



**International Conference on Shaping the Energy Future: Challenges & Opportunities**  
**Theme: Catalyzing Sustainable Future with Affordable Energy and Chemicals**

**CSIR - Indian Institute of Petroleum, Dehradun, Uttarakhand, India**  
**April 23-25, 2025**



**List of Abstracts Accepted for the Presentation at the SEFCO-2025**  
**(Progressive List)**

| Sr. No  | Abstract ID | Full Name                   | Abstract Title  | Presentation Mode |
|---|-------------|-----------------------------|---|-------------------|
| Theme: Carbon Capture, Conversion, and Storage (CCCS) |             |                             |   |                   |
| 1   | CCCS-002    | ATHIRA ABRAHAM              | A baby step in assembling and integrating the components of an artificial photosynthesis device with forced heterojunctions toward improved efficiency  | Poster            |
| 2   | CCCS-003    | Dr. Achinta Bera            | FORMULATION OPTIMIZATION OF SURFACTANT-POLYMER FLOODING FOR ENHANCED OIL RECOVERY IN SANDSTONE RESERVOIRS   | Oral/Poster*      |
| 3   | CCCS-004    | Sunil Kumar                 | Improved Cost Correlations for Compressors to Enhance Capital Cost Estimation Accuracy of Compression-Intensive Processes   | Oral/Poster*      |
| 4   | CCCS-005    | Mr. Kapil D Dhotre          | Carbon dioxide (CO <sub>2</sub> ) Sequestration: Process Development and Intensification for the Preparation of Salicylic acid/Aspirin by catalytic carboxylation of phenol using supercritical carbon dioxide (CO <sub>2</sub> ) | Oral/Poster*      |
| 5   | CCCS-006    | Dr. Nilesh Choudhary        | MOLECULAR SIMULATION AND THERMODYNAMICS STUDIES FOR DECARBONISATION   | Oral/Poster*      |
| 6   | CCCS-007    | Suman Dalakoti              | Facile Synthesis of Mixed Matrix Membranes Embedded with MOF-Incorporated Mesoporous Silica Composite Fillers for Gas Separation  | Oral/Poster*      |
| 7   | CCCS-009    | Ganesh S                    | Enhanced bimetallic beta-tricalcium phosphate ( $\beta$ -TCP) catalysts for CO <sub>2</sub> hydrogenation to value added products   | Poster            |
| 8   | CCCS-010    | Supriya Das                 | BODIPY-FUNCTIONALIZED HETEROBIMETALLIC Ru(II)-Fe(II) DYAD: A PROMISING AND SUSTAINABLE SINGLET OXYGEN PHOTOSENSITIZER FOR PHOTOCATALYTIC ORGANIC TRANSFORMATION   | Oral/Poster*      |
| 9   | CCCS-012    | Aditya Mishra               | Shale Exploitation: Integrating CCUS through Supercritical Carbon Dioxide Fracturing  | Oral/Poster*      |
| 10  | CCCS-013    | PATEL UTPAL CHANDRAKANTBHAI | HIGH-PERFORMANCE DES-MXENE COMPOSITE MEMBRANES FOR CO <sub>2</sub> CAPTURE: A STRUCTURAL AND PERMEABILITY STUDY   | Oral/Poster*      |
| 11  | CCCS-014    | RAKSHITH VS                 | High-Throughput Process-Level Screening of Advanced Porous Materials for CO <sub>2</sub> Capture via Pressure Swing Adsorption  | Oral/Poster*      |
| 12  | CCCS-015    | Dr. Mrityunjaya Kumar       | Experimental Investigation of Zr/CeO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub> catalyst towards reduction of Carbon  | Oral/Poster*      |

|    |          |                          |  |              |
|----|----------|--------------------------|--|--------------|
|    |          | Shukla                   | Monoxide emission in Diesel Engine   |              |
| 13 | CCCS-016 | Aditya                   | Encapsulation of Mono/Bi-Metal in TS-1 Zeolites for CO <sub>2</sub> Conversion   | Oral/Poster* |
| 14 | CCCS-017 | AYUSHI TYAGI             | Unravelling the Temperature-Driven Phase Transformation of Ni <sub>3</sub> Py and Their Impact on Hydrogenation Catalysis  | Poster       |
| 15 | CCCS-018 | Ayush Pandey             | Carbon dioxide adsorption in a multistage fluidized bed Reactor  | Oral/Poster* |
| 16 | CCCS-019 | Purushothaman S P        | Catalytic hydrogenation of carbon dioxide using bimetallic catalyst supported on SBA-15 into value added products  | Poster       |
| 17 | CCCS-020 | Anjali Sharma            | Metal Exchange Zeolite for Coal Bed Methane Upgradation  | Poster       |
| 18 | CCCS-021 | Remya Ranjith            | DEVELOPMENT & PERFORMANCE EVALUATION OF DEEP EUTECTIC SOLVENT MEMBRANES FOR CO <sub>2</sub> /CH <sub>4</sub> GAS SEPERATION: EXPERIMENTAL AND THEORETICAL INSIGHTS.  | Oral/Poster* |
| 19 | CCCS-022 | Guruprasad Bhattacharya  | ELECTROCHEMICAL CONVERSION OF CO <sub>2</sub> USING COPPER CHROMATE NANOMATERIAL ELECTROCATALYST   | Poster       |
| 20 | CCCS-023 | Debkrishna Dey           | Morphological Disintegration in Solid-State Transformation of Bi-phasic Zeolite  | Poster       |
| 21 | CCCS-024 | Dr. Radhapada Manna      | Enhanced electrocatalytic CO <sub>2</sub> reduction strategy through Cu <sub>2</sub> O/CdS heterojunctions   | Poster       |
| 22 | CCCS-025 | Akhil Kumar Gupta        | Post combustion CO <sub>2</sub> capture using novel aqueous amine blend of 1-(2-Amino Ethyl) Piperazine (AEP) and 3-Dimethyl amino-1-propanol (3-DMA-1-P): Thorough absorption and desorption analysis         | Oral/Poster* |
| 23 | CCCS-027 | Shreyas Kulkarni         | Enhancing CO <sub>2</sub> Capture: Composite Ionogel Membranes with DES-IL Blends for Efficient Gas Separation   | Poster       |
| 24 | CCCS-029 | Poonam Chaturvedi        | Pt NPs loaded CeO <sub>2</sub> -Bi <sub>4</sub> Ti <sub>3</sub> O <sub>12</sub> Composite Heterojunction with Improved and Selective Photocatalytic Activity for CO <sub>2</sub> Reduction in the Gas Phase    | Poster       |
| 25 | CCCS-030 | Dr. Swapnil Dharaskar    | Deep Eutectic Solvent Gel Membranes for Efficient CO <sub>2</sub> Separation Applications: Experimental and DFT Prediction Analysis  | Oral/Poster* |
| 26 | CCCS-034 | Ashutosh Darak           | Polyamine mediated mesoporous Silica adsorbents for Carbon Dioxide Capture   | Oral/Poster* |
| 27 | CCCS-035 | Dr. Mahuya Bandyopadhyay | Tailored Micro/Mesoporous Silicoaluminophosphates for CO <sub>2</sub> Sequestration via Cyclic Carbonate Formation   | Oral/Poster* |
| 28 | CCCS-037 | Dr. Dinesh Jagadeesan    | Hydrogenation of Cobalt containing Calcium Carbonate   | Poster       |
| 29 | CCCS-038 | Anirban Mukherjee        | Electrochemical reduction of CO <sub>2</sub> using 2D gC <sub>3</sub> N <sub>4</sub> supported Indium doped-Bi <sub>2</sub> S <sub>3</sub> : Study of the role of Indium doping on the selectivity of products | Oral/Poster* |
| 30 | CCCS-039 | Gaurav Gaur              | Catalytic process for the production of alkylated aromatics using CO <sub>2</sub>  | Poster       |
| 31 | CCCS-042 | Satyajit Panda           | Tailored Ni based catalyst for CO <sub>2</sub> mitigation  | Oral/Poster* |
| 32 | CCCS-044 | Chhanda Mondal           | Catalytic Fixation of CO <sub>2</sub> into Cyclic Carbonates Using Side-Chain Appended Metallopolymer: A Sustainable Approach to Carbon Utilization  | Oral/Poster* |
| 33 | CCCS-045 | Gnanasekaran G           | Atomic Carbon adsorption and removal on Nickel based Bimetallic Catalysts Ni <sub>3</sub> M (M= Fe, Co, Cu) in DRM reaction: A First principles study  | Poster       |

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|--|----------|--------------------------|--|--------------|
| 34   | CCCS-047 | Trilochan Bhunia         | Thermally Switchable Perovskite and Its in situ Generated Molecular Level Nanocomposite for Dry Reforming of Methane         | Poster       |
| 35   | CCCS-049 | Neeraj Kala              | Effects of various Co-complexing agents on the Double metal cyanide catalyst for the synthesis of Polyether Carbonate Polyol | Poster       |
| 36   | CCCS-050 | Vasu Chaudhary           | Aligning India's Climate Goals: Insights from Global Emission Trends and Mitigation Strategies                               | Oral/Poster* |
| <b>Theme: Crude Oil &amp; Coal: Exploring Innovations and Opportunities (CCIO)</b>     |          |                          |  |              |
| 37   | CCIO-001 | Reetu Raj                | 3Es-analysis of coal-biomass based gasification/co-gasification integrated CI engine   | Oral/Poster* |
| 38   | CCIO-002 | Nishant Markandeya       | Catalyst-Free Depolymerization of Polycarbonate and Optimization Using Response Surface Methodology (RSM)                    | Oral/Poster* |
| 39   | CCIO-003 | RAVINDRA KUMAR           | Influence of various catalysts on pyrolysis yields from low-density polyethylene wastes for sustainable fuel recovery        | Oral/Poster* |
| 40   | CCIO-004 | Mansi Awasthi            | THE CONSTITUTIVE ANALYSIS OF PLA-MODIFIED BITUMEN TO ENHANCE BITUMINOUS PROPERTIES OF THE BASE BITUMEN                       | Poster       |
| 41   | CCIO-005 | Chhaya Thadhani          | Hydrogenolysis of Polyethylene by Metal-Organic Framework Confined Single-Site Ruthenium Catalysts                           | Poster       |
| 42   | CCIO-006 | Anjali Dimri             | Alternate Production of Alpha Olefins from Thermo-Catalytic Pyrolysis of Waste Plastic                                       | Poster       |
| 43   | CCIO-007 | Awantika                 | PERFORMANCE EVALUATION OF UTILIZATION OF WASTE TYRE CRUMB RUBBER (CR) TO IMPROVE RHEOLOGICAL PROPERTIES OF MODIFIED BITUMEN  | Poster       |
| 44   | CCIO-008 | Azeem Khan               | Optimizing Gas Chromatography Parameters for Thermally Unstable Dicyclopentadiene Mixtures Analysis                          | Oral/Poster* |
| 45   | CCIO-009 | Diwakar Chauhan          | Post - functionalization of waste polymeric materials  | Poster       |
| <b>Theme: Energy Transition, Energy Efficient Practices and Future Mobility (EEEF)</b> |          |                          |  |              |
| 46   | EEEF-001 | Kundan Kumar             | Solid-State Direct Regeneration of Spent Lithium Cobalt Oxide Cathodes for Li-Ion Batteries                                  | Oral/Poster* |
| 47   | EEEF-002 | Dr. Sumit Kumar Pramanik | Nanostructured Organic Electrolytes: Tailoring Self-Assembly to Unlock the Potential in Sodium-Ion Batteries                 | Oral/Poster* |
| 48   | EEEF-009 | Pramod R Junghare        | Bimetallic Nanoparticles Supported on Nitrogen-containing Carbon Nanofibres for Oxygen Reduction Reaction.                   | Oral/Poster* |
| 49   | EEEF-011 | Mayur Madhav Kakade      | Optimization of device geometry to ensure core annular flow for energy-efficient pipeline transportation.                    | Oral/Poster* |
| 50   | EEEF-015 | Kanchan Gangwar          | From Data to Discovery: The Role of AI in Sodium-Ion Battery Research  | Oral/Poster* |
| 51   | EEEF-023 | Dr Barnasree Chanda      | High entropy oxide based air electrode material for potential Solid Oxide Fuel Cell applications                             | Oral/Poster* |
| 52   | EEEF-030 | Gaurav Lunawat           | Turning Back the Carbon Clock: Hydrogenated Hydrocarbon Production for Sustainable Transportation Fuels                      | Oral/Poster* |
| 53   | EEEF-031 | Vinayak. S               | Investigating optimization and combustion applications of Oxy-hydrogen generator   | Oral/Poster* |
| 54   | EEEF-032 | Tanmoy Ghosh             | Disorder-Driven Optimization of Thermoelectric Performance in AgSbTe <sub>2</sub>  | Oral/Poster* |

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| 55 | EEEE-034 | Omvir Singh              | Efficient Coproduction of 5-Hydroxymethyl Furfural and Furfural from Biomass Utilizing different heterogeneous Catalysts: A Sustainable Approach | Oral/Poster* |
| 56 | EEEE-035 | AASH MOHAMMAD            | ELECTROCHEMICAL PERFORMANCE OF VANADIUM REDOX FLOW BATTERY CELL-STACK WITH SPLIT SERPENTINE FLOW CHANNELS  | Oral/Poster* |
| 57 | EEEE-003 | Amir Sohel               | NiNb metallic glass as a stand-alone electrode-catalyst for urea-assisted hydrogen generation  | Poster       |
| 58 | EEEE-004 | ABDUL KADIR M. POONAWALA | Enhancing Ignition Techniques for Spray Combustion Analysis of Novel Propellants in High-Pressure Environments                                   | Poster       |
| 59 | EEEE-005 | Komal Kumari             | AGAR-AGAR DERIVED ACTIVATED ULTRA-POROUS CARBON AS AN ELECTRODE MATERIAL FOR SYMMETRICAL SUPERCAPACITOR  | Poster       |
| 60 | EEEE-006 | Shubham                  | Mechanical Energy Harvesting through Piezoelectric Iontronic Tactile Device  | Poster       |
| 61 | EEEE-007 | Nazreen VM               | Process Intensification of Pt-Fe Bimetallic Electrocatalyst Synthesis For Proton Exchange Membrane Fuel Cell                                     | Poster       |
| 62 | EEEE-008 | Sachin Jagdish Patel     | Process Optimization in Low-Temperature Electrolysers Using Aspen Plus.  | Poster       |
| 63 | EEEE-010 | Yash Srivastava          | Selective recovery of lithium from waste lithium-ion batteries through carbothermal reduction with waste pine needle                             | Poster       |
| 64 | EEEE-013 | Susmita Mazumdar         | Octahedron-Shaped Manganese Doped Nickel Selenide for High Performance Asymmetric Supercapacitors  | Poster       |
| 65 | EEEE-014 | Rinki Singh              | Recycling of end-of-life solar panels, using solvent treatment and pyrolysis for components and energy recovery.                                 | Poster       |
| 66 | EEEE-016 | Shrinkhala Anand         | Polyelectronic Approach to synthesize PEDOT loaded Hydrogel for in air and under water soft electronic application                               | Poster       |
| 67 | EEEE-017 | Khushboo Mishra          | Next Generation Thermoelectric materials designed for Power generation from waste heat (WHTP)  | Poster       |
| 68 | EEEE-018 | Syed Abuzar Suhail       | A Net Zero Refinery Approach Using Renewable Electricity, Green Hydrogen, and CO <sub>2</sub> Capture  | Poster       |
| 69 | EEEE-019 | Yash Dattakumar Hede     | Evaluation of Thermoelectric properties of Cu <sub>2</sub> O-CuI-rGO nanocomposites: An eco-friendly and low-cost alternative.                   | Poster       |
| 70 | EEEE-020 | SOUVIK SAU               | Exploring ZnMn <sub>2</sub> O <sub>4</sub> spinel nanostructures: a potential material for efficient supercapacitor electrodes                   | Poster       |
| 71 | EEEE-021 | Shriparna Roy            | Optimized NiCrO <sub>3</sub> nanostructures for future energy storage applications   | Poster       |
| 72 | EEEE-022 | Manisha Kundu            | 2D MoO <sub>3</sub> /PVDF-HFP NANOCOMPOSITES FOR FLEXIBLE PIEZOELECTRIC NANOGENERATOR AND WIRELESS MECHANOSENSOR APPLICATIONS                    | Poster       |
| 73 | EEEE-024 | Dr. Madhuchhanda Sarkar  | Studies on Fatty Acid Based Composite Phase Change Materials for Thermal Energy Storage  | Poster       |
| 74 | EEEE-025 | Monisha Sarkar           | A High Performance Triboelectric Nanogenerator Based on MoS <sub>2</sub> /PVDF-HFP Nanocomposite for Flexible Electronics Applications           | Poster       |
| 75 | EEEE-026 | RAKESH UPADHYAY          | Catalytic Oxidation of CO and diesel soot over Zr Doped CeO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub>   | Poster       |
| 76 | EEEE-027 | Shoaib Ahmed             | Oxidative Coupling of Methane using Li/MgO Catalyst  | Poster       |
| 77 | EEEE-028 | Diwakar Patel            | Waste Corn-cob-Derived Activated Carbon for Supercapacitor Applications: Synthesis, Characterization, and Performance Evaluation                 | Poster       |

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| 78   | EEEF-029 | Avinash Suryakant Mhetre  | COMPUTATIONAL FLUID DYNAMIC STUDY FOR PREDICTION OF FILM THICKNESS IN VERTICAL FALLING FILMS: EFFECT OF KAPITZA NUMBER AND INLET VELOCITY                                       | Poster       |
| 79   | EEEF-033 | Mansi tiwari              | Development and Characterization of Eco-Friendly Lubricants from Madhuca Longifolia and Ricinus Communis Oils via a 3-Step Chemical Modification Process                        | Poster       |
| 80   | EEEF-036 | NIVEDITA JHA              | Thermal Denitration of Ammonium Nitrate: A Sustainable Approach   | Poster       |
| 81   | EEEF-037 | PUNIT SHARMA              | Polystyrene Copper based Triboelectric Nanogenerators (TENGs) for sustainable Power solution  | Poster       |
| <b>Theme: Hydrogen Production, Storage, and End-Use (HPSE)</b> |          |                           |   |              |
| 82   | HPSE-001 | Manshu Dhillon            | Novel GO hoisted SnO <sub>2</sub> -BiOBr bifunctional catalyst for the remediation of organic dyes under the illumination of visible light and electrocatalytic water splitting | Oral/Poster* |
| 83   | HPSE-002 | Dr. Harshawardhan Pol     | Indigenous Bipolar Plate Development for Various Energy Applications  | Oral/Poster* |
| 84   | HPSE-003 | Madhura Deshpande         | CFD simulations of two-phase flow in water electrolyzers for hydrogen generation  | Oral/Poster* |
| 85   | HPSE-004 | Phulladweepa Patra        | Exfoliated Cobalt-Doped Manganese Oxide Nanosheets: An Efficient and Stable Electrocatalyst for Hydrogen Evolution Reaction in an Alkaline Medium                               | Oral/Poster* |
| 86   | HPSE-005 | Dr. Shoroshi Dey          | Tailoring the reactivity of CeO <sub>2</sub> towards bi-functional electrocatalytic activity for efficient Overall Electrochemical Water Splitting                              | Oral/Poster* |
| 87   | HPSE-006 | Vijay Kailas Vaishampayan | Bifunctional Nanofiber supported CuFe <sub>2</sub> O <sub>4</sub> for Hydrogen and Oxygen Evolution Reactions   | Oral/Poster* |
| 88   | HPSE-008 | Dileep Kumar              | Single-atom Cu doped TiO <sub>2</sub> photocatalyst for Photocatalytic Hydrogen Generation  | Oral/Poster* |
| 89   | HPSE-009 | Dev Sankar Choudhuri      | Morphology and phase-controlled synthesis of iron oxide nanoparticles and understanding their electrocatalytic activity   | Poster       |
| 90   | HPSE-010 | G. Vishnu Tej             | Spearheading Machine Learning Innovations to Optimize Proton Exchange Membrane Fuel Cells   | Oral/Poster* |
| 91   | HPSE-011 | Elvy Rena Braganca        | Combustion-Synthesized Ni <sub>0.75</sub> Co <sub>0.25</sub> Fe <sub>2</sub> O <sub>4</sub> Nanospinel: A Promising Electrocatalyst for Water Splitting and Energy Storage      | Poster       |
| 92   | HPSE-012 | PRERNA TRIPATHI           | Trifunctional Self-assembled Graphene-Metal Sulfide Electrodes for electrochemical reactions  | Oral/Poster* |
| 93   | HPSE-013 | Amit Kumar Verma          | Upconversion Nanomaterial Integrated $\beta$ -SiC Nanosystem for Efficient Hydrogen Production under Visible Light  | Poster       |
| 94   | HPSE-015 | Ajith U K Nair            | EXPERIMENTS AND SIMULATIONS ON A PROTOTYPE SWISS-ROLL COMBUSTOR FOR HYDROGEN PRODUCTION   | Oral/Poster* |
| 95   | HPSE-018 | Sujana Chandrappa         | Crucial impact of dopant's valence state on visible-light induced H <sub>2</sub> evolution of Ir-doped BaTiO <sub>3</sub> photocatalyst   | Oral/Poster* |
| 96   | HPSE-020 | Arvind                    | Rice-husk derived Ni-doped Carbon as an Electrocatalyst for Hydrogen Evolution Reaction   | Poster       |
| 97   | HPSE-021 | Sanya kamboj              | Enhanced anion exchange membranes with Al-Li <sub>2</sub> O nanoparticles improve conductivity, durability, and strength for electrolysis                                       | Poster       |
| 98   | HPSE-022 | Kalki kamini .K           | Modified CoFe <sub>2</sub> O <sub>4</sub> /Ti-SBA-15 bifunctional catalyst for photocatalytic water splitting   | Poster       |

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| 99  | HPSE-025 | Yukti Setia            | EFFECT OF MoN/MoP2 INTERFACE FOR AN EFFICIENT CONVERSION OF ETHANOL TO VALUABLE PRODUCT   | Poster       |
| 100   | HPSE-026 | Abhinav Dadhich        | Fe-Doped Ceria as a cost effective electrocatalyst for efficient oxygen evolution reaction  | Poster       |
| 101   | HPSE-027 | Dhakane Vishal Uttam   | CFD Modeling of Hydrodynamics for Hydrogen Production in a Fluidized Bed Reactor of the Cu-Cl Cycle   | Oral/Poster* |
| 102   | HPSE-028 | Bhupendra Bairwa       | Recovery of H2 from Industrial gases using Polyetherimide based membrane - An overview  | Poster       |
| 103   | HPSE-032 | Ashwin Mekkad          | PERFORMANCE EVALUATION OF HIGH TEMPERATURE POLYMER ELECTROLYTE MEMBRANE FUEL CELLS  | Oral/Poster* |
| 104   | HPSE-033 | Dr. Malaya Kumar Sahoo | Mo-MODIFIED Ni3N/Ni2S HETEROINTERFACE: A HIGH-EFFICIENCY CATALYST FOR SUSTAINABLE H2 AND SULFUR RECOVERY FROM Na2S SOLUTIONS  | Oral/Poster* |
| 105   | HPSE-034 | Rajasekar Saravanan    | Development of (Zr1-xCexO2-δ) as internal reformable catalyst for SOFC fuel-electrode   | Oral/Poster* |
| <b>Theme: Renewable Chemicals and Energy (RCEN)</b> |          |                        |   |              |
| 106   | RCEN-001 | Dr. Taraknath Das      | Pyrolysis of sawdust with Perovskite-type catalysts LaNixFe(1-x)O3/(Support) to produce Hydrogen-rich gas   | Oral/Poster* |
| 107   | RCEN-003 | NIVEDHITHA T R         | Aqueous Glycerol to Glyceric acid and Green Hydrogen by Visible Light Driven Photocatalysis with Ni/Co(PO4)2-TiO2 : Parallel Utilization of Holes and Electrons                 | Oral/Poster* |
| 108   | RCEN-006 | Dr N NARENDER          | Eco-friendly one pot protocol for the Synthesis of alkyl levulinates from bioderived furfuryl alcohol using Oxone.  | Poster       |
| 109   | RCEN-008 | Shivali Dhingra        | Advancing Photocatalysis for Biomass Valorization in Synergism with Solar Fuel Production: A Sustainable Paradigm towards Circular Bio-economy                                  | Oral/Poster* |
| 110   | RCEN-009 | S Prabakaran           | Computational Analysis of Swirl Gas Turbine Combustion for Turbulent Air and Oxy-Combustion of Ammonia/Kerosene Blends  | Oral/Poster* |
| 111   | RCEN-010 | Himanshu Raghav        | Effect of Synergy on Selective Low-Temperature Dehydrogenation of Propane to Propylene over Defect-Induced Copper Titanium Catalyst   | Poster       |
| 112   | RCEN-011 | Ravina                 | Boosting Hydrogen Evolution via CoIn2S4/MoSe2 Heterostructure for Efficient Photocatalysis  | Poster       |
| 113   | RCEN-013 | Abhishek Pathak        | Process Development for Selective Adsorption of Anacardic acid from Cashew Nut Shell Liquid (CNSL) on Ion Exchange Resin (IER)  | Oral/Poster* |
| 114   | RCEN-014 | Kirti                  | Leveraging the Cooperative Photocatalysis for the Concurrent Production of Solar Fuel and Value-added Chemicals: Mediated by the Metal-free Porphyrin-based Polymeric Framework | Poster       |
| 115   | RCEN-015 | Pranit Samanta         | Production of Cyclohexylphenol in Liquid Phase: Impact of T-site Specific Dealumination of Zeolite Beta   | Poster       |
| 116   | RCEN-016 | Thamizharasi P         | Biodiesel Production from Transesterification of Jatropha oil with MeOH over K-CaO Supported on Mesoporous Carbon Catalyst  | Poster       |
| 117   | RCEN-017 | Dr. Ranjit Kumar       | Transfer Hydrogenation Reaction Using Ag Nanoparticles Supported on alpha-MnO2  | Oral/Poster* |
| 118   | RCEN-018 | Dr M Rama Krishna      | Degradation of phenol using Dairy Biomass   | Oral/Poster* |
| 119   | RCEN-019 | Rinki                  | Development of metal and nitrogen doped carbon as cathode catalyst by urea-formaldehyde and jamun seed powder for power generation in single chamber MFC                        | Poster       |
| 120   | RCEN-020 | Abhishek Kumar         | Sustainable Synthesis of Biomass Derived Porous Carbon using Microwave Energy for Next-Generation Energy Storage  | Oral/Poster* |



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|-----|----------|-----------------------------|--|--------------|
| 121 | RCEN-021 | Poorna Tyagi                | Benzene-Rich Aromatics from Used Cooking Oil over Supported Zeolite  | Poster       |
| 122 | RCEN-023 | Mayank Bahuguna             | Economic Modified Rice Husk Biochar for Azo Dyes adsorption  | Oral/Poster* |
| 123 | RCEN-024 | Anish Kumar Mazumdar        | Synthesis and Characterization of PdOx Nanoparticle Deposited TiO2 for Photocatalytic Nitrogen Reduction under Solar Light   | Poster       |
| 124 | RCEN-025 | Nongmaithem Joyshree Devi   | Removal of pharmaceutical impurities using magnetic biochar, an advanced material derived from biomass   | Oral/Poster* |
| 125 | RCEN-028 | Mridusmita Dutta            | Enhanced the phenolic monomers in the bio-oil using hydrothermal liquefaction of rice straw with Ni/Kaolin catalysts.  | Poster       |
| 126 | RCEN-029 | Nisha Rathi                 | METHANE-RICH GAS PRODUCTION THROUGH PYROLYSIS OF SAWDUST USING ACTIVATED BIOCHAR-BASED CATALYST  | Poster       |
| 127 | RCEN-030 | Dr. Keshav Prasad Dabral    | Life Cycle Assessment of a Single-Step Hydro-Processed Drop-In Sustainable Aviation Fuel Produced from Used Cooking Oil  | Oral/Poster* |
| 128 | RCEN-031 | Bijoy Biswas                | Potassium carbonate base assist catalytic hydrothermal liquefaction of rice straw: Effects of process parameters on products yield and characterizations   | Poster       |
| 129 | RCEN-033 | NGOMADE LEMOUI SERGES BRUNO | Optimization at the pilot scale of enhanced biodiesel production from high FFA Podocarpus falcatus oil through simultaneous transesterification and esterification with zirconia-supported ZSM-5 | Poster       |
| 130 | RCEN-034 | PATEL P ASHOK               | Bioprospecting of novel thermophilic amylase-producing microorganism   | Poster       |
| 131 | RCEN-035 | Preetanshika Tracy          | Integrated microbe-based biorefinery for dual valorization of biomass and UCO into xylitol and lipase  | Oral/Poster* |
| 132 | RCEN-037 | Sakshi Manekar              | Optimization of catalyst composition and process parameters for reductive depolymerization of lignin to produce aromatics.   | Oral/Poster* |
| 133 | RCEN-038 | Ekta Naik                   | Application of Response Surface methodology in the development of Eco-friendly biolubricants from Brassica carinata oil and its characterization   | Poster       |
| 134 | RCEN-039 | Dr M Vimudha                | Multi-layered cellulosic material from renewable resources for sustainable footwear applications   | Oral/Poster* |
| 135 | RCEN-041 | Janaki Komandur             | Catalytic hydrodeoxygenation of bio-oil produced from co-pyrolysis of biomass and plastic waste  | Oral/Poster* |
| 136 | RCEN-042 | SADHNA SEMALTY              | CATALYTIC SYNTHESIS OF SULFUR-BASED POLYMER VIA INVERSE VULCANIZATION METHOD   | Poster       |
| 137 | RCEN-043 | Karan Sharma                | Oxidative Desulfurization of Fuels using Deep Eutectic Solvents  | Poster       |
| 138 | RCEN-045 | Kirtika Kohli               | Eco-Friendly Sanitary Napkins from Invasive Biomass  | Poster       |

\*: Decision to oral or poster presentation will be communicated by 28<sup>th</sup> March