

## 2<sup>nd</sup> International Conference on Advanced Materials, Energy & Environmental Sustainability (ICAMEES 2.0)

Day 01 18-12-2025			
8:15 - 9:10 AM	Registration desk open		
9:15 - 11:00 AM	<b>Inaugural Ceremony (Venue: MAC)</b>  <b>Chief Guest: Dr. Lok Pratap Singh,</b> <b>Director General, National Council for Cement and Building Materials, New Delhi, India</b>		
11:00 - 11:30 AM	High Tea + Registrations		
	Session 1 (Venue: 6101)	Session 2 (Venue: 6103)	Session 3 (Venue: 6104)
	Advanced Functional Materials	Energy harvesting & Storage	Environmental Sustainability
11:30 - 12:15 PM	<b>Keynote (online)</b> <i>Dr. Y.K. Mishra</i> <i>Mads Clausen Institute, Denmark</i> <b>Title: Tetrapods Based Smart Materials for Advanced Technologies</b>	<b>Keynote</b> <i>Dr. G.S. Kapur</i> <i>Advisor (R&amp;D) GAIL India Ltd. and former Executive Director-R&amp;D, Indian Oil Corporation</i> <b>Title: Creating Circularity and Generating Value out of Single Use Waste Plastic</b>	<b>Keynote (online)</b> <i>Dr. Anjan Ray</i> <i>Navam Capital and Ex-Director - CSIR, IIP, Dehradun, Uttarakhand</i> <b>Title: Crafting Startup Success Stories for a Sustainable Future Within India</b>

## 2<sup>nd</sup> International Conference on Advanced Materials, Energy & Environmental Sustainability (ICAMEES 2.0)

12:15 - 12:45 PM	<b>Invited Talk (online)</b> <i>Dr. Chularat Wattanakit</i> <i>Vidyasirimedhi Institute of Science and Technology, Thailand</i> <b>Title: Asymmetric Synthesis of Chiral Compounds from CO<sub>2</sub> at Chiral Encoded Metal Surfaces</b>	<b>Invited Talk</b> <i>Dr. Wojciech Nogala</i> <i>Institute of Physical Chemistry, Polish Academy of Sciences, Poland</i> <b>Title: Potentiodynamic Actuation of Carbon Fibers</b>	<b>Invited Talk (online)</b> <i>Dr. Himanshu Ojha</i> <i>Institute of Nuclear Medicine and Allied Sciences, DRDO, Delhi</i> <b>Title: R&amp;D initiatives in CBRN defence preparedness: New Hopes in Hybrid Warfare</b>
12:45 - 2:00 PM	<b>LUNCH</b>		
<b>Venue</b>	<b>Session 4 (Venue: 11112)</b>	<b>Session 5 (Venue: 11113)</b>	<b>Session 6 (Venue: 11114)</b>
2:00 - 2:30 PM	<b>Invited Talk</b> <i>Dr. Ram Janay</i> <i>UGC-DAE CSR Indore, Madhya Pradesh</i> <b>Title: Tuning the Magnetic State in Transition Metal Oxides Thin Films via Strain</b>	<b>Invited Talk (online)</b> <i>Dr. R.K. Singh</i> <i>CSIR-IIP Dehradun, Uttarakhand</i> <b>Title: Innovative Chemistries for Sustainable and Eco-Friendly Additives</b>	<b>Invited Talk</b> <i>Dr. Brajesh Kumar</i> <i>TATA College, Kolhan University, Jharkhand</i> <b>Title: Catalysis, Sensing and Phytofabrication of Metallic Nanoparticles: From Green Synthesis to Environmental Remediation</b>
2:30 - 2:45 PM	OP13 (online): Fe-Zr MOFs as an effective adsorbent for Cr(VI) removal from aqueous solution <i>Dr. Uttam Kumar Sahu, Gandhi institute of Technology and Management</i>	OP2: Performance Analysis of Concrete-based Solar Energy Flat Collector for Water Heating <i>Dr. Ravi Kumar, DIT, Dehradun, Uttarakhand</i>	<b>Invited Talk</b> <i>Dr. Vipin Saini</i> <i>Doon University, Uttarakhand</i> <b>Title: Transforming Natural Clays into Functional Porous Materials For Sustainable Air, Water and Bioenergy Purification Technologies</b>
2:45 - 3:00PM	OP17: Synthesis, Micellization and Morphological Behaviour of Cholesterol-based Conventional and Gemini Surfactants in Deep Eutectic Solvent (ChCl: EG) <i>Jay Patel, Parul University, Gujarat</i>	OP6: Covalent Organic Framework Square Lattice for High Performance Supercapacitor <i>Dr. Bidhan Patra, CSIR-Central Glass and Ceramic Research Institute, Kolkata</i>	

## 2<sup>nd</sup> International Conference on Advanced Materials, Energy & Environmental Sustainability (ICAMEES 2.0)

3:00 - 3:15 PM	OP18: Novel Dendritic Oligomeric Surfactants: Theoretical and Practical Approaches <i>Abhinav Santhosh, Parul University, Gujarat</i>	OP7: Design and development of efficient electrocatalyst for water splitting <i>Dr. Mahendra Yadav, IIT (ISM) Dhanbad</i>	OP1: CO <sub>2</sub> activation on pristine and defected 2D Fe <sub>2</sub> O <sub>3</sub> monolayer: A first-principles study <i>Dr. Abhishek Kumar Mishra, UPES, Dehradun, Uttarakhand</i>
3:15 - 3:30 PM		OP15: NiWO <sub>4</sub> /Reduced Graphene Oxide Nanohybrid: An Efficient Bifunctional Electrocatalyst for Anodic Urea Oxidation and Cathodic Oxygen Reduction <i>Dr. Santimoy Khilari, University of Allahabad, Uttar Pradesh</i>	OP5: Efficient Catalyst-Free Domino Process for Conjugate Addition and Decarboxylation of Coumarin Carboxylic Acids/Esters with Pyrazolones: A Green Chemistry Approach <i>Dr. Shanta Raj Lakshmi, Parul University, Gujarat</i>
3:30 - 3:45 PM		E-OP32: Turning Paper into Power: Sustainable Separator Innovation for Lithium-Ion Batteries <i>Dr. Mir Wasim Raja, CSIR Central Glass and Ceramic Research Institute, Kolkata</i>	OP25: Development of an Ambient Air Quality Index for the Assessment of Pollutants and Heavy Metals Using Fuzzy Logic <i>Dr. Tabassum Abbasi, UPES, Dehradun, Uttarakhand</i>
3:45 - 4:30 PM	Tea Break		
4:00 - 6:00 PM	Poster presentation (Venue: MAC)		
7:00 onwards	Gala Dinner		

## 2<sup>nd</sup> International Conference on Advanced Materials, Energy & Environmental Sustainability (ICAMEES 2.0)

Day 02 19-12-2025			
08:30 - 09:30 AM	Registration desk open		
	Session 1 (Venue: 1001)	Session 2 (Venue: 1002)	Session 3 (Venue: 1003)
	Advanced Functional Materials	Energy harvesting & Storage	Environmental Sustainability
09:30 - 10:00 AM	<b>Invited Talk</b> <i>Dr. B.K. Singh, University of Delhi, Delhi, India</i> <b>Title: Catalyst-Free Construction and Photophysical Analysis of Base-modified Fluorescent Nucleosides</b>	<b>Invited Talk</b> <i>Dr. Vineet Kumar, Indian Council of Forestry Research &amp; Education, Dehradun, Uttarakhand, India</i> <b>Title: Structural Understanding and Modification of Biomacromolecules Using Green Chemistry</b>	<b>Invited Talk (online)</b> <i>Dr. R.J. Krupadam, CSIR-NEERI, Nagpur, Maharashtra, India</i>
10:00 - 10:30 AM	<b>Invited Talk (online)</b> <i>Dr. Harish Dureja, Maharshi Dayanand University, Haryana, India</i> <b>Title: Digital Therapeutics (DTx): Transforming Healthcare Through 21st Century Innovation</b>	<b>Invited Talk</b> <i>Dr. Neeraj Atrey, CSIR-IIP, Dehradun, Uttarakhand, India</i> <b>Title: Role of Educational Institutes in Climate Change and Circular Economy - A Step Towards Net Carbon Zero Mission</b>	<b>Invited Talk</b> <i>Dr. Ram Singh, Delhi Technological University, Delhi, India</i> <b>Title: Contribution of Chemistry in Advancing Sustainable Goals</b>
10:30 - 11:15 AM	Tea Break + Feedback		

## 2<sup>nd</sup> International Conference on Advanced Materials, Energy & Environmental Sustainability (ICAMEES 2.0)

11:15 - 11:30 AM	<p>OP19: Encapsulation and Release of Piperine or Curcumin: An Effect of Surfactant Formulation <b>Dr. Dhaval Mehta, Parul University, Gujarat</b></p>	<p>OP21: Carbon based materials for the sustainability of the perovskite solar cells within radiation environment for space grade solar cells <b>Dr. Sandeep Pandey, University of Strathclyde, UK</b></p>	<p>OP3: Green chemistry on the runway- sustainable fashion hues from agro-waste <b>Dr. Bhawna Goel, Devbhoomi Uttarakhand University, Dehradun</b></p>
11:30 - 11:45 AM	<p>OP20: Role of Aromatic Interactions in disassembly of Biotinylated Ditryptophan Nanostructures <b>Dr. Rashmi Pandey, Govt. College Khimlasa, Madhya Pradesh</b></p>	<p>OP23: Catalytic Enhancement on Hydrogen Generation from Lithium Aluminium hydride via thermolysis <b>Dr. Mamleshwar Kumar, Meerut Institute of Engineering &amp; Technology (MIET), Meerut</b></p>	<p>OP8: IoT-Enabled Multi-Parameter Monitoring System for Real-Time Snow Avalanche Disaster Management <b>Dr. Abhishek Singh, CSIR-Central Building Research Institute, Roorkee</b></p>
11:45 - 12:00 PM	<p>OP22: Sunlight-Driven Photocatalytic Degradation of Methylene Blue Using NiO/rGO Nanocomposites <b>Dr. Shivangi, Meerut Institute of Engineering and Technology, Meerut</b></p>	<p>OP27: A Study on the Influence of Biowaste and Energetic Ions on the Piezoelectric Phase &amp; Energy Harvesting from Polymer Composite Films <b>Dr. Parswajit Kalita, UPES, Dehradun</b></p>	<p>OP10: Hydrochemical study and heavy metal pollution analysis of the Chhoiya River <b>Dr. Avnish Kumar Arora, Vardhaman College, Bijnor</b></p>
12:00 - 12:15 PM	<p>OP26: Screening and characterization of inhibitory action of phytoproducts against Candida albicans an opportunistic fungal pathogen <b>Dr. Jyotsna Pandey, Dev Bhoomi Uttarakhand University, Dehradun</b></p>	<p>OP40: Facetted Nano-assemblies of Tryptocidine C, a Tryptophan-rich Cyclic Decapeptide with Antimicrobial Activity <b>Dr. Anushka Singh, Govt. College Khimlasa, Sagar</b></p>	<p>OP12: Assessment of River Water Quality Using Water Quality Index (WQI) Method <b>Dr. Mukesh Kumar, Vardhaman College, Bijnor</b></p>
12:15 - 12:30 PM	<p>OP30: Probabilistic Accident Risk Assessment of the Railway System using a Fuzzy Bayesian Network: An Indian Case Study <b>Dr. Surendar Varadharajan, UPES, Dehradun</b></p>	<p>OP45: Real-Time Evaluation of Grid-Connected Solar PV System Using PVsyst <b>Mr. Chetan Sharma, Noida Institute of Engineering and Technology, Gr. Noida</b></p>	<p>OP44: Microbial contamination and water quality assessment of surface water in the Upper Indian Himalayan region: Implications for Environmental sustainability</p>

## 2<sup>nd</sup> International Conference on Advanced Materials, Energy & Environmental Sustainability (ICAMEES 2.0)

			<b><i>Dr. Madhuben Sharma, UPES Dehradun</i></b>
12:30 - 12:45 PM	OP41: Integrating Solid Waste Management into Urban Sustainability in Uttarakhand: A Detailed Analysis of Legacy Waste Management and Dump Site Remediation with SDG Benchmarks <b><i>Mr. Ravi Pandey, DIT University, Dehradun</i></b>	OP38 (online): Development of Supercapacitor Electrode Material Using Heavy Metal Adsorbed Buffalo Bone Char–Prosopis Juliflora Composite <b><i>Dr. Gokul Chandru M, Kongu Engineering College, India</i></b>	OP46: Techno-Economic Assessment and Simulation of Solar Water Pumping System <b><i>Mr. Raj Biswakarma, Noida Institute of Engineering and Technology, Gr. Noida, U.P</i></b>
12:45 - 1:00 PM		OP39 (online): Global wind energy potential assessment and forecast on an effect of Paris Agreement <b><i>Dr. Sai Karthik.T, Chennai Institute of Technology, Chennai</i></b>	ES-OP-32: Production of Fuel Additives through Glycerol Acetylation over Sulfated Metal Oxides <b><i>Dr. Ashish Unnarkat, Pandit Deendayal Energy University</i></b>
1:00 - 2:00 PM	<b>LUNCH + Feedback</b>		
02:00 - 03:30 PM	<b>Poster presentation (Venue: MAC)</b>		
3:30 - 4:00 PM	<b>Tea Break + Feedback</b>		
4:00 - 5:00 PM	<b>Valedictory session + Prize distribution</b>		

## 2<sup>nd</sup> International Conference on Advanced Materials, Energy & Environmental Sustainability (ICAMEES 2.0)

### Schedule for Poster Presentations

**Day 1: 18<sup>th</sup> December 2025**

Group A		
Poster ID	Title	Author & Affiliation
pp3	Hot deformation behaviour and constitutive modelling of Al 6351 alloy at varying strain rate	Pankaj Rawat, Govind Ballabh Pant Institute of Engineering and Technology, Pauri, Uttarakhand
PP4	Significance of multi axial forging on the anisotropic properties of Al-Li 8090 ultra-fine-grained material at various processing conditions	Amit Panwar, Govind Ballabh Pant Institute of Engineering and Technology Ghurdauri Pauri (Garhwal)
PP11	Tailoring Pd <sub>7</sub> Se <sub>2</sub> nanoparticles via a single source strategy for efficient hydrogen evolution reaction (HER)	Anupma Tyagi, Doon University, Dehradun
PP15	Stable Gold Nano-islands via Reactive Glass-Metal Interactions Under Ambient Conditions	Sinorul Haque, CSIR-Central Glass and Ceramic Research Institute
PP26	Bimetallic Ag-Au Nanoalloy Decorated Boron Nitride for High Performance Supercapacitors	Naina Kuniyal, Doon University, Dehradun

## 2<sup>nd</sup> International Conference on Advanced Materials, Energy & Environmental Sustainability (ICAMEES 2.0)

PP35	Mechanical and Dielectric Properties of Porous Elastomer for Flexible Strain and Pressure Sensors	Tejasvi Anant, National Institute of Technology Raipur
PP38	Probing the Dielectric Landscape of KNN Thin Films with Surface Plasmon Resonance (SPR)	Pratyoi Prayash Bora, Hindu College, University of Delhi, Delhi
PP39	Geotechnical Stabilization and Design Optimization of Overburden Dumps Using Fly Ash: Experimental and Numerical Approach	Jeanswear Biswal, National Institute of Technology, Rourkela
PP51	The Physicochemical and Ultrasonic Study of Clonazepam with Methanol at 303 K	Taiyaba Khatoon, Graphic Era Hill University, Dehradun
PP62	On the evolution of gradient microstructure in hot-rolled titanium subjected to bending	Sujit Kumar Nayak, Indian Institute of Technology, Kharagpur, West Bengal
PP76	Sensor Technology Development and Applications in the Automotive Sector	Ansh Sharma, Amity University Greater Noida
PP89	Valorization of Grewia Optiva Fiber for effective lignin extraction and its sustainable use for Methyl Green Removal from wastewater	Priya Chaudhary, Graphic Era (Deemed to be University), Dehradun
PP91	Synthesis and Characterization of Antibacterial Sodium Alginate-g-N,N-Hydroxyethyl acrylamide Films for Sustainable Biomedical Applications	Dr. Teena, Jawaharlal Nehru University, New Delhi
<b>Group B</b>		
<b>Poster ID</b>	<b>Title</b>	<b>Author &amp; Affiliation</b>
PP5	One-pot synthesis of naphthopyranopyrimidines by green catalyst	Umer Maqbool, Himalayan Institute of Pharmacy and Research, Dehradun, Uttarakhand



## 2<sup>nd</sup> International Conference on Advanced Materials, Energy & Environmental Sustainability (ICAMEES 2.0)

PP6	Efficacy of the Langmuir Hinshelwood Hougen Watson kinetics in Aspen Plus modelling of catalytic transesterification to produce FAME biodiesel	Suryakanta De, Shiv Nadar Institution of Eminence, Delhi NCR
PP10	Optimization of Thermoelectric Properties of BiSbTe <sub>3</sub> Single Crystal through Se substitution	Mukesh Kumar, DDU Gorakhpur University, Gorakhpur
PP13	Computational modelling on electrochemical performance of jute waste derived activated carbon as supercapacitor	Suvajit Dogra, CSIR-Central Glass and Ceramic Research Institute, Kolkata
PP14	Cost-Effective LiFePO <sub>4</sub> Cathodes using Fe <sup>3+</sup> precursors through Aqueous Xerogel Route with In Situ Carbon Coating	Soma Mahata, CSIR-Central Glass and Ceramic Research Institute, Kolkata
PP19	SOFC-GT hybrid CHP systems: An Aspen based study towards thermoeconomic outlook	Atharva Puranik, CSIR - Central Glass and Ceramic Research Institute
PP20	Structural Insight into Mo-Doped Sr-Fe-O based double perovskite via in-situ High-Temperature XRD: A Correlation of Mo doping with Electrochemical Activity in RSOCs	Suprita Hati, CSIR - Central Glass and Ceramic Research Institute
PP31	Ce <sub>0.25</sub> Zr <sub>0.75</sub> O <sub>2</sub> - $\delta$ catalyst integration for low-resistance & durable SOEC fuel-electrodes	Rajasekar Saravanan, CSIR - Central Glass & Ceramic Research Institute
PP32	Silver nanowires assisted waste-derived rGO and PPy (AgNW/WrGO/PPy) composite for high energy density supercapacitor electrode	Neeraj Singh, G B Pant University of Agriculture and Technology, Pantnagar
PP34	Surfactant-Assisted Nickel Ferrite Electrodes with Superior Coulombic Efficiency for Supercapacitors	Ajay Kumar, G. B. Pant University of Agriculture and Technology, Pantnagar
PP44	B site engineered high entropy perovskite as promising cathode for solid oxide fuel cell applications	Kingshuk Chakraborty, CSIR-Central Glass & Ceramic Research Institute, Kolkata
PP45	Design and development of perovskite based nanocomposite for sustainable energy storage	Arun Bughani, G. B. Pant University of Agriculture and Technology, Pantnagar
PP50	Electrochemical Performance of Copper Sulfide Nanoparticles Synthesized by Green Approach using Urtica Diocia Leaves Extract	Vandana Rawat, Hemvati Nandan Garhwal University, Srinagar Garhwal

## 2<sup>nd</sup> International Conference on Advanced Materials, Energy & Environmental Sustainability (ICAMEES 2.0)

PP58	Role of Hierarchical Porosity in Biogas Upgradation using Activated Carbons Derived through Different Activation Methods	Kanishtha Kaushik, Doon University, Dehradun
<b>Group C</b>		
Poster ID	Title	Author & Affiliation
PP9	Circular economy approaches for solid waste management: Innovations, challenges and future	Amit Kumar, National Institute of Technology, Hamirpur
PP22	Chemical modification of used cooking oil and Brassica carinata oil for the synthesis of Biolubricants via Epoxidation Reaction: A sustainable pathway for bio-based alternatives	Ekta Naik, CSIR-Indian Institute of Petroleum, Dehradun
PP23	A new approach for Carbon Dioxide Sequestration and Utilization for Methane Recovery from Natural Hydrate-bearing Sediments	Shweta Negi, CSIR-Indian Institute of Petroleum, Dehradun
PP25	Enhancing Walkability Through Green Infrastructure: A Perception-Based Study of Pedestrian Environments in Dehradun	Surbhi Semwal, DIT University, Dehradun
PP28	Mg-MOF-74 based composite for slow release fertilizer: an approach towards greener agriculture	Agrima Chauhan, Doon University, Dehradun
PP42	Sorption of selenium using immobilized Bacillus selenatarsenatis 9470T on iron-modified Dolochar: box-behnken design and machine learning approach	Pallavi Behera, National Institute of Technology Rourkela
PP43	Fluoride removal in mine water using iron-modified zeolite prepared from blast furnace slag	Satish Chandra Bhuyan, National Institute of Technology, Rourkela
PP53	Utilization of industrial by-products in alkali activated pavement blocks as a green alternative to cement	Ananya Pal, National Institute of Technology Rourkela

## 2<sup>nd</sup> International Conference on Advanced Materials, Energy & Environmental Sustainability (ICAMEES 2.0)

PP54	Green Synthesis and Comprehensive Characterization of Cinnamomum tamala Essential Oil Nanoparticles	Sanjay Tamta, S.G.R.R.(PG) College, Dehradun
PP55	Fatigue behavior of Sustainable Low-Carbon micro alloyed Dual-Phase Steel for Next-Generation Automotive Components	Gaurav Pandey, Indian Institute of Technology, Kharagpur, West Bengal
PP57	Modern strategies towards green and sustainable synthesis of macrocyclic assemblies	Akanksha Verma, Sri Dev Suman Uttarakhand University, Rishikesh
PP60	Comparative Adsorption Isotherm Analysis of Rose Bengal Dye on Gold-Decorated and Unmodified Activated Carbon	Chetan Pant, Govind Ballabh Pant University of Agriculture and Technology
<b>Group E</b>		
Poster ID	Title	Author & Affiliation
PP1	Electrochemical analysis of as synthesized MnO <sub>2</sub> , NrGO, NrGO-MnO <sub>2</sub> 2D nanosheets for CO <sub>2</sub> reduction	Abhishek Dhasmana, UPES, Dehradun
PP17	Rational Design of CsPbBr <sub>3</sub> @MOF Composites for Enhanced Photoluminescence and Sensing	Nivedita Kunwar, UPES, Dehradun
PP48	Tuning bismuth stoichiometry to suppress secondary phases in the synthesis of BiFeO <sub>3</sub>	Bhavi Agrawal, UPES, Dehradun
PP49	Synthesis and structural characterization of h-BN nanocrystals: Effect of synthesis parameters and N <sub>2</sub> environment annealing	Madhav Dobhal, UPES, Dehradun
PP64	Effect of electrolytes on the electrochemical performance of MWCNT/MXene nanocomposite as electrode material for supercapacitor applications	Nitin Kumar Gautam, UPES, Dehradun
PP69	Electrolyte engineering: role of KOH concentration in boosting charge storage of g-C <sub>3</sub> N <sub>4</sub> /Cr <sub>2</sub> O <sub>3</sub> nanocomposites	Sachin, UPES, Dehradun

## 2<sup>nd</sup> International Conference on Advanced Materials, Energy & Environmental Sustainability (ICAMEES 2.0)

PP75	Epigrammatic status of recent advancements in the development of oxadiazole and its derivatives using nanocatalysts	Neeraj Bhatt, UPES, Dehradun
PP77	An apotheosis based on apple polysaccharides capped with metallic nanoparticles for the treatment of gastric ulcer	Akash Dhiman, UPES, Dehradun
PP79	Development of high-entropy oxide nanostructures for rapid and sustainable amine production	Anjali Varshney, UPES, Dehradun
PP81	MOF-derived Fe-doped MnO <sub>2</sub> nanozymes with oxidase-like activity for colorimetric sensing of Hg <sup>2+</sup> and hydroquinone	Udisha Duhan, UPES, Dehradun
PP82	Sustainable Electrolytes Based on Biopolymers and Biodegradable Ionic Liquid: Innovative Approach towards Sustainable Lithium-Ion Energy Storage Devices	Tatnkam Ernest Jeffersonn, UPES, Dehradun
PP85	Modifications Induced in the Structural, Optical, and Photocatalytic Application by Cu and Mo ions Doping in BiVO <sub>4</sub> nanoparticles	Shilpa Chauhan, UPES, Dehradun
PP92	Advanced TiO <sub>2</sub> Composite Nanomaterials for Sustainable Pollutant Removal and Sensing	Aditri Joshi, UPES, Dehradun
PP100	In-situ synthesis of HKUST-1 inside biochar pores and its synergistic effects on the CO <sub>2</sub> adsorption properties	Swati Kumari, UPES, Dehradun
PP105	Investigation of Radiation Tolerance in Ceramic Composite and Non-Composite Materials	Rishvana Parveen, UPES, Dehradun
PP113	Biobased Thiol-Acrylate Vitrimers for Light-Based 3D Printing with Programmable Healing and Shape Recovery	Viranchika Bijlawan, UPES, Dehradun

## 2<sup>nd</sup> International Conference on Advanced Materials, Energy & Environmental Sustainability (ICAMEES 2.0)

### Day 2: 19<sup>th</sup> December 2025

Group D		
PP65	Quantitative Variation of Shikimic Acid in Needles of Pinus roxburghii	Rishika Guleria, DIT University Dehradun
PP66	Green lungs of the city: assessing carbon sequestration and storage potential of urban tree species in Indian capital	Shilpi Pandey, Guru Ghasidas Vishwavidyalaya, Chhattisgarh
PP71	Nitrogen functionalized Schiff base biochar hybrids as dual adsorbents for heavy metal remediation and CO <sub>2</sub> capture	Aashish Kumar Sagar, Govind Ballabh Pant University of Agriculture and Technology
PP72	Sustainable nanofibrous air filters: synergistic performance of biochar and TiO <sub>2</sub> within a cellulose acetate matrix	Garvit, Govind Ballabh Pant University of Agriculture and Technology
PP73	Life cycle assessment of municipal solid waste management: comparative evaluation of existing technologies in India	Yogesh Kumar Vishwakarma, IIT (BHU), Varanasi, Uttar Pradesh
PP84	Compostable Plastics: A Sustainable Solution or the Next Environmental Myth?	Keshar Verma, CSIR- National Environmental Engineering Research Institute, Nagpur
PP88	Biodegradable Plastic-based nanoadsorbents for the removal of Methyl Green dye from wastewater	Richa Bhatt, Graphic Era Deemed to be University, Dehradun, Uttarakhand
PP93	Enzymatic Treatment of Textile and Dye Waste: Degradation by Oxidoreductases	Manvi Rawat, G.B. Pant Engineering College, Ghurdauri, Pauri, Garhwal, Uttarakhand
PP96	Comparative Analysis of Simulated and Actual Performance of Solar PV Systems	Chetan Sharma, Noida Institute of Engineering Technology, Gr. Noida, Uttar Pradesh
PP97	Economics and Environmental Performance Analysis of Solar Water Pump Using PVsyst	Raj Biswakarma, Noida Institute of Engineering Technology, Gr. Noida, Uttar Pradesh

## 2<sup>nd</sup> International Conference on Advanced Materials, Energy & Environmental Sustainability (ICAMEES 2.0)

PP110	Extending the carbon backbone of biorenewable furaldehydes by benzoin condensation and the synthesis of novel 2,4,5-trisubstituted imidazoles	Diona Avitha Aranha, NITK Surathkal, Mangalore
PP111	Transforming Plastic Waste into Liquid Fuels: Novel Upgrading of Polypropylene Pyrolysis Oil and Utilization in Diesel Engine	Abhishek Kumar Yadav, NITK Surathkal, Mangalore
<b>Group F</b>		
PP21	DFT study of CO <sub>2</sub> activation on pristine and functionalized V <sub>2</sub> C MXene	Annu Kajal, UPES, Dehradun
PP24	Engineering Zn <sub>12</sub> O <sub>12</sub> Nanocluster via Vacancies and Industrial Catalyst-Inspired Cu-Al Co-doping for CO <sub>2</sub> conversion	Deepa Thakur, UPES, Dehradun
PP46	Impact of aqueous electrolytes on the electrochemical performance of nitrogen-doped laser-induced graphene for supercapacitors	Shruti Lavania, UPES, Dehradun
PP47	Role of Na incorporation in enhancing the energy storing capabilities of Mn <sub>2</sub> O <sub>3</sub> nanostructures for a symmetric supercapacitor device	Aditya Rohila, UPES, Dehradun
PP56	Decoding the Electrochemical Dynamics of Co-MOF Electrodes in Alkaline Electrolytes for Energy Storage	Mrinalini Sharma, UPES, Dehradun
PP68	Versatile g-C <sub>3</sub> N <sub>4</sub> electrode design for high-performance supercapacitor and water-splitting applications	Manas Nasit, UPES, Dehradun
PP70	Development of potential flame retardant to enhance cotton safety	Arpit Verma, UPES, Dehradun
PP78	Luminescent sensing of biogenic phosphates via imidazo-phenanthroline functionalized Ruthenium(II) probe	Heena, UPES, Dehradun

## 2<sup>nd</sup> International Conference on Advanced Materials, Energy & Environmental Sustainability (ICAMEES 2.0)

PP80	Mechanistic divergence in hydrogen bonding: Catechol based recognition of cyanide and fluoride	Sandeep Singh, UPES, Dehradun
PP86	Electrodeposition Optimization of Ni-Fe electrode for Alkaline Water splitting: Effect of Salt Ratio, Deposition time and Deposition Potential Integrated With AI-Driven Performance Modeling	Hritika Dangwal, UPES, Dehradun
PP87	Valorization of Medical Plastic Waste via Thermochemical Conversion for Hydrocarbon Fuel Production	Prateeksha Chauhan, UPES, Dehradun
PP101	Bioethanol production from lignocellulosic waste	Sudhanshu sharma, UPES, Dehradun
PP106	Investigation of microplastic contamination in human exposure pathways and its toxic effects	S. R. Diya, UPES, Dehradun
PP108	Synthesis and Characterization of Fe based Metal organic framework and Graphene based Nanocomposites	Mansi Singh, UPES, Dehradun
PP114	Design and development of a solar assisted floating drum biogas reactor for high altitude area	Amit Kumar Sharma, UPES, Dehradun
PP8	Sustainable Pathways for Carboxymethyl Cellulose Production from Waste-Derived Cellulose	Ashmeet Bhogal, UPES, Dehradun