

Schedule (Venue: Outreach Center, Noida)

January 18, 2024		
Event	Time	Details
Welcome Drink	19:30-21:30	Outreach Dining
January 19, 2024 (Day 1)		
Event	Time	Details
Breakfast	07:30-09:00	Outreach Dining
Registration Venue: Outreach Center	08:30-09:15	Welcome Tea & Registration
Inauguration Venue: Auditorium	09:15-09:45	Inaugural Session
Inaugural Talk Venue: Auditorium	09:45-10:15	Multiphase Flows: Dynamics of Vapor Bubbles in Various Regimes of Boiling with and without External Force Field Gautam Biswas
Tea break	10:15-10:45	Outreach Lawn
Session-1: Energy system modeling-1 Venue: Auditorium	10:45-11:15	Computational Combustion – Different Perspectives K. Kailasanath
	11:15-11:45	Turbulent Combustion Modelling of Hypersonic Combustion Sayak Banerjee
	11:45-12:15	Computational Modelling of Fuel cells and Electrolyzers: An Overview Steven Beale
Tea break	12:15-12:30	Outreach Lawn
Session-2: Energy storage and conversion Venue: Auditorium	12:30-13:00	Inverse Problems Related to the Energy Conservation in Buildings Julien Berger and Helcio R. B. Orlande
	13:00-13:30	Thermal Transport Phenomena in Electrochemical Energy Storage and Conversion Ankur Jain
Lunch	13:30-14:30	Outreach Dining
Session-3: Alternative Fuel Venue: Auditorium	14:30-15:00	Fuels and Chemicals from Biomass Sankar Bhattacharya
	15:00-15:30	Sustainable Future of Coal in Carbon Constrained World Rajender Gupta
	15:30-16:00	Innovative Smart Human Crematory for Sustainable Development Somrat Kerdsuwan
Tea break	16:00-16:30	Outreach Lawn
Session-4: Fuels and Combustion Venue: Auditorium	16:30-17:00	Reactivity Enhancement of Ammonia Fuel Blends R. Peter Lindstedt
	17:00-17:30	A big question!! Which fuel for future of aviation? Bhupendra Khandelwal
	17:30-18:00	Experimental Investigations of Hydrogen/LPG Flames in the 2 kW to 200 kW Range: Insights and Findings Saravanan Balusamy
Poster Presentation	18:00-19:00	Outreach Center Basement
Dinner	19:30-21:30	Outreach Dining

January 20, 2024 (Day 2)		
Event	Time	Details
Breakfast	07:30-09:00	Outreach Dining
Session-5-A: High-speed Propulsion Systems Venue: Auditorium	09:30-10:00	Emission Characteristics of Sustainable Aviation Fuel (SAF) in a model aircraft gas turbine combustor under Simulated In-Flight Conditions Keiichi Okai
	10:00-10:30	Design of Novel Optimal Multipoint Fuel Injection & Automation for Detonation Engine Applications Shivam, Subhash Chander & T K Jindal
	10:30-11:00	Role of CFD in the design of hydrocarbon fueled hypersonic air breathing vehicle Debasis Chakraborty
Session-5-B: Energy system modeling -2 Venue: Meeting Room	09:30-10:00	Numerical Investigation of Combustion Dynamics in Liquid Rocket Engines Abhishek Sharma
	10:00-10:30	Self-excited shear layer in a hypersonic flow S. K. Karthick
	10:30-11:00	Computational Study on the Effects of Alcohols on Gasoline Combustion and Soot Emissions Suresh K. Aggarwal
Tea break	11:00-11:30	Outreach Lawn
Session-6-A: Electrochemical Systems Venue: Auditorium	11:30-12:00	Catalytic methane combustion in lean conditions: heat and mass transfer properties in ceramic and metallic open foams Stefania Specchia
	12:00-12:30	Catalysis, Green Chemistry & Sustainability: Challenges & Opportunities Yun Hin Taufiq-Yap
	12:30-13:00	Electrospray technology for air pollution mitigation Bahni Ray
Session-6-B: Gas Turbine Combustion Venue: Meeting Room	11:30-12:00	Part Electric Gas Turbine - A Novel Open Architecture Heat Engine MSN Murthy, Sreedhara Sheshadri
	12:00-12:30	Development of Unconventional Low Emission Combustors for Gas Turbine Engines Vaibhav Kumar Arghode
	12:30-13:00	Understanding the Critical Events in Lean and Rich Fuel-Air Combustion Somnath De
Lunch	13:00-14:30	Outreach Dining
Session-7-A:	14:30-15:00	Hydro Turbine and Pump Performance Ryo Amano
	15:00-15:30	Design, Build, and Test an Archimedes Wind Turbine

Renewable Energy systems-1 Venue: Auditorium		Xiuling Wang, Joan Giner and Casie Cordova
	15:30-16:00	Digital Twin for Sustainability Azan M Parmar
Session-7-B: Renewable Energy systems-2 Venue: Meeting Room	14:30-15:00	CO2 recovery and H2 generation by perovskite solar-assisted looping Massimo Santarelli
	15:00-15:30	Silicon heterojunction solar cells' fabrication and characterization Vamsi Krishna Komarala
	15:30-16:00	Role of Green Hydrogen in Decarbonization of Hard-to-Abate Sectors Vijay Mudgal
Tea Break	16:00-16:30	Outreach Lawn
Session-8: CADFEM-ANSYS Technical session Venue: Auditorium	16:30-18:00	Simulation for sustainable development in energy and transportation sector: present and future Vignesh S M
Poster Presentation	18:00-19:00	Outreach Center Basement
Dinner	19:30-21:30	Outreach Dining

January 21, 2024 (Day 3)		
Event	Time	Details
Breakfast	07:30-09:00	Outreach Dining
Session-9-A: Two-phase systems-1 Venue: Auditorium	09:30-10:00	Use of biogas as a fuel for micro gas turbines Sudipto Mukhopadhyay
	10:00-10:30	Early Detection of Thermal Runaway of Li-ion Batteries Swarnendu Sen
	10:30-11:00	Droplet impingement dynamics on wettability engineered surfaces – from energy to healthcare Ranjan Ganguly
	11:00-11:30	Interfacial nanoengineering for sustainable energy and healthcare applications Manish Tiwari
Session-9-B: Two-phase systems-2 Venue: Meeting Room	09:30-10:00	Droplet under extreme conditions Saptarshi Basu
	10:00-10:30	Micro-explosion in fuel blend droplets Madan Mohan Avulapati
	10:30-11:00	Sharp interface methods for multiphase flows Pratik Das
	11:00-11:30	Controlling liquid atomization using continuous and pulsed lasers D. Chaitanya Kumar Rao
Tea break	11:30-12:00	Outreach Lawn

Session-10-A: Hydrogen Fuel Venue: Auditorium	12:00-12:30	Hydrogen Fuel Combustion for Gas Turbines Applications (Power and Aviation) Using CONVERGE CFD Simulations Rohit Kulkarni
	12:30-13:00	Hydrogen Safety Anubhav Sinha
	13:00-13:30	Energy Transition with Biofuels and Green Hydrogen for Road Transportation Sectors K. A. Subramanian
Session-10-B: Combustion and Gasification Venue: Meeting Room	12:00-12:30 (online)	Shock tube investigation of ammonia/hydrogen/natural gas mixtures combustion Michael Pierro, Christopher Dennis, Justin Urso, Subith Vasu
	12:30-13:00	Decomposition kinetics and thermal analysis of petroleum pitch using simultaneous thermal analysis Khokan Sahoo, Kanuparth Naga Raja, Neeraj Kumbhakarna, Sudarshan Kumar
	13:00-13:30 (online)	Synergistic effects and products distribution during co-pyrolysis of biomass with plastics Zhiwei Wang
Auditorium	13:30-14:00	Award Ceremony & Valedictory
Lunch & Adjourn	14:00-15:30	Outreach Dining