

One Week Short Term Training Program (in Hybrid Mode)

on

Advanced Composite Materials for Next-Gen Technologies

[20th – 24th January, 2025]

Convener

Prof. Saroj Kumar Sarangi

Coordinator

Dr. Vishesh Ranjan Kar



Organized by:

Department of Mechanical Engineering
National Institute of Technology Jamshedpur



Organizing Committee



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Dr. Vishesh Ranjan Kar
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Resource Persons

Eminent persons from IIT/NIT and other reputed organizations.

For
Students (UG/PG/Ph.D.), Persons from
Academia, Industry and R&D
organizations

Registration Fee

Participants	Online mode	Physical mode
Students (UG/PG/PhD)	Rs. 250/-	Rs. 500/-
Faculties	Rs. 500/-	Rs. 1,000/-
Industry persons/Scientists	Rs. 750/-	Rs. 1,500/-

Important dates

Registration/Payment : 10.01.2025
Closes on Acceptance : 15.01.2025

Notes:

- Registration fee is non-refundable.
- No TA/DA will be provided for attending the course.

Registration Link: <https://forms.gle/FRsqnNi8sLPsay558>

About the Institute

National Institute of Technology Jamshedpur was originally founded as Regional Institute of Technology in 1960. It was upgraded to National Institute of Technology on 27th December 2002, with the status of Deemed University. It is now totally under the control of Ministry of Education (MoE), Government of India, New Delhi, since April 2003. The institute offers B.Tech, M.Tech., M.C.A., M.Sc. and Ph.D. programs in various disciplines of Engineering, Sciences, Management and Humanities.



About the Department

The Department of Mechanical Engineering offers undergraduate programs in Mechanical Engineering and also in Engineering and Computational Mechanics; post-graduate programs in Machine Design, Thermal Engineering, Energy System Engineering, Defense Technology and Maintenance Engineering, along with PhD program in various research areas. The Department has experienced faculty and well-established laboratories to meet the requirements of UG, PG and PhD curriculum.

Objectives of the Course

This STTP aims to explore the latest advancements in composite materials for Next-Gen technologies. It seeks to provide participants with insights into:

- **Innovative Composite Materials:** Understanding the design, manufacturing, and properties of advanced composite materials tailored for present and future technologies.
- **Smart System Integration:** Examining how composite structures can enhance efficiency, safety, and sustainability in smart systems.
- **Emerging Technologies:** Highlighting the role of nanocomposites, bio-based composites, and multifunctional materials in future solutions.
- **Real-World Applications:** Discussing case studies, industry practices, and the challenges in implementing composite solutions in various sectors, such as aerospace, automotive, defense, energy, bio-medical, etc.
- **Sustainability:** To encourage innovation in designing sustainable and efficient composite systems for future challenges.

Topics to be covered:

In each topic, the discussion will be on the various aspects such as, modelling, analysis, design, fabrication, etc. of

- Polymer composites
- Hybrid composites
- MMC/CMC
- Functionally Graded Materials
- Smart composites
- Nanocomposites, etc.

Accommodation:

The participants may be provided accommodation in the institute hostels **depending on the availability and on a nominal payment basis as per actual on First-cum-First Serve Basis.** Accommodation can also be booked in nearby hotels directly or through prior information to organizers.

Mode of payment:

Participants can make payment by depositing the registration fee online in

Account No. **40620620216**

Account Name: **OUTREACH MED NITJSR**

Bank: **SBI, NIT Jamshedpur Branch**

IFSC Code: **SBIN0001882**

Address for correspondence:

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