3-Day Online Workshop on NMR Spectroscopy

From Fundamentals to Fine Structure – Master the Art of Spectral Interpretation

METACHEM ACADEMY

Workshop Overview

Want to get confident with NMR and make sense of complex spectra? This hands-on, insight-packed workshop takes you from the basics of spin and chemical shifts to the details of coupling and structure interpretation. Whether you're a student, researcher, or industry professional, you'll gain the tools and confidence to decode NMR data like a pro.

Organizer

Patron

Prof. Pushpesh Pande (Principal)
Government P. G. College; Ranikhet

Convenor

Dr. Bharat Pandey
Assistant Professor
Department of Chemistry
Government P. G. College; Ranikhet

Organising secretary

Dr. Prasoon K Joshi
Assistant Professor
Department in Charge of Chemistry
Government P. G. College; Ranikhet

Speaker

Dr. Syed Zahid Hassan
Research Professor, currently at POSTECH, South Korea
Past Affiliations: Tokyo Metropolitan University (TMU), JAPAN; IISER-TVM, INDIA; IISER Pune, INDIA

Who Should Attend

- Science Academician and Research scholar
- BSc/MSc/PhD Scholars/Postdoc/Faculty
- Industry Professionals (Analytical, Organic)

Registration Details

Dates: 18 –20 July 2025 (Friday to Sunday)
Time: 6:00 PM – 8:00 PM IST
Mode: Online via Zoom
Register Here: Click here
Scan QR Code:

- Left: Registration
- Right: Join WhatsApp Community

Fee: ₹599 / $12

- Payment via UPI ID: 9145685941@AXISBANK or 9145685941@YBL

Contact Us

WhatsApp (Text only): +91 9145685941
Email: info@metachemacademy.com; metachemacademy@gmail.com

Schedule

Day 1: Friday, 18th July 2025

◇ Fundamentals, Instrumentation

- Introduction to NMR: Basic principles and scope
- Spin-½ nuclei and magnetic field interaction
- Chemical shift and shielding concepts
- Overview of NMR instrumentation
- Shimming, tuning, and acquisition basics

Day 2: Saturday, 19th July 2025

◇ J-Coupling & 1D NMR Interpretation

- J-Coupling and multiplicity patterns
- Pascal's Triangle and coupling constants
- ^{1}H and ^{13}C NMR interpretation
- DEPT and understanding carbon environments

Day 3: Sunday, 20th July 2025

◇ 2D NMR & Structure Elucidation

- Sample preparation and solvent selection
- COSY, NOESY, ROESY: Proton-proton correlations
- HSQC, HMBC: Proton-carbon correlations
- Strategy for complete structure analysis
- Real-world case studies and final Q&A