

DRAFT ADVERTISEMENT

Applications are invited for the following research positions with respective monthly emoluments under the ANRF-sponsored project titled “**Te-MobiX: Safe and Degradation-Controlled Batteries with Efficient Charging for Tropical e-Mobility Excellence**”, funded under the **Mission for Advancement in High-impact Areas (MAHA)**, Government of India, sanctioned up to 29th May 2028. HRA will be provided as per the institute's rules if accommodation inside the campus is not provided. The appointments will be purely temporary and co-terminus with the project. The candidates should possess essential qualifications. All things being equal, SC/ST candidates will be preferred as per GOI rules.

Research Positions Details:

Junior Research Fellow (JRF)		
Total number of position: 04		
Monthly Emoluments: ₹37,000/- + 20% HRA		
Essential Qualifications: Post Graduate Degree in Basic Science OR Graduate / Post Graduate Degree in Engineering / Professional Course selected through a process described through any one of the following:		
a. Scholars who are selected through National Eligibility Tests – GATE and CSIR-UGC NET including lectureship (Assistant Professorship). b. The selection process through national level examinations conducted by IIT (BHU) Varanasi.		
Upper Age Limit: 28 Years (*Exception can be made for exceptional candidates)		
Number	PI & Department	Desirable Qualifications
01	Dr. Rosy Dept. of Chemistry, IIT (BHU) Varanasi Email-ID: rosy.chy@iitbhu.ac.in	Strong fundamental knowledge of electrochemistry with emphasis on electrochemical aspects in electrochemical energy conversion and storage devices. Practical/Hands-on experience in material synthesis, electrode fabrication and swagelok or coin cell assembly for supercapacitor /battery testing is preferable.
01	Dr. Satarupa Dutta Dept. of Chemical Engg. & Tech., IIT (BHU) Varanasi Email-ID: satarupad.che@iitbhu.ac.in	Aptitude for Molecular Dynamics (MD) Simulations: Familiarity with simulation tools such as LAMMPS, GROMACS, etc. Fundamentals of Electrokinetics and/or Electrodynamics: A solid grasp of ion transport phenomena, electric double layer theory, and non-equilibrium thermodynamics will be advantageous Programming and Numerical Analysis Skills: Working knowledge of Python, MATLAB, or C/C++ for data analysis, visualization, and custom simulation scripting Willingness to Engage in Experimental Work: Candidates should be open to collaborating on lab-scale experiments for validation of

		simulation outcomes and developing a deeper physical intuition of the system
01	Dr. Debdip Bhandary Dept. of Chemical Engg. & Tech., IIT (BHU) Varanasi Email-ID: debdip.che@iitbhu.ac.in	Molecular Dynamics (MD) and ab initio calculations: Familiarity with conducting simulation in LAMMPS; Gaussian/ Quantum-expresso; Visualization of simulations Programming and Numerical Analysis Skills: Working knowledge of Python or C/C++ for data analysis, custom simulation scripting Basic understanding of Molecular Modelling
01	Dr. Udit U. Ghosh & Dr. Abir Ghosh Dept. of Chemical Engg. & Tech., IIT (BHU) Varanasi Email-ID: udita.che@iitbhu.ac.in abir.che@iitbhu.ac.in	Candidates having a basic understanding and hands-on experience in electrochemistry, electrochemical characterisation, interfacial science, and battery fabrication – with sound experimental and analytical aptitude – will be preferred. Prior exposure to laboratory techniques involving electrode/electrolyte interfaces and cell assembly is desirable. Experience with academic writing and research documentation will be considered an added advantage.

Senior Project Associate (SPA)

Total number of position: 02

Monthly Emoluments: ₹57,000/- + 20% HRA

Essential Qualifications: Four years Bachelor's Degree in Natural or Agricultural Sciences / Master's Degree in Natural or Agricultural Sciences / BVSc / BPharm or bachelor's degree in Engineering or Technology or Medicine from a recognized University or equivalent and Four years' experience in R&D in industrial and academic institutions or S&T organizations and scientific activities and services

OR

Master's Degree in Engineering or Technology from a recognized university or equivalent and Two years' experience in R&D in industrial and academic institutions or S&T organizations and scientific activities and services OR Doctoral Degree in Science / Engineering / Technology / Pharma / MD / Master of Surgery from a recognized University or equivalent

Upper Age Limit: 50 Years. The service duration should not exceed beyond 60 yrs of age.

Number	PI & Department	Desirable Qualifications
01	Dr. Prodyut Dhar School of Bio-chemical Engg, Email-ID: prodyut.bce@iitbhu.ac.in & Dr. Agnivesh P. Department of Civil Engg., IIT (BHU) Varanasi	We are seeking candidates with a strong background in renewable biomass valorization, cellulose chemistry, biorefinery technologies, or bio-based materials. Applicants should have hands-on experience in lignocellulosic biomass processing, nanocellulose extraction and modification, bio-composite or bio-aerogel synthesis, and thermo-chemical or enzymatic conversion processes. Familiarity with analytical techniques such as FTIR, TGA, SEM, TEM, XRD, BET, and solid-state NMR is essential. Proven research output through peer-reviewed publications, patents, or technology transfer is required.

	Email-ID: agnivesh.civ@iitbhu.ac.in	Knowledge of Life Cycle Assessment (LCA) and Techno-Economic Analysis (TEA) is desirable. Strong scientific writing, communication, and collaboration skills for interdisciplinary and sustainable materials research are expected.
01	Dr. Abir Ghosh Dept. of Chemical Engg. & Tech., IIT (BHU) Varanasi Email-ID: abir.che@iitbhu.ac.in	Candidates with a strong foundation in mathematical sciences, continuum-scale physics, fluid mechanics, or transport processes are preferred for this role. The applicant should be proficient in solving coupled differential equations and possess solid skills in numerical methods. Formal training in transport phenomena, fluid or solid mechanics is desirable, along with an aptitude for experimental work to support model validation. Strong academic writing skills and experience in scientific communication are added advantage.

Research Associate II (RA II)

Total number of position: 01

Monthly Emoluments: ₹61,000/- + 20% HRA

Essential Qualifications: Ph.D./MD/MS/MDS or equivalent degree, or having 3 years of research, teaching, and design and development experience after MVSc/M.Pharm/ME/M.Tech with at least one research paper in Science Citation Index (SCI) journal.

Upper Age Limit: 50 Years. The service duration should not exceed beyond 60 yrs of age.

Number	PI & Department	Desirable Qualifications
01	Dr. Uday Ghosh Department of Chemical Engg. & Tech., IIT (BHU) Varanasi Email-ID: udita.che@iitbhu.ac.in	Candidates with a strong background in Electrochemistry, Chemical Engineering, Mechanical Engineering or allied fields and demonstrated expertise in droplet microfluidics/microfabrication will be preferred. A strong publication record, experience in energy storage research, and proficiency in high speed imaging. strong academic writing and communication skills will be essential.

Project Scientist I (PS I)

Total number of position: 03

Monthly Emoluments: ₹77,000/- + 20% HRA

Essential Qualifications: Doctoral Degree in Science or Master's Degree in Engineering or Technology from a recognized university or equivalent

Upper Age Limit: 55 Years. The service duration should not exceed beyond 60 yrs of age.

Number	PI & Department	Desirable Qualifications
01	Dr. Rosy	Ph.D. Degree in Chemistry/Physics/Chemical Engineering/Mechanical Engineering

	Department of Chemistry, IIT (BHU) Varanasi Email-ID: rosy.chy@iitbhu.ac.in	Prerequisite: Experience in material synthesis, electrode fabrication, handling glove-box and preparing coin and pouch cells for electrochemical testing. Acquaintance with Electrochemistry and Li-ion battery chemistry. Experience in handling industrial relevant problems and writing research projects.
01	Dr. Debdip Bhandary Department of Chemical Engg. & Tech., IIT (BHU) Varanasi Email-ID: debdip.che@iitbhu.ac.in	Candidates with a strong background in Physics, Electrochemistry, Chemical Engineering or a relevant domains, and demonstrated significant expertise in ab-initio calculations and molecular dynamics simulations with a understanding of ML application.
01	Dr. Abir Ghosh Department of Chemical Engg. & Tech., IIT (BHU) Varanasi Email-ID: abir.che@iitbhu.ac.in	Candidates with a strong background in Materials Science, Physics, Electrochemistry, Chemical Engineering or a related field, and demonstrated expertise in the synthesis and characterisation of 2D/3D materials for electrochemical applications will be preferred. A strong publication record, experience in energy storage research, and proficiency in characterisation techniques such as XRD, SEM, TEM, and electrochemical analysis are essential. The ideal candidate should also exhibit leadership qualities to mentor PhD and master's students, along with strong academic writing and communication skills.

Note: *JRF applicants who have **NOT** qualified for any National Eligibility Test (CSIR-UGC NET, including lectureship/Assistant Professorship or GATE) must appear for a written examination to be conducted by the Institute as part of the selection process.*

Application, proforma appended, with self-attested copies of all the mark-sheets & certificates and details of any research or other experience, etc., if any, should be sent via email to the respective PI within 21 days of the advertisement.

No TA/DA will be paid if called for the written examination/interview.