

Short-Term Training Program on Nuclear Magnetic Resonance and Fourier Transform Infrared Spectroscopy

December 1-5, 2025



Organized by
Materials Research Centre

Malaviya National Institute of Technology Jaipur
JLN Marg, Malviya Nagar, Jaipur-302017

www.mnit.ac.in

About the Program

- The program involves demonstration and operation illustration of NMR and FTIR in the laboratory, where the participants will gain hands-on experience in using both the equipments.
- Participants will get an opportunity to operate the NMR and FTIR themselves under the supervision of the concerned technical staff from MRC.
- The program will focus on the working principle, construction and applications of NMR and FTIR, all of which will be explained in the lab sessions with appropriate tools and techniques.
- The sessions will deal with basic introduction of NMR, and data acquisition along with software knowledge for proton, ^{13}C , ^{19}F , ^{31}P NMR and FTIR spectrophotometer (KBr and ATR mode)
- At the end of the program, the participant will be confident enough to operate both the equipments.



Chief Patron

Prof. Narayana Prasad Padhy
Chairman (I/C), Board of Governors, and
Director, Malaviya National Institute of
Technology Jaipur

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Dr. Bhagwati Sharma
Head, Materials Research Centre

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Professor, Materials Research Centre
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Professor, Materials Research Centre

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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 42nd position in NIRF ranking 2025.

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. program in Materials Science and Engineering.

Aim of the Program

The content of this training program is designed in a manner that a trainee will readily meet the laboratory research and industry requirements. During the training, ample time will be provided to every trainee for hands-on experiences on the instrument to become well-versed with all the practical aspects of the instrument and its mechanical functioning. The sessions will include practical demonstrations on the sample preparation, sample loading data acquisition and processing, along with precautions to be taken while working on the NMR and FTIR.



Important Dates

Last date for online registration: 21.11.2025 (5 pm).
Registration confirmation will be intimated to the participants via e-mail.

Contact Persons

Dr. Bhagwati Sharma
Materials Research Center, MNIT Jaipur
Email: bhagwati.mrc@mnit.ac.in
Mobile No: 9549650012

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://docs.google.com/forms/d/1wPryPYthJTETYcQvFvKz7Lc-NFxyzsycyUXa578N2Me0/edit?ts=68df6d43>

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

- ☐ Research Scholars, PG and UG students: Rs. 5900/-
- ☐ Faculty Members from Academic Institutions: Rs. 7080/-
- ☐ Participants from Industry/ Research Organizations: Rs. 8260/-

Payment mode: NEFT/IMPS

Account Details:

Registrar, Sponsored Research, MNIT Jaipur
Account No. 676801700388, ICICI Bank,
MNIT Jaipur,
IFSC: ICIC0006768

*The number of participants for the course is limited to 15 and will be selected on first-cum first-served basis.

*Participants need to pay the registration fees after confirmation of their selection.