



### Tentative Program

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

11<sup>th</sup>-13<sup>th</sup> December 2025

#### Conference Patron

**Prof. Rangan Banerjee  
Director**

Indian Institute of Technology Delhi

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Conference Chair**

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**Day 1 (December 11<sup>th</sup>)**

**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**

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

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

**Day 2 (December 12<sup>th</sup>)**

**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: <b>Prof. Gyu-Min Kim, Hankyong National University, Anseong, Republic of Korea</b>	Session Chair: <b>Prof. Deepak Kumar, IIT Delhi</b>
T07- 10:30 AM - 10:50 AM	Dr. Bhumika Choudhary, University of Turku, Finland <b>Title: Structurally Tunable Perovskite for Stable Thin film Optoelectronics</b>	Prof. Vanchiappan Aravindan, IISER, Tirupati <b>Title: Materials &amp; coating for batteries, super-capacitors and fuel cells</b>
T08- 10:50 AM - 11:10 AM	Dr. Rashi Kedia, Amity University, Noida, Uttar Pradesh <b>Title: Solvent-Free Deposition of Copper(I) Thiocyanate Thin Film: A Sustainable Approach for the Hole Transport Layer in Perovskite Solar Cells</b>	Prof. Abhishek Sarkar, IIT Delhi <b>Title: High Entropy Oxides: Opportunities and Challenges</b>
T09- 11:10 AM - 11:30 AM	Dr. Ashish Kulkarni, IIT Tirupati <b>Title: Insulating Metal Oxide and Self-Assembled Monolayer Interface for Efficient Perovskite Solar Cells</b>	Prof. Rajendra Singh Dhaka, IIT Delhi <b>Title: Sodium-ion Batteries for Sustainable Future and Viksit Bharat</b>
T10- 11:30 AM - 11:50 AM	Dr. Saurabh Kumar Pandey, IIT Patna <b>Title: Numerical Simulation of Bismuth-based</b>	

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

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
<b>Gala Dinner 7:00 PM Onwards (Venue: ESSEX Banquet, <a href="https://maps.app.goo.gl/NJYpWnWb47CZmStm6">https://maps.app.goo.gl/NJYpWnWb47CZmStm6</a>)</b>	

<b>Day 3 (December 13<sup>th</sup>)</b>
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<b>Energy Generation(Venue: LHC 318)</b>	<b>Energy Storage/Interdisciplinary Science and Engineering (Venue: LHC 316)</b>	<b>Other Interdisciplinary Areas (Venue: LHC 325)</b>
<b>Special Talk 2: 09:30 AM - 10:15 AM :</b> <b>Session Chair: Prof. Trilok Singh, IIT Delhi</b>		<b>Session Chair Prof. Pawan K. Kulriya, JNU</b>
<b>Prof. Gyu Min Kim, Hankyong National University, Anseong, Republic of Korea</b>  <b>Title: Ambient-Tolerant Mechanochemical Powder Strategy combined with Alkali-Metal-Integrated HTLs for Stable, Solvent-Minimal Perovskite Devices</b>	<b>T13- 09:30 - 09:50 AM</b>	<b>Prof. Raju Kumar Gupta, IIT Kanpur</b> <b>Title: NASICON-Based Electrolytes for Solid-State Sodium-Ion Batteries</b>
	<b>S11- 09:50 - 10:00 AM</b>	<b>Mr. Vineeth S K, IIT Delhi</b>
	<b>S12- 10:00 - 10:10 AM</b>	<b>Mr. Bheem Kumar, JNU Delhi</b>
	<b>S13- 10:10 - 10:20 AM</b>	<b>Dr. Rajesh Kumar Jha, ICFAI Hyderabad</b>
<b>T13- 10:15- 10:35 AM</b>	<b>Prof. Upendra Pandey, Shiv Nadar Institution of Eminence</b>  <b>Title: Indenofluorene Dimer as an Efficient Interlayer for High-Performance Perovskite Solar Cells</b>	<b>S14- 10:20 - 10:30 AM</b>  <b>Mr. Shubhang Srivastava, IIT Madras</b>
		<b>S15- 10:30 - 10:40 AM</b>  <b>Mr. Ashwin, IIT Delhi</b>

<b>Tea/Coffee (10:45 AM - 11:00 AM)</b>					
Invited talks	Session Chair: Prof. Upendra Pandey, SNU Noida		Session Chair Prof. Sandeep Chhoker, JIIT 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 <sub>2</sub> 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		
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

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. Vudit 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

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

\*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
<b>S05</b>		<b>For Impulse Technology</b>	<b>For Impulse Technology</b>
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	Homoepitaxial Growth of Titanium Dioxide Using Plasma-Enhanced Atomic Layer Deposition
S10			Networking
I1			RENEW

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 Trichirappalli	Exploring the memristive behaviour in spray pyrolyzed cerium oxide thin film
S19	Mr. Ronaldo Roy	NIT Trichirappalli	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 MoS <sub>2</sub> 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
S04	Mr. Jasil T K	NITK SURATHKAL	A Density Functional Theory Study of NbX <sub>2</sub> (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) <sub>2</sub> 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			<b>Networking</b>
I1			<b>RENEW</b>
I2			<b>Bry Air</b>
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 <sub>3</sub> C <sub>2</sub> T <sub>x</sub> 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 <sub>2</sub> Thin Films for Scalable Non-Volatile Memory Applications
S14	Mr. Shubhang Srivastava	IIT Madras	Optimal Selection of Surface Functionalized SnO <sub>2</sub> Dispersed Lubricants using Bootstrap based Statistical Methods for Tribology in Energy Applications

S15	Mr. Ashwin	Indian Institute of Technology Delhi	Characterization of HVOF-sprayed Co-NiCrAlY-Al <sub>2</sub> O <sub>3</sub> 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 <sub>2</sub> Nanoparticles for Next-Generation Functional Materials
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 <sub>2</sub> 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 <sub>3</sub> for Biomedical Sensing Applications
S4	Mr. Vudit Pandey	Department of Physics, Aligarh Muslim University, India	Mn <sub>3</sub> O <sub>4</sub> -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
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