



(Download Book of
 Abstracts)

Detailed Program

20th February 2025 (Thursday): Day 1	
Registration: 8 AM to 9:15 AM (New Academic Building Corridor) & High Tea	
Inauguration: 9:15 AM to 10:00 AM (Venue: DLT-9)	
Day 1: Session 1 (Venue: DLT-9)	
Chairperson: Prof. Srinivasan Natarajan, IISc Bangalore	
10:00 AM – 10:40 AM	Plenary Lecture 1: (40 mins): “High-Entropy Oxide and Alloy Nanoparticles Synthesized by Continuous Supercritical Hydro/Solvothermal Flow Process”, Prof. Hiroshi Kitagawa, Kyoto University, Japan
10:40 AM – 11:10 AM	Keynote Lecture 1: (25+5 mins): Prof. George Shimizu, University of Calgary, Canada
11:10 AM – 11:40 AM	Keynote Lecture 2: (25+5 mins): “Computational Modeling of Semiconducting Materials for Catalytic and Thermoelectric Applications”, Prof. Swapan K Pati, JNCASR, Bengaluru
11:40 AM – 12:00 PM	Tea Break
Day 1: Session 2 (Venue: DLT-9)	
Chairperson: Dr. V. Koteswara Rao, GITAM University, Hyderabad	
12:00 PM – 12:20 PM	Invited Lecture 1: (15+5 mins): “Helically Chiral and Conformationally Locked Anthracene and Indolocarbazole Incorporated Macrocycles”, Prof. Gokulnath Sabapathi, IISER Thiruvananthapuram
12:20 PM – 12:40 PM	Invited Lecture 2: (15+5 mins): “Enhancing the Resistive Switching WORM Memory Behavior of D- π -A-based Ester-flanked Quinolines”, Prof. S Nagarajan, Central University of Tamil Nadu
12:40 PM – 1:00 PM	Invited Lecture 3: (15+5 mins): “In quest of synergy: Understanding the entropy effect in disordered materials for enhanced energy applications”, Dr. Sourav Laha, NIT Durgapur

Lunch (1:00 PM- 2:15 PM)

Day 1: Session 3 (Venue: DLT-9)

Chairperson: Prof. Sukhendu Mandal, IISER Thiruvananthapuram

2:30 PM – 3:00 PM	Keynote Lecture 3: (25+5 mins): “Noble Metal-Oxo Cluster Chemistry: Synthesis, Structure and Catalysis”, Prof. Ulrich Kortz, Constructor University, Bremen, Germany
3:00 PM – 3:30 PM	Keynote Lecture 4: (25+5 mins): “Functional Molecular Vessels”, Prof. Partha Sarathi Mukherjee, IISc Bangalore
3:30 PM – 3:50 PM	Invited Lecture 4: (15+5 mins): “Bio(in)organic Activation of Nitrite: Modelling Bioregulatory Routes for NO and H ₂ S Signalling”, Prof. Subrata Kundu, IISER Thiruvananthapuram
3:50 PM – 4:10 PM	Invited Lecture 5: (15+5 mins): “Effect of 3d-Transition Metal-ions in Ruthenate Perovskite Materials for Sustainable Energy Generation and Storage Applications”, Dr. Avijit Paul, NIT Kurukshetra
4:10 PM – 4:30 PM	Tea Break

Day 1: Session 4 (Venue: DLT-9)

Chairperson: Dr. A. Thirumurugan, IISER Thiruvananthapuram

4:30 PM – 5:00 PM	Keynote Lecture 5: (25+5 mins): “Inversion Symmetry Breaking and Magnetoelectric Properties Induced by Chemical Ordering”, Prof. Sundaresan Athinarayanan, JNCASR Bengaluru
5:00 PM – 5:15 PM	YR Invited Talk 1: (12+3 mins): “Porous Organic Photocatalysts for Energy Conversion”, Dr. Samrat Ghosh, CSIR-CLRI, Chennai
5:15 PM – 5:30 PM	YR Invited Talk 2: (12+3 mins): “Understanding Ionic Transport and Oxidative Stability of Solid Electrolytes for Solid State Batteries”, Dr. Ananya Banik, TCG-CREST Kolkata
5:30 PM – 5:45 PM	YR Invited Talk 3: (12+3 mins): “Miracle of Impurity Level Doping to Design Ultralong Afterglow Materials”, Dr. Bibhisn Roy, HNB Garhwal Central University
5:45 PM – 6:45 PM	Poster Presentation

Dinner (7:00 PM Onwards): BITS Goa Visitor's Guest House (VGH)

21st February 2025 (Friday): Day 2

Day 2: Session 1 (Venue: DLT-10)

Chairperson: Prof. Partha Mahata, Jadavpur University

09:00 AM –
09:40 AM

Plenary Lecture 2: (40 mins): “Inorganic Nanomaterials for the H₂ Generation and Storage”, Prof. Minyoung Yoon, Kyungpook National University, Republic of Korea

09:40 AM –
10:10 AM

Keynote Lecture 6: (25+5 mins): “Buckling and Defects in Two - Dimensional Atomically Thin Monolayers”, Prof. Ayan Datta, IACS Kolkata

10:10 AM –
10:40 AM

Keynote Lecture 7: (25+5 mins): “Paired Electrocatalysis with Functional Heterostructures: Simultaneous Generation of Fuels and Value-added Chemicals”, Prof. C. Retna Raj, IIT Kharagpur

10:40 AM –
11:00 AM

Tea Break

Day 2: Session 2 (Venue: DLT-10)

Chairperson: Dr. Abhishek Banerjee, VNIT, Nagpur

11:00 AM –
11:30 AM

Keynote Lecture 8: (25+5 mins): “Functional Inorganic Solids Built on Solid-State Concepts”, Prof. Sitharaman Uma, University of Delhi

11:30 AM –
11:50 AM

Invited Lecture 6: (15+5 mins): “Metal Chalcogenides with Tunable Phase, Bandgap and Surface Properties for Adsorption, Photocatalytic and Photothermal applications”, Prof. Sahid Hussain, IIT Patna

11:50 AM –
12:10 PM

Invited Lecture 7: (15+5 mins): “Manipulating Copper Homeostasis with Small Molecules and Light to Control”, Dr. Debasish Manna, IISER Bhopal

12:10 PM –
12:30 PM

Invited Lecture 8: (15+5 mins): “Multi-stack dye oligomers and their folding behavior”, Dr. Bappaditya Gole, Shiv Nadar University

12:30 PM –
12:45 PM

YR Invited Talk 4: (12+3 mins): “Insights into Catalyst Development for Liquid-Organic Hydrogen Carriers in Hydrogen Energy Storage”, Dr. Purna Chandra Rao, Kyungpook National University, Republic of Korea

12:45 PM – 1:00 PM	YR Invited Talk 5: (12+3 mins): “Atomistic Insights into Electrochemical Heterogenous Catalysis: A Potential-Dependent Model”, Dr. Kalishankar Bhattacharyya, IIT Guwahati
1:00 PM – 1:15 PM	YR Invited Talk 6: (12+3 mins): “The Weyl Semimetals $M\text{IrTe}_4$ ($M = \text{Nb, Ta}$) as Efficient Catalysts for Hydrogen Evolution”, Dr. Manisha Samanta, IIT Gandhinagar
<i>Lunch (1:15 PM- 2:15 PM)</i>	
Day 2: Session 3 (Venue: DLT-10)	
Chairperson: Prof. Debajit Sarma, IIT Patna	
2:30 PM – 3:00 PM	Keynote Lecture 9: (25+5 mins): “Solvated Metal Atom Dispersion and Digestive Ripening – Duo par excellence for Diverse Nanostructured Materials”, Prof. Balaji Jagirdar, IISc Bangalore
3:00 PM – 3:30 PM	Keynote Lecture 10: (25+5 mins): “Phonon-Glass Electron-Crystal like High Performance Thermoelectrics”, Prof. Kanishka Biswas, JNCASR, Bengaluru
3:30 PM – 3:50 PM	Invited Lecture 9: (15+5 mins): “Factors Influencing Anodic Oxidation Reactions”, Prof. Sounak Roy, BITS-Pilani Hyderabad Campus
3:50 PM – 4:15 PM	Tea Break
Day 2: Session 4 (Venue: DLT-9)	
Chairperson: Dr. Avijit Paul, NIT Kurukshetra	
4:15 PM – 4:35 PM	Invited Lecture 10: (15+5 mins): “Rhodamine dyes as chemosensors for various metal ions”, Prof. Partha Roy, Jadavpur University
4:35 PM – 4:55 PM	Invited Lecture 11: (15+5 mins): “An accelerated computational methodology to compute diverse varieties of finite temperature properties of solid materials”, Prof. Pinku Nath, ICREDD, Hokkaido University, Japan
5:00 PM – 6:00 PM	Poster Presentation
6:00 PM Onwards	Felicitation Ceremony for Prof. Srinivasan Natarajan followed by Conference Banquet Dinner

22nd February 2025 (Saturday): Day 3

Day 3: Session 1 (Venue: DLT-9)

Chairperson: Prof. Sandip Chakrabarty, Amity University

09:00 AM –
09:40 AM

Plenary Lecture 3: (40 mins): “Mono-, Di- and Tetranuclear Lanthanide (III) Complexes as Molecular Magnets”, Prof. V. Chandrasekhar, IIT Kanpur

09:40 AM –
10:10 AM

Keynote Lecture 11: (25+5 mins): “Computational Studies on the Design and Development of Carbon based Novel Two-Dimensional Dirac Materials”, Prof. V. Subramanian, IIT Madras

10:10 AM –
10:40 AM

Keynote Lecture 12: (25+5 mins): “Confluence of Molecular and Nanomaterial Metal Phosphate Chemistry for Energy Applications”, Prof. Ramaswamy Murugavel, IIT Bombay

10:40 AM –
11:00 AM

Tea Break

Day 3: Session 2 (Venue: DLT-9)

Chairperson: Dr. Subhradeep Mistry, Hemvati Nandan Bahuguna Garhwal University

11:00 AM –
11:20 AM

Invited Lecture 12: (15+5 mins): “Catalytic activity of phosphine ligated Pd complexes”, Dr. Raja Mitra, IIT Goa

11:20 AM –
11:40 AM

Invited Lecture 13: (15+5 mins): “Investigations into the Electrochemical Energy Storage Properties of Diphosphonate derivatives of Oxo-vanadates: Experiment and Theory”, Dr. Abhishek Banerjee, VNIT Nagpur

11:40 AM –
12:00 PM

Invited Lecture 14: (15+5 mins): “Supramolecular Liquid Crystalline Alkoxy Azopyridine Derivatives Showing Photoresponsive Property”, Dr. Susanta K. Nayak, VNIT Nagpur

Valedictory, Vote of Thanks (12:00 PM to 12:40 PM)

Lunch (12:45 PM- 2:00 PM)

