



A ONEWEEK Workshop on “Advanced Composite Materials”

(26th February – 1st March, 2024)

Sponsored by
Scheme for Promotion of
Academic and Research
Collaboration (SPARC), MHRD,
GOI

Organized by
Department of Chemical
Engineering,
NIT Warangal,
India

Collaboration with
National University of Singapore
& Nanyang Technological
University, Singapore

Preamble

Scheme for Promotion of Academic and Research Collaboration (SPARC) is a Ministry of Human Resource Development (MHRD), GOI initiative to improve research ecosystem in India. It supports national premier educational institutions by facilitating academic and research collaborations between Indian institutions and the best and selected institutions across the world's 28 nations. The collaborative educational networks will work on common issue of national or international relevance. It encourages international faculty, Indian institution visits and long-term stays to teach courses and conduct workshops for the benefit of Indian researchers and students in the selected research area. Also, it funds Indian students to visit and access the premier laboratories worldwide for training and experimentation. As an outcome patents, monographs, and world-class publications will be produced.

About NIT Warangal and Department

The National Institute of Technology (NIT), Warangal is the first in the chain of 31 NITs, Institutes of National Importance established by Act of Parliament. Late Pandit Jawaharlal Nehru laid the foundation stone for this institute on October 10, 1959. The institute is well-known for its R&D, Industrial Consultancy, Continuing Education and Training programs. The institute celebrated Diamond Jubilee during 2018. Warangal is known for its rich historical and cultural heritage. It is situated at a distance of 190 km from Hyderabad airport. Warangal is well connected by rail and road. National Institute of Technology, Warangal campus is 2 km away from Kazipet railway station and 12 km away from Warangal railway station.

The Department of Chemical Engineering was established in the year 1964 and celebrated Golden Jubilee in the year 2014. The Department offers B.Tech in Chemical Engineering, M.Tech in Chemical Engineering, Systems and Control Engineering and Ph.D programs. Currently, the Department has 20 faculty members with expertise in diverse research areas. The Department has good research facilities for both experimental as well as simulation-based research.

Overview of the Program

The aim of this workshop on advanced composite materials is to provide training on design and development of advanced polymeric composite materials for a targeted application. This course will also help the participants to learn conceptual designing, decisive manufacturing and relevant characterizations to develop newer composite materials for advanced applications. This workshop will also help the participants to develop material models for virtual processing, prototyping and property determinations. For the participants this course will give a strong foundation and research perspective in these emerging areas. Participants will also learn how to develop material models and respective simulation environments for processing and property predictions

Program Contents

- Advanced Composite Manufacturing Processes
- Rapid Prototyping & Virtual Manufacturing
- Modeling & Simulation of Composite Material Processing
- Advanced Composite Material Characterization Techniques
- Composite Ablators and High Temperature Polymeric Composite Materials
- Thermal Shields and Insulators

Who can Participate?

- Faculty member/ research scientist/ industry professional working or interested in composite materials.
- Professional working in polymeric and composite materials.
- PG student or research scholar interested / working in polymeric and composite materials.

Resource Persons



Prof. Manoj Gupta
Provost's Chair, Professor-
Materials, Faculty of
Engineering, Department of
Mechanical Engineering,
National University of
Singapore, Singapore



Prof. Aravind Babu Dasari
Associate Chair (Academic)
Associate Professor, School of
Materials Science &
Engineering
Nanyang Technological
University, Singapore



Prof. Shirish H Sonawane
Professor, Department of
Chemical Engineering,
National Institute of
Technology, Warangal,
Telangana State, India



Prof. Y Ravi Kumar
Professor, Department of
Mechanical Engineering,
National Institute of
Technology, Warangal,
Telangana State, India



Prof. T P Tezeswi
Associate Professor,
Department of Civil
Engineering, National Institute
of Technology, Warangal,
Telangana State, India



Prof. Raghu Raja Pandiyan K
Assistant Professor,
Department of Chemical
Engineering, National Institute
of Technology, Warangal,
Telangana State, India

Registration

Registration is free. Preferences are for faculty and research scholars. Maximum allowed participant strength is 50. Additionally, 10 participants from industry are allowed to participate. Fill the google form attached below

Application Link:

https://docs.google.com/forms/d/e/1FAIpQLSfZg8e6_c0wNJAVAtz-y5oy963gxKyd9B13KmoA0iQsUJZ0Ug/viewform?usp=sf_link

Participants will be provided with working lunch and refreshments. Participants are also provided with registration kit. Limited accommodation is available for participants in the Visitors Block on twin sharing on payment basis of Rs.1000/- per participant per day. On prior request, they may be provided accommodation based on the availability.

Accommodation fee may be remitted through On-line / NEFT to the following Bank Account.

Account Name : Convener -
INCEEE-2023
Account No. : 41837136593
Bank : SBI (NITW)
IFSC : SBIN0020149

Selection Criteria

Selection will be done based on merit basis. Participants are requested to fill the registration form and upload updated CV. The registration confirmation will be notified through email.

Important Dates

Last date for Application with fee: 22nd February 2024, Workshop Registration Form:

A test will be conducted at the end of the course. Candidates will be issued satisfactory certificates on successful completion of the program.

Coordinators

Prof. Raghu Raja Pandiyan K., Assistant
Professor, Chemical Engg. Dept., NIT Warangal

Prof. Shirish H Sonawane, Professor, Chemical
Engineering Dept., NIT Warangal

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