DAY-2
Saturday, 11 October 2025

Venue	DEV & VARDHANA GOSWAMI LECTURE COMPLEX, IIT BHU VARANASI				Venue
08:00-09:00	Registration and Breakfast				08:00-09:00
	Venue: Conference Hall 1				
9:00-9:45	Plenary Talk 3: Prof. K. K. Pant, Director IIT Roorkee Clean Hydrogen Production from Biomass and MSW via Gasification				9:00-9:45
9:45-10:30	Plenary Talk 4: Prof. Neeraj Rai, Mississippi State University, USA				9:45-10:30
Venue	Conference Hall 2		Conference Hall 3		Venue
10:40-13:30	Session 5: Hydrogen Production		Session 6: Waste to Energy		10:40-13:30
	Speaker	Title	Speaker	Title	
10:40-11:05	**Mr. Sushil Kumar Singh** (Chairman, Deendayal Port Authority) **(Keynote)**	Role of Ports as Hubs for Green Hydrogen production, export, and bunkering, and their contribution to the National Green Hydrogen Mission	**Dr. Sunil Dhole** (JNK Chemdist Tech. Pune) **(Keynote)**	Decarbonizing the Chemical Industry Through Innovative Alternatives in Green Hydrogen Production	10:40-11:05
11:05-11:30	**Dr. Lingaiah Nakka** (IICT, Hyderabad) **(Keynote)**	Bi-metallic Catalytic Systems for Hydrogen rich Syngas Production via Bi-reforming of Methane	**Prof. Vimal Chandra Srivastava** (IIT Roorkee) **(Keynote)**	Waste to energy	11:05-11:30

11:30 -11:55	**Prof. Sebastian Peter** (JNCASR, Bangalore) **(Keynote)**	Advanced Materials for Hydrogen Generation: From Water Recycling to Scalable Technologies	**Prof. Tarak Mondal** (IIT Ropar) **(Invited)**	A Sustainable Route for the Production of Hydrogen from Agricultural Residue	**11:30-11:50**
11:55-12:05	**Prof. Taraknath Das** (IIT Roorkee)	Dry Reforming of Methane for the syngas production using supported Ni-catalyst: Catalyst regeneration and MW-cnts Separation	**Prof. Asma Iqbal** (NIT Srinagar)	Valorizing Non-Recyclable Waste to Energy using Downdraft Gasifier	**11:50-12:00**
12:05-12:15	**Prof. Vandana Meena** (NIT Kurukshetra)	Sillã©n-Type babio2x (X = Cl, Br) Oxyhalides as Promising Photocatalysts for Sustainable Hydrogen Generation and Environmental Remediation	**Prof. Minal Prashant Deshmukh** (MIT WPU, Pune)	An Eco-Friendly Solution for Bioethanol Production from Microalgae with Optimized Process Parameters and Emission Characteristics	**12:00-12:10**
12:15-12:25	**Dr. Deepak Chandra Sau** (CSIR-National Metallurgical Laboratory)	Development of a Process for Production of Hydrogen from Iron Oxide Waste Fines (wustite)	**Prof. Siva Mohan Reddy Narapureddy** (IIT Roorkee)	In-situ hydrogen production and battery electrode materials from metal effluent and biomass	**12:10-12:20**
12:25-12:35	**Rinkoo bhabal** (CHRIST University, Bangalore)	Bimetallic CoNi-MOF-derived electrocatalyst for green hydrogen production by urea electrolysis in wastewater	**Prof. Jyoti Prasad Chakraborty** (IIT BHU)	Pyrolysis of Biomass	**12:20-12:30**
12:35-12:45	**Sri Himaja Pamu** (BITS Pilani)	Harnessing Sunlight for Photocatalytic Hydrogen Evolution via Band-	**Dr. Apoorv Verma** (Kaunas University of Technology),	Insights from lab-scale experiment and numerical simulation to investigate the	**12:30-12:40**

		Engineered lanio3-lavo4 Heterostructures	Lithuania	hydrogen flow behaviour during underground storage	
12:45-12:55	**Lomas Rishi** (IIT Jammu)	Methane Decomposition over FeCo/Al_2O_3: Catalyst and Reaction Conditions Optimization	**Pankaj Parmar** (IIT Kharagpur)	Thermochemical Conversion of Biomass Waste to Energy: Product Yield, Characterization, and Optimization in Pyrolysis Systems	**12:40-12:50**
12:55-13:05	**Abhishek Anand** (IIT BHU)	Role of CeO_2–YSZ Intermediate Layers in Improving Hydrogen Permeance of Palladium Membranes on Porous α-Al_2O_3 Supports	**Mrinmoy Kumar Sarmah** (IIT Guwahati)	Experimental Investigation of Syngas Production in A 25 kw Dual Fluidized Bed Gasifier (DFBG)	**12:50-13:00**
			Dr. Sindhu S (Amrita Vishwa Vidyapeetham)	Pyrolysis Kinetics Study of Lignocellulosic Biomasses	**13:00-13:10**
13:05-14:00	**Lunch Break**				**13:10-14:00**
Venue	**Conference Hall 2**		**Venue: Conference Hall 3**		**Venue**
	Session 7: Hydrogen Storage		**Session 8: CO_2 Capture**		
	Speaker	**Title**	**Speaker**	**Title**	
14:00-14:25	**Prof. Pratibha Sharma** (IIT Bombay) **(Keynote)**	Metal Hydride Based Hydrogen Storage	**Prof. Saroj Kumar Nayak** (IIT Bhubaneshwar) **(Keynote)**	Advanced Functional Materials for Energy Transition	**14:00-14:25**
14:25-14:50	**Prof. Jitendra Sangwai** (IIT Madras) **(Keynote)**	Underground Hydrogen Storage	**Prof. Swapna Rabha** (IIT Madras) **(Keynote)**	CO_2 Capture: Challenges, Advances and Future opportunity	**14:25-14:50**

14:50-15:10	**Prof. Sushant Kumar** (IIT Patna) **(Invited)**	Ammonia Synthesis Under Mild Reaction Conditions: A Way to Make Hydrogen Storage and Transportation More Economic and Realistic	**Prof. Himanshu Goyal** (IIT Madras) **(Invited)**	Modelling of Joule heated reactors: Applications in H_2 production and CO_2 capture	**14:50-15:10**
15:10-15:20	**Prof. Subrata Panda** (IIT BHU)	Effect of Pressure Compaction on Microstructural Evolutions and Hydrogen Storage Properties of Magnesium Powders	**Manvendra Kumar** (Defence Institute of Advanced Technology, Pune)	PLIF-Based Diagnostics of CO_2 and CF_4 Suppression Mechanisms in Hydrogen–Methane Flames	**15:10-15:20**
15:20-15:30	**Prof. Sumeet Kumar Dubey** (UPES Dehradun)	Unveiling the PCI Characteristics of Mg-Ni Alloy: A Step Towards Efficient H2 Storage	**Saswata Dhar** (Defence Institute of Advanced Technology)	Collective Suppression Effect of Hydrogen-Air Mixture with CO_2 and Propene	**15:20-15:30**
15:30-15:40	**Chaithanya Purushottam Bhat** (BITS Pilani)	Ti-Functionalized Newly Modelled Penta-Hexa-Deca Graphene as a Promising Hydrogen Storage Material: A First-Principles Study	**Abhimanyu Singh Khichi** (IIT Madras)	A Comprehensive Investigation of CO_2 Absorption and Desorption Performance Using Novel Amine Solvents	**15:30-15:40**
15:40-15:50	**Digvijay Kumar Gupta** (IIT Guwahati)	Hydrogen Storage Potential and Technical Analysis of Salt Caverns of India	**Praveen Kumaar R** (IIT Madras)	Evaluating the Absorption performance and Degradation Behavior of MEA in Cyclic Post-Combustion CO_2 Capture	**15:40-15:50**
15:50-16:00	**Gaurav Arora** (IIT Delhi)	Modelling the Effect of Process Variables on Hydrogen Uptake and Release in a Metal Hydride Storage System	**Athira V B** (National Chemical Laboratory- NCL Pune)	Optimization of porous support and fabrication of thin film composite (TFC) membrane for CO2 gas separation in simulated flue gas conditions	**15:50-16:00**

16:00-16:10	**Dr. Shyam Sunder Rao** (IIT BHU)	Study the direct synthesis of methanol from the natural gas over ZSM-5 catalyst under mild reaction conditions	**Ishita mandal** (Indian Institute of Petroleum and Energy)	Design of plate-type heat exchangers for absorption-based carbon capture plants for Indian power plants	**16:00-16:10**
16:00-16:30	**High Tea/ Poster Session**				**16:10-16:30**
	Venue: Conference Hall 1				
16:30-17:30	**Pannel Discussion**				**16:30-17:30**
17:30-19:00	**Poster Session**				**18:00-19:00**
19:00-22:00	**GALA Dinner**				**22:00**