

Pre-conference: Registration & Dinner [Jan-4, 2026]

Time	Events	Venue
17:00 – 20:00 h	Registration	<i>Vikramshila Foyer</i>
19:30 – 21:30 h	<i>Pre-Conference DINNER</i>	<i>Vikramshila Foyer</i>

Day-1: Jan-5, 2026 [07:30 to 14:00]

Time	Events			Venue
7:30 – 8:45 h	Registration & Breakfast			Vikramshila Foyer
8:45 – 9:30 h	Inauguration Ceremony			Kalidas Auditorium
9:35 – 10:35 h CHAIR: Prof. S. K. Ray	PLENARY Prof. Sanjay Mathur: Catalysts of Change: Advanced Nanomaterials Steering Health and Energy Transition			Kalidas Auditorium
10:35 – 10:55 h	Group Photo & TEA			Vikramshila Foyer
	A1-Devices [SPARC symposium 1, session 1] CHAIR: Prof. D. K. Goswami	B1-Energy Materials CHAIR: Prof. C. R. Raj	C1 – Polymer Materials CHAIR: Prof. Santanu Chattopadhyay	Kalidas (A1)/ Gargi (B1)/ Maitrayee (C1) Auditorium
11:00 – 11:30 h	Tamalika Banerjee: Orbital hybridization induced changes to oscillatory dynamics in epitaxial $\text{La}_{0.67}\text{Sr}_{0.33}\text{MnO}_3$ films	Dipankar Mandal: Biometric Piezoelectric Voiceprint	Tushar Jana: Ion-Conducting Polymer Nanocomposite Membranes	
11:30 – 12:00 h	Saptarshi Das: 3D Integration of 2D Devices for Advanced Memory, Logic, and Bio-inspired Computing	Pralay Kanti Santra: How do halide ions control the local and global structure of lead halide perovskites?	Nikolay Below: Separation of ammonia-containing gas mixtures by means polymeric membranes	
12:00 – 12:30 h	Mayank Shrivastava: Physical Insights into the Dynamic R_{ON} behaviour in AlGaIn/GaN HEMTs and its Mitigation Through Novel Field Engineering & Surface Passivation Schemes	Farsa Ram: Bio-based Sustainable Functional materials for Energy Applications	Samarendra Maji: Polymer-Based Strategies for Detection and Green Catalytic Degradation of Nitroaromatic Compounds	
12:30 – 13:00 h	Bhaswar Chakrabarti: Exploring non-filamentary resistive switching in oxide and 2D-MoS ₂ thin films	Rik Rani Koner: MOFs Meet LDHs: Structural Transformations and Synergistic Effects in Energy Storage Application	Sarat Kumar Swain: Nano Metal Oxides Doped Conducting Polymer Based Ternary Composites for Energy Storage Applications	
13:00 – 14:30 h	LUNCH			Vikramshila Foyer

Day-1: Jan-5, 2026 [14:30 to 21:30]

Time	Events			Venue
	A2-Devices: [SPARC symposium 1 session 2] CHAIR: Prof. Debraj Choudhury	B2-Structural and Smart Materials CHAIR: Prof. Sumantra Mandal	C2 – Polymer Materials CHAIR: Prof. S. K. Patra	Kalidas (A2)/ Gargi (B2)/ Maitrayee (C2) Auditorium
14:30 – 15:00 h	Sreetosh Goswami: Molecular Neuromorphic Building Blocks for Artificial Intelligence	Sagar Pal: Recent Advances in Functional Polysaccharide-Based Materials for Biomedical Applications	Raja Shunmugam: Stimuli-Gated Functional Polymer Micelles: Integrating Photo-responsive Morphodynamics with Selective Bio-analyte Recognition and Molecular Cryptography	
15:00 – 15:30 h	Mahesh Kumar: H ₂ S Gas Detection Using a Machine Learning-Driven Metal Oxide Sensor	Subrata Ghosh: Small-Molecule-Driven Sensitivity Triggering in Inorganic Photoresists	Suhrit Ghosh: Redox Activable Heavy Atom Free Photodynamic Therapy	
15:30 – 16:00 h	Samaresh Das: Quantum Confinement and Resonant Tunneling in Low-Dimensional Semiconductors	Bhagwati Prasad Joshi: Unconventional Spin Transport Across Ferromagnet/ Antiferromagnet Complex-Oxide Tunnel Barriers	Sanjib Banerjee: Multifunctional Smart Polymeric Material for Emerging Applications	
16:00 – 16:30 h	Sukhendu Mandal: Atomically Precise Nanocluster Assemblies: Properties beyond their Cluster Unit	Vasundhara Mutta: Magnetic Ground State Coexistence and Exchange Bias in Cr-Doped ZnO Nanostructures via a Simple Synthesis Approach	Bimalendu Adhikari: G-Quadruplex Supramolecular Polymers with Unusual Phase Transitions	
16:30-17:00 h		Atanu Saha: Awaited	Koushambi Mitra MitRatiNa: A fluorescent reporter for measuring mitochondrial sodium	
17:00 – 18:30 h	POSTER SESSION-I and HIGH TEA			Vikramshila Foyer
18:30 – 19:30 h	Cultural Program			Kalidas Auditorium
19:30 – 21:30 h	GALA DINNER			Vikramshila Foyer

Day-2: Jan-6, 2026 [07:30 to 14:30]

Time	Events			Venue
7:30 – 8:50 h	Breakfast			<i>Vikramshila Foyer</i>
9:00 – 10:00 h CHAIR: Prof. Anandaroop Bhattacharya	PLENARY Prof. Anjana Devi: The versatility of rare-earth based thin film synthesis driven by precursor chemistry			Kalidas Auditorium
	A3-Energy & Polymer Materials [SPARC Symposium 2, session 1] CHAIR: Prof. Amita Pathak	B3-Green Hydrogen CHAIR: Prof. Dibakar Dhara	C3-Smart Materials CHAIR: Prof. Chirodeep Bakli	Kalidas (A3)/ Gargi (B3)/ Maitrayee (C) Auditorium
10:05 – 10:35 h	Seema Agarwal: Porous COF Architectures for Efficient Osmotic Energy Conversion & Water Purification	Akshai Kumar A. S.: Pincer-Metal Electro-Catalyzed Approaches for Clean Energy: Hydrogen Production from Water and Value-Added Transformations of Alcohols	N. V. Ravi Kumar: Probing elastic anisotropy in entropy stabilised transition metal oxides	
10:35 – 11:05 h	Bhanu Nandan: Design of Composite Solid Polymer Electrolytes for All-Solid-State Lithium Batteries	Srimanta Pakhira: Hydrogen Storage Capacities in Nanoporous M2(m-dobdc) MOFs at Near Ambient Temperatures	Pavan Nukala: 2D ferroelectrics and their strain-field-temperature-structure coupling: opportunities and pitfalls for devices	
11:05 – 11:30 h	TEA			<i>Vikramshila Foyer</i>
	A4-Energy & Polymer Materials [SPARC seminars] CHAIR: Prof. Arnab Atta	B4- Advanced TEM characterization CHAIR: Prof. Rahul Mitra	C4-Biomaterials CHAIR: Prof. N. C. Das	Kalidas (A4)/ Gargi (B4)/ Maitrayee (C4) Auditorium
11:30 – 12:00 h	Bijay Tripathi: Advanced Anion Exchange Membranes with Superior Stability & Conductivity for Electrochemical Water Electrolysis	Kenji Kaneko: Nanostructural characterization of core@shell nanoparticles	Tarun Kumar Mandal: Self-Assembled, Stimuli-Responsive Poly(2-oxazoline) Copolymers for Materials Applications	
12:00 – 12:30 h	Barnali Dasgupta Ghosh: Advanced Flexible PVDF Composites for Integrated Energy Storage & Harvesting in Smart Wearables	Satoshi Hata: High-density planar defects in polycrystalline BaFe ₂ As ₂ superconductor	Dipankar Chattopadhyay: Awaited	
12:30 – 13:00 h	Kamlendra Awasthi: Conducting Polymer Nanocomposites for Enhanced Ammonia Gas Selectivity and Sensitivity	Tetsuo Oikawa: Latest Advanced Analytical Electron Microscopes	Priyadarsi De: Synthesis of High-Performance Norbornene-Based Polymers via Cationic Polymerization	
13:00-14:30 h	LUNCH			<i>Vikramshila Foyer</i>

Day-2: Jan-6, 2026 [14:30 to 21:30]

Time	Events			Venue
	A5-Energy & Polymer Materials [SPARC symposium 2, session 2] CHAIR: Prof. Kinsuk Naskar	B5-Energy Materials/Functional Materials CHAIR: Prof. Karabi Biswas	C5-Low-dimensional Materials CHAIR: Prof. S. K. Varshney	Kalidas (A5)/ Gargi (B5)/ Maitrayee (C5) Auditorium
14:30 – 15:00 h	Subhasish B Majumder: Performance of sodium-ion full cell using tunnel-layered type composite cathode	Amartya Mukhopadhyay: ‘Layered’ transition metal oxides as electrode materials for Na-ion batteries: Composition - Structure - Environmental stability - Electrochemical behaviour/ performance	Suddhosatta Mohapatra: Engineering two-dimensional electron gases for semiconductor-based quantum computing applications.	
15:00 – 15:30 h	Kousik Biswas: Gel-polymer Electrolyte-Separator Systems for Magnesium Ion Batteries	Avinash Raulo: High-Loading Lithium–Sulfur Batteries through Binder-Engineered Microstructure Control	Dhavala Suri: Josephson Current Transport in Diffusive Ferromagnet and Spin Orbit Coupled Hybrids	
15:30 – 16:00 h	Sujay Chattopadhyay: Potential of the Bipolar membrane in electrochemical conversion and energy generation	Govind Meena: Impact of particle dimension and temperature on the critical magnetic field of magnetic nanofluids	Aviru Basu Advancements in Nanoscale-Based Diagnostics/Biosensing and IoT-Integrated Flexible Sensors for Water Treatment and HER/OER Applications	
16:00 – 16:30 h	Soumyadip Choudhury: Designing Sulfur-rich Polymers for Applications in Li-S Batteries	Nirman Chakraborty: Operando probing of functional surfaces towards real-time monitoring of surface-analyte hybridization routes	T. N. Narayanan: Quantum Materials in Energy Applications	
16:30 – 18:00 h	POSTER with High Tea			
19:30-22:00h	Banquet Dinner [will be hosted outside IIT Kharagpur premises, check website for transport]			RAJBARI, Kharagpur

Day-3: Jan-7, 2026 [07:30 to 13:00]

Time	Events			Venue
7:30 – 8:50 h	Breakfast			Vikramshila Foyer
9:00 – 9:45 h Chair: Prof. Soumen Das	KEYNOTE Dr. R. Ratheesh Advanced composite materials for 5G communication and beyond			Kalidas Auditorium
	A6-Devices CHAIR: Prof. Debamalya Banerjee	B6-Electronic Materials CHAIR: Prof. P. K. Guha	C6- Energy/Polymer Materials CHAIR: Prof. Tapas Laha	Kalidas (A6)/ Gargi (B6)/ Maitrayee (C6) Auditorium
9:50 –10:20 h	Anuja Datta: Awaited	Yukio Sato: Discovery of a new crystal phase in bismuth ferrite and response of ferroelectric nanodomains to alternative-current electric fields in $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ - PbTiO_3	Biswajit Dey: Self-Healing Metallosupramolecular Mechanically Flexible-Networks for Chemical, Physical and Biological Applications	
10:20 – 10:50 h	Dirtha Sanyal: Defect Characterization by Positron Annihilation Spectroscopy	Shikhar Misra: Functional Oxide Thin Films for Next-Generation Electronics and Photonics	Nitish Roy: Unveiling The Structural and Surface Insights of the Nanostructured Catalysts Towards Photocatalytic and Electrocatalytic Applications	
10:50 – 11:15 h	TEA			
	A7-Devices CHAIR: Prof. Debamalya Banerjee	B7-Electronic Materials CHAIR: Prof. P. K. Guha	C7- Polymer CHAIR: Prof. M. C. Das	Kalidas (A7)/ Gargi (B7)/ Maitrayee (C7) Auditorium
11:20 – 11:50 h	Barun Kumar Barman: Sustainable Carbonized Micro-Emitters for Photonic Barcoding and Anti-Counterfeiting Applications	Praveen Kumar: Harnessing Spin-Dependent Catalysis in 2D Materials	Anindita Das: Programmable Two-Dimensional Self-Assembled Structures from Crystallizable Polyestersx	
11:50 – 12:20 h	Neelam Kumari: Optical Coatings for Avionic Applications: Research to Deployment	Kalisadhan Mukherjee: Metal Oxide Chemiresistors for Quantitative Analysis of Isomeric VOC Mixtures	Soumya Jyoti Ray: Non-volatile memory design using flexible materials for neuromorphic electronics	
12:20 – 12:50 h	Jayanta Parui: Multifunctional Nanofluids: From Piezoelectric BCZT to Magnetic Fe_3O_4 and Plasmonic Au	Sk. Masiul Islam: Semiconductor Materials to Devices for Electronic Applications	Neha Jain (Anton Parr): Awaited	
12:50 – 14:00 h	LUNCH			Vikramshila Foyer

Day-3: Jan-7, 2026 [14:00 to 16:30]

Time	Oral Presentations			Venue
	A8 Chair: Prof. C. S. Tiwary & Prof. Koustuv Ray	B8 Chair: Prof. P. K. Chakraborty & Prof. Indranath Chakraborty	C8 Chair: Prof. P. P. Jana & Prof. Sajal Dhara	Kalidas (A8)/ Gargi (B8)/ Maitrayee (C8) Auditorium
14:00 – 14:15 h	Sreshtha Ganguly	Swarup Maity	S. K. Imran Ali	
14:15 – 14:30 h	Milan Kumar Mandal	Vibhanshu Maurya	Dr. Rajim Ali Mondal	
14:30 – 14:45 h	Subhadip Mondal	Ipsita Pattanayak	Chandan Samanta	
14:45 – 15:00 h	Vikasmita Samanta	Bholanath Ghanti	Pallavi Gaur	
15:00 – 15:15 h	Amit Kumar Nayak	Sangita Pandit	Shubham Kumar Parate	
15:15 – 15:30 h	Suman Kumar Chakraborty	Arkapriya Das	Chinmayee Mhaskar	
15:30 – 15:45 h	Debasis Pal	Poulami Panja	Suchithra P	
15:45 – 16:00 h	Siddheswar Rudra	Ankita Mondal	Biswajit Jana	
16:00 – 16:15 h	Sthitapragyan Patnaik	Nil Lohit Sengupta	Soumen Giri	
16:15 – 16:30 h			Harshada Sharad Jadhav	
16:45 – 17:30 h	Award ceremony and Valedictory			
17:30 – 18:00 h	High Tea			
19:00 – 21:00 h	Dinner at Vikramshila Foyer			