## CONFERENCE PROGRAM 10<sup>th</sup> International Hydrogen and Fuel Cell Conference (IHFC-2023) December 3<sup>rd</sup>-5<sup>th</sup> Dec, 2023 Hotel Ramada, Varanasi, India

Sunday, 3 <sup>rd</sup> December 2023		
11:00 – 16:00 Hrs.	Registration	
16:00 – 17:30 Hrs.	Inaugural Session Welcome Address: Dr. R K Malhotra President, Hydrogen Association of India (HAI) Adjunct Professor of Practice (APOP), Indian Institute of Technology Delhi Former Director General, Federation of Indian Petroleum Industry (FIPI) Former Chairman, Indian Oil Corporation Limited Theme Address Prof. K K Pant Director, Indian Institute of Technology Roorkee MOU Signing – (i) HAI & GH2 (ii) HAI & GH2 (ii) HAI & JH2A Inaugural Address Dr. V K Saraswat Member, NITI Aayog, (National Institution for Transforming India), GoI Former Director General, Defence Research and Development Organization Former Chief Scientific Advisor to the Indian Minister of Defence Vote of Thanks Shri Alok Sharma Conference Chair, 10 <sup>th</sup> IHFC and Treasurer HAI, Executive Director, Centre for High Technology, MoP&NG, Government of India	
17:30-18:00 Hrs	Tea Break	
18:00-19:15 Hrs.	<ul> <li>CEOs/ Leadership Panel: Moving towards Hydrogen Economy</li> <li>Session Moderator : Dr R K Malhotra President, Hydrogen Association of India</li> <li>Mr. R K Singhal, Director (Business Development), GAIL (India) Limited</li> <li>Mr. S Bharathan, Director (Refineries), Hindustan Petroleum Corp. Ltd.</li> <li>Mr. Sanjay Khanna, Director (Refineries), Bharat Petroleum Corp. Ltd.</li> <li>Mr. Rajiv Agarwal, Director (Technical), Engineers India Limited</li> <li>Dr. Eiji Ohira, New Energy Development Organization, Japan</li> <li>Mr. Rajesh Kohli, Executive Director, Bharat Heavy Electrical Limited</li> </ul>	
19:30 Onwards	Networking Dinner	

Monday, 4 <sup>th</sup> December 2023		
07:30 – 08:30 Hrs.	Registration	
08:30 – 09:30 Hrs.	<ul> <li>Panel – I: Hydrogen Production – Grey, Blue to Green</li> <li>Moderator &amp; Chair: Sh. Alok Sharma, Executive Director, CHT, MoP&amp;NG, GoI</li> <li>1. Mr. Sumitro Chakraborti, Ankur Scientific Energy Technologies Pvt. Ltd.</li> <li>2. Mr. Sanjiv Ratan, Zone Flow Reactor Technologies, USA</li> <li>3. Prof. S Dasappa, IISc Bangalore</li> <li>4. Mr. Nishaanth Balashanmugam, Green Hydrogen Organisation (GH2)</li> <li>5. Mr. Utkarsh Mehta, ACME Cleantech Solutions Private Limited</li> <li>6. Mr. T S Venkataraman, Esvin Advanced Technologies Limited</li> <li>7. Mr. Ravi, ONGC Energy Centre</li> </ul>	
09:30 – 09:45 Hrs.	Q&A / Interaction with Audience	
09:45 – 10:15 Hrs.	Tea Break	
10:15 – 11:15 Hrs.	<ul> <li>Panel-II: Hydrogen – Storage, Supply &amp; Distribution and Infrastructure</li> <li>Session Moderator: Sh. Bharat Newalkar, Bharat Petroleum Corporation Ltd.</li> <li>1. Mr. Savir Julka, Director, INOX INDIA LIMITED</li> <li>2. Mr. Sandeep Bhasin, Uttam Cylinders Pvt. Ltd.</li> <li>3. Dr. Sumanth Addagarla, Virayaa Green Energy</li> <li>4. Mr. Rama Subramanian, High Energy Batteries</li> <li>5. Mr. Shishir Agarwal, Shigan Nexgen Technologies LLP</li> <li>6. Dr. Renny A M, Bharat Petroleum Corporation Limited</li> </ul>	
11:15 – 11:30 Hrs.	Q&A / Interaction with Audience	
11:30 – 12:30 Hrs.	<ul> <li>Panel III: Hydrogen Applications – Fuel Cell &amp; H2IC</li> <li>Moderator &amp; Chair: Sh. K K Gandhi, Secretary, Hydrogen Association of India</li> <li>1. Mr. Kazuki Yamamura, Japan Hydrogen Association (JH2A)</li> <li>2. Mr. Sudhir Pathak, Hero Future Energies</li> <li>3. Dr. Anuradda Ganesh, Cummins India Limited</li> <li>4. Mr. Siddarth Mayur, h2e Power Systems Pvt. Ltd.</li> <li>5. Mr. R T Desai, Horiba India</li> <li>6. Mr. Vipul Shah, Bosch Limited</li> <li>7. Mr. Sachin Chugh, IndianOil R&amp;D Centre</li> </ul>	
12:30 – 12:45 Hrs.	Q&A / Interaction with Audience	
12:45– 13:30 Hrs.	LUNCH	
13:30 – 14:30 Hrs.	<ul> <li>Panel IV: Safety Regulatory and Policy Issues to promote H2 Economy</li> <li>Moderator &amp; Chair: Sh. J P Gupta, MD, Greenstat Hydrogen India Pvt Ltd.</li> <li>1. Mr. V K Mishra, PESO, Government of India</li> <li>2. Mr. George Anthony, Bosch Limited</li> <li>3. Mr. Vinayak Marathe, Phillip Townsend Associates, Inc.</li> <li>4. Mr. P K Banerjee, Society of Indian Automotive Manufacturers</li> <li>5. Mr. N K Pande, Joint Director, OISD</li> <li>6. Mr. Makrand Lad, Volvo Group Trucks Technology</li> </ul>	
14:30 – 14:45 Hrs	Q&A / Interaction with Audience	
14:45 – 15:00 Hrs.	Tea Break	
15:00 – 16:00 Hrs.	Special Overseas Session: British High Commission	
16:15 Hrs.	Ganga Aarti on Cruise with High Tea for IHFC 2023 Participants*	

Tuesday, 5 <sup>th</sup> December 2023		
09:00 – 10:15 Hrs.	<ul> <li>Technical Session – I</li> <li>Chairperson: Sh. Debasis Bhattacharyya, Executive Director, IndianOil</li> <li>Oral Presentations: <ol> <li>Mr. Sanjiv Ratan, ZoneFlow Reactor Technologies, LLC</li> <li>Mr. K C Vora, Professor Emeritus, COEP</li> <li>Dr. S Mishra, ICT Bhubaneshwar</li> <li>Dr. Bharati Panigrahy, HP Green R&amp;D</li> <li>Prof. Subrata Panda, Indian Institute of Technology BHU</li> <li>Mr. Sunil Gage, HORIBA India</li> </ol> </li> </ul>	
10:15 – 10:45 Hrs.	Tea Break	
10:45 – 12:15 Hrs.	<ul> <li>Technical Session – II</li> <li>Chairperson: Sh. Debasis Bhattacharyya, Executive Director, IndianOil</li> <li>Oral Presentations: <ol> <li>Ms. Priyanka Sahasrabudhe, Ador Powertron</li> <li>Mr. Vinayak Marathe, Phillips Townsends Associates Inc.</li> <li>Mr. Ramachandra Gite, AVL India</li> <li>Mr. Navneet Bhatia, Universal Hydrogen</li> <li>Mr. Romesh Sharma, Nuberg Engineering</li> <li>Mr. Mohammed Idirish Ansari, VGE Systems</li> </ol> </li> </ul>	
12:15 – 1300 Hrs.	Closing Session Special Address Prize Distribution Vote of Thanks	
13:00 Hrs.	Lunch	

• For accompanying persons and spouse Rs.500/- to be deposited at registration counter and also take your Ganga Aarti Coupon



Panel	1. Performance comparison of Plate and Membrane Humidifier for Proton Exchange
Presentation	Membrane (PEM) Fuel Cell Stacks
with Display	P Venkata Varaha Mahadesh - Virayaa Green Energy Systems Pvt Ltd
	2. Long Duration GH2 Energy Storage
	Debashish Dutta, Bhabha Atomic Research Centre
	3. Hydrogen Jet Injection in Cross Flow Configuration
	Ankur Kumar and Anubhav Sinha, Indian Institute of Technology BHU
	4. PEM Water Electrolysis
	Debashish Dutta, Bhabha Atomic Research Centre
	5. Aqueous Phase Reforming of Methanol over Hydrotalcite Catalysts: A Novel
	Approach to Hydrogen Generation
	Meeta Sharma, Indian Oil Corporation Limited
	6. The disruption on the horizon: Green Hydrogen in India and its future
	Praseed Sahu – Gas Authority of India Limited (GAIL)
	7. Design, Development and Demonstration of Metal Hydride based Hydrogen
	Storage and Compression System through simulation and experimentation
	Rahul Garg - Bharat Petroleum Corporation Limited (BPCL)
	8. Performance Evaluation of High Temperature Polymer Electrolyte Membrane Fuel
	Cell
	M. Ashwin – Indian Institute of Technology Hyderabad (IITH)
	9. Analytical approach in favor of Fuel Cell Grade Hydrogen towards National Green
	Hydrogen Mission
	Dheer Singh, Indian Oil Corporation Limited, Research & Development Centre
	(IOC R&D Centre)
	10. Experimental study on effect of HCNG on the performance and emissions of an HD
	Gas Engine
	Sanjeev Kr. Singh, Indian Oil Corporation Limited, Research & Development
	Centre (IOC R&D Centre)
	11. Hydrogen Internal Combustion Engine (H2ICE) Activities at IndianOil: A Step
	Towards Decarburization
	Sauhard Singh, Indian Oil Corporation Limited, Research & Development
	Centre (IOC R&D Centre)
	12. Futuristic Green Hydrogen from Biomass: Review of Advanced Technology &
	Catalysis
	Dr. Ritesh Mittal, Engineers India Limited
	13. Pilot scale biohydrogen production from 1st and next generation feed: Co-
	production of high value biomolecules in a biorefinery approach
	Dr. Sanjukta Subudhi, The Energy and Resources Institute (TERI)