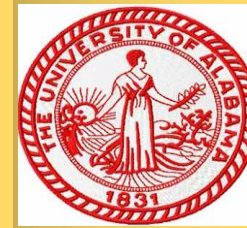




SPARC International Workshop

on

Modelling and Structural Analysis of Advanced Materials



Resource Persons/Speakers

- Prof. Samit Roy, University of Alabama, USA
- Prof. B. N. Singh, IIT Kharagpur
- Dr. Saikat Sarkar, IIT Delhi
- Experts from different IIT's.

Why Attend?

- Gain insights into composite material optimization and behaviour.
- Enhance your skills in design, modelling and structural analysis.
- Learn from top experts from IITs and international universities.

December 23 & 24, 2024

Venue:

Department of Civil Engineering,
Indian Institute of Technology (IIT) Varanasi

Key Contents

- Advanced Composites: Applications and innovations.
- CNT/NGP reinforced polymer composites and its manufacturing processes
- Multiscale modelling of Advanced composite
- Structural Analysis of Advanced Composites
- Enhancement of interlaminar toughness in NGP reinforced composites

About SPARC

SPARC aims at improving the research ecosystem of India's Higher Educational Institutions by facilitating academic and research collaborations between Indian institutions and the best institutions in the world from 28 selected nations to jointly solve problems of national and/or international relevance.

About The Workshop

Join this insightful workshop focusing on advanced composite materials like carbon nanotube-reinforced composites, functionally graded materials, smart composites, and sandwich structures. Learn the latest in mechanics, mathematical modelling, and structural analysis for applications in Aerospace, Civil, Naval, and Automotive Industries. Participants will learn to optimize fibre utilization within laminates, analyse structural behaviour and address challenges unique to composites compared to metals. Practical applications across various engineering fields will also be explored, equipping attendees with the knowledge to leverage composites effectively.

Who should attend?

- Faculty, researchers and professionals from academia and industry.
- UG/PG and research scholars from all disciplines.
- Engineers and professionals in R&D labs.

Highlights

- No Registration Fee
- Accommodation for student participants (subject to availability).
- Certificate upon completion.

Seats are limited (maximum 40 participants)

- ❖ Shortlisting is on a first-come, first-serve basis.

Register Now!

Click the link below to Register or Scan here

<https://forms.gle/6n7biFjKSPHtpWe99>

Last Date for registration

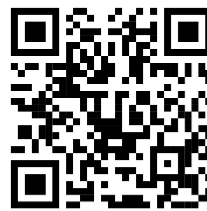
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About International Expert Professor Samit Roy and University of Alabama, USA

Prof. Samit Roy is the William D. Jordan Professor in the Department of Aerospace Engineering and Mechanics at the University of Alabama, renowned for its excellence in engineering research. His research focuses on composite materials, particularly multi-scale modelling to predict failure in conventional and nanostructured composites. With expertise in finite element analysis and solid mechanics, Prof. Roy advances the understanding of material behaviour, playing a pivotal role in developing innovative materials for aerospace applications. His work aligns with the university's vision of bridging theory and practical engineering solutions to address real-world challenges.

Course Coordinators:

Dr. Rosalin Sahoo
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Prof. Samit Roy
(USA Co-PI, SPARC Research Project)
William D. Jordan Professor at the Department of Aerospace Engineering and Mechanics.
University of Alabama, USA

Prof. Chandana Rath
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About Indian Institute of Technology (BHU) and Department of Civil Engineering

The Indian Institute of Technology (BHU) was established in 1919 as Benco, later merging with other institutions in 1968 to form IT-BHU, and finally becoming IIT-BHU in 2012. Renowned for excellence, IIT (BHU) is a top-ranking institution that offers a variety of engineering and science programs.

The Department of Civil Engineering at IIT (BHU) boasts advanced infrastructure for research in Structural, Geotechnical, Transportation, Water Resources, Environmental Engineering, and Construction Materials. Faculty members engage in cutting-edge projects funded by prominent agencies and collaborate globally.

About Varanasi

Varanasi, the world's oldest living city, is renowned for its rich history, spiritual significance, and temples along the sacred Ganges River. This cultural and religious capital of India draws people worldwide with its ancient heritage and vibrant knowledge traditions.

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