Conference Schedule

Inaugural Ceremony

Day 1: Friday, May 8, 2026 (JLN Auditorium)		
9.00-10.00 am	Registration	
10:00 -11.0 am	*Inauguration (JLN Auditorium)*	
11:00-11.20 am	High Tea (Multipurpose hall Near JLN Auditorium)	
11:30-11:55 am	Plenary Lecture (JLN Auditorium) *Dr. Partha Ghosal, DMRL Hyderabad* *Exploring the Science by advance microscopy Techniques*	
Parallel Technical Session - I (12:00 – 1.20 pm)		
Time	Biological Science *Structure and Function of Cell and Organelles/ Cryo-EM* Moderator: Prof. T. C Nag Prof. Suneel Kateriya (JLN Auditorium) (Hall incharge: Deepak Rathi/ Udita/Aekagra)	Material Science *Atomic-Scale and High-Resolution Imaging/Energy* Moderator: Prof. Sasanka Deka Prof. Tokeer Ahmad (Convergence Block, Basement (-1), EM Facility Seminar Room) (Hall incharge: Bhanu/ Yogesh Sharma)
12.00-12.20 pm	Prof. Manidipa Banerjee, IIT Delhi *Reconstructing dynamic processes in the life cycle of non-enveloped viruses using cryo-electron microscopy*	Prof. Samar K. Das, University of Hyderabad *Chemistry in Confined Space of Framework Materials for Sustainable Energy*
12.20-12.40 pm	Dr. Deepti Jain, RCB, Faridabad *Molecular mechanism of transcription initiation by sigma28-RNAP*	Prof. Krishanu Biswas, IIT Kanpur *In Operando SEM and TEM Studies on Alloys*
12.40-12.55 pm	Dr. Amar Deep, IISER, Mohali *Molecular mechanisms of phage infection sensing and neutralization by the bacterial PARIS system*	Prof. T P Yadav, University of Delhi *Multiscale Electron Microscopy of Hydrogen Energy Materials for Sustainable and Net-Zero Technologies*
12.55-1.10 pm	Dr. Uddipan Das, AIIMS Delhi *Cryo-EM Illuminates Allosteric Control in Mycobacterium tuberculosis Pyruvate Carboxylase*	Dr. Vidya Nand Singh, NPL *Advances in Microscopy and Reference Materials*
1:10-2:10 pm	Lunch Break (Multipurpose hall Near JLN Auditorium)	

National Conference on "Electron Microscopy in Biological and Material Sciences"

Day 1: Friday, May 8, 2026 (JLN Auditorium)		
Parallel Technical Session - II (2.00 – 6.00 pm)		
Time	**Biological Science** ***TEM/Cryo-EM/ Tomography*** **Moderator: Dr. T. S. Roy** **Dr A.K. Jain** **(JLN Auditorium)** **(Hall incharge: Deepak Rathi/ Udita/Aekagra)**	**Material Science** ***Energy, Electronic and Quantum Materials*** **Moderator: Prof T. P. Yadav,** **Dr. Vidya Nand Singh, NPL** **(Convergence Block, Basement (-1), EM Facility Seminar Room)** **(Hall incharge: Bhanu/ Yogesh Sharma)**
2:20-2.40 pm	**Dr. Saikat Chakraborty, University of Oxford** *Imaging Molecular Communities At High Resolution Inside Cells.*	**Prof. Sasanka Deka, University of Delhi** *Application of Electron Microscopy in Nanomaterials for Energy Conversion*
2.40-3.00 pm	**Dr. Prem S. Kaushal, RCB** *Cryo-EM studies of mycobacterial ribosome assembly*	**Prof. Tharamani C N, IIT Ropar** *Application of Scanning Electrochemical Microscopy for clean energy conversion*
3.00-3.20 pm	**Prof. Krishna Mohan Poluri, IIT Roorkee** *Elucidating the Role of Transmission and Scanning Electron Microscopy in Bio/Nano-technological Applications*	**Prof. Aditi Halder, IIT Mandi** *Biomass To Activated Carbon and Single-Atom Catalysts for Energy and Environment*
3.20-3.40 pm	**Dr. Shikha Singh, BRIC-THSTI** *Structural insights into the regulation of the enzymatic activity of Polyphosphate kinase-1 from Mycobacterium tuberculosis*	**Prof. Tokeer Ahmed, JMI, New Delhi** *Heterogeneous Catalysis for Sustainable H2 Energy using Multinary Nanostructures*
3.40-4.00 pm	**Dr. Appu Kumar Singh, IIT Kanpur** *Unique pore architecture underlies constitutive gating of human retinal TRPM1*	**Dr. Alok Kumar Rai, University of Delhi** *Inhibiting Jahn–Teller distortion of δ-MnO2 cathode using 3d and 4d block elements doping to improve the aqueous zinc ion battery performance*
4.00-4.10 pm	**Tea Break**	
Time	**Biological Science** **Nanobiology/Confocal Microscopy/AFM** **Moderator: Prof. Savita Yadav** **Prof Saroj Kaler** **(JLN Auditorium)** **(Hall incharge: Deepak Rathi/ Udita/Aekagra)**	**Material Science** ***Energy, Electronic and Quantum Materials*** **Moderator: Prof. Vishwanath Balakrishnan** **Prof. Indrajit Roy** **(Convergence Block, Basement (-1), EMF Seminar Room)** **(Hall incharge: Bhanu/ Yogesh Sharma)**
4.20-4.40 pm	**Dr. Ritu Kulshrestha, VPCI** *Nanocarrier based Lung Theranostics-Characterisation using Different Electron microscopy Techniques*	**Prof. Pravin P Ingole, IIT Delhi** *Morphology-tuned nanostructures for electrochemical energy conversion and storage applications Energy, Electronic and Quantum Materials*
4.40-5.00 pm	**Prof. Chayan Kanti Nandi, IIT Mandi** *Fluorescent Nanomaterials for Super Resolution Microscopic Imaging of Intracellular Organellar Dynamics Super Resolution Microscopy in Biological Imaging*	**Prof. Rajendra Kumar Singh, BHU** *Next-Generation Cathode Materials for Automotive Energy Storage Systems: Performance Enhancement Strategies and Future Outlook*
5.00-5.20 pm	**Prof. Vengadesan Krishnan, RCB, Faridabad** *Visualising sortase-mediated pili through imaging techniques and understanding their architectures*	**Dr. Kaushik Ghosh, INST, Mohali** *Smart Engineering of Electrode Material Towards Energy Conversion & Storage*
5.20-5.40 pm	**Dr. Suman Tapryal, Delhi University** *Characterization of Protein and Peptide Particulate Assemblies Using Atomic Force Microscopy*	**Prof. Satyabrata Mohapatra, GGSIU** *To be received*
5.40-6.00 pm	**Dr. Archana Singh, IGIB, Delhi** *Ultrastructural and Fluorescence Microscopy Reveal a Novel miR-31-5pMediated Autophagy and DNA Repair Axis in UV-exposed Keratinocytes*	**Dr. Sangram Keshari Samal, ICMR, Delhi** *Digital Twins Technology in Designing Next-Generation Biomaterials for Personalized Regenerative Medicine.*
6.00-7.00 pm **Industry Talk (15 min each)**	**Industry/Promotional Talk (JLN Auditorium)** **(Hall incharge: Deepak Rathi/ Udita/Aekagra)** **Moderator: Prof Sasanka Deka/ Dr Prabhakar Singh** **1.Dr. Nie Xin, Thermofisher Scientific:** *Advancing Life Sciences and Translational Biomedical Resource with Integrated Cryo-FIB and TEM workflows* **2. Dr. Indu Barwal, Leica Microsystem** **3. Dr. Khusbu Kushwaha, Wiley Publishers** **4. Mr. Vijay Joshi, Labline Scientific Instruments**	
6.00-7.30 pm	**Poster Session JLN Auditorium** **(Contact Person: Vishal/Dr Vijay/Dr Shikha/Mr Pardeep)**	
8.00 onwards	**Dinner (Multipurpose hall Near JLN Auditorium)**	

Conference Schedule

Day 2: Saturday, May 9, 2026 (Convergence Block)		
Plenary Lecture		
8.30-9.00 pm	**Prof. T. C. Nag, AIIMS Delhi** *Senescence of Müller cells in human retina* (Studio II, SET Facility, 2nd Floor, Convergence Block)	**Prof. P. V. Satyam, IIT Bhubaneswar** *Application of Microscopy in understanding of Power Electronics Material* (Convergence Block, EM Facility Seminar Room)
	Parallel Session – III (9.00-11.00 am)	
	Biological Science ***EM in Health and Disease*** Moderator: Prof. Geetika Singh, Dr. Prabhakar Singh (Studio II, SET Facility, 2nd Floor, Convergence Block) (Hall incharge: Deepak Rathi/ Udita/Aekagra)	**Material Science** ***Nanomaterials, Polymer, soft matter and Funct. Materials*** Moderator: Prof. Sameer Sapra Prof Aditi Haldar (Convergence Block, EM Facility Seminar Room) (Hall incharge: Bhanu/ Yogesh Sharma)
09:00 - 09:20 am	**Prof. T S Roy, AIIMS, New Delhi** *Age-Related morphological changes in Blood Nerve Barrier of the Human Cochlear Nerve*	**Prof. Viswanath Balakrishnan, IIT Mandi** *Engineering Atomic-Scale Defects in Memristive Oxides and 2D Materials*
09:20 - 09:40 am	**Prof. A. S. Ansari, Rajasthan University** *Ultrastructural Insights into the Mechanism of Action of RISUG Male Contraceptive*	**Prof. Kedar Khare, IIT Delhi** *A virtual phase plate for cryo-electron microscopy*
09:40 - 10:00 am	**Dr. Awadh Bihari Yadav, University of Allahabad** *Development and Evaluation of SPLUNC1 protein based KQ peptide-loaded composite nanoparticles for antimicrobial and anti-biofilm activity against S. aureus biofilm*	**Prof. Venkata Krishnan, IIT Mandi** *Non-Noble Metal based Sustainable Heterogeneous Catalysts for Chemical Upcycling of Plastic Waste*
10:00 - 10:20 am	**Prof. Suneel Kateriya, JNU, New Delhi** *Integrative Biology and Electron Microscopy Guides Precision Medicine for Human Ciliopathies*	**Prof. Surojit Pande, BITS Pilani** *Enhanced Activity and Durability of Single Atom Catalyst for Overall Water-Splitting Through Synergistic Electronic Coupling with the Matrix*
10:20 - 10:35 am	**Dr. Chittur V Srikanth, RCB Faridabad** *Unveiling the Microbiota–Mucus Interplay Through Imaging Approaches*	**Dr. Joysurya Basu, IIT BHU** *Electron Microscopy of Natural Twistronics in 2D Ruddlesden-Popper Perovskite*
10:35 - 10:50 am	**Dr. Shyamalendu Medda, IPGMER, Kolkata** *Evaluating Tungsten-Source STEM in SEM: Applications and Limits in Biological Research and Diagnostics*	**Dr Ankur Bordoloi, CSIR-IIP, Dehradun** *Nano-structured catalyst system for CO2 hydrogenation to formic acid*
10:50 - 11:00 am	**Ms. Sania Yasmin, AIIMS New Delhi** (Oral) *Toward Smarter Nanomedicines: Unraveling the Intracellular Trafficking of Polymeric Nanocarriers through Systems Biology and Imaging*	**Ms Saloni Latiyan, University of Delhi** (Oral) *Maximized Synergistic Interaction of Pd Single Atoms with CuCo2S4 Nanosheets Catalysts for High-Efficiency Photocatalytic H2 Production and O2 Reduction via Enhanced Charge Separation and Transfer*
11.00-11.15 am	**Tea Break**	
Parallel Technical Session – IV (11.00-1.00 am)		
Time	**Biological Science** ***EM for Plant Sciences*** Moderator: Prof Asit Ranjan Mridha Dr. Harlokesh Narayan Yadav (Studio II, SET Facility, 2nd Floor, Convergence Block) (Hall incharge: Deepak Rathi/ Udita/Aekagra)	**Material Science** ***Biomaterials, Biosensors, Bio Devices & Smart material*** Moderator: Prof. Rajendra Kumar Singh Prof. Prof. Tharamani C N (Convergence Block, EM Facility Seminar Room) (Hall incharge: Bhanu/ Yogesh Sharma)
11:20 - 11:40 am	**Prof. Ananda Kumar Sarkar** *Application of electron microscopy to address challenging issues in plant science*	**Prof. Sameer Sapra, IIT New Delhi** *Beauty and Benefit of cryo-Electron Microscopy*
11.40 - 12:00 pm	**Dr. Gopaljee Jha, NIPGR, Delhi** *Application of electron microscopy in unraveling the intricacies of plant-microbe interactions*	**Prof. P. Jeevanandam, IIT Roorkee** *Application of Electron Microscopy for Characterization of Nanoscale Materials*
12:00 - 12:20 pm	**Dr. Aashish Ranjan, NIPGR, New Delhi** *Integration of genomics and microscopy to optimize crop photosynthetic efficiency*	**Prof. Indrajit Roy, Delhi University** *Biophotonic nanoplatforms for anticancer and antibacterial applications*
12:20 - 12:40 pm	**Dr. Amar Pal Singh, NIPGR, New Delhi** *Underground plant developmental reprogramming during nutrient stress*	**Prof. Dipankar Mandal, INST Mohali** *Piezoelectric Voice Biometrics for Emotion Recognition and Non-Invasive Disease Detection*
12:40 - 1:00 pm	**Dr Prashant M Pawar, RCB, Faridabad** *Use of Electron Microscopy to study plant cell wall*	**Dr. Tapasi Sen, INST, Mohali** *Imaging of DNA Origami-Assembled Nanostructures with Electron Microscopy*
1.00-2.00 pm	**Lunch (Multipurpose hall Near JLN Auditorium)**	

Conference Schedule

Day 2: Saturday, May 9, 2026 (Convergence Block)		
Parallel Technical Session - IV (2.00-4.20 pm)		
Time	**Biological Science** ***Nanobiology and Nanomedicine*** ***Cellular and Tissue Ultrastructural Imaging*** **Moderator: Prof. Neerja Rani** **Dr. Vineet Choudhary** **(Studio II, SET Facility, 2nd Floor, Convergence Block)** **(Hall incharge: Deepak Rathi/ Udita/Aekagra)**	**Material Science** ***Biomaterials, Biosensors, Bio Devices & Smart material*** ***Metallurgy and manufacturing*** **Moderator: Prof. Krishanu Biswas** **Prof. P. Jeevanandam** **(Convergence Block, EM Facility Seminar Room)** **(Hall incharge: Bhanu/ Yogesh Sharma)**
2.00-2.20 pm	**Prof. Suman Jain, AIIMS Delhi** *Magnetized Nanoparticles for Neurotraumatic disorders*	**Prof. Nilesh Prakash Gurao, IIT Kanpur** *In situ electron backscatter diffraction study on deformation and damage evolution in titanium*
2:20-2.40 pm	**Prof. Neetu Singh, IIT Delhi** *Naturally derived vesicles based smart therapeutics for biomedical applications*	**Dr. Anuj Bisht, IIT Roorkee** *Thermal bending behaviour of bimetallic AuPd Nanowhisker*
2.40-3.00 pm	**Prof Rizwan Hasan Khan, AMU, Aligarh** *Modulation of Amyloid Fibrillation by Anti-Tuberculosis Drugs: Mechanistic Insights and Therapeutic Implications*	**Dr. Vijay Kumar, NITS, Srinagar** *Electron Microscopy as a Tool for Understanding and Designing Functional Hydrogels*
3.00-3.15 pm	**Dr. Dilip Kumar, Ashoka University** *Proline hydroxylation induced conformational changes in Flavivirus NS2B reveal an allosteric regulatory mechanism*	**Dr. Parveen Saini, CSIR-NPL, New Delhi** *From Advance Materials to Management of Waste Streams: Importance of Electron Microscopy Characterization for Structure-Property Correlation*
3.15-3.30 pm	**Dr Alok Sharma, Lal Path Lab** *Diagnostic Transmission Electron Microscopy in India: A Journey of Resilience and Roadmap for the future*	***Dr. Karthick Balasubramanian, Thermo Fisher Scientific*** *From Surface to Atomic Scale: Integrated workflow solutions for Advanced Materials characterization*
3.30-3.45 pm	**Prof. Surajit Sarkar, University of Delhi** *Applications of Electron Microscopy Techniques in Neurobiology Research*	
3.45-4.00 pm	**Dr. Pratima R. Solanki, JNU** *Potential of Quantum Dots for Optical Sensor Development*	**Dr. Khusbu Kushwaha, Wiley Publishers**
4.00-4.10	**Dr. Pratibha Sharma, Institute of Human Behaviour and Allied Sciences, Delhi (Oral)** *Early Detection of Coronary Artery Disease: A Urinary Exosome-Based Proteomic Approach and Uromodulin as a Novel Biomarker*	**Dr. Sakal Singla, University of Regensburg, Germany (Oral)** *Nanoscale imaging of Exciton-Polariton dynamics in MoS2 using Cathodoluminescence Spectroscopy and Photon-induced near-field electron microscopy*
4.10-4.20	**Aparna Sharma, AIIMS New Delhi (Oral)** *Multiscale Structural Characterization of Human iPSC-Derived Cortical Organoids Using Confocal and Electron Microscopy*	***Industry Talk Thermo Fisher Scientific***
4.20-4.30 pm	Tea Break	
4.30-5.00 pm	Valedictory Ceremony **(Convergence Block, EM Facility Seminar Room)**	

Conference Schedule