

Five Days Workshop on

“Advanced Materials Processing and Characterization (AMPC)”

19th-23rd February, 2025



Organized by

Department of Metallurgical and Materials Engineering

Malaviya National Institute of Technology Jaipur

Organizing Committee

❑ Patron

Prof. Narayana Prasad Padhy
(Director, MNIT Jaipur)

❑ Chairman

Prof. Rajendra Kumar Goyal
(Head of Department, MME)

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Dr. Brij Mohan Mundotiya

❑ Coordinators

Dr. Jyotirmaya Kar
Dr. Rajesh Kumar Rai
Dr. Deepankar Panda
Dr. Bandi Suresh

About MNIT Jaipur

Malaviya National Institute of Technology (MNIT) Jaipur is one of the premier NITs, designated as “Institute of National Importance” by MHRD, Govt. of India. The Institute was established in 1963, and its campus spreads over 325 acres of lush green area in the central location of Jaipur city. The Institute offers undergraduate (B.Tech.) and postgraduate (M.Tech./MBA / M.Sc. & Ph.D.) courses to about 5000 students in almost all leading engineering, technology, management, and science fields. Through the internationally renowned faculty, laboratories with state-of-the-art equipment, and excellent infrastructure, the Institute is actively engaged in research, consultancy, and developmental activities, besides imparting regular teaching. MNIT Jaipur is ranked at 43rd position in NIRF 2024 Ranking (Engineering).

About the Department

The Metallurgical and Materials Engineering Department is one of the oldest departments of MNIT Jaipur established in 1965. The department offers B.Tech, M.Tech, and Ph.D. programs. The department’s motto is to provide quality education through highly qualified and experienced faculty members. The department has received total sponsored funding of Rs. 605 lakhs during 2015-2023. The department is equipped with cutting-edge research facilities such as ferrous and non-ferrous casting, welding, tensile testing, creep testing, tribometer, X-ray diffraction, electrochemical workstation, and so on.

About the Workshop

The workshop on "Advanced Materials Processing and Characterization" is designed to provide participants with an in-depth understanding of the recent techniques and methodologies in material science and engineering. This event covers key topics shaping the future of materials science from sustainable production techniques to high-precision analytical tools.

The main objective of this workshop is to provide cutting-edge knowledge on techniques for material fabrication and analysis to meet the requirements in real-world applications. Participants will gain a comprehensive understanding of advanced material processing techniques and characterization methods. They will also acquire practical skills that can be applied in their research or industrial projects, fostering innovation and improving material performance in various applications. Expert speakers from premiere academia will deliver lectures on recent research and industrial practices. Participants will get a chance to interact with experts to address the challenges and future directions in material science.

Topics to be covered

- Thermo-mechanical processing, bulk-texture and residual stress analysis.
- Fracture and failure analysis.
- Scanning electron microscopy (SEM) & EBSD analysis
- Transmission electron microscopy (TEM) & APT
- Nanostructured materials: synthesis and characterization
- Bulk metallic glasses
- Powder metallurgy and additive manufacturing techniques
- Advanced joining techniques
- Solidification and casting

Key Resource Persons

Prof. Debalay Chakrabarti

Professor, Dept. of MME, IIT Kharagpur

Prof. Jatin Bhatt

Professor, Dept. of MME, VNIT Nagpur

Prof. Mahesh Kumar Talari

Professor, Dept. of MME, NIT Warangal

Dr. K. S. Suresh

Associate Professor, Dept. of MME, IIT Roorkee

Dr. Sai Ramudu Meka

Associate Professor, Dept. of MME, IIT Roorkee

Dr. Sanjeev Das

Associate Professor, Dep. of MME, NIT Raipur

Dr. Ajeet Kumar Srivastav

Assistant Professor, Dept. of MME, VNIT Nagpur

Dr. Surendra Kumar Makineni

Assistant Professor, Dept. of Materials Eng., IISc Bangalore

Dr. Kesavan Ravi

Assistant Professor, Dept. of Fuel, Minerals and Metallurgical Engineering, IIT(ISM) Dhanbad

Targeted audience & programme requirements

✓ This workshop is for faculty members, research scholars, UG & PG students, and participants from Research Institutions and Industries.

✓ The workshop will be conducted in online mode. Participants should have the provision of a laptop/desktop with an internet connection.

For Registration

- **Registration Form link:**

<https://forms.gle/T4W2LMxFNjBT8mUd9>

- **Registration fee:** (Including 18% GST)

For Students: Rs. 500/-, For Faculty: Rs. 1000/-

For Research & Industry Personnel: Rs. 2000/-

- **Mode of Payment:** (Online Transaction)

Registrar MNIT Jaipur, Acc. No: 676801700388

ICICI Bank (MNIT Jaipur) (IFSC: ICIC0006768)

Note

- E-certificate will be given only if the participants attend all the sessions actively.
- Detailed schedule and session links will be shared to the participants through an e-mail and WhatsApp.

Address for Correspondence

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Last Date of Registration: 18th Feb 2025