



Tentative Program

International Conference on Thin Films and Nanotechnology: Knowledge, Leadership & Commercialization (ICTN-KLC-2025)

11th-13th December 2025

Conference Patron

Prof. Rangan Banerjee
Director

Indian Institute of Technology Delhi

Prof. Trilok Singh
Conference Chair

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Prof. Vipin Kumar
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Day 1 (December 11th)**Registration: 9:00 AM - 9:30 AM****Inaugural Session and Welcome to the Guests (Venue: LHC 325)****9:30 AM – 10:30 AM****High Tea (10:35 AM - 11:00 AM)****Plenary Speaker 1: 11:00 AM - 11:45 AM (Venue: LHC 325)****Session Chairs: Prof. Rajendra Singh, Associate Dean, R&D and Prof. Pankaj Srivastava, IIT Delhi****Prof. Dr. Sanjay Mathur, Director, Institute of Inorganic Chemistry, University of Cologne, Germany****Title: Catalysts of Change: Advanced Nanomaterials Steering Health and Energy Transition**

| Session / Time | Energy Generation (Venue: LHC 318) | Energy Storage/Interdisciplinary Science and Engineering (Venue: LHC 316) |
|---------------------------------|--|---|
| Invited Talks: Session 1 | Session Chair: Prof. D.K. Pandya, Ex. HoD Physics and Adjunct Professor, IIT Jammu | Session Chair: Prof. Vipin Kumar, IIT Delhi |
| T01- 11:45 AM - 12:05 PM | Prof. Sanjay K. Srivastava, CSIR NPL Title: Efficient Organic Semiconductor-Silicon Hybrid Solar Cells Employing Effective Light Trapping Schemes | Prof. Hemant Kumar, IIT Bhubaneswar Title : Interplay of Solvation and ion transport in liquid electrolytes |
| T02- 12:05 PM - 12:25 PM | Prof. Jatin Kumar Rath, IIT Madras Title: Evolution of PDS and FTPS techniques to probe the functioning of solar cells | Prof. Prasanth Raghavan, Cochin University of Science and Technology (CUSAT) Title: Smart Textiles for Flexible and Stretchable Energy Harvesting and Storage Applications |
| T03- 12:25 PM - 12:45 PM | Prof. Vamsi K. Komarala, IIT Delhi Title: Fabrication and Characterization of Hetero-Junction Solar Cells for High Efficiency | Prof. Bhanu Nandan, IIT Delhi Title: Functionalized Textile Based Electrode Materials for Lithium Sulfur Batteries |
| T04- 12:45 PM - 01:05 PM | Prof. Oomman K. Varghese, University of Houston, USA | Prof. Eswaraiah Varrla, SRM Institute of Science and Technology, Kattankulathur Campus, Tamil Nadu |

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| | Title: Revealing the Novel Properties of Low Dimensional Semiconductors via In Situ Studies and Numerical Simulations | Title: Liquid-Exfoliated Two-Dimensional Nanosheets: Energy Efficient Approaches and Self-assembly Processes |
| Lunch (1:05 PM – 2:00 PM) | | |
| Invited Talks: Session 2 | Session Chair: (Venue: LHC 318) Prof. Sandeep Chhoker, IIIT Noida | Session Chair: (Venue: LHC 316) Prof. Hemant Kumar, IIT Bhubaneswar |
| T05- 02:00 PM - 02:20 PM | Prof. Pabitra K. Nayak, TIFR Hyderabad Title: Doping of soft semiconductors for stable and efficient optoelectronics | Prof. Arihant Bhandari, IIT Delhi Title: Simulations of few-layer graphene-based electrodes for electrochemical energy storage. |
| T06- 02:20 PM - 02:40 PM | Dr. Suraj Soman, CSIR-NIIST Thiruvananthapuram Title : From Lightbulbs to Lifelines: Powering the Future with Indoor Light | Prof. Deepak Kumar, IIT Delhi Title: Co-utilization strategy-based nano-composite Gr-Si anode for Li-Ion battery |
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| S01- 02:40 PM - 02:50 PM | Dr. Telugu Bhim Raju, Kyushu University Japan | Mr. Shubham Mural, NSUT |
| S02- 02:50 PM - 03:00 PM | Dr. Dinesh Kumar, IIT Madras | Ms. Gazal Gupta, IIT Delhi |
| S03- 03:00 PM - 03:10 PM | Mrs. Ankita Sharma, SNU Delhi | Mr. M Humam Zaim Faruqi, IIT Delhi |
| S04- 03:10 PM - 03:20 PM | Mr. Rajesh Maurya, IIT Madras | Mr. Jasil T K, NITK Surathkal |
| S05- 03:20 PM - 03:30 PM | Impulse Technology (Industry) | Ms. Piyali Biswas, IIT Patna |
| 3:30 PM - 4:30 PM: | | Poster Evaluation |
| Tea/Coffee (4:00 PM - 4:30 PM) | | |
| Plenary Speaker 2: 4:30 PM - 5:30 PM (Venue: LHC 325) | | |
| Session Chair: Prof. Sanjay Mathur, Director, Institute of Inorganic Chemistry, University of Cologne, Germany | | |
| Prof. V. Ramgopal Rao, Fellow of IEEE, TWAS, INAE, IASc, INSA, NASI Group Vice-Chancellor for the Birla Institute of Technology & Science (BITS) Pilani Title: From Atoms to Applications: Translating Nanoscience into Real-World Innovation | | |

| Day 2 (December 12 th) | | |
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| Plenary Speaker 3: 09:30 AM - 10:15 AM (Venue: LHC 325) | | |
| Session Chair: Prof. Gyu-Min Kim, Hankyong National University, Anseong, Republic of Korea | | |
| Prof. Shyam Sudhir Pandey, Graduate School of Life Science and Systems Engineering Department of Biological Functions Engineering, Kyushu Institute of Technology, Japan Title: Facile Fabrication of Large Area Oriented Thin films and their 2D-Positional Mapping for Organic Electronic Devices | | |
| Tea/Coffee (10:15 AM - 10:30 AM) | | |
| Session / Time | Energy Generation (Venue: LHC 318) | Energy Storage/Interdisciplinary Science and Engineering (Venue: LHC 316) |
| Invited Talks: Session 3 | Session Chair: Prof. Gyu-Min Kim, Hankyong National University, Anseong, Republic of Korea | Session Chair: Prof. Deepak Kumar, IIT Delhi |
| T07- 10:30 AM - 10:50 AM | Dr. Bhumika Choudhary, University of Turku, Finland Title: Structurally Tunable Perovskite for Stable Thin film Optoelectronics | Prof. Vanchiappan Aravindan, IISER, Tirupati Title: Materials & coating for batteries, super-capacitors and fuel cells |
| T08- 10:50 AM - 11:10 AM | Dr. Rashi Kedia, Amity University, Noida, Uttar Pradesh Title: Solvent-Free Deposition of Copper(I) Thiocyanate Thin Film: A Sustainable Approach for the Hole Transport Layer in Perovskite Solar Cells | Prof. Abhishek Sarkar, IIT Delhi Title: High Entropy Oxides: Opportunities and Challenges |
| T09- 11:10 AM - 11:30 AM | Dr. Ashish Kulkarni, IIT Tirupati Title: Insulating Metal Oxide and Self-Assembled Monolayer Interface for Efficient Perovskite Solar Cells | Prof. Rajendra Singh Dhaka, IIT Delhi Title: Sodium-ion Batteries for Sustainable Future and Viksit Bharat |
| T10- 11:30 AM - 11:50 AM | Dr. Saurabh Kumar Pandey, IIT Patna Title: Numerical Simulation of Bismuth-based | |

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| | highly efficient eco-friendly Perovskite solar cell | |
| S6- 11:50 AM - 12:00 PM | Dr. N. Sivakumar, IIT Madras | Mr. Ankit Kumar Deval, IIT Roorkee |
| S7- 12:00 PM - 12:10 PM | Mr. Snehangshu Mishra, IIT Kharagpur | Ms. Bhavani Sankaran, SRMIST Tamilnadu |
| S8- 12:10 PM - 12:20 PM | Mr. Milan Kumar Mandal, IIT Kharagpur | Ms. Toiba Manzoor, NSUT Delhi |
| S9- 12:20 PM - 12:30 PM | Mr. Nilesh, IIT Madras | Dr. Mahesh Chandra, IIT Delhi |
| 12:30 PM - 1:00 PM Networking | | |
| Lunch (01:00 PM - 02:00 PM) | | |
| Special Talk 1: 02:00 PM - 02:45 PM (Venue: LHC 325) Session Chair: Prof. Raju Kumar Gupta, IIT Kanpur | | |
| Prof. Ramakrishna Ramanath Sonde, BITS Pilani Goa Campus Title: Energy transition and net zero pathway for India: Molecular Insights to Industrial Impact | | |
| Invited Talks: Session 4 | Session Chair: (Venue: LHC 318) Dr. Bhumika Choudhary, University of Turku, Finland | Session Chair: (Venue: LHC 316) Prof. Manika Khanuja, Jamia Millia Islamia, New Delhi |
| T11- 02:45 PM - 03:05 PM | Mr. Arup Dhar, NISE, Gurugram Title: Accurate translation of outdoor IV Measurements to STC for Photovoltaic Modules across Diverse Technologies | Prof. Somnath Chandra Roy, IIT Madras Title: An Exciting World of One-dimensional Metal Oxide Nano- and Hetero-structures |
| T12- 03:05 PM - 03:25 PM | Mr. Awatans Tripathi, GIZ India, New Delhi Title: Improving the pre-conditions of BIPV in India | Prof. Shree Prakash Tiwari, IIT Jodhpur Title: Flexible Electronic Devices for Smart Sustainable Systems |
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| S10-03:25 PM - 03:35 PM | Networking | Networking |
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| I1- 03:35 PM - 03:55 PM | RENEW (Venue: LHC 318) | RENEW (Venue: LHC 318) |
| I2- 03:55 PM - 04:15 PM | Bry Air (Venue: LHC 318) | Bry Air (Venue: LHC 318) |

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| Tea/Coffee (4:15 PM - 4:30 PM) | |
| 04:30 PM - 05:30 PM: | Panel Discussion (Venue: LHC 325) Title: Energy Transition in India: Challenges and Opportunities Towards Sustainable Energy Goals |
| 05:30 PM - 06:45 PM: | Poster Evaluation |
| Gala Dinner 7:00 PM Onwards (Venue: ESSEX Banquet, https://maps.app.goo.gl/NJYpWnWb47CZmStm6) | |

Day 3 (December 13th)

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| Energy Generation(Venue: LHC 318) | Energy Storage/Interdisciplinary Science and Engineering (Venue: LHC 316) | Other Interdisciplinary Areas (Venue: LHC 325) |
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| Special Talk 2: 09:30 AM - 10:15 AM : Session Chair: Prof. Trilok Singh, IIT Delhi | | | Session Chair Prof. Pawan K. Kulriya, JNU | 9:00-10:45 AM | Networking session |
| Prof. Gyu Min Kim, Hankyong National University, Anseong, Republic of Korea Title: Ambient-Tolerant Mechanochemical Powder Strategy combined with Alkali-Metal-Integrated HTLs for Stable, Solvent-Minimal Perovskite Devices | | T13- 09:30 - 09:50 AM | Prof. Raju Kumar Gupta, IIT Kanpur Title: NASICON-Based Electrolytes for Solid-State Sodium-Ion Batteries | | |
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| | | S11- 09:50 - 10:00 AM | Mr. Vineeth S K, IIT Delhi | | |
| | | S12- 10:00 - 10:10 AM | Mr. Bheem Kumar, JNU Delhi | | |
| | | S13- 10:10 - 10:20 AM | Dr. Rajesh Kumar Jha, ICFAI Hyderabad | | |
| T13- 10:15- 10:35 AM | Prof. Upendra Pandey, Shiv Nadar Institution of Eminence Title: Indenofluorene Dimer as an Efficient Interlayer for High-Performance Perovskite Solar Cells | S14- 10:20 - 10:30 AM | Mr. Shubhang Srivastava, IIT Madras | | |
| | | S15- 10:30 - 10:40 AM | Mr. Ashwin, IIT Delhi | | |

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| Tea/Coffee (10:45 AM - 11:00 AM) | | | | | |
| Invited talks | Session Chair: Prof. Upendra Pandey, SNU Noida | | Session Chair Prof. Sandeep Chhoker, IIIT Noida | | Session Chair Prof. Suresh C. Sharma, DTU, Delhi |
| T14- 11:00- 11:20 AM | Prof. Pankaj Yadav, Pandit Deendayal University, Gujarat Title : Automated EIS Analysis of Metal Halide Perovskite Single Crystals Using Machine Learning for Activation Energy Prediction | T14- 11:00 - 11:20 AM | Prof. Ankur Goswami, IIT Delhi Title: Tungsten doped VO ₂ thin film based resistive micro-oscillators for the application in neuromorphic systems | T1- 11:00 AM - 11:20 AM | Prof. Hemant Sagar, IIT Roorkee Title: Advancing Toward 2070 Net-Zero: Hydropower Potential and Cavitation-Silt Problems Across Scales |
| T15- 11:20 AM - 11:40 AM | Mr. Dileep Tiwari, Executive Renewable Energy, Gujarat Title: Unleashing Renewable Energy Opportunities: Policies, Strategies for Emerging Challenges, and the Path to Sustainable Investment in Gujarat | T15- 11:20 - 11:40 AM | Prof. Rishi Sharma, BIT Mesra Title: Cold Plasma Processing for Surface Engineering | | |
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| S11- 11:40 AM - 11:50 AM | Mr. Nitin Kumar Bansal, IIT Delhi | S16- 11:40 AM 11:50 AM | Dr. Daljit Kaur, DAV University | S1- 11:20 AM - 11:30 AM | Dr. Sanjay Baghel, Dr. A.P.J. Abdul Kalam Technical University |

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| S12- 11:50 AM - 12:00 PM | Mr. Siddhant Singh, IISc Bangalore | S17- 11:50 AM - 12:00 PM | Dr. Charu Lata Dube, CUG | S2- 11:30 AM - 11:40 AM | Mr. Aloka Ranjan Sahoo, IGCAR |
| S13- 12:00 PM - 12:10 PM | Mr. Vipin C K, CSIR-NIIST Kerala | S18- 12:00 PM - 12:10 PM | Ms. Paulomi Singh, IIT Delhi | S3- 11:40 AM - 11:50 AM | Mr. Sujoy Paul, IIT Delhi |
| S14- 12:10 PM - 12:20 PM | Mr. Manoj Kumar, VIT AP University | S19- 12:10 PM - 12:20 PM | Ms. Fatima Zehra, JMI | S4- 11:50 AM - 12:00 PM | Mr. Vidit Pandey, AMU |
| S15- 12:20 PM - 12:30 PM | Ms. Neha Chakraborty, BIT Mesra, Ranchi | S20- 12:20 PM - 12:30 PM | Ms. Bhawna SU, Gurugram | S5- 12:00 PM - 12:10 PM | Mr. Dishant Sharma, IIT Delhi |
| S16- 12:30 PM - 12:40 PM | Networking | S21- 12:30 PM - 12:40 PM | Ms. Barsha Priyadarshini, CSIR IMM | S6- 12:10 PM - 12:20 PM | Mr. Pallav Sahu, IIT Delhi |
| S17- 12:40 PM - 1:00 PM | Networking | S22- 12:40 PM - 12:50 PM | Rishav Pandey, IIT Delhi | S7- 12:20 PM - 12:30 PM | Dr. Sonu, IIT Delhi |
| Lunch (01:00 PM – 02:00 PM) | | | | | |
| Plenary Speaker 4: 02:00 PM - 02:45 PM (Venue: LHC 325) | | | | | |
| Session Chair: Prof. D.K. Pandya, Ex. HoD Physics and Adjunct Professor, I.I.T. Jammu | | | | | |
| Prof. Bhim Singh, ANRF National Science Chair & Emeritus Professor, Department of Electrical Engineering, IIT Delhi | | | | | |
| Title: Solar Photovoltaic Energy-A Sustainable Solution for Humanity | | | | | |
| Invited Talks: | Session Chair Prof. Pankaj Yadav, PDU Gujrat (Venue: LHC 318) | | Session Chair Prof. Vipin Kumar, IIT Delhi (Venue: LHC 316) | Invited Talks: | Session Chair Prof. Manika Khanuja, Jamia Millia Islamia, (Venue: LHC 325) |
| T16- 02:45 PM - 03:05 PM | Prof. Dibyajyoti Ghosh, IIT Delhi Title: Designing Layered Halide Perovskites for Optoelectronics: Insights from ab initio and data-driven modeling | T16- 02:45 - 03:05 PM | Prof. Manika Khanuja, Jamia Millia Islamia, New Delhi Title: Machine Learning-Enabled Acceleration of Catalytic Reaction Pathways and Sensing Performance in 2D Nanomaterials | T2- 02:45 PM - 03:05 PM | Prof. Suresh C. Sharma, DTU, Delhi Title: Plasma-Assisted Vertically Aligned Semiconducting 2D Graphene Field Effect Transistor Based Biosensor for |

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| | | | | | Detection of Various Cancerous Bio- molecules |
| | | T17- 03:05 - 03:25 PM | Prof. Jai Singh, Guru Ghasidas Vishwavidyalaya, Bilaspur Title: MoS ₂ monolayer, bi- layer thin films fabricated by RF sputtering and pulsed laser deposited ZnO thin-films/nanostructures | | |
| | | T18- 03:25 - 03:45 PM | Prof. Ulganathan Mani Amrita Vishwa Vidyapeetham Title: Strategies for Enhancing Zinc-Iron Hybrid Redox Flow Battery | | |
| S18- 03:05 PM - 03:15 PM | Ms. Shilshiya B. G, NIT Tiruchirappalli | | | S8- 03:05 PM - 03:15 PM | Mr. Sivaramasudhan S, ISRO Bengaluru |
| S19- 03:15 PM - 03:25 PM | Mr. Ronaldo Roy, NIT Tiruchirappalli | | | S9- 03:15 PM - 03:25 PM | Prof. Abhinav Anand, VIT |
| Tea/Coffee (3:45 PM - 4:00 PM) | | | | | |
| 04:00 PM – 05:30 PM: Valedictory Function (Venue: LHC 325) | | | | | |
| Closing Remarks | | | | | |

***LHC : Lecture Hall Complex, 325: Third floor room no 25**

Oral Presentations

Energy Generation

| Oral Code | Name | Affiliation | Topic |
|------------|------------------------|---|---|
| S01 | Dr. Telugu Bhim Raju | MCI-CNRC, Kyushu University, Japan | Design and development of organic hole transport materials for n-i-p structure perovskite solar cells |
| S02 | Dr. Dinesh Kumar | Semiconductor Thin Film and Emerging Photovoltaic Laboratory, Indian Institute of Technology Delhi, | Fluorinated Two-Dimensional Interfacial Layers for Grain-Boundary Passivation and Enhanced Stability in Perovskite Photovoltaic Devices |
| S03 | Mrs. Ankita Sharma | Shiv Nadar Institution of Eminence, G.B. Nagar, Uttar Pradesh | Mitigating Interfacial Defects with Discotic Liquid Crystal Interlayer: A Dual Function Strategy for Efficient and Durable Perovskite Solar Cells |
| S04 | Mr. Rajesh Maurya | Department of Physics, Indian Institute of Technology Madras, Chennai, India | An adapted ALD method to fabricate low-resistivity and high-transparency aluminum-doped zinc oxide TCO for silicon heterojunction solar cells |
| S05 | | For Impulse Technology | For Impulse Technology |
| S06 | Dr. N. Sivakumar | IIT Madras | New insight on the effect of 2D spacer (4FPEAI) treatment on 3D perovskites for the development of stable 2D/3D perovskite solar cells |
| S07 | Mr. Snehangshu Mishra | IIT Kharagpur | Performance of mixed cation-mixed halide perovskite solar cell under Indoor Illumination |
| S08 | Mr. Milan Kumar Mandal | IIT Kharagpur | Hybrid mesoporous structure for improvement in the performance of DSSC |
| S09 | Mr. Nilesh | IIT Madras | Homoeptaxial Growth of Titanium Dioxide Using Plasma-Enhanced Atomic Layer Deposition |
| S10 | | | Networking |
| I1 | | | RENEW |

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| I2 | | | Bry Air |
| S11 | Mr. Nitin Kumar Bansal | Indian Institute of Technology Delhi | Functional Layer Optimization and Tuning of Interfacial Dipole for Highly Stable Air-Ambient Fabricated Perovskite Solar Cells |
| S12 | Mr. Siddhant Singh | Indian Institute of Science, Bengaluru | A Scalable Dopant-Free Spiro-OMeTAD: P3HT composite HTL Strategy for Stable, High-Efficiency Perovskite Optoelectronics |
| S13 | Mr. Vipin C K | CSIR-National Institute for Interdisciplinary Science and Technology (NIIST) | Hysteresis-Free Carbon-Based Perovskite Solar Cells with Enhanced Open-Circuit Voltage for Indoor Photovoltaics |
| S14 | Mr. Manoj Kumar | VIT-AP University | FTM-Controlled Aligned Organic Semiconducting Thin Films: Advances, Challenges, and Device Applications |
| S15 | Ms. Neha Chakraborty | Birla Institute of Technology Mesra | Long-term photovoltaic study of AZO, ITO, and FTO electrode-based Dye-Sensitised Solar Cells |
| S16 | | | Networking |
| S17 | | | Networking |
| S18 | Ms. Shilshiya B. G | NIT Triuchirappalli | Exploring the memristive behaviour in spray pyrolyzed cerium oxide thin film |
| S19 | Mr. Ronaldo Roy | NIT Triuchirappalli | Growth and Characterization of CuMnS Thin Films by SILAR for Heterojunction Applications |

Energy Storage/Interdisciplinary Science and Engineering

| Oral Code | Name | Affiliation | Topic |
|-----------|-------------------|---|--|
| S01 | Mr. Shubham Mural | Netaji Subhas University of Technology (NSUT) | Mxene/Activated Carbon Composite based electrode for High Performance Supercapacitor |
| S02 | Ms. Gazal Gupta | Indian Institute of Technology Delhi | Investigating The Extended Interlayer MoS2 Cathode Performance In Magnesium-Lithium Hybrid Electrolyte Cells |
| S03 | Mr. M Humam Zaim | Department of Chemical | Architecture-driven Performance Enhancement in Lithium-ion |

| | Faruqi | Engineering, IIT Delhi | Batteries |
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| S04 | Mr. Jasil T K | NITK SURATHKAL | A Density Functional Theory Study of NbX ₂ (X=Se, Te) monolayers for Electrodes of Energy Storage Devices |
| S05 | Ms. Piyali Biswas | Department of Physics, IIT Patna | Electrochemical properties modification by chemical pressure in Fe, Ni, and Co doped Lanthanum Silver Manganite-based electrode for Supercapacitor |
| S06 | Mr. Ankit Kumar Deval | IIT Roorkee | C–C Linked Porphyrin-Based COFs for High-Performance Aqueous Zn-Ion Hybrid Supercapacitor |
| S07 | Ms. Bhavani Sankaran | SRM Institute of Science and Technology, Tamilnadu, | CuCo MOF/Ni(OH) ₂ Composite for High-Performance Supercapacitor electrode |
| S08 | Ms. Toiba Manzoor | Netaji subhas university of technology | Bio-waste derived activated carbon for energy storage applications |
| S09 | Dr. Mahesh Chandra | Indian Institute of Technology Delhi | Development of High Energy Density Room Temperature Na-S Batteries |
| S10 | | | Networking |
| I1 | | | RENEW |
| I2 | | | Bry Air |
| S11 | Mr. Vineeth S K | Indian Institute of Technology Delhi | Tailoring the solvation through molecular engineering in a blend quasi-solid polymer electrolyte for a high-performance sodium metal battery |
| S12 | Mr. Bheem Kumar | JNU Delhi | Synergistic Ti ₃ C ₂ T _x MXene Quantum Dots/Nanosheets Hybrid: Elevating Supercapacitor Performance |
| S13 | Dr. Rajesh Kumar Jha | ICFAI Foundation for Higher Education, Hyderabad | Ferroelectric Behavior of Undoped PEALD HfO ₂ Thin Films for Scalable Non-Volatile Memory Applications |
| S14 | Mr. Shubhang Srivastava | IIT Madras | Optimal Selection of Surface Functionalized SnO ₂ Dispersed Lubricants using Bootstrap based Statistical Methods for Tribology in Energy Applications |

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| S15 | Mr. Ashwin | Indian Institute of Technology Delhi | Characterization of HVOF-sprayed Co-NiCrAlY-Al ₂ O ₃ coatings with variable ceramic fraction for erosion behaviour evaluation of hydraulic turbine steel |
| S16 | Dr. Daljit Kaur | Department of Physics, DAV University, Jalandhar-Pathankot National Highway NH-44, Jalandhar, India | Next-Generation Nanocomposites: Emerging Photocatalysts for Energy and Environmental Applications |
| S17 | Dr. Charu Lata Dube | Central University of Gujarat | Investigation of optical property of titanium-tungsten oxide doped borosilicate glasses synthesised via microwave-assisted heating and conventional heating method: A comparative study |
| S18 | Ms. Paulomi Singh | Indian Institute of Technology Delhi | Early Detection of Lung Cancer Using Vacancy-Ordered Perovskite |
| S19 | Ms. Fatima Zehra | Jamia Millia Islamia | Machine Learning-Based Colorimetric Detection of Mercury via Nanozyme Activity of MOF Nanocomposite |
| S20 | Ms. Bhawna | Department of Physics, School of Physical Sciences, Starex University, Gurugram Haryana 122413, India | Effect of Applied Electric Field During Spray Deposition on the Properties of ZnO Thin Films |
| S21 | Ms. Barsha Priyadarshini | CSIR - Institute of Minerals and Materials Technology | Navigating Marine Corrosion: The Synergistic Effects of Nitrogen in TiMoN Coatings |
| S22 | Mr. Rishav Pandey | Indian Institute of Technology Delhi | Design, Fabrication, and Characterization of Wide Bandgap RadHard Semiconductor Detectors for Applications in Particle Colliders and Particle Detectors in High Energy Physics |

Other Interdisciplinary Areas

| Oral Code | Name | Affiliation | Topic |
|-----------|-------------------|----------------------------------|--|
| S1 | Mr. Sanjay Baghel | Dr. A.P.J. Abdul Kalam Technical | Tailoring Structural, Morphological, Magnetic, and Optical |

| | | University | Properties of Mn and Fe-Doped TiO ₂ Nanoparticles for Next-Generation Functional Materials |
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| S2 | Mr. Aloka Ranjan Sahoo | Indira Gandhi Centre for Atomic Research, Kalpakkam | Tailoring Structural, Morphological, Magnetic, and Optical Properties of Mn and Fe-Doped TiO ₂ Nanoparticles for Next-Generation Functional Materials |
| S3 | Mr. Sujoy Paul | Indian Institute of Technology Delhi | Process Optimization of Sub-5 μm MEMS-Based SAW Resonators on LiNbO ₃ for Biomedical Sensing Applications |
| S4 | Mr. Vidit Pandey | Department of Physics, Aligarh Muslim University, India | Mn ₃ O ₄ -based Bipolar Resistive Switching Memory Devices |
| S5 | Mr. Dishant Sharma | Indian Institute of Technology Delhi | Surface-Based Passive Mitigation Effects on Wake Structure and Aerodynamic Performance of an H-Rotor Vertical Axis Wind Turbine |
| S6 | Mr. Pallav Sahu | Indian Institute of Technology Delhi | Improved Cavitation Characterization Using PANS on a Francis-Turbine Hydrofoil Section |
| S7 | Dr. Sonu | Indian Institute of Technology Delhi | PANS Turbulence Model Based One-Way Fluid-Structure Interaction Analysis of a KP505 Propeller |
| S8 | Mr. Sivaramasudhan S | Laboratory for Electro-Optics Systems (LEOS), ISRO | Challenges in Development of Silver Coating for Space Applications |
| S9 | Prof. Abhinav Anand | Vellore Institute of Technology, Vellore | Optical and Scintillation Properties of Record-Efficiency CdTe Nanoplatelets toward Radiation Detection Applications |

Poster Presentations

Energy Generation

| Oral Code | Name | Affiliation | Topic | Date |
|-----------|---------------------------|---|--|----------|
| P001 | Mrs. Bhagyashri S.Bhalkar | Atigres, Kolhapur | Smart Wireless Throttle Body in Automobile System | 11/12/25 |
| P002 | Aman Kumar | DTU, Delhi | High Output Piezo and Triboelectric generator based on MwCNT/Nd- doped ZnO/PVDF nanocomposite film for Energy Harvesting Application | 12/12/25 |
| P003 | Sujata shekhawat | Jaypee Institute of Information Technology, NOIDA | Investigation of the deposition parameters for simulating the growth dynamics of vanadium carbide nanosheet in plasma enhanced chemical vapour deposition system | 11/12/25 |
| P004 | Akshita Sharma | D.S. College, Aligarh | Growth of Reusable Zinc Ferrite Nanoparticles for White LED-based Photocatalytic Treatment | 12/12/25 |
| P005 | Jigyasa Sharma | Starex University, Gurugram | Eco-Friendly Synthesis and characterization of ZnO Nanoparticles Using Neem Extract for Improved Structural and Optical Performance | 11/12/25 |
| P006 | Partha Mishra | Indian Institute of Technology Delhi | Dual-Mode Quantum Dot-Based Optoelectronic Physical Unclonable Function for Secure Authentication and Anti-Counterfeiting Applications | 12/12/25 |
| P007 | Saumya Srivastava | Indian Institute of Technology, Indore | Polymer–MXene–Viologen-Based Suprahybrid Electrochromic Device: Flexible Smart Window with Visible and Near-Infrared Switchability | 11/12/25 |
| P008 | Bhawana Tripathi | BHU, Varanasi | Titanium Dioxide Based DSSCs. | 12/12/25 |
| P009 | Mr. Animesh Anand | Indian Institute of Technology Delhi | EIS Study of PSCs | 11/12/25 |
| P010 | Mr. Deepak Yadav | IIT Delhi and NISE | Simulation of 2T & 4T Textured Silicon–Perovskite Tandem Solar Cell using SETFOS | 12/12/25 |

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| P011 | Mr. Sidhanta Gupta | Indian Institute of Technology Delhi | Interface and Energy Band Engineering in Perovskite Solar Cells | 11/12/25 |
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