

# ICFM 2024

## Day wise Poster Presentation List:

Thrust area	Area code
2D and Quantum Materials	<b>2D</b>
Devices (optical, electronic, and flexible)	<b>DEV</b>
Sensors and actuators	<b>S&amp;A</b>
Polymer and flexible	<b>Poly</b>
Semiconductors and Heterostructures	<b>S&amp;H</b>
Theoretical modeling and AI & ML for Materials Prediction	<b>TM</b>
Soft and Nature-inspired Materials	<b>S&amp;N</b>
Ceramic, Composites, Metals and Alloys	<b>Cer</b>
Functional Materials	<b>FM</b>
Energy Materials-batteries, Supercapacitors, Solar cells	<b>EM</b>
Textile and Fiber technology	<b>TFT</b>

Day 1: 09.01.2024				
#	Code	Name	Institute	Title
1	2D-1	Utsa Sarkar	INST	Nanoconfined 1D-Monoelemental Tellurium in Nanocomposite Fibers: An Efficient Approach for Mechanical Energy Harvesting
2	2D-2	Ashis Kumar Panigrahi	IOP Bhubaneswar	Layer-Dependent Vibrational Properties of MoS <sub>2</sub> -WS <sub>2</sub> Vertical Heterostructures and Insights into Exciton Dynamics
3	2D-3	Bidyadhar Das	NISER Bhubaneswar	Superconducting and Magnetic properties of NiBi <sub>3</sub> thin films synthesized by co-evaporation technique
4	2D-4	Kritika Ghosh	IIT Kharagpur	Implications of Epitaxial High-K Dielectric Gd <sub>2</sub> O <sub>3</sub> thin films on Optical Properties of MoSe <sub>2</sub> Monolayer
5	2D-5	Chumki Nayak	Bose Institute	Generation of Spin Coupled Valley Photocurrent in Alloy Transition Metal Dichalcogenide MoS <sub>2</sub> xSe <sub>2(1-x)</sub>
6	2D-6	Nabarun Mandal	IIT Kharagpur	Dual-Wavelength Amplified Spontaneous Emission from Interface Engineered Polymer Films using Atomically Thin Red Coral
7	2D-7	Ayushi Tripathi	HRI	Theoretical Investigation of Pressure-Induced Oscillatory Band-gap in One-dimensional Lead-free Halide Perovskite: CsCu <sub>2</sub> I <sub>3</sub>

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8	2D-8	Anyesha Chakraborty	IIT Kharagpur	Trace Detection of Ciprofloxacin in Milk by Label-free Raman Enhancement using Two-dimensional Magnesiocromite
9	2D-9	Dilip	IIT Indore	External Stimuli Driven Electronic Properties Tuning in two-dimensional $\text{Ag}_2\text{ReCl}_6$ : Towards Efficient HER Activity
10	2D-10	Swastik Sahoo	IIT Bombay	Demonstration of Spin Hall Angle in monolayer Xenes
11	2D-11	Abhijith	IIT Kharagpur	Aliovalent dopant engineering in 2D transition metal dichalcogenides
12	2D-12	Sourav Paul	IIT Kharagpur	Spectroscopic signatures of layer rotation and grain boundaries in $\text{WSe}_2$
13	2D-13	Chinmayee Chowde Gowda	IIT Kharagpur	Two-dimensional Manganese di-telluride-based Triboelectric Nanogenerator
14	2D-14	Vineet Pandey	IIT Kharagpur	Probing interlayer interactions and commensurate-incommensurate transition in twisted bilayer graphene through Raman spectroscopy
15	2D-15	Prajna Paromita Chanda	IIT Kharagpur	Stacking Dependent Transport Properties in CVD-Grown Tungsten Selenide ( $\text{WSe}_2$ )
16	2D-16	Vibhu Arora	IISER Kolkata	Carriers induced Phase transition in $\text{WS}_2$
17	2D-17	Suman Kumar Chakraborty	IIT Kharagpur	Phonon Dynamics in Engineered Moiré Superlattice
18	2D-18	Shreya Paul	IIT Kharagpur	Study of a few-layer $\text{ReS}_2$ ferroelectric semiconductor field-effect transistor
19	DEV-1	Jagritee Talukdar	IIT Bombay	Performance enhancement of donor impurity integrated $\text{MoS}_2$ based TFET photosensor through dielectric alteration
20	DEV-2	Nupur Saxena	IIT Jammu	$\text{CdS/ZnS}$ core/shell nanostructures based broadband Photodetector
21	DEV-3	Subham Saha	IIT Kharagpur	Enhanced Resistive Switching in Halide Perovskite-based Memristor
22	DEV-4	Ajith Nix ESR	SRM	Unravelling Magnetism and Phase Transition in the Weakly Frustrated Canted Antiferromagnet Copper Pyrovanadate
23	DEV-5	Deepak Kumar Sahu	IIT Kharagpur	Gold nanoparticle-assisted ternary alloy $\text{Mo}_{0.5}\text{W}_{0.5}\text{S}_2$ - p-Si vertical heterojunction photodetector via surface plasmon resonance
24	DEV-6	Suvadip Masanta	Bose Institute	Monolayer Graphene– $\text{MoSSe}$ van der Waals Heterostructure: A Promising Platform for Highly Responsive Near-Infrared-Sensitive Broadband Fast Photodetection
25	DEV-7	Nikita Chaudhary	INST	Silicon Distyryl-BODIPY Hybrid Photodiode: Moving a Step Ahead from Organic Interface Layer to Type II Band Alignment
26	DEV-8	Subhabrata Das	INST Mohali	Nanocluster decorated Graphene Based Self-Powered Respiratory Monitoring Device
27	DEV-9	Seema Rani	INST	Tailoring Dangling Defects of SnSe Based Metal-Semiconductor-Metal Devices: Harnessing Environmental Influence Towards Photodetector and Humidity Sensor
28	DEV-10	Sachin Kumar	IIT Kanpur	Dense oxygen plasma irradiation of platinum for improved charge to spin conversion efficiency
29	DEV-11	Purbasha Ray	IIT Kharagpur	2D $\text{MoSe}_2$ - $\text{WSe}_2$ Lateral Heterostructure Based Emerging Electronics
30	DEV-12	Ayush Kumar Gupta	IIT Kanpur	Spin Hall oscillators for Neuromorphic computing
31	DEV-13	Ranjeev Kumar Parashar	IIT Kanpur	Probing the influence of counter ions in viologens on the electrochromic performance
32	DEV-14	Amrendra Kumar	IIT Kanpur	Unconventional spin polarization at Argon ion milled $\text{SrTiO}_3$ Interfaces
33	DEV-15	Surbhi Ramawat	IIT Jodhpur	$\beta$ - $\text{SrZrS}_3$ : A superior intermediate temperature thermoelectric through complex band geometry and ultralow lattice thermal conductivity
34	DEV-16	Arpita Roy	IIT Patna	A Novel Supramolecular Ni(II)-Metallohydrogel based Resistive Random Access Memory Device with High Endurance
35	DEV-17	Kiruthiga Devi B	SRM	Exploring the nature of ferrimagnetic material of $\text{Ni}_{4-x}\text{Co}_x\text{Nb}_2\text{O}_9$ ( $0 \leq x \leq 2$ )

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36	DEV-18	Himadri Nandan Mohanty	IIT Hyderabad	EBL patterned Nafion electrolyte-based proton-gated synaptic transistors
37	TFT-1	Rajlakshmi	IIT Kharagpur	An innovative bioprocessing of ramie fibre
38	TFT-2	Souvik Das	IIT Kharagpur	Sisal Fiber Carboxylated Nitrile Butadiene Rubber (XNBR) Composites for Advanced Applications
39	TFT-3	Bidya Mondal	INST	On Demand Piezoelectric Smart Textiles for Point-of-care Diagnostics
40	FM-1	Sibani Mahapatra	IIT Kharagpur	4D Printing of Shape Memory Polymer Blends: Optimization, Characterization, and Performance Analysis
41	FM-2	Sangita	IIT Kharagpur	Designing a Mechanically Robust, Stimuli responsive Functional Hydrogel through Dynamic Metal-Ligand Bonding and Freeze-Thaw Technique
42	FM-3	Ashis Ghosh	IIT Kharagpur	Synthesis of a Multifunctional Hydrogel Using Dynamic Metal-Ligand Interaction and Hydrophobic Association
43	FM-4	Debajyoti Palai	IIT Kharagpur	Exploring the Mechanical, Tribological, and Biodegradation Behavior of the Zn- Based Alloys in Different Physiological Body Fluids
44	FM-5	Rohit Kumar	IIT Bombay	Unleashing the potential of two-dimensional semiconducting transition metal dichalcogenides for advanced energy device applications
45	FM-6	Aiswarya Priyambada	KIIT Odisha	First Principle study of structural and electronic properties at the Interface of (Ca <sub>2</sub> VMoO <sub>6</sub> )/(La <sub>2</sub> MnVO <sub>6</sub> ) Double Perovskite Superlattices
46	FM-7	Swagatika Mohanty	KIIT Odisha	Structural, electronic and magnetic properties of La <sub>2</sub> Co <sub>1-x</sub> Zn <sub>x</sub> MnO <sub>6</sub> (0 ≤ x ≤ 0.15) double perovskites
47	FM-8	Prosun Mondal	IIT BHU	Multiferroic Composites: Unlocking the Potential of Dual Property Materials
48	FM-9	Nishtha Vats	IIT Jodhpur	Ca, Al, and Mn Substituted Strontium Hexaferrite (SrFe <sub>12</sub> O <sub>19</sub> ) for Rare Earth Free Permanent Magnet Applications
49	FM-10	Seshadev Barik	VSSUT	Structural evolution and Glass Forming Ability of Zr-Ag Alloys by using MD Simulations
50	FM-11	Konthoujam Priyananda Singh	NIT Manipur	Unveiling the magnetic properties of Imidazole capped Iron oxide nanoparticles at different Iron concentrations and its application in hyperthermia
51	FM-12	Ashish Omar	IISc Bangalore	Microstructural Evolution of DC Magnetron Sputtered Nb Thin Films: Interplay of Deposition Parameters and Structure Zone Transitions
52	FM-13	Sambit Kumar Biswal	IIT Patna	Reversible and Large Magnetocaloric effect in Si substituted MnNiSn-based Heusler alloy
53	FM-14	Amrendra Kumar	NIT Rourkela	Synthesis and characterization of (Ba <sub>2</sub> Zn <sub>2</sub> Fe <sub>12</sub> O <sub>22</sub> ) (0.5)(MgFe <sub>2</sub> O <sub>4</sub> )(0.5) ferrite composite for high frequency antenna application
54	FM-15	Srujan S Sapkal	DIAT Pune	Machine learning aided accelerated prediction and experimental validation of functional properties of K <sub>1-x</sub> Na <sub>x</sub> NbO <sub>3</sub> -based piezoelectric ceramics
55	FM-16	Indrajit Pal	Visva-Bharati University	Fabrication of semiconducting devices by implementing Nitroterephthalic acid directed mechanically flexible supramolecular Co(II)/Cu(II)-metallogel systems
56	FM-17	Debashis Das	MSCB University	rGO-[BiXFe(1-X)] <sub>2</sub> O <sub>3</sub> - A potent photocatalyst for the degradation of crystal violet and evaluation of antibacterial efficiency
57	FM-18	Mukhesh	CeNS Bengaluru	Fabrication of Large-Area, Affordable Dual-Function Electrochromic Smart Windows by Using a Hybrid Electrode Coated with an Oxygen-Deficient Tungsten Oxide Ultrathin Porous Film
58	FM-19	Athira Chandran M	CeNS Bengaluru	Pt-Pd-Co-Mn-Ni High Entropy Alloy as an Efficient Saline Water Electrocatalyst for Hydrogen Evolution Reaction
59	FM-20	Pritha Dutta	CeNS Bengaluru	Dual-Functional Electrochromic Smart Window using g WO <sub>3</sub> ·H <sub>2</sub> O-rGO Nanocomposite Ink Spray Coated on Low-Cost Hybrid Electrode
60	FM-21	Kazi Parvez Islam	IIT Kharagpur	Antisite disorder-induced suppression of Exchange Bias in hole doped R <sub>2</sub> CoMnO <sub>6</sub> double perovskite system (R = rare-earth atom)
61	FM-22	Arghyadeep Das	IIT Kharagpur	Investigation of the origin of the pyroelectric current of spinel ferrite compounds

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62	FM-23	Suryakanta Mishra	IIT Kharagpur	Structural origin of room temperature ferroelectricity in spark-plasma sintered GdCrO <sub>3</sub> , and related rare-earth chromates
63	FM-24	Priyanka Maji	IIT Kharagpur	Emergent field induced volatile resistive switching (RS) effect in Mott insulator titanate spinel
64	FM-25	Rupam Sahoo	IIT Kharagpur	Coordinated Water Molecules Induced Solid-State Superprotonic Conduction by Highly Scalable and pH-Stable Coordination Polymer (CP) and Metal-Organic Framework (MOF)
65	FM-26	Shuvendu Shuvankar Purohit	VSSUT	In vivo Wound Healing in Drosophila Melanogaster and Mouse models: Synergistic Effect of Bovine Serum Albumin and Graphene Quantum Dots
66	FM-27	Krishna Manjari Sahu	VSSUT	Sustained Release of Ciprofloxacin Mediated by $\beta$ -cyclodextrin Modified CQD/Dextran based Hydrogels via Host-guest Mechanism
67	FM-28	Anuradha Biswal	VSSUT	Synergistic Effect of f-MWCNT and Nano Titania on Wound Healing Efficacy of Chitosan Films in Drosophila and Rat Models
68	FM-29	Pankaj Parmar	IIT Kharagpur	Pyrolytic conversion of waste biomass towards sustainable and alternate energy
69	FM-30	Soumyajyoti Mondal	IISc Bangalore	Giant electrostriction in bulk RE (III) substituted CeO <sub>2</sub> : effect of RE <sub>3+</sub> and its concentration
70	FM-31	Boris Wareppam	NIT Manipur	A Raman spectroscopy study for significant single magnon scattering in plasma-exposed ZnO and -Fe <sub>2</sub> O <sub>3</sub> composite.
71	Cer-1	Arjun Mahato	IIT Kharagpur	Estimation of $\beta$ -transus temperature of Ti <sub>6</sub> Al <sub>2</sub> V-1Fe-1Cr alloy
72	Cer-2	Saumya Gupta	IIT Kharagpur	Orientation based spheroidization response in thermo-mechanically processed Ti <sub>6</sub> Al <sub>4</sub> V alloys
73	Cer-3	Anant Shukla	IIT PATNA	Microstructural and Multiferroic Properties of (x)NiFe <sub>2</sub> O <sub>4</sub> -(1-x)Ba <sub>0.9</sub> Sr <sub>0.1</sub> TiO <sub>3</sub> Composites
74	Cer-4	Sushree Nibedita Rout	IIT Patna	Tuning of (BH) <sub>max</sub> and Magnetic Anisotropy in Microwave Sintered StrontiumHexaferrite by Al- Substitution
75	Cer-5	Divya Kumari	A N College Patna	Revealing the role of Ti in the magnetic behavior of double perovskite Sr <sub>2</sub> FeTiO <sub>6</sub> : A spectroscopic study
76	Cer-6	Subhra Kanti De	IIT MADRAS	Hydrogen adsorption by a porous bimetallic solid solution carbide MAX phases synthesized in an open atmosphere
77	Cer-7	Anupama	IISER KOLKATA	Investigation of many-body interaction governed ultrafast hole relaxation dynamics in CuS and photocatalytic efficiency-enhanced CuS/Ag <sub>2</sub> S nanocomposites
78	Cer-8	Srijan Mondal	IIT Madras	Formation Mechanism and Thermal Stability of Ternary Metal Boride: WAIB
79	Cer-9	Ankush Kumar	IIT Patna	The effect of biomass gasifier residue on the mechanical strength of cementitious composites
80	Cer-10	Waghchoure Nehal Ashok	BITS Pilani	Nanocrystalline Mn-doped Ba <sub>0.98</sub> Sr <sub>0.02</sub> SnO <sub>3</sub> solid solution: Exploring challenges in the study of microstructure and optical properties
81	Cer-11	Priyankari Bhattacharya	Jadavpur UNIVERSITY	Development of CuO NP coated ceramic ultrafiltration membrane forremediating estrogens from water
82	Cer-12	Md Kashif Shamim	A N College Patna	Structural and Magnetic behavior of LaBiSrMnO <sub>3</sub> -NiFe <sub>2</sub> O <sub>4</sub> Composite Ceramics
83	Cer-13	Ruchi Rashmi	A N College Patna	Role of cationic charge disordering in magnetic and electric response of ferroelectric perovskite BiFeO <sub>3</sub> -BaTiO <sub>3</sub>
84	S&N-1	Soumavo Sikder	NIT ROURKELA	Al <sub>2</sub> O <sub>3</sub> - PMMA composite inspired by abalone nacre with improved mechanical properties
85	S&N-2	Suprakash Rabha	IASST GUWAHATI	Sustainable Removal of Lead Ions and Basic Fuchsin Dye from Water Using Lippia alba Leaves for Environmental Remediation
86	S&N-3	Aiswarya Sahu	IIT Jodhpur	Fabrication of Extreme Temperatures Stable Superhydrophobic Coating on HVOF Thermal Sprayed WC-12%Co/SS316 to Mitigate Chemical Fouling in Metallic Bodies

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87	S&N-4	Indrajit Mohanta	NIT ROURKELA	Folic Acid Tetramers: Robust yet dynamic supramolecular polymers reinforced by salting out with external kosmotropic salts
88	S&N-5	Nihar Sahu	NIT ROURKELA	Ferrocene: an Exciting Building Block for Designing Supramolecular Assemblies
89	S&N-6	Angela Andoh	CSIR-Gujarat	Preparation of triazole based metallogel and it derived xerogel: studies on removal of anionic dyes from aqueous solution and solvent-free co2 cycloaddition
90	S&N-7	Priyanka Priyadarshani Samal	IIT Patna	Self-Assembly of Alkylated Azo-benzene Molecules at Air-Water Interface
91	S&N-8	Himangshu Paul	IIT Patna	Controlling the nanoarchitecture of self-assembled oxadiazole integrated heterocoronene based discotic liquid crystals
92	S&N-9	Srikanta Debata	IIT Bhilai	pH-responsive multimode dynamics of light-powered rod-shaped microswimmers
93	TM-1	Saumen Chaudhuri	IIT Kharagpur	Mechanical Strain Driven Improvement in the Thermoelectric Performance of ML-MoS <sub>2</sub>
94	TM-2	Ganesh Sahadeo Meshram	IIT Kharagpur	Hydrophobicity Analysis of the Patterned Structures of the Materials Using Lattice Boltzmann Method
95	TM-3	Subhankar Sikder	IIT Kharagpur	Effect of three-member methyl groups on mechanophores dissociative energy by quantum mechanochemistry
96	TM-4	Vivek Dey	IISc	Physical modeling of avalanches in 2D Ag-hBN neuromorphic platform
97	TM-5	Prakash G	SRM Chennai	Clerite: A natural mineral with potential thermoelectric performance
98	TM-6	Sushree Ipsita	ITR Bhubaneswar	High Tunneling Electro-resistance Ratio of a typical Pt/STO/BTO/SRO Ferroelectric Tunnel Junction
99	TM-7	Vikas Singh Thakur	IIT ROORKEE	Strengthening Magnesium-Ion Batteries with Structurally Rigid Black Phosphorus for Superior Anodic performance
100	TM-8	Arpit Bhojraj Mendhe	DIAT Pune	Machine learning assisted prediction and experimental validation of the electrochemical performance of NiCo(OH) <sub>2</sub> -PANI composite
101	TM-9	Md Nur Hasan	S N Bose	Resolving Disputes in Rhenium Dichalcogenides: A First-principles Study
102	S&H-1	Biswajeet Nayak	IIT Kharagpur	Controlled Growth of large area 2D Transition Metal Dichalcogenides and Lateral Heterostructures, and their Electrical Characteristics
103	S&H-2	Deepika K N	IIT Kharagpur	Fe-assisted low-temperature synthesis of SiC nanowires
104	S&H-3	Sudipta Khamrui	IIT Kharagpur	Study of Spin Localisation and Charge Transport in Hydrothermally Synthesised 2H-MoS <sub>2</sub>
105	S&H-4	Subhadip Ghosh	IIT Kharagpur	Vacancy-Induced Photoluminescence of SnTe and V-doped SnTe Topological Insulating Semiconductor
106	S&H-5	Shaona Bose	IIT Kharagpur	Atomically resolved decomposition pathway of electron-irradiated Cu-doped CsPbI <sub>3</sub> nanocrystals
107	S&H-6	Girija Shankar Jena	IIT Kharagpur	A facile synthesis of ternary CuS@Ag/Bi <sub>2</sub> WO <sub>6</sub> nanocomposite for photoreduction of Cr (VI) and degradation of tetracycline
108	S&H-7	Upali Aparajita Mohanty	Siksha O anusandhan University	Unveiling Peroxymonosulfate Activation by CoFe LDH p-n Heterostructure for Enhanced Photocatalytic Degradation of Sulfadiazine
109	S&H-8	Rajalaxmi Nath	NIT DURGAPUR	Synthesis of Nd-doped TiO <sub>2</sub> photocatalyst for efficient removal of tetracycline antibiotic in wastewater under visible light irradiation
110	S&H-9	Aastha Singh	IIT Mandi	Solution-processed p-type CuGaO films towards thin film transistor application
111	S&H-10	Kritika Sharu	IISER Thiruvananthapuram	Leveraging Plasmonic Hot Electrons to Quench Defect Emission in Metal - Semiconductor Nanostructured Hybrids
112	S&H-11	Vinit	IIT ROPAR	High-performance broadband photodetector based on PtS/a-Ga <sub>2</sub> O <sub>3</sub> heterostructures and impact of band-alignment
113	S&H-12	Anjan Kumar N M	IISER Kolkata	Carrier trapping dynamics in CoV <sub>2</sub> O <sub>6</sub> using ultrafast non-degenerate pump probe spectroscopy

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114	S&H-13	Badri Prasad Gatadi	IIT Ropar	Anomalous shift from negative photocurrent to positive photocurrent in FeSi <sub>2</sub> /Ga <sub>2</sub> O <sub>3</sub> heterostructure-based solar-blind photodetectors
115	S&H-14	Jyotirmayee Sahu	ITER SOA Bhubaneswar	Compositional Engineered Cd-Mo-Se Alloyed QDs for Photocatalytic H <sub>2</sub> O <sub>2</sub> Production with Detailed Mechanism
116	S&H-15	Aradhana Panigrahi	IIT Patna	Understanding the Role of Charge Transfer in CsPbBr <sub>3</sub> Perovskite Quantum Dots on Current Conduction
117	S&H-16	Subham Das	JNCSR BANGALORE	Tunable sp-d exchange interaction in Mn-doped Dilute Magnetic Semiconductor (DMS) Nanocrystals (NCs)
118	S&H-17	Choudhury Abinash Bhuyan	University of Hyderabad	THz generation and charge-transfer in monolayer MoS <sub>2</sub> /GaAs heterostructure

Day 2: 10.01.2024				
#	Code	Name	Institute	Title
1	2D-19	Deep Jyoti Sapkota	IIT Jodhpur	Electronic and thermoelectric properties of Janus SbTeI monolayer
2	2D-20	Alok Kumar	IOP Bhubaneswar	Identification of H-type (AA') and R-type (AB) WS <sub>2</sub> bilayers and twin boundaries using low and high-frequency Raman analysis
3	2D-21	Parbati Senapati	IIT Patna	Enhancement of the spin thermoelectric properties in ring quantum dot junction by the magnetic field
4	2D-22	Bhagyashri Gaykwad	IIT Gandhinagar	High Energy Ball Milling Enables Scalable Exfoliation of Layered Titanium Diboride
5	2D-23	Sankalpa Bora	HRI	Theoretical investigation of Pressure-Driven Band gap narrowing in One dimensional lead-free Halide Perovskite: Cs <sub>3</sub> Cu <sub>2</sub> I <sub>5</sub>
6	2D-24	Anshul Rasyotra	IIT Gandhinagar	Vacancies in TiB <sub>2</sub> nanosheets facilitate Nitrogen chemisorption
7	2D-25	Minushree Rout	IIT Kharagpur	Role of Chemical Vapor Deposition Process Parameters for the Large Area Growth of Two-Dimensional MoSe <sub>2</sub>
8	2D-26	Sumit Kukreti	IIT Jodhpur	Strain-engineered thermophysical properties ranging from band-insulating to topological insulating phases in-antimonene
9	2D-27	Vidushi Chaudhary	IIT Kharagpur	In-situ defect passivation of 2D Lateral Heterostructures using a one-pot synthesis strategy
10	2D-28	Ankit Bansal	IIT Madras	Electronic structure evaluation of BiXY type 2D Janus materials
11	2D-29	Bhabani Sankar Sahoo	IIT Kharagpur	The Growth of Two-Dimensional WSe <sub>2</sub> on Different Oxide Dielectrics Deposited via Electron Beam Evaporator
12	2D-30	Ayan Mondal	IISER Kolkata	Pressure induced flat bands in large angle twisted bilayer graphene
13	2D-31	Puspita Parui	IISER Kolkata	Linear transverse electric field induced quantized conductance in GNR
14	2D-32	Umakanta Patra	IIT Bombay	Large area continuous bilayer MoS <sub>2</sub> film grown by chemical vapour deposition technique
15	2D-33	Durgabatee Rout	IIT Jodhpur	Accordion like Multi-layered Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene Synthesis via Selective Etching of Metal Layer from parent MAX Phase
16	2D-34	Sovan Ghosh	IISER Kolkata	Orbital Hall Conductivity in Bilayer Graphene
17	2D-35	Soumya Mukherjee	IISER Kolkata	Defect-bound exciton-exciton annihilation assisted ultrafast carrier dynamics in 2H-MoSe <sub>2</sub> and Cr doped 1T/2H-MoSe <sub>2</sub> nanosheets
18	2D-36	Papi Sarkar	Jadavpur University	Study on the effect of synthesis temperature on quality of two-dimensional MXene



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19	2D-37	Payal Bhattacharjee	IEM Salt Lake	Spectrum of gyrotropic modes and energy transmission between dipolar coupled magnetic vortices in a square lattice via triggered vortex gyration: A promise for the spintronics technology
20	2D-38	Sarga P K	BITS Pilani	Electronic and interfacial properties of 2-dimensional MXene/blue phosphorene heterostructures and effect of external tuning parameters
21	2D-39	Karthik HJ	BITS Goa	Electric field tunability of band gap - Single and double polyene chains
22	2D-40	Sayan Routh	SNBNCBS	Magnetic and magneto transport properties of HoAl <sub>2</sub> Si single-crystal
23	2D-41	Neelam Gupta	IIT Patna	Twistronics in two-dimensional transition metal dichalcogenide (TMD)-based van der Waals heterostructures
24	2D-42	Nihar Ranjan Sahoo	IIT Bombay	Far-field excitation of Polaritons in Photonic Hypercrystals of van der Waals Materials
25	2D-43	Prahalad Kanti Barman	IIT Madras	High degree of spin-polarization in distorted PbI <sub>2</sub> : A Rashba-induced effect
26	2D-44	Priyanka Sinha	IISER Kolkata	Magnetotransport properties of twisted bilayer graphene in the presence of electric and magnetic field
27	2D-45	Pritam	IIT Kharagpur	Unveiling the Optical Properties of Anisotropic 2D Materials
28	DEV-19	Kowsalya M	SRM	Coexistence of short- and long- range interaction in Mn <sub>1.5</sub> Cr <sub>1.5</sub> O <sub>4</sub> : A low-temperature magnetocaloric material
29	DEV-20	Gulshan Kumar Verma	IIT Jodhpur	Parametric Analysis of Semiconducting Nanowires Grown on Flexible Substrate for Low-Temperature Gas Sensing
30	DEV-21	Indranil Maity	IIT Patna	Multi-level Volatile Threshold Resistive Switching of LaCoO <sub>3</sub> and Biomassderived Carbon Nanomaterial Residue Nanocomposite
31	DEV-22	Kajol Sahoo	IOP	Stable and luminescent cesium copper halide nanocrystals embedded in flexible polymer fibers for fabrication of down converting WLEDs
32	DEV-23	Samiksha	IIT Bombay	Influence of Elevated Growth Temperature on seedless Hydrothermal Synthesis of ZnO Nanorods on Flexible substrate: Emergence of Nanoflower Structures
33	DEV-24	Priyanka Dubey	IIT Patna	Importance of Charge Transfer in CsPbBr <sub>3</sub> Perovskite Nanocrystals for Optoelectronic Applications
34	DEV-25	Samayun Saikh	IIT Patna	Simultaneous Extraction of Charge Carrier Mobility and Total Contact Resistance in an Organic Field Effect Transistors
35	DEV-26	Anwasha Mahapatra	IIT Patna	Realization of artificial synapse using a gap-type atomic switch
36	DEV-27	Nikhitha Rajan	IIT Patna	Resistive switching in LaMnO <sub>3</sub> based organic inorganic hybrid devices
37	DEV-28	Rahuldeb Roy	CeNS	Interlayer Water of Tungsten Oxide Unlocks the Jahn-Teller Distortion to Boost the Performance of Aqueous Electrochromic Battery
38	DEV-29	Santi Prasad Rath	IISc	Molecular Engineering of Memristors
39	DEV-30	Baisali Kundu	IIT Kharagpur	Optoelectronic Study of 2D-lateral Heterostructures
40	DEV-31	Md Saifuddin	NISER	Nanoparticle Organic Network Mediated Enhanced Optoelectronic Properties of Semiconducting Polymer Field Effect Transistors
41	DEV-32	Rajdeep Banerjee	IIT Kharagpur	Low-Voltage driven organic phototransistor based on high k Tb <sup>3+</sup> doped LaPO <sub>4</sub> nano-particle PMMA composite
42	DEV-33	Satayender K. Sangwan	IIT Kharagpur	Effect of mixed solvents on dielectric behaviour of Poly (methyl methacrylate) gate in Organic Field Effect Transistors
43	DEV-34	Rabeya Basori	IIT Kharagpur	Optoelectronic Performance enhancement in SiNWs/SnSe <sub>2</sub> heterostructure photodetector by active interface modification
44	EM-1	Siddheswar Rudra	IIT Kharagpur	Facile Hydrothermal Synthesis of Highly-Efficient Electrocatalysts Toward Oxygen Evolution Reaction
45	EM-2	Animesh Mandal	IIT Kharagpur	Enhanced Gravimetric capacitance in Two-Dimensional Additive Free Titanium Carbide Mxene

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46	EM-3	Pritam Sinha	Bose Institute	Nano-sheet like MoS <sub>2</sub> as a counter electrode for next-generation Pt-free Dye-Sensitized Solar cells (DSSCs)
47	EM-4	Sachit Kumar Das	Vssut Odisha	Effect of clay on TiO <sub>2</sub> embedded PMMA nanocomposite for energy storage application
48	EM-5	Praveen Kumar	IIT Kharagpur	Growth and Characterization of 2D TMDs for Supercapacitor Applications
49	EM-6	Kumar Sanket	NIT Rourkela	Synthesis and electrochemical characterisation of porous Si/C composite as an anode material of Li-Ion battery
50	EM-7	Shubham Sahoo	IIT Patna	First principle exploration of twisted hBN-NbSe <sub>2</sub> hetero-structure and application as an electrode for Li-ion battery
51	EM-8	Shivam Shukla	IIT Kharagpur	Cu <sub>1-x</sub> Ni <sub>x</sub> (x=0, 0.5, 1) nanoparticles and their nanocomposites with elastin protein for energy storage device applications
52	EM-9	Vanshika Handuja	IIT Delhi	Functionalized Fibrous Material for High Performance Supercapacitor
53	EM-10	Pratyusha Das	IACS	Facile in-situ growth of spore-like silica on layered MXene sheets for potential application in Supercapacitor
54	EM-11	Pranay Chandra Mandal	University of North Bengal	CTF Stabilized Cu <sub>2</sub> O Nanocrystals and SnO <sub>2</sub> Nanoparticles Assisted Photocatalytic CO <sub>2</sub> Reduction in a Hybrid Cu <sub>2</sub> O/SnO <sub>2</sub> /CTF Nanostructures
55	EM-12	Gourab Hati	IIT Kharagpur	Facile synthesis of NiSe and Iron oxide decorated rGO-MWCNT nanocomposite as electrode materials for high-performance all-solid-state asymmetric supercapacitor application
56	EM-13	Nil Lohit Sengupta	IIT Kharagpur	Fabrication of PVDF-BASED flexible piezoelectric nanogenerator utilizing waste material for mechanical energy harvesting
57	EM-14	Ajay Kumar	IIT Patna	Thermoelectric study of Graphenylene Nanoribbons: A First Principle Study
58	EM-15	Sudhir Kumar	IIT Kharagpur	Copper and sulfur-doped NiCo-LDH for High-Performance Supercapacitor Electrode
59	EM-16	Aswini Bera	IIT Kharagpur	Assemble of an asymmetric supercapacitor device based on a spherical honeycomb-like ZnMn <sub>2</sub> O <sub>4</sub> @Ni(OH) <sub>2</sub> hybrid core-shell electrode material with superior electrochemical performances
60	EM-17	Jayshree Panda	ITER Bhubaneswar	MgIn <sub>2</sub> S <sub>4</sub> decorated MOF-derived C/N-CeO <sub>2</sub> nanorod heterojunction as efficient photocatalyst towards O <sub>2</sub> reduction reaction.
61	EM-18	Ankita Mondal	IIT Kharagpur	Design and fabrication of high-performance asymmetric supercapacitor device utilizing MOF-derived Ni <sub>2</sub> CuO <sub>3</sub> /CuO nanocomposites as electrode material
62	EM-19	Shweta	IIT Roorkee	Lithium and Sodium Superionic Conduction in Metal Borohydride Framework
63	EM-20	Amit Kumar Nayak	IIT Kharagpur	NiSe <sub>2</sub> Nanooctahedron on Nickel Foam as an Efficient Bifunctional Electrocatalyst for Overall Water Splitting
64	EM-21	Arkapiya Das	IIT Kharagpur	Exploring synergistically enhanced dual performance of Cu <sub>2</sub> S/NiS/Ni <sub>3</sub> S <sub>4</sub> aselectrode for hybrid supercapacitor device and catalyst for overall water splitting in alkaline and neutral media
65	EM-22	Unmesha Ray	IIT Kharagpur	Electrochemical performance of electrophoretically deposited cobalt/ zinc antimony oxide-carbon black negative electrodes for lithium-ion batteries
66	EM-23	Supriya Mondal	IIT Kharagpur	Porous and chemically robust MIL-100(V) MOF as an efficient cathode material for zinc ion batteries
67	EM-24	Subhashree Mohapatra	Utkal University	Influence of Selenide Variation on Performance of Mixed Metal Selenides for Supercapattery Applications
68	EM-25	Sthitapragyan Patnaik	IIT Kharagpur	Solvent Variated BMO Nanoflakes: An Efficient Electrocatalyst for Enhanced Nitrogen Reduction towards Ammonia Synthesis
69	EM-26	Sachidananda Mohapatra	IIT Delhi	Metal fluoride decorated carbon material for lithium sulfur batteries.
70	EM-27	Parna Maity	IIT Kharagpur	A flexible Self-powered Asymmetric Supercapacitor Power cell prepared byMOF derived Ni-Cu-Hydroxide with Onion scale as an effective piezoelectric separator
71	EM-28	Aashish Joshi	IIT Delhi	Mitigation of Shuttle Effect in Lithium-Sulfur Batteries Using Perovskite LeadZirconate Titanate (PbZr <sub>0.52</sub> Ti <sub>0.48</sub> O <sub>3</sub> ) Nanofibers
72	EM-29	Anshu Kumari	NIT Warangal	MnCo-based MOF-Derived Materials as Anode Material for Methanol Oxidation and Oxygen Evolution Reaction



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73	EM-30	Aparna Paul	CSIR-CMERI	Hydrothermal synthesis of MnS/rGO composite as high-performance anode material for supercapacitor application
74	EM-31	Ujjwal Phadikar	NIT Durgapur	Sulfur scrambling assisted in-situ growth of 3D - hierarchical FeNi <sub>2</sub> S <sub>4</sub> @Mo-doped Ni <sub>3</sub> S <sub>2</sub> /NF nanosheet arrays: A stellar performer towards alkaline water electrolysis
75	EM-32	Srijib Das	NIT Durgapur	Rationally Engineered Mn-O-Co High-Entropy-Interfacial Sites for Multifunctional Catalysis and High-Performance Zn-Air Battery
76	EM-33	Sumana Bandyopadhyay	IIT Delhi	Electrospun fibre Reinforced Polymer Electrolyte with Dual Anion Synergy for All-Solid-State Lithium Metal Batteries
77	EM-34	Debasree Chowdhury	Bose Institute.	Engineering Porous Nanostructures on FTO as a Promising Host for Enhancing Light Harvesting Capacity in Dye-Sensitized Solar Cells
78	EM-35	Prem Pal Singh	IIT Kharagpur	Bio-Inspired Smart Composite Architecture for Thermally Tunable Green EMIShielding
79	EM-36	Partha Kumbhakar	Christ University Bangalore	2D ZnO decorated 3D printed device for Energy Harvesting
80	EM-37	Sk Imran Ali	University of Kalyani	Ni <sub>0.779</sub> SbF <sub>3</sub> (SO <sub>4</sub> ): A New Electrode Material for Electrochemical Supercapacitors
81	EM-38	Dr Moumita Naskar	Central Power Research Institute	Performance evaluation of thermoplastic elastomeric encapsulation material for photovoltaic module
82	EM-39	Shobana M. K.	VIT	Electrochemical comparison of single-crystalline nickel-rich NMC-83 and NMC-88 cathode materials for lithium-ion batteries
83	Poly-1	Rohit S Nair	IIT Kharagpur	Segregated PDMS/LiNbO <sub>3</sub> /SWCNT Hybrid Composite for High-Performance Flexible Green EMI Shielding
84	Poly-2	Aparajita Pal	IIT Kharagpur	Dual crosslinked hydrogel based on interpenetrating polymer network for flexible supercapacitor application
85	Poly-3	Purbasha Maji	IIT Kharagpur	Investigation of shape memory behaviour and mechanical performance of surface modified nanofibrillar cellulose reinforced thermoplastic elastomer composite
86	Poly-4	Sayantika Kar	IIT Kharagpur	Synthesis of multifunctional eutectogel (PAM-ChCl-FA) utilizing fly ash in thermal frontal polymerization
87	Poly-5	Bholanath Ghanti	IIT Kharagpur	Synergistically Functionalized Pyridinyl and Phosphine Oxide-based Semifluorosulfonated Copolytriazole Membranes Preparation via "Click" Polymerization for Proton Exchange Membrane Applications
88	Poly-6	Sumit Bera	IIT Kharagpur	Enhancing polymer material properties through force induced chemical reaction
89	Poly-7	Suparna Ojha	IIT Kharagpur	High-Performance Flexible Piezo-Tribo Hybrid Nanogenerator Based on MoS <sub>2</sub> @ZnO-Assisted β-Phase-Stabilized Poly (Vinylidene Fluoride) Nanocomposite
90	Poly-8	Adarsh Kumar Shah	IIT Kharagpur	Void morphology and fiber orientation characterization of FDM-printed short carbon fiber reinforced Polyamide (PA) thermoplastic
91	Poly-9	Sumanta Bera	IIT Kharagpur	High-Performance Flexible Piezo-Tribo Hybrid Nanogenerator Based on MoS <sub>2</sub> @ZnO Assisted Phase Stabilized Poly(Vinylidene Fluoride) Nanocomposite
92	Poly-10	Ankur Katheria	IIT Kharagpur	Fe <sub>3</sub> O <sub>4</sub> @g-C <sub>3</sub> N <sub>4</sub> and MWCNT embedded highly flexible polymeric hybrid composite for simultaneous thermal control and suppressing microwave radiation
93	Poly-11	Pampa Chowdhury	IISER Kolkata	Upper Critical Solution Temperature-Driven Self-Coacervation of Nonionic Polymer
94	Poly-12	Arnab Banerjee	IISER Kolkata	Zwitterionic Polysulfobetaine: an Emerging Material to Inhibit Cancer Cell Migration through the Regulation of Actin Cytoskeleton Dynamics
95	Poly-13	Neelam Gupta	BHU	Vis-to-NIR electrochromism and bright-to-dark electrofluorochromism in a triazine and thiophene-based three-dimensional covalent polymer
96	Poly-14	Sudip Naskar	INST Mohali	Organic Ferroelectric Polymer for Non-volatile Memory and Solar cell

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97	Poly-15	Anashwara Babu	SRM	Incorporation of Anthrapyrazolone-derived Dye into Thermoresponsive Polymer for Nitroaromatic Detection in Aqueous Medium
98	Poly-16	Palas Das	IIT Kharagpur	Super-stretchable, Self-Healing 2D MXene-Based Composites for Thermal Management and Electromagnetic Shielding Applications
99	S&A-1	Mukti Mandal	IIT Kharagpur	Incorporation of Anthrapyrazolone-derived Dye into Thermoresponsive Polymer for Nitroaromatic Detection in Aqueous Medium
100	S&A-2	Ajay Haridas Cp	IIT Kharagpur	Recyclable Thermoplastic Polyurethane-Carbon Material Based Strain and Pressure Sensor for Monitoring Human Motions
101	S&A-3	Anisha Mandal	IIT Kharagpur	One-pot synthesis of palm wine-carbon dots for optical and smartphoneintegrated sensing platform for the detection of copper
102	S&A-4	Subhadip Mondal	IIT Kharagpur	Electrophoretically Fabricated Tubular Taguchi Type Gas Sensor
103	S&A-5	Nallamala Vandana	IIITDM Kancheep URAM	Comsol simulation of array micro-cantilever for biologicalinteractions
104	S&A-6	Susobhan Swain	VSSUT Odisha	Selective Detection of L-Cysteine via Fluorometric Assay using Rhodamine B modified Silver Nanoparticles in Aqueous Medium
105	S&A-7	Sohini Das	BITS	Next-Gen Epilepsy Care: Wearable and Personalized Intervention
106	S&A-8	Sunayana Bora	IIT Varanasi	WS2 quantum dots as an effective fluorescent sensor material for the detection of antibiotics in water
107	S&A-9	Akash Gayakwad	BITS Pilani	Glucose sensing by the Langmuir Blodgett film of ODACNT
108	S&A-10	Gomathi Sivakumar	SRM	Anthrapyrazolone Functionalized Oligo(ethylene glycol)methyl ether methacrylates Based Fluorescent Polymeric Hydrogel for Selective Detection of Tetracycline Drug
109	S&A-11	Tanmayee Mohanta	Maharaja Sriram Chandra Bhanja Deo University Odisha	Gandha Prasarini leaves derived N,S-doped carbon dots for detection of tartrazine and their antibacterial activity
110	S&A-12	Arko Biswas	IIT Kanpur	Modeling the Interaction between IPMC Actuators bonded to Soft and Compliant Host-Structures
111	S&A-13	Sanhita Swain	Maharaja Sriram Chandra Bhanja Deo University Odisha	Development of the Triple-Mode Real-Time Detection of Doxorubicin by Nitrogen-Doped Carbon Dots
112	S&A-14	Rinku Paul	CSIR-CMERI	Peanut-Shaped BiVO <sub>4</sub> for the Detection of Hazardous NH <sub>3</sub> at Room Temperature
113	S&A-15	Lakkimsetti Lakshmi Praveen	NIT Surathkal	Room-temperature detection of ammonia by hydrothermally processed screen printed WO <sub>3</sub> gas-sensor toward breath marking applications
114	S&A-16	Sibashish Chakraborty	IIT Delhi	Chemically synthesized Silver decorated nano-flower (Aloe Vera) as rapid, sensitive and cost-effective SERS-active substrate
115	S&A-17	Manivannan P	VIT	An Experimental Investigation of SnO <sub>2</sub> coated Fiber Optic LMR Sensor for Highly Sensitive Salinity Measurement
116	S&A-18	Swapnita Patra	VSSUT Odisha	Ex Vivo Glucose Detection in Human Blood Serums with Carbon Quantum Dots doped Oleic Acid treated Chitosan Nanocomposites