
**2023 International Conference on
Carbon Neutral Technology for Sustainable Development
&
2023 Taiwan-India Exchange Workshop on
Sustainable Renewable Energy and Smart Energy Storage Technology**
organized by
Indian Institute of Technology Delhi
in association with
National Science and Technology Council (NSTC), Taiwan
and
Energy Storage Platform on Batteries (ESPOB), DST-IIT Delhi
Venue: Seminar Hall, IIT Delhi
Dates: September 4-6, 2023

Schedule of the Program

Day 0: Monday, September 4th, 2023

Social Interaction cum Networking Session and welcome dinner (18:30-20:30)
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Day 1: Tuesday, September 5th, 2023

Arrival (08:30-09:00)		
TIME	SESSION	RESOURCE PERSONS
9:00-9:45	Registration	Volunteers
10:00-10:25	INAUGURAL SESSION Welcome address and about the event: Prof. Rajendra S. Dhaka, IIT Delhi Address by Prof. Rangan Banerjee, Director IIT Delhi Address by Ambassador Baushuan Ger, Taipei Economic & Cultural Center, India Address by Prof. James Gomes, Dean International, IIT Delhi Vote of thanks Prof. Chyi How Lay, Taiwan	
Time	Topic of Presentation	Name & Affiliation of Speaker
Keynote-1 10:25-10:50	Inaugural lecture	Rangan Banerjee, IIT Delhi, India

Invited-1 10:50-11:10	Progress of Indo-Taiwan Joint projects in Taiwan	C. T. Wang, Taipei Economic & Cultural Center, India
GROUP PHOTO and TEA BREAK and POSTER SESSION (11:10-11:40)		
TECHNICAL SESSION - 1: 11:40-13:00 Session Theme: Carbon Neutral & Environmental, Energy Materials Session Chair:		
Time	Topic of Presentation	Name & Affiliation of Speaker
Keynote-2 11:40 - 12:10	BAT-CAP Hybrid Energy Storage Materials	Subhasish Basu Majumder, IIT Kharagpur, India
Keynote-3 12:10 - 12:40	Big Success: Biomass gasification with Super-critical cycle for energy supply system	Shu-San Hsiau National Central University, Taiwan (online)
Invited-2 12:40-13:00	Environmental and Electrochemical Stability of 'Layered' Na- Transition Metal Oxide based Cathode Materials for Na-ion Batteries	Amartya Mukhopadhyay, IIT Bombay, India
NETWORKING and LUNCH BREAK (13:00-14:00)		
TECHNICAL SESSION-2: 14:00-16:10 Session Theme: Carbon Neutral & Environmental, Energy Storage Session Chair:		
Time	Topic of Presentation	Name & Affiliation of Speaker
Keynote-4 14:00-14:30	Fuel cells and electrolytic cells development in NCU	Chung-Jen Tseng National Central University, Taiwan (online)
Invited-3 14:30-14:50	Development of Metal-CO ₂ Battery: A New Strategy for a Sustainable Future	C. S. Sharma, IIT Hyderabad, India
Invited-4 14:50-15:10	In-silico study of potential electrode materials for rechargeable batteries	Priya Johari, Shiv Nadar University, India
Invited-5 15:10-15:30	Engineering the Interfaces for Integrated CO ₂ Capture and Utilization using Electrochemical Conversion	Pravin P Ingole, IIT Delhi, India
Invited-6 15:30-15:50		Anil Verma, IIT Delhi, India
Keynote-5 15:50-16:20	Emerging Energy Generation and Storage Technologies: The Path to Net-Zero Emissions	Tapas Kuila CSIR-CMERI Durgapur, India
TEA BREAK and POSTER SESSION (16:20-17:00)		

TECHNICAL SESSION-3: 17:00-19:10 Session Theme: Hydrogen production & utilization, Energy Storage, Carbon Neutral Session Chair: Amit Gupta, IIT Delhi		
Time	Topic of Presentation	Name & Affiliation of Speaker
Keynote-6 17:00-17:30	Hydrogen Production in 3D-Printed Micro Electrolyzer	Suddhasatwa Basu, IIT Delhi, India
Invited-7 17:30-17:50	Circular Economy Site Location for Reusable Cup Machine	Siu-Hang Godwin Chan, Feng Chia University, Taiwan
Invited-8 17:50-18:10	Greening of Chemicals Manufacture & Transition to a Sustainable, Carbon Neutral Economy	Priyanka Bajaj, NIPER Hyderabad, India
Invited-9 18:10-18:30	Design and Development of Solid State Batteries	Yogesh Sharma, IIT Roorkee, India
Invited-10 18:30-18:50	Rapid Green Analytical Technologies for environmental analysis	V. K. Ponnusamy, Kaohsiung Medical University, Taiwan
Invited-11 18:50-19:10	Smart Observer for Protecting Labour Rights: AI-based Distant Water Fishermen Work Hour Estimation	Pao-Ann Hsiung, National Chung Cheng University, Taiwan (Online)
CONFERENCE DINNER (19:10-21:00)		

Day 2: Wednesday, September 6th, 2023

TECHNICAL SESSION-4: 09:30-11:00 Session Theme: Renewable Energy and Storage Technology Chair:		
Time	Topic of Presentation	Name & Affiliation of Speaker
Keynote-7 09:30-10:00	Aqueous Rechargeable Batteries	A. J. Bhattacharyya, IISc Bangalore, India
Invited-12 10:00-10:20	Towards a Net Zero Emissions for the Philippines	Alvin B. Culaba, De La Salle University Manila, Philippines (Online)
Invited-13 10:20-10:40	Strategies to Stabilize the Sodium metal anode for High-energy Room-temperature Sodium-Sulfur Batteries	Vipin Kumar, IIT Delhi, India
Invited-14 10:40-11:00	Dual-Duty Innovation: Two-Dimensional Aluminum Anodes for Metal Ion Batteries and Promising Prospects for Hydrogen Storage	Nirat Ray, IIT Delhi, India
TEA BREAK and POSTER SESSION (11:00-11:30)		

TECHNICAL SESSION-5: 11:30-13:00 Session Theme: Green Energy and New Generation of Energy Storage Technology Session Chair:		
Time	Topic of Presentation	Name & Affiliation of Speaker
Keynote-8 11:30-12:00	Porous Carbon Electrodes for High Energy Density Quasi-solid-state Flexible Supercapacitors	S. A. Hasmi, Delhi University, India
Invited-15 12:00-12:20	Designing greener energy conversion system for a sustainable future	C. N. Tharamani, IIT Ropar, India
Invited-16 12:20-12:40	Bio-coal and carbon reduction potential in electricity sector	Priyanka Kaushal, IIT Delhi, India
Invited-17 12:40-13:00	Sustainable electrode materials for high performance Lithium-Sulfur batteries	Bhanu Nandan, IIT Delhi, India
NETWORKING and LUNCH BREAK (13:00-14:00)		
TECHNICAL SESSION-6: 14:00-16:00 Session Theme: New Venture Experiment Sharing, Carbon Neutral and Environmental Sustainability Session Chair:		
Time	Topic of Presentation	Name & Affiliation of Speaker
Keynote-9 14:00-14:30	Lignocellulosic Biomass derived carbons for sustainable and carbon neutral applications	Thallada Bhaskar CSIR-Indian Institute of Petroleum Dehradun, India
Invited-18 14:30-14:50	Taiwan Green Energy Industry and Energy Taiwan Exhibition Introduction	Steven Chien Chun Liu Taipei World Trade Center, New Delhi, India
Invited-19 14:50-15:00	The applications of polymer technology in renewable energy industry	Hengchia Kuo, Plastics Industry Development Center, Taiwan (Online)
Invited-20 15:00-15:20	Limitations and Possibilities of Hydrogen Gas as a Prolific Source of Energy	R. N. Malik, Haryana State, India
Invited-21 15:20-15:30	Case Studies of Fuel Cells in Various Application Scenarios	Ray Lin, Eco-Energy Technology Co. Ltd., Taiwan (Online)
Invited-22 15:30-15:50	Smart Factory and Carbon Neutrality	Jason Ho, Taisys Technologies Co. Ltd., Taiwan
Invited-23 15:50-16:00	Tata Steel's tryst with sustainable development	Mriganshu Guha, Tata Steel India, India
TEA BREAK and POSTER SESSION (16:00-16:30)		

TECHNICAL SESSION-7: 16:30-17:40 Session Theme: Carbon Neutral and Environmental Sustainability, Projects Session Chair:		
Keynote-10 16:30-17:00	Non-conventional Plastic Research cum Management for Environmental sustainability	Vimal Katiyar, IIT Guwahati, India
Invited-24 17:00-17:20		Name suggested by Dr (Mrs) Rama Swami Bansal
Invited-25 17:20-17:40	Progress of Indo-Taiwan Joint project in India	Rajiv Kumar Department of Science & Technology (DST), India
CONCLUDING SESSION (17:40-18:00)		
DEPARTURE (18:00)		

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