



International Conference on Shaping the Energy Future: Challenges & Opportunities (SEFCO-2025)

CSIR - Indian Institute of Petroleum, Dehradun, Uttarakhand, India

Technical Program (Tentative)



23.04.2025, Wednesday (Day I)						
Registration (08:30 Onwards)						
Inauguration Program (9:30 - 10:55)						
High Tea (10:55 - 11:30)						
Technical Session-I: Carbon Capture, Conversion, and Storage (11:30 - 13:00)						
11:30	PT-01	Prof. Paul A Webley, Monash University, Australia <i>Carbon Reuse and Recycling – Advances and Challenges in Developing a Circular Carbon Economy</i>				
12:00	KT-01	Prof. Sasidhar Gumma, Indian Institute of Technology, Tirupati <i>Reference State for Adsorption Thermodynamics</i>				
12:25	KT-02	Dr. Richard Blom, SINTEF Industry, Norway <i>Solid-Adsorbent Based CO₂ Capture Processes: Challenges and Opportunities</i>				
12:50	Felicitation					
Lunch (13:00 - 13:50)						
Technical Session-IIa: Renewable Chemicals and Energy			Technical Session-IIb: Carbon Capture, Conversion, and Storage			
13:50	IT-01	Dr. Shubhangi B. Umbarkar, CSIR-National Chemical Laboratory, Pune <i>Green Catalytic Delignification Process for Microcrystalline Cellulose from Sugarcane bagasse</i>		13:50	IT-03	Dr. Nimisha Vedanti, CSIR-National Geophysical Research Institute, Hyderabad <i>Unlocking Geological Carbon Storage: Scope and Challenges in India</i>
14:10	IT-02	Dr. Kamalakannan Kailasam, Institute of Nano Science and Technology, Mohali <i>Biomass based Photo-refinery: A Light(er) Approach for Sustainable Solar Fuels</i>		14:10	IT-04	Dr. Gulzar A. Bhat, University of Kashmir, Srinagar, J&K <i>From Waste to Value: CO₂-Based Aliphatic Polycarbonates and Their Functionalization for Advanced Applications</i>
14:30	CT-01	RCEN-001		14:30	CT-06	CCCS-005
14:40	CT-02	RCEN-003		14:40	CT-07	CCCS-018
14:50	CT-03	RCEN-008		14:50	CT-08	CCCS-025
13:00	CT-04	RCEN-025		13:00	CT-09	CCCS-030
15:10	CT-05	RCEN-035		15:10	CT-10	CCCS-040
15:20	Felicitation		15:20	Felicitation		
Poster Session I (RCEN + CCCS + CSIO Themes) + Tea (15:25 - 16:40)						
Technical Session-III: Crude Oil & Coal: Exploring Innovations & Opportunities (16:40 - 18:05)						
16:40	KT-03	Dr. Manoj Srivastava, CSIR-Indian Institute of Petroleum, Dehradun <i>CSIR-IIP's Technologies Commercialization Journey to Hydrocarbon Industry: Few Case Studies</i>				
17:05	KT-04	Dr. Pankaj K Jain, IndianOil Total Pvt. Ltd, Mumbai <i>India Bitumen and Derivatives Market: Trends, Opportunities, and Future Outlook</i>				
17:30	KT-05	Dr. Prakash D. Chavan, CSIR-CIMFR, Dhanbad <i>Indian Coal Biomass Gasification: Challenges and R&D Aspects</i>				
17:55	Felicitation					
Evening Tea Break (18:05 - 18:30)						
Cultural Programme (18:30 - 19:45)						
Dinner (19:45 - 21:15)						



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24.04.2025, Thursday (Day II)

Breakfast (08:30 - 09:30)

Technical Session IV: Energy Transition, Energy Efficient Practices and Future Mobility (9:30 - 10:55)

09:30	KT-06	Prof. Saptarshi Basu, Indian Institute of Science, Bangalore <i>Combustion at Extreme Conditions: New paradigms</i>
09:55	KT-07	Prof. Narayan Pradhan, Indian Association For The Cultivation Of Science, Kolkata <i>Lead Halide Perovskites: The Bright Nanocrystal Emitters</i>
10:20	KT-08	Prof. Eric van Steen, University of Cape Town, South Africa <i>Sustainable Liquid Fuels as a Renewable Energy Source</i>
10:45	Felicitation	

Tea (10:55 - 11:15)

Technical Session Va: Energy Transition, Energy Efficient Practices & Future Mobility

Technical Session Vb: Renewable Chemicals & Energy/Carbon Capture, Conversion & Storage

11:15	IT-05	Prof. Tharamani C Nagaiah, Indian Institute of Technology, Ropar <i>Efficient Economical Energy Harvesting from Plastic and Electronic Wastes Using Human Bodily Motions</i>	11:15	IT-07	Dr. Amol Amrute, Agency for Science, Technology & Research (A*STAR) Singapore <i>Mechanochemical Approach for Greener Synthesis Catalysts and Conversion of CO₂ and Plastic to Chemicals</i>
11:35	IT-06	Dr. Bikash Kumar Jena, CSIR-Institute of Minerals and Materials Technology, Bhubaneswar <i>Materials for Efficient Energy Storage Systems</i>	11:35	IT-08	Prof. Diganta Sarma, Dibrugarh University, Dibrugarh <i>Ionic Liquids Based Catalysis for the Green and Affordable Synthesis of Medicinally Important Scaffolds</i>
11:55	CT-11	EEEE-002	11:55	CT-18	RCEN-039
12:05	CT-12	EEEE-009	12:05	CT-19	RCEN-0XX
12:15	CT-13	EEEE-011	12:15	CT-20	RCEN-0XX
12:25	CT-14	EEEE-023	12:25	CT-21	CCCS-038
12:35	CT-15	EEEE-031	12:35	CT-22	CCCS-042
12:45	CT-16	EEEE-035	12:45	CT-23	CCCS-0XX
12:55	CT-17	EEEE-0XX	12:55	CT-24	CCCS-0XX
13:05	Felicitation		13:05	Felicitation	

Lunch (13:10 - 14:00)

Technical Session VI: Catalyzing Sustainable Future with Affordable Energy & Chemicals (14:00 – 15:25)

14:00	KT-09	Prof. Samira Siahrostami, Simon Fraser University, Canada Title: Yet to be received
14:25	KT-10	Bharat L. Newalkar, R&D Centre, Bharat Petroleum Corporation Limited, Greater Noida <i>Exploring Alternate Pathways for India Centric Decentralized Green Hydrogen Production</i>
14:50	KT-11	Prof. Jitendra Sangwai, Indian Institute of Technology Madras, Chennai <i>Subsurface Reservoir: Role in Sustainable Energy Futures to Climate Resilience</i>
15:15	Felicitation	

Poster Session II (HPSE+RCEN) + Tea (15:25 - 16:40)

Panel Discussion: How to Fill India's Energy Basket by 2047 (16:40 – 17:50)

Evening Tea Break (17:50 - 18:30)

Departure for Gala Dinner (18:30)

Gala Dinner (19:15 - 21:30)



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25.04.2025, Friday (Day III)

Breakfast (08:30 – 9:30)

Technical Session VII: Renewable Chemicals and Energy (9:30 – 11:25)

09:30	PT-02	Prof. Keiichi Tomishige, Tohoku University, Japan <i>Heterogeneous Catalysis of C-O Hydrogenolysis and H₂-Driven Deoxydehydration for the Synthesis of Biomass-Derived Chemicals</i>
10:00	KT-12	Sh. Rajesh Agrawal, Centre for High Technology, Noida <i>Policy Push for Biofuels</i>
10:25	KT-13	Prof. Sunil K Maity, Indian institute of Technology, Hyderabad <i>Sustainable Aviation Fuel from Furanic Derivatives Using Heterogeneous Catalysts</i>
10:50	KT-14	Dr. A Venugopal, CSIR – Indian Institute of Chemical Technology, Hyderabad <i>Hydrogen Production through Catalytic Cracking of Methane: Solid Metals vs Molten Metals</i>
11:15	Felicitation	

Tea (11:25 - 11:45)

Technical Session VIIIa: Crude Oil & Coal: Exploring Innovations and Opportunities

Technical Session VIIIb: (Energy/Sustainable Resources/ Hydrogen Production, Storage & End-Use)

11:45	IT-09	Dr. R. Ravishankar, Hindustan Petroleum Green R&D Center, HPCL, Bangalore <i>Innovative Chemical Solutions for Petroleum and Petrochemical Applications: Atmanirbhar Initiatives by HPCL Green R&D Centre</i>	11:45	IT-11	Sh. Ishan Purohit, International Finance Corporation, World Bank Group, Delhi <i>Grid-Scale Battery Energy Storage Systems (BESS) Projects in India: Essential Requirement to Address Energy Transition</i>
12:05	IT-10	Sh. Himanshu Sharma, Engineers India Limited, New Delhi <i>Effect of Carbon Emissions on Configuration of Integrated Refinery Petrochemical Complex</i>	12:05	IT-12	Prof. Surendra S Suthar, Doon University, Dehradun <i>Yet to be Received</i>
12:25	CT-25	CCIO-001	12:25	CT-32	HPSE-006
12:35	CT-26	CCIO-002	12:35	CT-33	HPSE-008
12:45	CT-27	CCIO-010	12:45	CT-34	HPSE-015
12:55	CT-28	CCIO-011	12:55	CT-35	HPSE-032
13:05	CT-29	CCIO-0XX	13:05	CT-36	HPSE-033
13:15	CT-30	CCIO-0XX	13:15	CT-37	HPSE-034
13:25	CT-31	CCIO-0XX	13:25	CT-38	HPSE-0XX
13:35	Felicitation		13:35	Felicitation	

Valedictory Session (13:40 – 13:55)

13:40	KT-10	Initiation
13:45	KT-11	Prize distribution
13:55	KT-12	Vote of thanks

Lunch (14:00 – 15:00)

CCCS: Carbon Capture, Conversion, and Storage

CCIO: Crude Oil & Coal: Exploring Innovations and Opportunities

EEEF: Energy Transition, Energy Efficient Practices and Future Mobility

HPSE: Hydrogen Production, Storage & End-Use

RCEN: Renewable Chemicals and Energy

PT: Plenary Talk (30 Minutes)

KT: Keynote Talk (25 Minutes)

IT: Invited Talk (20 Minutes)

CT: Contributory/Oral Talk (10 Minutes)

Detail list of contributory/oral talks and posters along with their abstract ID and session assignment is timely updated on the SEFCO-2025 webpage