



National Conference of EMSI – North Zone

Electron Microscopy in Biological & Material Sciences

(EMBM 2026)

8th-9th May 2026



The National Conference of EMSI – North Zone on “Electron Microscopy in Biological and Material Sciences” will provide a vibrant platform for interdisciplinary exchange among biological, medical and material science communities. The conference will be held at AIIMS, New Delhi, on 08–09 May 2026, preceded by many pre-conference workshops (06–07 May 2026).

The conference will feature various sessions covering recent advances and emerging trends in electron microscopy on biological and material Science.

- Expert lectures (Plenary/keynote/invited),
- Parallel scientific sessions,
- Poster/Oral presentations
- Pre-conference Hands-on

Session themes

EM in Biological Science

- Electron microscopy in biomedical field
- Cryo-Electron Microscopy/Tomography
- EM in Cellular and Tissue Ultrastructural Imaging
- Electron Microscopy in Health and Disease
- Nanobiology and Nanomedicine
- Super resolution Microscopy in biological imaging
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EM in Material Science

- Atomic-Scale and High-Resolution Imaging
- Spectroscopy and Chemical Mapping (EDS/EELS)
- Nanomaterials and Functional Materials
- Energy, Electronic and Quantum Materials
- Metallurgy, and Manufacturing
- Polymers, Soft Matter, and Biomaterials
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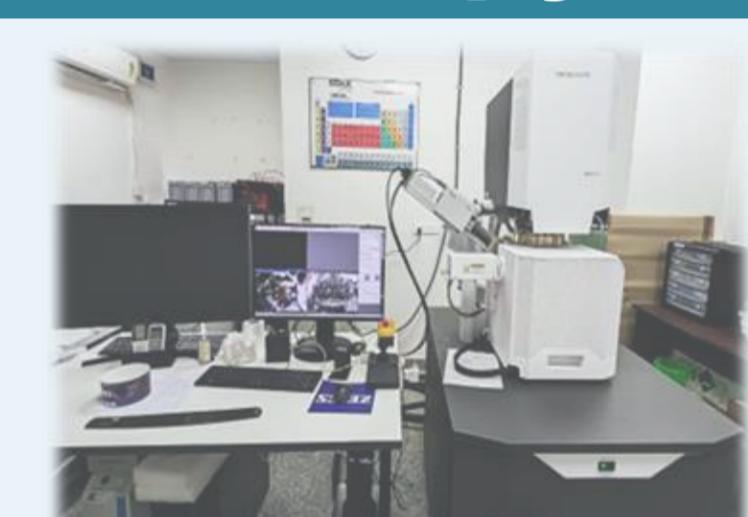
Tentative Speakers

- Prof. T. C. Nag, AIIMS New Delhi
- Prof T.S. Roy, AIIMS New Delhi
- Prof. Krishanu Biswas, IIT Kanpur
- Prof. Manideepa Banerjee, IIT Delhi
- Dr. Partha Ghoshal, DMRL Hyderabad
- Dr. Dilip Kumar, Ashoka University
- Dr. Amit Kumar Dinda, ARCD, Faridabad
- Dr. Prem S Kaushal, RCB, Faridabad
- Prof. N.K. Lohiya, University of Rajasthan
- Prof. A.S. Ansari, University of Rajasthan
- Dr. A K. Jain, ICMR-NIP, New Delhi
- Prof. S. B. Tikko, NIPER Mohali
- Dr. Vidya M Prasad, IISc. Bangalore
- Prof. Atanu Basu, ICMR-NIV, Pune
- Dr. Tofayel Ahmed, SINT, Kolkata
- Dr. Archana Singh, CSIR-IGIB, New Delhi
- Prof. Sasanka Deka, University of Delhi
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Pre-conference workshop (Hands On) in TEM, SEM, Sample preparation & Advance Microscopy

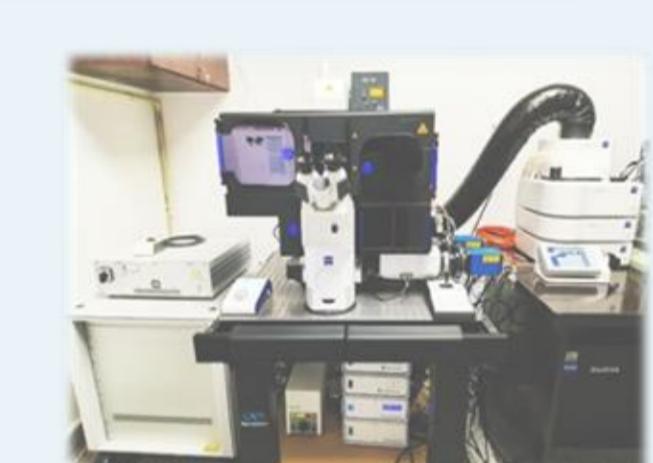
Environmental Scanning Electron Microscopy (E-SEM) [6-7th May 2026]

This hands-on session will introduce participants to environmental and cryogenic SEM techniques for imaging hydrated, soft, and beam-sensitive samples. Participants will gain practical experience in sample preparation, cryo-fixation, low-vacuum imaging, charge mitigation, and contrast optimization, enabling high-resolution surface and morphological analysis under near-native conditions.



Confocal and Super-Resolution Microscopy [6-7th May 2026]

This module will provide hands-on training in confocal laser scanning microscopy and advanced super-resolution techniques. Participants will learn optical sectioning, fluorophore selection, image acquisition strategies, resolution enhancement, and quantitative image analysis, with applications in biological and biomedical research.



Biological Atomic Force Microscopy (AFM) [7th May 2026]

The AFM session will offer practical exposure to topographical, mechanical, and functional imaging at the nanoscale. Participants will be trained in probe selection, scanning modes, force spectroscopy, surface characterization, and data interpretation, with examples from both biological and material systems.



Transmission Electron Microscopy (EDS/STEM/HAADF) [6-7th May 2026]

The Two-days Transmission Electron Microscopy (TEM) session focuses on advanced imaging and analytical techniques, including EDS and STEM-HAADF. Participants will learn the fundamentals of TEM operation, sample-electron interactions, and contrast mechanisms, followed by practical training in elemental analysis using EDS and high-resolution, Z-contrast imaging with STEM-HAADF. The hands-on will focus on data acquisition, interpretation, and best practices for obtaining high-quality structural and compositional information at the nanoscale.



Participants for	Student/PhD/PDF/RA (EMSI Member/ Non-Member*)	Faculty and Scientist (EMSI Member/Non-Member*)	Industries (EMSI Member/Non-Member*)
National Conference	2500/4000 + GST	5000/6500 + GST	7500/9000 + GST

Pre-conference Hands-on Workshop

Environmental/Cryo SEM (6-7th May)	2500 + GST	4000 + GST	5000 + GST
Confocal and Super resolution microscopy (6-7th May)	2500 + GST	4000 + GST	5000 + GST
Atomic Force Microscopy (7th May)	1500 + GST	2500 + GST	4000 + GST
TEM (EDS/STEM HAADF) (6-7th May)	2500 + GST	4000 + GST	5000+ GST

*The additional 1500+GST (18%) is fee for EMSI Life Membership.

Course Conveners



Dr. Subhash Chandra Yadav
Convenor



Dr. Prabhakar Singh
Secretary

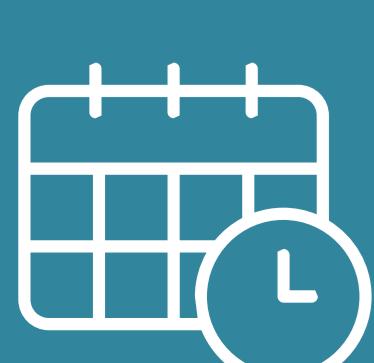


Call for abstract for
oral and poster

Last date: 31st March 2026



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ELECTRON MICROSCOPY FACILITY
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