

# Short Term Training Program on Synthesis and Characterization of materials for Bio Medical Applications

**February 4-8, 2025**



Organized by

**Materials Research Centre**

**Malaviya National Institute of Technology Jaipur**

**JLN Marg, Malviya Nagar, Jaipur-302017**

[www.mnit.ac.in](http://www.mnit.ac.in)

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## Convener

Dr. Nisha Verma  
*Head*

*Materials Research Centre, MNIT Jaipur*

## Coordinators

Dr. Bhagwati Sharma

*Assistant Professor, Materials Research Centre*

Prof. Kanupriya Sachdev

*Professor, Materials Research Centre*

Prof. Ragini Gupta

*Professor, Materials Research Centre*

## Student Organizing Committee

Mr. Rahul, Mr. Shiv Pratap, Mr. Govind  
Kumawat, Mr. Kunal Rohilla, Ms. Preeti,  
Ms. Rashmi Jairiya, Mr. Ankit, Mr.  
Zainual Abedeen, and Ms. Manisha  
Gautam

## Resource Person



Prof. Ashok M.  
Raichur, a renowned  
faculty member at  
the Department of  
Materials  
Engineering, IISc  
Bangalore, leads a  
research group

focusing on the application of application  
of nanotechnology in biomedical and  
environmental domains. His current work  
includes developing next-generation drug  
delivery systems for gene therapy and  
anticancer drugs, creating  
polyelectrolyte/nanoparticle multilayers  
for environmental applications, and  
designing nanostructured multilayers for  
advanced sensing technologies.  
Additionally, his group is pioneering the  
development of 2D and 3D structures as  
fillers in epoxy nanocomposites. Prof.  
Raichur's contributions reflect his  
expertise in material synthesis, surface  
engineering, and innovative applications,  
making him a key figure in  
interdisciplinary materials research.

## About MNIT Jaipur

MNIT Jaipur is one of the premier NITs, designated with the status of “Institute of National Importance” by MHRD. 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 UG and PG courses (B.Tech., M.Tech. /MBA/ M.Sc. & Ph.D.) to about 5000 students, in leading fields of engineering, technology, architecture, management & sciences. The institute is actively engaged in research, consultancy and developmental activities, besides imparting regular teaching. MNIT Jaipur was ranked 43<sup>rd</sup> position in NIRF ranking 2024.

## Materials Research Centre

Materials Research Centre (MRC) aims to harness the talent resources of MNITJ for promoting interdisciplinary research in appropriate materials technologies. It has been created with an objective of providing a central facility of latest and advanced analytical instruments for research in the application areas of physical, environmental, chemical, allied and interdisciplinary sciences and Technology. MRC provides access to a wide range of state-of-the-art equipment necessary for materials characterization such as NMR, Mass, XRD, XPS, TEM, SEM, AFM etc. The Centre also offers Ph.D. programme in Materials Science and Engineering.

## Techniques to be Covered

- Participants will gain hands-on experience in using advanced characterization techniques critical for understanding material properties.
- X-ray Diffraction (XRD) will be used for structural analysis, revealing crystalline phases and ensuring precise material composition.
- Scanning Electron Microscopy (SEM) will provide detailed insights into surface morphology.
- Atomic Force Microscopy (AFM) will enable nanoscale surface topography characterization.
- Fourier Transform Infrared Spectroscopy (FTIR) will be employed to identify chemical bonds and functional groups, and UV-Visible Spectroscopy (UV-Vis) will assist in studying optical properties, crucial for bioactive materials

## Important Dates

Last date for online registration: 28.01.2024 (5 pm)  
Registration confirmation will be intimated to participant via e-mail.

## Contact Persons

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## How to Apply

Registration is open to faculty members, PDF, RA, Ph.D., PG and UG students. You can submit your application through following link:  
<https://forms.gle/HFOYPAg6f4yj518W8>.

The participation fees (including 18% GST) for taking the course is as follows:

- Participants from Industry/ Research Organizations: INR 2950
- Faculty Members from Academic Institutions: INR 2360
- Research Scholars: INR 1770

## Payment mode: NEFT/IMPS

Account Details:

Registrar, MNIT Jaipur

Account No. 676801700388, ICICI Bank,  
MNIT Jaipur,

IFSC: ICIC0006768