

International Conference in Renewable and Sustainable Energy Sources: The Science and Technology for Clean and Green Future (RSES 2025)

10th-12th February 2025

J. C. Chaudhry NAB Auditorium, BITS Pilani, Pilani Campus

Conference Schedule: 10th February 2025 (Day 1)

9:20 am - 10:00 am	Inauguration
10:00 am - 11:00 am	Keynote lecture Speaker: Prof. Safir Ahmad Hashmi (University of Delhi) Title: Quasi-Solid-State Flexible Supercapacitors: Strategy to Enhance Energy Density via Redox-active Gel Polymer Electrolytes.
11:00 am - 11:45 am	High Tea and conference photo session.
11:45 am -12:15 pm	Invited talk Speaker: Prof. Rajendra S. Dhaka (IIT Delhi) Title: Development of cost-effective sodium-ion batteries for sustainable energy storage applications.
12:15 pm – 12:45 pm	Invited talk Speaker: Prof. Rahul Singhal (MNIT, Jaipur) Title: Different Donors and Fullerene free Acceptors to enhance the PCE of Organic Solar Cell.
1:00 pm – 2:30 pm	Lunch break
2:30 pm – 3:00 pm	Invited talk (Online) Speaker: Prof. Kwan San Hui (Prince Mohammad Bin Fahd University, Saudi Arabia) Title: Potassium-ion (K-ion) batteries for grid-scale energy storage: Novel approaches to developing phosphorus-based anodes.
3:00 pm – 3:30 pm	Invited talk Speaker: Prof. Neelam Srivastava (BHU, Varanasi) Title: Changing Trend in Polymer Electrolytes.
3:30 pm – 4:00 pm	Tea Break

4:00 pm – 4:20 pm	<p>Contributory talk Speaker: Prof. Smita Chaturvedi (Savitribai Phule Pune University) Title: Nanoscale multiferroic at the Nexus of Sustainability and Smart World.</p>
4:20 pm – 4:40 pm	<p>Contributory talk Speaker: Prof. Sreetama Ghosh (VIT, Vellore) Title: NiTi Shape Memory Alloy: An Interesting Electrocatalyst for Alkaline Hydrogen Evolution Reaction.</p>
4:40 pm - 5:40 pm	<p>Oral presentation Speaker: Anuradha (MNIT, Jaipur) Title: Synthesis and Characterization of PTB7-Th polymer thin films at different rpm using spin coater for application in organic solar cells.</p>
	<p>Oral presentation Speaker: Nivin T S (SRMIST, Chennai) Title: Phonon engineering enabled reduction in thermal conductivity of SnS/Cu₂Se composites: An experimental and numerical insights.</p>
	<p>Oral presentation Speaker: Nilofar Naaz (BITS Pilani, Hyderabad Campus) Title: Calibration and Characterization of Underwater Photovoltaic Systems: Demonstration Using Monocrystalline and Polycrystalline Silicon Solar Cells.</p>
	<p>Oral presentation Speaker: Hajeesh Kumar V (SRMIST, Chennai) Title: Multifunctional TiZn Alloy: A Potential Candidate for Energy Storage and Environmental Hazard VOC Detection.</p>
	<p>Oral presentation Speaker: Shrishti Sharma (BITS Pilani, Pilani Campus) Title: δ-MnO₂ Nanoflowers added with Ion-Conducting Polymer: A novel approach for all solid state supercapacitor applications.</p>
	<p>Oral presentation Speaker: Neha (BITS Pilani, Pilani Campus) Title: All-solid-state Na⁺ ion supercapacitors: Enhancing the performance by creating a micron size-gel-layer at the interface.</p>

Conference Schedule: 11th February 2025 (Day 2)

9:30 am - 10:30 am	Keynote lecture Speaker: Prof. Narendra Nath Ghosh (BITS Pilani, Goa Campus) Title: Design and Synthesis of Advanced Functional Materials for Energy Storage Devices and Energy Production by Water Splitting.
10:30 am - 11:00 am	Invited talk Speaker: Prof. Udai P Singh (KIIT Bhubaneswar) Title: Advances in Kesterite based thin film solar cells and Future Ahead.
11:00 am - 11:30 am	Tea Break
11:30 am -12:00 pm	Invited talk Speaker: Prof. Raj Kumar Gupta (BITS Pilani, Pilani Campus) Title: Unleashing the Potential of Surface Plasmon Resonance.
12:00 pm - 12:30 pm	Invited talk Speaker: Prof. Anshuman Dalvi (BITS Pilani, Pilani Campus) Title: All-Solid-State Supercapacitors for Electric Vehicles and Green Future.
12:30 pm - 1:00 pm	Invited talk Speaker: Prof. Shruti Aggarwal (GGS Indraprastha University, New Delhi) Title: Thermal and Artificial Neural Network (ANN) Modeling of a Hybrid CPC-SPVT-TEG Collector with Vapor Absorption Refrigeration Integration.
1:00 pm – 2:30 pm	Lunch break
2:30 pm – 2:50 pm	Contributory talk Speaker: Prof. Arti Bhadouria (GSFC University) Title: Cloud Point Extraction studies for Metal Ions in water using Anionic Surfactant TBADS: Insights with AAS.
3:00 pm – 4:00 pm	Keynote lecture (Online) Speaker: Prof. Satheesh Krishnamurthy (University of Surrey, UK) Title: Plasma Jet Printing and in Situ oxidation of Mxene surfaces.
4:00 pm – 5:30 pm	Poster session and tea break

Conference Schedule: 12th February 2025 (Day 3)

9:30 am - 10:30 am	<p>Keynote lecture (Online) Speaker: Prof. Stefan Adams (National University of Singapore, Singapore) Title: Design and Realization of Compressible Lightweight Solid Electrolytes for High Energy Density Batteries.</p>
10:30 am - 11:00 am	<p>Flash talk (online) Speaker: Mahima Tyagi (BITS Pilani, Pilani Campus) Title: Chemical Vapor Deposition growth of large-area transition metal dichalcogenide dendrites for enhanced hydrogen evolution reaction.</p>
	<p>Flash talk (online) Speaker: Gunjan Singh (Dayalbagh Educational Institute, Agra) Title: Comparative Study of Primary and Secondary Pretreatment on Hydrolysis of Water Hyacinth for the Biofuel Production.</p>
	<p>Flash talk (online) Speaker: Aiswarya Thekkedath (BITS Pilani, Dubai Campus) Title: Entanglement of physical thermodynamic effects on cancerous drug with BCN nanostructures.</p>
11:00 am - 11:30 am	Tea Break
11:30 am - 12:10 pm	<p>Oral presentation Speaker: Kaustav Jit Bora (IIT Delhi) Title: Designing All Organic Piezoelectric Energy Harvester Using Advanced Bent-Core Liquid Crystal Infused Polymer Composites for Human Motion Detection Applications.</p>
	<p>Oral presentation Speaker: Shikha Agarwal (University of Lucknow) Title: Fluorescence Modulation in ESIPT-Active Columnar Liquid Crystal for Sustainable Energy Solutions.</p>
	<p>Oral presentation Speaker: Mudit Sahai (BITS Pilani, Pilani Campus) Title: A new paradigm of possible applications using highly dipolar rodshaped liquid crystals having giant dielectric permittivity.</p>

	<p>Oral presentation Speaker: Sushil Barala (BITS Pilani, Pilani Campus) Title: Fabrication of Cobalt Oxide (CoOx) Nanowalls Based Gas Sensor for Selective Detection of Formaldehyde Vapour.</p>
12:10 pm - 12:40 pm	<p>Invited talk Speaker: Prof. Debashis Bandyopadhyay (BITS Pilani, Pilani Campus) Title: Insights of Transition Metal Doping on Hydrogen Uptake in 2D Monolayer: A Density Functional Investigation.</p>
12:40 pm - 1:10 pm	<p>Invited talk Speaker: Prof. Subhashis Gangopadhyay (BITS Pilani, Pilani Campus) Title: Transition metal oxide (TMO) based semiconductor nanostructures: Promising materials for sensing, energy and catalytic applications.</p>
1:10 pm – 2:30 pm	Lunch break
2:30 pm- 3:00 pm	<p>Invited talk Speaker: Prof. Sumitra Sihag (CSIR-CEERI, Pilani) Title: Graphene-Based Flexible and Wearable Strain Sensors for Health Monitoring and Robotic Applications.</p>
3:00 pm – 3:30 pm	<p>Invited talk Speaker: Prof. Jitendra Singh (CSIR-CEERI, Pilani) Title: Semiconductor Nano-electronic Devices for Sustainable Development.</p>
3:30 pm – 4:00 pm	<p>Invited talk Speaker: Prof. Rahul Prajesh (CSIR-CEERI, Pilani) Title: Smart Sensor Technologies for Renewable Energy and Environmental Sustainability.</p>
4:00 pm – 4:30 pm	Tea Break
4:30 pm – 5:00 pm	<p>Invited talk Speaker: Prof. Suchandan Pal (CSIR-CEERI, Pilani) Title: Energy-efficient Devices: An overview of GaN-based LEDs and Solar-cells.</p>

5:00 pm – 5:30 pm

Valedictory ceremony