com/</a> <b>Annual Turnover - 4.6 Crore</b> <b>Job created-55 nos.</b>	Akash Kasaundhan Chem. Engg., 2011, IIT (BHU)	India Intelligence Test content co-creation Platform "Sigrid Notes".	Launched an App for its Sigrid notes. Since 2013 successfully organizing India Intelligence Test based on Prof. Howard Gardner's theory of Multiple Intelligences and partnered with Dainik Jagran.
3.	ArteyeSoftwares <a href="http://www.eteach.co.in/">http://www.eteach.co.in/</a> <b>Annual Turnover - 3.5 Crore</b> <b>Job created-18 nos.</b>	Ajit Maheshwari [B Tech, IIT (BHU), Ceramic Engg.; 2008]	A technology platform for co-creation of multi-media educational content in an intuitive, easy and cost effective manner	Merged with Designmedia Pvt. Ltd. Has office at Nagpur. Currently we have running with two platforms in the market. The best selling product is on windows platform and then on Android platform. Getting ready for iOS platform for next session.





4.	Bridge dots Tech services Pvt. Ltd. <a href="http://www.bridgedots.com/">http://www.bridgedots.com/</a> <b>Annual Turnover - 26 Lakhs</b> <b>Job created - 6 nos.</b>	Nikhar Jain [B Tech, IIT (BHU), Chemical Engg.; 2009] TanmayPandya [B Tech, IIT (BHU), Chemical Engg.; 2009] AbhishekPoddar [B Tech, IIT (BHU), Chemical Engg.; 2008]	Technology development related to Cleantech, Polymers and Advanced Materials	Currently providing end-to-end technology development services by Developing novel processes to fulfil technical needs, improving existing processes, Enhancing the properties of existing product etc.
5	Brisil Technologies Pvt. Ltd. <a href="http://www.brisil.com/">http://www.brisil.com/</a> <b>Annual Turnover - 1.5 Crore</b> <b>Job created - 15 nos.</b>	TanmayPandya [B Tech, IIT (BHU), Chemical Engg.; 2009]	Brisilis addressing the problem of rice husk ash utilization.	Currently Brisil supplies silica for all major applications including tires, rubber, toothpaste, paints, plastics etc. Brisil produces industry-specific silica for all major applications. Recently Tie-up with Innovative Tyres & Tubes Pvt. Ltd. (Public Listed Company) Rs. 1 Crore sanctioned by SIDBI Rs. 5.0 Crore approved by Technology Development Board Rs. 5.0 Crore loan approved by State Bank of India

### Recognition by MSME

MCIIE at IIT (BHU) Varanasi has been recognized by MSME, Govt. of India, for implementation of the scheme "Support for Entrepreneurial and Managerial Development of SMEs through Incubator".

Further, following four incubatees of MCIIE sanctioned for grant under the above said scheme:

Sr. No.	Applicant	Title of the technology/ innovation
1.	Suresh Shukla	iNetClean - Adult Content Filter
2.	Naveen Kumar	Reverse Osmosis Potable Water System with Improved Yield
3.	Abhijeet	Synthesis of Water Born Adhesives (e.g. polymers / co-polymers)
4.	Abhishek Poddar	Extraction of Highly Dispersible Silica from Rice husk ash
5.	Ambrish Nigam	Online digital library for school going students and preparing for competitive entrance exams at the level of schools
6.	Osho Siddhant	Development of an exclusive E-Comm platform for handicrafts and other handmade goods

### Workshops/Events/Interaction

Our Incubate Company Rosehub represented MCIIE and produced 4 major Video and print documentation projects for National Bank for Rural and Agriculture Development (NABARD), Uttar Pradesh during the year 2016-17. On 14th of July '17, the documentaries were launched and the book was released during the celebration of the 36th foundation day of NABARD, under the presence of Shri Surya Pratap Shahi, Agriculture Minister of



Uttar Pradesh along with the top most Officers of various prominent banking organizations like SBI, SIDBI, NABARD etc. The whole team of Rosehub was present during the event and received tremendous feedback and warm appreciation for their effort.



An interactive session with Mr. Daniel Breitwieser, Co-Founder Fypster and Chief Visionary, Entrepreneurship Lecturer Amsterdam University of Applied Sciences at International Business School at Hogeschool van Amsterdam, he shared his own experience of doing Startup in Europe and discussed with MCIIE incubatees the entrepreneurship scenario and ecosystem of MCIIE & Purvanchal region – **30<sup>th</sup> July 2017**





MSME Br Varanasi conducted a workshop on Zero Defect Zero Effect a one day workshop for Entrepreneurs, more than 40 entrepreneurs from Ramnagar Industrial area and Varanasi were attended . – **23<sup>rd</sup> August 2017**



Technology Business Incubator hosted a MOU meeting with Prof.(Smt.)Annpurna Shukla; Hony. Founder Director of VIFD Varanasi along with Asst. Director - Mrs. Indira Mishra and other notable dignitaries. We had a brief discussion to find out new possibilities of cooperation towards the growth of both organisations. Our Company YounSkilledIndia signed a MOU with VIFD for Women empowering courses for Kashi Anathalaya Association – **August 25<sup>th</sup> 2017**.





Technology Business Incubator MCIIE IIT BHU hosted the Principal Secretary and other notable dignitaries from Chhattisgarh State Govt. During this visit; they had brief conversation with different startups from MCIIE, about their ideas, practices, problems, achievements and possibilities. – **28<sup>th</sup> August 2017**



Rosehub in association with MCIIE, IIT(BHU) organised a workshop on Innovation in Education: Learn with fun Hands on Maths and Science Workshop - About 200 children from class 6th to 8th of “Kasturba Mahila Vidyapeeth Inter College, Sewapuri” showed great curiosity, and learnt about amazing tricks of maths and science during the 5 hour long session. They did amazing experiments about air pressure, vibration, sounds and centrifuge pumps only using reusable straws and balloons, they learnt about making 5 different caps that connected them to the story of Bapu and his struggles for the independence, they also learnt about geometry using the same caps. – **19<sup>th</sup> – 21<sup>th</sup> December 2017**





Hult Prize 2018, Hult Prize BHU event got concluded successfully, helping the participants receive critical inputs which helped them in refurbishing their ideas. The final round was organised on 11th November, by Technology Business Incubator MCIE IIT BHU in association with Technical And Rural Outreach Club, IIT BHU Varanasi and Club of Economics and Finance, IIT BHU Varanasi. The finals were judged by an esteemed panel consisting of Mr Anupam Raghuvanshi (Director T.I.M.E Varanasi), Ms Shikha Shah (CEO Scrapshala), Mr Abhinav Pandey (Vice President U.P Strategy IB Hubs), and Prof. HiralalPramanik (Chemical Engineering and Technology IIT BHU). Many innovative ideas based on the above six streams were pitched forth, **Ranked in top 20 in the world. Number 1 and the only from India.-8<sup>th</sup> November and 11<sup>th</sup> November 2017**



Startup Fair 2018 – An entrepreneurial workshop by AppetalsSoultions Pvt. Ltd. Presided over by Mr.IshwarJha, A brief session to interact with the Jury Panel about various doubts related to your start-up., A Panel Discussion by the Jury members on Startup ecosystem and incubation in Varanasi - **16<sup>th</sup> – 18<sup>th</sup> February 2018**



**TECHNEX'18**

GOVERNMENT OF UTTAR PRADESH

MCIE

**JURY MEMBERS**

Startup fair event featuring startup with well-defined revenue system and established business model

**STARTUP BATTLE**

PRIZES WORTH ₹ 1,50,000

CROWD FUNDING PARTNER: Digi Wallets

POWERED BY: knowlarity

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Kratin Sanghvi +91 7080907409

Harish Chakravarti +91 9616467141

**JURY MEMBERS:**

- ANUJ DESAI, PRINCIPAL OF CTO CENTER LIMITED
- D. P. SIDDHARTH, VP ENGINEERING, KNOWLARTY CORP.
- ASHAY TANDON, THREAT INTELLIGENCE PARTNER
- VISHU NARAYANAN, ACCOUNTS PARTNER, MCKINSEY AND CO.
- ISHWAR JHA, FOUNDER, DIGITAL AHEAD, IIT BOMBAY





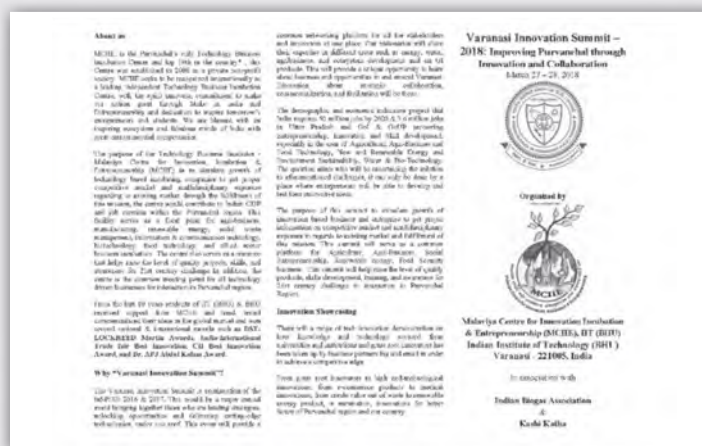
Mahamana's Vision for Excellence in Higher Education, The agenda of this two day workshop is to liberate the students about the concept of education in Indian history was idolized, and how its implementation along the centuries affected the productivity and minds of the upcoming generation. -23<sup>rd</sup> – 24<sup>th</sup> February 2018



Aeris, IIT BHU Partner to Launch the 'Internet of Things – Centre of Excellence' for Making India an Innovation Destination – 28<sup>th</sup> march 2018



The Varanasi Innovation Summit is continuation of the InSPIRE 2016 & 2017. This would be a major annual event bringing together those who are leading strategies, unlocking opportunities and delivering cutting-edge technologies, under one roof. – 27<sup>th</sup> – 28<sup>th</sup> March 2018



## 33. Finance and Account

### Plan

	(Figures in crores of Rupee)
Opening Balance	Nil
Normal Plan Grant Sanctioned during 2017-18	266.00
Tution Fees	14.07
Hostel Fees	2.54
Entrance Examination Fees	0.27
Administrative Income	0.93
Interest Income	10.95
Other Fees	34.27
Other Income	25.60
<b>Total Available</b>	<b>354.63</b>
<b>Capital Expenditure during 2017-18</b>	
Building & Construction	30.27
Furniture & Fixtures	0.30
Equipment	8.66
Books journals & periodicals	6.87
Other Capital Expenditure	30.89
<b>Revenue expenditure During 2017-18</b>	
Revenue expenditure (Scholarship Payments)	36.05
Pay & Allowances	136.16
<b>Administrative Expenses</b>	
Department/Laboratory/workshop expenses	6.00
Transport subsidy	0.03
Student Support Activities	3.73
Computer facilities	
Housekeeping & estate maintenance	5.64
Water/Electricity charges	9.94
Examination Expenses	0.28
Finance Cost	0.01
Finance Cost	0.01
Other Expenses	3.77
<b>Total utilised</b>	<b>278.60</b>
<b>Depreciation provided</b>	<b>20.96</b>
<b>Total Expenditure</b>	<b>299.56</b>
<b>Deficit/Surplus</b>	<b>55.07</b>



**Non Plan**

Grant Sanctioned during 2017-18	Nil
Opening Balance	Nil
Other Income	Nil
<b>Expenditure During 2017-18</b>	Nil
Total utilised	Nil
Depreciation provided	0.73
Total Expenditure	0.73
Deficit/Surplus	-0.73
Endowment account balance as on 31 March 2018	6.35
Corpus account balance as on 31 March 2018	52.29





भारतीय  
प्रौद्योगिकी  
संस्थान  
काशी हिन्दू विश्वविद्यालय



INDIAN  
INSTITUTE OF  
TECHNOLOGY  
BANARAS HINDU UNIVERSITY

INDIAN INSTITUTE OF TECHNOLOGY  
(BHU), VARANASI