

Day-1: Jan-5, 2026 [17:00h-18:30h]

SL No.	Poster No	Theme	Name of the Presenter	Title
1	PM-01	Polymeric Materials	Riddhi Prakash Kamble	Sulfonated Fe-MOF–Polytriazole Hybrid Membranes with Enhanced Proton Transport: Insights into Structure–Property Relationships.
2	PM-02	Polymeric Materials	Pintu Maity	Highly Stretchable Amino Acid-Based Antifreezing Hydrogels for Applications in Human Motion Sensors and Flexible Energy Storage Devices.
3	PM-03	Polymeric Materials	Sayantika Kar	Sustainable CS-MWCNT doped Eutectogels synthesis via Rapid Frontal Polymerisation: High-Strength Conductive Composites.
4	PM-04	Polymeric Materials	Rahul Badri	Synthesis, Fabrication and Characterisation of DOPO-based Electrospun Polyimide Separator for Lithium Metal Battery.
5	PM-05	Polymeric Materials	Aparajita Pal	Dynamic Borate Crosslinked Hydrogel with ZIF-8 Nanofillers for High-Performance Flexible Supercapacitors
6	PM-06	Polymeric Materials	Subhankar Sikder	Lamp soot coated short jute fiber reinforced quaternary polymer blend -mechanical and vibrational analysis
7	PM-07	Polymeric Materials	Tusharkanta Nayak	Hybrid Polyurethane Nanofibers with Encapsulated Antibiotics for Enhanced Healing of Chronic Wound.
8	PM-08	Polymeric Materials	Sindhu I Sanakal	Preparation of Magnetically Recyclable Triazine-based Polyurethane Microspheres and Immobilisation of Pd NPs on the surface for the Catalytic Reduction of Nitroaromatics
9	PM-09	Polymeric Materials	Anjali Sharma	Nanoscale structural analysis of PANI/PVDF blends using small-angle X-ray scattering (SAXS).
10	EMD-01	Energy Materials and Devices	Sachidananda Mohapatra	Effective polysulfide utilization in lithium sulfur battery using microporous carbon decorated with metal fluoride.
11	EMD-02	Energy Materials and Devices	Vanshika Handuja	Interfacial Synergy Drives Enhanced Redox Kinetics in Hybrid Supercapacitors.
12	EMD-03	Energy Materials and Devices	Niharika Tanwar	3d-Metal Based Pincer Electro-Catalysts for Conversion of (M)ethanol to Value-Added Product.
13	EMD-04	Energy Materials and Devices	Sudema Goyari	A High-Endurance Dual-Network Hydrogel System Enabling Superior Stretchability and Long-Term TENG Stability.
14	EMD-05	Energy Materials and Devices	Ashtosh Mohanty	Understanding the device response towards memristor for neuromorphic synaptic behavior in Nickel oxide and composite based Nickel oxide.
15	EMD-06	Energy Materials and Devices	Ningma Dorzi Sherpa	CoFe ₂ O ₄ /CoPc Decorated CNTs as Efficient Electrocatalysts for Alkaline Nitrate Reduction to Ammonia.
16	EMD-07	Energy Materials and Devices	Shalini Joshi	Bismuth-Based Halide Peroxites for Photocatalytic Organic Transformations: Structure-Property-Function Correlation.
17	EMD-08	Energy Materials and Devices	Khushi	Organic Dopant in Halide Double Peroxite for Enhancing Light-Driven Multifunctional Applications.
18	EMD-09	Energy Materials and Devices	Parna Maity	High-Performance self-charging Supercapacitors Using MOF-derived Trimetallic SrCo/SrCu Layered Double Hydroxides.
19	EMD-10	Energy Materials and Devices	Girija Shankar Jena	MXene-derived TiO ₂ /Cu ₂ MoS ₄ heterostructure as an excellent Z-scheme photocatalyst for H ₂ evolution and sulfamethoxazole degradation.
20	EMD11	Energy Materials and Devices	Gourab Hati	Synergistic Effect of 2D/3D Oxide-Hydroxide Hybrid with Ecoflex for High-Capacitance Symmetric Supercapacitor.
20	EMD12	Energy Materials and Devices	Sumanta Bera	Fabrication of high performance BaSnO ₃ /PVDF piezoelectric nanogenerator through high surface area BaSnO ₃ nanoparticle assisted β-phase stabilization of PVDF.
21	EMD-13	Energy Materials and Devices	Pritam Samanta	MgAlB ₂ as an Anode Material with ultra-low diffusion barrier and High Storage Capacity for Li-Ion Batteries.
22	EMD-14	Energy Materials and Devices	Prangyarani Mishra	Single-Atom Catalysts: Maximizing Atomic Efficiency for Catalytic Applications.
23	EMD-15	Energy Materials and Devices	Soutan Adak	Mn-Based Prussian Blue Analogues: Challenges and Opportunities for a Cost-Effective Sodium-Ion Battery
24	EMD-16	Energy Materials and Devices	Shivalingadevaru S Hiremath	Structural and Material Engineering of Triboelectric and Tribovoltaic Devices for Self-Powered Energy Harvesting.
25	BIO-1	Biomaterials	Onkarnath	Eco-Friendly Dye Remediation using Rice Husk-Derived Activated Carbon Embedded PAMPS Hydrogel Composite
26	BIO-2	Biomaterials	Souvik Das	An Assessment of Sisal Fiber Reinforced Nitrile Butadiene Rubber Composites for Use in Medical Devices.
27	BIO-3	Biomaterials	Oindrila Das	Adhesive and Wound Healing, Dual Active Hydrogel with Snail Mucus Proteins.
28	BIO-4	Biomaterials	Nipun Tirkey	Biopolymer-Based Poly(Acrylic acid) Hydrogel for the Efficient Removal of Cationic Dyes.
29	BIO-5	Biomaterials	Shubhadip Sanyal	Nano-engineered Chitosan & TiO ₂ fillers based UHMWPE Composites for Next Generation Orthopaedic Implants.
30	EMO-1	Electronic, Magnetic, and Optical Materials and Devices	Riya Pathak	Strain-Driven Enhancement of Magnetic Frustration in Quantum Spin-Liquid TbInO ₃ Thin Films.
31	EMO-2	Electronic, Magnetic, and Optical Materials and Devices	Saurav Kumar	Crystal Field Effect and Anomalous Magnetism in Nd ₂ FeCrO ₆ .
32	EMO-3	Electronic, Magnetic, and Optical Materials and Devices	Monisha Nayak	ZnO/FAPbBr ₃ Nanocrystal n-n Heterojunction with Fast, Broadband Photodetection and Synaptic Ability.
33	EMO-4	Electronic, Magnetic, and Optical Materials and Devices	Bidyabhusan Kundu	Physical Explanation of Linearity and Symmetry and Thousands of Analog States Using Molecular Kinetics.
34	EMO-5	Electronic, Magnetic, and Optical Materials and Devices	Tiasha Roy	Sharp Zero Phonon Line (ZPL) and Tunable Broadband NIR I to NIR II Emission from Quadruple LHDP Material.
35	EMO-6	Electronic, Magnetic, and Optical Materials and Devices	Anish Kumar Mazumdar	Tuning WS ₂ Nanostructure Formation: Influence of Reaction Conditions, Precursor Chemistry, Surface Modifiers and Photocatalytic Application.
36	EMO-7	Electronic, Magnetic, and Optical Materials and Devices	Rohit Satpathy	ZnO Nanorod-based Optoelectronic Memristors with Tunable Potentiation-Depression Dynamics for Robust Neuromorphic Computing.
37	EMO-8	Electronic, Magnetic, and Optical Materials and Devices	Prajna Paromita Chanda	Signatures of Thermal-driven Fermi surface Topology Evolution in Resistance Fluctuations Spectroscopy of Td-WTe ₂ .
38	LMD-1	Low-dimensional Materials and Devices	Rakesh Das	Controlled Growth of 2D TMDs for Large-Scale Applications.
39	LMD-2	Low-dimensional Materials and Devices	Amitpreet Singh	Substrate Engineering of 2D TMDs Lateral Heterostructure for Optoelectronic Applications
40	LMD-3	Low-dimensional Materials and Devices	Rashmita Sahoo	Scalable Synthesis of High-Quality 2D Semiconductors for Advanced Optoelectronic Applications
41	LMD-4	Low-dimensional Materials and Devices	Nur Jalal Mondal	Cu doped ZnO nanoparticles: Correlations between tuneable optoelectronic, antioxidant and photocatalytic activities.
42	Others-1	Others	Anthem Tirkey	Dual-Responsive Fluorescent Covalent Organic Molecule for Sensing Chlorinated Solvents and Picric Acid.
43	Others-2	Others	Anubhav Das	Development of a Colorimetric Sensor Utilizing Griess Reaction in the Presence of Itaconic Acid for Sensitive Detection of Nitrite and Nitrate in Agricultural Products
45	Others-3	Others	Samim Javed Gazi	Zn(II)-Coordinated Nanohydrogel for Selective Recognition of Acidic Amino Acids at Physiological pH.
46	MSD-1	Materials Theory, Simulation and Data Science	Partha Pratin Bera	Understanding the Origin of the C-V Hump in p-Si/n-ZnO Diodes Using Temperature-Resolved and Frequency-Dependent Simulations.

Sl No.	Poster No.	Day-2: Jan-6, 2026 [16:30H-18:00h]		
1	MSD-2	Materials Theory, Simulation and Data Science	Gokul Krishna	Unveiling the Environmental Instabilities of GeTe: Humidity, Oxidation, and Water-Induced Transformations.
2	MSD-3	Materials Theory, Simulation and Data Science	Sumit Bera	Prediction of the mechanochemical bond rupture of the mechanophore models through CoGEF method.
3	MSD-4	Materials Theory, Simulation and Data Science	Charulatha.K	CULINARY DERIVED COMPOUND NANOEMULSION FOR BREAST CANCER THERAPY: INSILICO ANALYSIS, INVITRO VALIDATION AND MACHINE LEARNING APPROACHES.
4	MSD-5	Materials Theory, Simulation and Data Science	Biswajeet Nayak	Physics-Informed Machine Learning Framework for Optimizing Wafer-Scale CVD Growth of 2D TMDs.
5	PM-10	Polymeric Materials	Amul Jain	Redox- and NIR-Active Iron(III) Triradicals as Efficient Catalysts for Controlled Radical Polymerization of Acrylamides and Methacrylates
6	PM-11	Polymeric Materials	Koushik Mahata	Chemical Crosslinker Free Amino Acid-based Porous Hydrogels for Organic Dye Removal from Wastewater.
7	PM-12	Polymeric Materials	Subrata Kumar Maiti	Synergistic Impact of Catalytic Activity and Electric Field at Interface Layer Influencing Hydrogen Production in Bipolar Membrane Water Electrolyzer.
8	PM-13	Polymeric Materials	Sreeja Nath Chowdhury	Tunable Magnetic Heating in PEG-CA-based Superparamagnetic Polymer Nanocomposite for Controlled Hyperthermia Applications
9	EMD-17	Energy Materials and Devices	Yammala Eliya	Unveiling the impact of defects on electrocaloric properties in the BaTiO ₃ -based system.
10	EMD-18	Energy Materials and Devices	Anshuman Ojha	Cobalt-Platinum Nanoparticle Encapsulated within Carbon Nanotube for Superior O ₂ Reduction Reaction.
11	EMD-19	Energy Materials and Devices	Naveen Sharma	Unravelling the Electrochemical Activity of LaFeO ₃ Perovskite towards O ₂ Reduction Reaction.
12	EMD-20	Energy Materials and Devices	Sajal Nandi	Fabrication and characterization of electropun Ag-doped KNN/PVDF-based nanocomposite for energy harvesting application.
13	EMD-21	Energy Materials and Devices	Tejram Dewangan	Pea Shell-derived Activated Carbon: Potential electrode material for Supercapacitor Application.
14	EMD-22	Energy Materials and Devices	Abhijit Pingal Sanga	Influence of Barium Titanate on the Energy Harvesting Performance of Electropun Polymer Nanofibers.
15	EMD-23	Energy Materials and Devices	Bishnu Prasad Sapkota	Doping-Driven Modification of MXene Synthesised from MAX Phase: Structural and Compositional Studies.
16	EMD-24	Energy Materials and Devices	Sayanti Mallick	Multifunctional Stretchable Perovskite-Hybrid Triboelectric Sensor for Dual-Mode Pressure and Light Detection.
17	EMD-25	Energy Materials and Devices	Ghousia Noori	Synthesis and characterization of Cu-Al LDHs/rGO composite-based electrode materials for energy storage and energy conversion applications.
18	EMD-26	Energy Materials and Devices	Shakil Ahammad Chowdhury	Hydrothermal Synthesis of Semi-Metallic 1H-SnS ₂ for Selective Electrocatalytic Nitrate Reduction Reaction to Hydroxylamine.
19	EMD-27	Energy Materials and Devices	Praveen Kumar	Controlled Growth of Large-Area 2D MoSe ₂ Thin Films for Energy Harvesting Applications.
20	EMD-28	Energy Materials and Devices	Abhilipsa Jena	Vacancy-Rich MoO ₃ -x/ZnIn ₂ S ₄ Heterostructure for Enhanced Solar-Driven Hydrogen Generation.
20	EMD-29	Energy Materials and Devices	Ajay Kumar	Solvothermal synthesis of NiCo-LDH on Ni-Foam for High-Performance Supercapacitor Electrode.
21	BIO-6	Biomaterials	Arabinda Majhi	Bacopa monnieri and collagen dipeptides functionalized 3D-printed multichannel nerve conduit encased within a bilayer scaffold for peripheral nerve regeneration.
22	BIO-7	Biomaterials	Sayani Maiti	Enabling visible light driven chemo-photodynamic therapy and imaging of cancer cells by pH-sensitive CD-metal organic gel.
23	EMO-9	Electronic, Magnetic, and Optical Materials and Devices	Arup Basak	Exploring electromechanical behaviour of VO ₂ as an analogue of neuron.
24	EMO-10	Electronic, Magnetic, and Optical Materials and Devices	Deepak Aloysius	Organic Additives in Halide Perovskites for Overall Enhancement of Performance over Photochemical Applications.
25	EMO-11	Electronic, Magnetic, and Optical Materials and Devices	Adarsh Tripathi	Coloured-Noise-Induced Stochastic Resonance in Ferroelectric Capacitors.
26	EMO-12	Electronic, Magnetic, and Optical Materials and Devices	Subhransu Kumar Negi	Electronic Transport Properties of Poly-Crystalline Bismuth.
27	EMO-13	Electronic, Magnetic, and Optical Materials and Devices	Sohini Guin	Electronic Phases of High-Tc Superconductor.
28	EMO-14	Electronic, Magnetic, and Optical Materials and Devices	Jishnu Nk	Heterogeneous Integration of Complex Epitaxial Oxides on to Silicon.
29	EMO-15	Electronic, Magnetic, and Optical Materials and Devices	Anudeep Tullibilli	Investigating the Role of Oxygen Vacancy Redistribution in Ferroelectric Behavior of Yttria Doped Hafnia Thin Films Using Scanning Probe.
30	EMO-16	Electronic, Magnetic, and Optical Materials and Devices	Rakshitha H A	Solution Processed Low-Dimensional Rb-Sb based Halide Perovskite Derivative Microcrystals: Structure, Stability, and Optical Dynamics.
31	EMO-17	Electronic, Magnetic, and Optical Materials and Devices	Somnath Das	Development of amorphous microwire-based arrayed giant magneto-impedance (GMI) sensor for low magnetic field sensing applications
32	EMO-18	Electronic, Magnetic, and Optical Materials and Devices	Purbasha Ray	2D MoSe ₂ -WSe ₂ Lateral Heterostructures for Next-Generation Electronic Devices.
33	EMO-19	Electronic, Magnetic, and Optical Materials and Devices	Jajjara Sandeep	Sol-Gel Deposition and Rapid Thermal Annealing of Ferroelectric HfO ₂ Thin Films on TiN-Coated Silicon Substrates.
34	EMO-20	Electronic, Magnetic, and Optical Materials and Devices	Abhishek Kumar	Transmission electron microscopy and electron spectroscopic studies of dynamics of various functional materials.
35	EMO-21	Electronic, Magnetic, and Optical Materials and Devices	Santu Kumar Ghosh	Artificial synapses based on PVDF/MoS ₂ heterojunction memristor for neuromorphic applications
36	EMO-22	Electronic, Magnetic, and Optical Materials and Devices	Subham Saha	Impact of Trapping Layers on the Performance of All-Inorganic CsPbBr ₃ Nanocrystal-based Optical Synapses.
37	EMO-23	Electronic, Magnetic, and Optical Materials and Devices	Kartick Biswas	Understanding Strain Relaxation Behaviour in Epitaxial Neodymium Nickelate Thin Films.
38	EMO-24	Electronic, Magnetic, and Optical Materials and Devices	Sagarneel Ghoshal	Halide Perovskite-Polymer Heterostructures for Optoelectronic Neuromorphic Devices
39	SSM-1	Structural and smart materials	Puneeth N K	Incorporation of Seashell Powder in LC3: Impact on Fresh Properties and Strength.
40	SSM-2	Structural and smart materials	Soumyajyoti Mondal	Rapid Thermal Annealing as a Route to Nitrogen Incorporation and Ferroelectric Phase Stabilization in Epitaxial Y:HfO ₂
41	LMD-5	Low-dimensional Materials and Devices	Pabitra Kumar Hazra	Silicon based vdW material with application in nanoelectronics,
42	LMD-6	Low-dimensional Materials and Devices	Hiranmay Barma	Crystal Facets Engineering of Anatase TiO ₂ Nanocrystals: Correlating Structural Evolution with Photocatalytic Efficiencies.
43	LMD-7	Low-dimensional Materials and Devices	Ankita Dutta Chowdhury	From Nanocomposite to Point-of-Care Device: CuFe ₂ O ₄ -rGO modified Electrochemical Sensor for Dopamine Detection in Urine.
45	LMD-9	Low-dimensional Materials and Devices	Deepak Kumar Sahu	Scalable Photodetectors using Large-Area WS ₂ Film Grown by Chemical Vapor Deposition
46	LMD-10	Low-dimensional Materials and Devices	Angana Bhattacharya	Chiral Carbon Dots Enable Multifunctional Enantioselective Sensing of Fluorescent Amino Acids and Aggregate-Level Chirality Communication.