



**BITS Pilani**  
Hyderabad Campus

# VALORIZATION 2025

## International Conference on Science & Technology Integration for Circular Economy



### Program Schedule

| DAY 1: Thursday 23 <sup>rd</sup> January 2025<br>Venue: Room No. G204/A (Seminar Hall)  |  |  |   |
|---|--|--|---|
| 10:00 – 10:30 AM  | <b>Inauguration Session</b>  |  |   |
| 10:30 – 10:50 AM  | <b>Tea Break</b>   |  |   |
| 10:50 – 11:00 AM  | <b>Group Photo</b>   |  |   |
| 11:00 – 11:30 AM  | <p><b>Dr. Bikram Basak</b><br/>Centre for Creative Convergence Education and Resource Development Research Institute<br/>Hanyang University, Seoul, Korea</p> <p><b>Invited Lecture 1:</b> Process recovery and enhanced methane yield in organic overloaded anaerobic digesters using microbiota reconstruction</p> <p><b>Venue:</b> Room No. G204/A</p> <p><b>Link:</b> <a href="https://meet.google.com/nfq-qrne-fhv">https://meet.google.com/nfq-qrne-fhv</a></p>  |  |   |
| <b>Oral Presentations</b>   |  |  |   |
| <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;"> <p><b>Scientific Session: 1</b><br/>Venue: Room No. G204/A<br/>Chair – Prof. Lavanya Suresh<br/>BITS Pilani, Hyderabad Campus<br/>Link: <a href="https://meet.google.com/nfq-qrne-fhv">https://meet.google.com/nfq-qrne-fhv</a></p> </td> <td style="width: 50%; text-align: center;"> <p><b>Scientific Session: 2</b><br/>Venue: Room No. G204<br/>Chair – Prof. Chanchal Chakraborty<br/>BITS Pilani, Hyderabad Campus<br/>Link: <a href="https://meet.google.com/ksm-iops-dtm">https://meet.google.com/ksm-iops-dtm</a></p> </td> </tr> </table> |  | <p><b>Scientific Session: 1</b><br/>Venue: Room No. G204/A<br/>Chair – Prof. Lavanya Suresh<br/>BITS Pilani, Hyderabad Campus<br/>Link: <a href="https://meet.google.com/nfq-qrne-fhv">https://meet.google.com/nfq-qrne-fhv</a></p>        | <p><b>Scientific Session: 2</b><br/>Venue: Room No. G204<br/>Chair – Prof. Chanchal Chakraborty<br/>BITS Pilani, Hyderabad Campus<br/>Link: <a href="https://meet.google.com/ksm-iops-dtm">https://meet.google.com/ksm-iops-dtm</a></p> |
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| 11:30 – 11:40 AM  | <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> <p><b>Hemapriya S</b><br/>BITS Pilani, Hyderabad Campus<br/><b>VAL01:</b> Enhanced Food Waste Biomethanation in Leached Bed Reactor via Soluble Product Regulation</p> </td> <td style="width: 50%;"> <p><b>Hitesh Datt Mathur</b><br/>BITS Pilani, Pilani Campus<br/><b>VAL07:</b> Circular Economy for Sustainable Microgrid Energy Storage: Reducing LCOE with Second-Life Batteries</p> </td> </tr> </table>   | <p><b>Hemapriya S</b><br/>BITS Pilani, Hyderabad Campus<br/><b>VAL01:</b> Enhanced Food Waste Biomethanation in Leached Bed Reactor via Soluble Product Regulation</p>   | <p><b>Hitesh Datt Mathur</b><br/>BITS Pilani, Pilani Campus<br/><b>VAL07:</b> Circular Economy for Sustainable Microgrid Energy Storage: Reducing LCOE with Second-Life Batteries</p>   |
| <p><b>Hemapriya S</b><br/>BITS Pilani, Hyderabad Campus<br/><b>VAL01:</b> Enhanced Food Waste Biomethanation in Leached Bed Reactor via Soluble Product Regulation</p>  | <p><b>Hitesh Datt Mathur</b><br/>BITS Pilani, Pilani Campus<br/><b>VAL07:</b> Circular Economy for Sustainable Microgrid Energy Storage: Reducing LCOE with Second-Life Batteries</p>  |  |   |
| 11:40 – 11:50 AM  | <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> <p><b>Bhattu Swapna</b><br/>Indian Institute of Technology, Hyderabad<br/><b>VAL02:</b> Circular economy: PET plastic waste recycling to value-added BHET monomer using morphology-tuned MnO<sub>x</sub>/TiO<sub>2</sub> nanocatalysts</p> </td> <td style="width: 50%;"> <p><b>Swarnendu Bhattacharya</b><br/>Techno India University, West Bengal<br/><b>VAL08:</b> The Role of Smart Inverters in Enhancing Energy Management and Grid Stability in Modern Power Systems</p> </td> </tr> </table> | <p><b>Bhattu Swapna</b><br/>Indian Institute of Technology, Hyderabad<br/><b>VAL02:</b> Circular economy: PET plastic waste recycling to value-added BHET monomer using morphology-tuned MnO<sub>x</sub>/TiO<sub>2</sub> nanocatalysts</p> | <p><b>Swarnendu Bhattacharya</b><br/>Techno India University, West Bengal<br/><b>VAL08:</b> The Role of Smart Inverters in Enhancing Energy Management and Grid Stability in Modern Power Systems</p>                                   |
| <p><b>Bhattu Swapna</b><br/>Indian Institute of Technology, Hyderabad<br/><b>VAL02:</b> Circular economy: PET plastic waste recycling to value-added BHET monomer using morphology-tuned MnO<sub>x</sub>/TiO<sub>2</sub> nanocatalysts</p>  | <p><b>Swarnendu Bhattacharya</b><br/>Techno India University, West Bengal<br/><b>VAL08:</b> The Role of Smart Inverters in Enhancing Energy Management and Grid Stability in Modern Power Systems</p>  |  |   |
| 11:50 – 12:00 PM  | <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> <p><b>Shraddha Navnath Lande</b><br/>Vel Tech Rangarajan Dr. Sagunthala R&amp;D Institute of Science and Technology, Chennai<br/><b>VAL03:</b> Isolation, Screening, Identification of Methanogenic microbes from coal mine site (CWR)</p> </td> <td style="width: 50%;"> <p><b>Smita Raghuvanshi</b><br/>BITS Pilani, Pilani Campus<br/><b>VAL09:</b> Optimization Process for Bio-Mitigation of Flue Gases – A Circular Economy Outlook</p> </td> </tr> </table>                                   | <p><b>Shraddha Navnath Lande</b><br/>Vel Tech Rangarajan Dr. Sagunthala R&amp;D Institute of Science and Technology, Chennai<br/><b>VAL03:</b> Isolation, Screening, Identification of Methanogenic microbes from coal mine site (CWR)</p> | <p><b>Smita Raghuvanshi</b><br/>BITS Pilani, Pilani Campus<br/><b>VAL09:</b> Optimization Process for Bio-Mitigation of Flue Gases – A Circular Economy Outlook</p>   |
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| 12:00 – 12:10 PM | <p><b>Syamala Diwakaruni</b><br/>BITS Pilani, Hyderabad Campus<br/><b>VAL04:</b> Sustainable Approach to Municipal Solid Waste Landfill Leachate Treatment</p>   | <p><b>Sugato Panda</b><br/>Indian Institute of Technology, Indore<br/><b>VAL10:</b> Optimizing Biochemical Methane Potential of Soybean Straw Through Thermal Pretreatment: A Kinetics-Driven Approach Using ANN, GA, PSO, and RSM</p>   |
| 12:10 – 12:20 PM | <p><b>Sri Himaja Pamu</b><br/>BITS Pilani, Hyderabad Campus<br/><b>VAL05:</b> Influence of B-site Defect Engineering on the Hydrogen Evolution Activity of BaNiO<sub>3</sub></p>   | <p><b>R. Raguraman</b><br/>Puducherry Technological University (PTU), Puducherry<br/><b>VAL11:</b> Microplastic pollution in fauna of Puducherry coastal zone.</p>   |
| 12:20 – 12:30 PM | <p><b>Karthik MNS</b><br/>BITS Pilani, Hyderabad Campus<br/><b>VAL06:</b> Valorization of anaerobic digestate for enhanced biomass production in <i>Chlorella sorokiniana</i>: a circular economy approach</p>   | <p><b>Rupali Satsangi</b><br/>Dayalbagh Educational Institute (Deemed to be University), Agra<br/><b>VAL12:</b> Integrating smart technologies into agroecological practices for circular and sustainability of food systems – a case study of Dayalbagh Educational Institute</p> |
| 12:30 – 01:00 PM | <p><b>Prof. Lisandra Marina Da Rocha Meneses</b><br/>Estonian University of Life Sciences, Institute of Forestry and Engineering, Estonia<br/><b>Invited Lecture 2:</b> Simulation and optimization of bio-oil, biochar, and syngas obtained from the co-pyrolysis of date seeds and tire plastic waste<br/><b>Venue:</b> Room No. G204/A<br/><b>Link:</b> <a href="https://meet.google.com/nfq-grne-fhv">https://meet.google.com/nfq-grne-fhv</a></p> |  |
| 01:00 – 02:00 PM | <b>Lunch Break</b>   |  |

| <b>Oral Presentations</b>  |  |   |
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| <b>Scientific Session: 3</b><br>Venue: Room No. G204/A<br>Chair – Prof. K. Supradeepan<br>BITS Pilani, Hyderabad Campus<br>Link: <a href="https://meet.google.com/nfq-grne-fhv">https://meet.google.com/nfq-grne-fhv</a>     |  |   |
| <b>Scientific Session: 4</b><br>Venue: Room No. G204<br>Chair – Prof. Chanchal Chakraborty<br>BITS Pilani, Hyderabad Campus<br>Link: <a href="https://meet.google.com/ksm-iops-dtm">https://meet.google.com/ksm-iops-dtm</a> |  |   |
| 02:00 – 02:10 PM   | <p><b>Pallavi Vadla</b><br/>BITS Pilani, Hyderabad Campus<br/><b>VAL13:</b> The synergistic effects of anaerobic co-digestion of food waste and algal biomass for enhanced biogas production</p>                     | <p><b>Pratibha V. Bakre</b><br/>Government College of Arts, Science and Commerce, Khandola, Marcela, Goa<br/><b>VAL19:</b> Plant waste-derived Biochar for effective removal of Organic Contaminants from wastewater</p>  |
| 02:10 – 02:20 PM   | <p><b>Sandhya Kumari Gupta</b><br/>BITS Pilani, Hyderabad Campus<br/><b>VAL14:</b> Distribution Characteristics of Microplastics in Domestic Sewage Sludge: Sources, Variability, and Environmental Implications</p> | <p><b>Surabhi Dipali Muduli</b><br/>CSIR-Central Leather Research Institute, Regional Center, Kolkata<br/><b>VAL20:</b> Preparation of magnetic carbon from iron-impregnated hide trimming waste of leather processing by pyrolysis and its application in recovering sodium sulfate from yellow sodium sulfate, a hazardous byproduct of leather chemical industry</p> |
| 02:20 – 02:30 PM   | <p><b>Kandi Mounika</b><br/>BITS Pilani, Hyderabad Campus<br/><b>VAL15:</b> Energy Management for Proton Exchange Membrane Fuel Cell Integrated Grid Interactive Local Loads</p>                                     | <p><b>Shivani Tripathi</b><br/>CSIR-Central Food Technological Research Institute, Mysore<br/><b>VAL21:</b> Valorisation of Low-Grade Coffee beans for extraction of coffee Oil and Value addition</p>  |

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| 02:30 – 02:40 PM | <b>Sibin V Mathew</b><br>BITS Pilani, Hyderabad Campus<br><b>VAL16:</b> CFD simulation of anaerobic digester  | <b>Suhas Ramesh</b><br>CSIR-Central Food Technological Research Institute, Mysore<br><b>VAL22:</b> Citric acid production by <i>A. niger</i> promoted by cinnamaldehyde derivatives obtained using ecofriendly and energy efficient microwave-assisted technique |
| 02:40 – 02:50 PM | <b>Cheriyachan B Mattam</b><br>BITS Pilani, Hyderabad Campus<br><b>VAL17:</b> Understanding Waste Beyond Behavioural Problem: The Case of Waste Management in a New Municipality in Telangana, India  | <b>Naveen J</b><br>CSIR-Central Food Technological Research Institute, Mysore<br><b>VAL23:</b> Innovative processing of <i>Garcinia cambogia</i> and their nutraceutical profile   |
| 02:50 – 03:00 PM | <b>Sneha Srivastava</b><br>BITS Pilani, Hyderabad Campus<br><b>VAL18:</b> Biomethanation of Low-Grade Sub-Bituminous Coal for Bioenergy and Biofertilizer Production.   | <b>Aswathi K N</b><br>CSIR-Central Food Technological Research Institute, Mysore<br><b>VAL24:</b> Upcycling Honey processed Coffee husks into Fuel: Bioethanol Feasibility   |
| 03:00 – 03:30 PM | <b>Prof. Etienne Paul</b><br>SYMBIOSE: Microbial system for waste treatment and valorization, Institut National Des Sciences Appliquees (INSA), Toulouse, France<br><b>Invited Lecture 3:</b> Resource recovery from wastewaters: selection of microbial consortia for the production of gel-forming biopolymers<br><b>Venue:</b> Room No. G204/A<br><b>Link:</b> <a href="https://meet.google.com/nfg-qrne-fhv">https://meet.google.com/nfg-qrne-fhv</a> |  |
| 03:30 – 03:40 PM | <b>Tea Break</b>  |  |

| <b>Oral Presentations</b>   |  |  |
|---|--|--|
| <b>Scientific Session: 5</b><br>Venue: Room No. G204/A<br>Chair – Prof. Chanchal Chakraborty<br>BITS Pilani Hyderabad Campus<br>Link: <a href="https://meet.google.com/nfg-qrne-fhv">https://meet.google.com/nfg-qrne-fhv</a> |  | <b>Scientific Session: 6</b><br>Venue: Room No. G204<br>Chair – Prof. P. Sankar Ganesh<br>BITS Pilani, Hyderabad Campus<br>Link: <a href="https://meet.google.com/ksm-iops-dtm">https://meet.google.com/ksm-iops-dtm</a> |
| 03:40 – 03:50 PM  | <b>Dipankar Ghosh</b><br>JIS University, Kolkata<br><b>VAL25:</b> Microalgae For Biolipid Production as Biodiesel Precursor and Provide Sustainable Heavy Metal Contaminated Wastewater Treatment  | <b>Riyazuddin Shaik</b><br>GITAM Deemed to be University, Rushikonda, Visakhapatnam<br><b>VAL33:</b> The Evaluation of Food Waste Vessel Compost Pellet Amends for Use as a Soil Conditioner                             |
| 03:50 – 04:00 PM  | <b>Mamta</b><br>BITS Pilani, Pilani Campus<br><b>VAL26:</b> Valorization of Agri-Waste Residues for Pha Production in a Circular-Bioeconomy Framework  | <b>Anjali Raj</b><br>Sree Buddha College of Engineering, Kerala<br><b>VAL34:</b> The Potential of <i>Ulva fasciata</i> in Energy Production and Ecological Restoration   |
| 04:00 – 04:10 PM  | <b>Mazen Yousif</b><br>Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai<br><b>VAL27:</b> Evaluation of Bacterial Consortium-Mediated Biomethane Production from Alkaline Pretreated Petroleum Coke: A Sustainable Valorization Approach | <b>Karri Anitha</b><br>GITAM Deemed to be University, Rushikonda, Visakhapatnam<br><b>VAL35:</b> A Study on Lithium Accumulation in Vegetative Parts of <i>Amaranthus cruentus</i> and <i>Solanum lycopersicum</i>       |

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| 04:10 – 04:20 PM   | <p><b>Sailaduhita Das</b><br/> <b>Adamas University, Barasat</b><br/> <b>VAL28: Innovative Strategies for Microalgal Biomass Recovery: Role of Growth Conditions in Enhancing Self-Flocculation Efficiency</b></p>   |
| 04:20 – 04:30 PM   | <p><b>Ethiraj Selvarajan</b><br/> <b>SRM Institute of Science and Technology, Chennai</b><br/> <b>VAL29: Immobilization of Streptomyces Sp. Ms2a Cellulase On Mil-96al/Fe3o4/Go/Cs (Mof-Nanocomposite) For the Production of Bioethanol Via Catalytic Hydrolysis</b></p> |
| 04:30 – 04:40 PM   | <p><b>Suchita Bharambe</b><br/> <b>Government Institute of Science, Chhatrapati Sambhajinagar, Aurangabad</b><br/> <b>VAL30: Bio-Management of Agrowastes for The Production of Microbial Phytase</b></p>  |
| 04:40 – 04:50 PM   | <p><b>Vidhya R</b><br/> <b>K S Rangasamy College of Technology, Tiruchengode, Namakkal</b><br/> <b>VAL31: Unravelling The Efficacy of Zeolite-Embedded Zio-Tio2 Nano-Composite Towards Foliar Application for Enhanced Crop Productivity</b></p>                         |
| 04:50 – 05:00 PM   | <p><b>Leela Rani</b><br/> <b>BITS Pilani, Pilani Campus</b><br/> <b>VAL32: A Bibliometric Analysis of Plastic Waste's Circular Economy</b></p>   |
| <p><b>Poster Presentations</b><br/> <b>Chair – Prof. Ankur Bhattacharjee</b><br/> <b>BITS Pilani, Hyderabad Campus</b></p> |  |
| 10:30 – 4:00 PM  | <p><b>Ravindra Dnyanaba Kulal</b><br/> <b>BITS Pilani, Hyderabad Campus</b><br/> <b>VAL36: Dual-process wastewater treatment: leveraging algae-bacteria interactions for improved efficiency</b></p>   |
|  | <p><b>Varsha Sriram</b><br/> <b>BITS Pilani, Hyderabad Campus</b><br/> <b>VAL37: Enhanced biohythane production from food waste via two-step anaerobic digestion</b></p>   |
|  | <p><b>Mangalapalli Kamali</b><br/> <b>Indian Institute of Technology, Hyderabad</b><br/> <b>VAL38: Catalytic Acetalization of Biomass-Derived Compounds for Fuel Additives Synthesis</b></p>   |
|  | <p><b>Gantala Sarva Sai Nikhilesh</b><br/> <b>BITS Pilani, Hyderabad Campus</b><br/> <b>VAL39: Anaerobic co-digestion of food waste and landfill leachate to enhance biogas production</b></p>   |
|  | <p><b>Alagu Lavanya T</b><br/> <b>BITS Pilani, Hyderabad Campus</b><br/> <b>VAL40: Anaerobic co-digestion of food waste and coal to enhance the bio-methane production</b></p>   |
|  | <p><b>Avinash Kumar Jha</b><br/> <b>HIT, Harbin, China</b><br/> <b>VAL41: Overcoming Gas-Liquid Mass Transfer Limitations in Biochemical Fermentation for Acetic Acid Production</b></p>   |
| <p><b>END OF DAY 1</b></p>   |  |

DAY 2: Friday 24<sup>th</sup> January 2025

Venue: Room No. G204/A

**Scientific Session: 7**

Chair – Prof. Ankur Bhattacharjee

BITS Pilani, Hyderabad Campus

Link: <https://meet.google.com/nfg-qrne-fhv>

**Oral Presentations**

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|---|---|
| 10:00 – 10:10 AM  | <b>Mudavath Arun Kumar</b><br>Indian Institute of Technology, Hyderabad<br><i>VAL42: Catalytic Synthesis of Renewable Diesel Fuel Precursors Via Selective Condensation of Biomass-Derived Furans</i>   |
| 10:10 – 10:20 AM  | <b>Palanivel Subha</b><br>Indian Institute of Technology, Hyderabad<br><i>VAL43: In Situ Hydrogenation of Biomass-Derived Furfural to Valuable Furfuryl Alcohol Over A Synergistic Nanoalloy Catalyst At Room Temperature</i>                 |
| 10:20 – 10:30 AM  | <b>Keitumetse Ngaka</b><br>BITS Pilani, Hyderabad Campus<br><i>VAL44: Termites' Contribution Towards Waste Management</i>   |
| 10:30 – 10:40 AM  | <b>Santhoshini. G. M.</b><br>Dwaraka Doss Goverdhan Doss Vaishanav College, Arumbakkam, Chennai<br><i>VAL45: Optimizing Methane Production via Co-Biomethanation of Food Waste with Parthenium hysterophorus: A Circular Economy Approach</i> |
| 10:40 – 10:50 AM  | <b>Elangovan M.E</b><br>BITS Pilani, Hyderabad Campus<br><i>VAL46: Biological Treatment of Organic Wastewater Using Periodic Discontinuous Batch Reactors: A Multi-Condition Approach</i>   |
| 10:50 – 11:00 AM  | <b>Pavithra Pari</b><br>BITS Pilani, Hyderabad Campus<br><i>VAL47: Foaming in High Organic Loaded Anaerobic Digestors: Causes, Impacts, and Control Strategies</i>  |
| 11:00 – 11:20 AM  | <b>Tea Break</b>  |
| <b>Scientific Session: 8</b>  |   |
| Chair – Prof. P. Sankar Ganesh  |   |
| BITS Pilani, Hyderabad Campus   |   |
| Link: <a href="https://meet.google.com/nfg-qrne-fhv">https://meet.google.com/nfg-qrne-fhv</a> |   |
| <b>Oral Presentations</b>   |   |
| 11:20 – 11:30 AM  | <b>Satwika Das</b><br>National Institute of Technology, Warangal<br><i>VAL48: Bioconversion of Mixed Food Waste to Citramalic Acid through Sustainable Biorefinery</i>  |
| 11:30 – 11:40 AM  | <b>Varshini Ravichandran</b><br>SRM University, Andra Pradesh<br><i>VAL49: Sustainability Assessment of a Cassava Biorefinery: Towards a Greener Future</i>   |
| 11:40 – 11:50 AM  | <b>Sanjeev Ramachandran</b><br>Infinera & BITS Pilani, Pilani Campus<br><i>VAL50: Exploring the Challenges and Opportunities in Rural Waste Management: A Multistakeholder Perspective</i>  |
| 11:50 – 12:00 PM  | <b>Bhuvaneshwari. G</b><br>Guru Nanak College (Autonomous), Chennai<br><i>VAL51: Fabrication, Characterization, and Application of Nitrogen (Urea) from Eggshell: A Sustained Release Fertilizer Using Waste Eggshells</i>                    |

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| 12:00 – 12:10 PM | <b>Deepthi Murapala</b><br><b>GITAM (Deemed to be University), Visakhapatnam</b><br><i>VAL52: Heavy Metal Concentration in PM10: A Comprehensive Source Apportionment Study in Visakhapatnam, India</i>   |
| 12:10 – 12:20 PM | <b>Kasakani Muneswara Rao</b><br><b>Acharya Nagarjuna University, Guntur</b><br><i>VAL53: Biomethanation</i>  |
| 12:20 – 12:30 PM | <b>Harmandeep Kaur</b><br><b>Indian Institute of Technology, Bombay</b><br><i>VAL54: Use of Deep Eutectic Solvent for extraction of Agarose and in situ preparation of Graphite oxide</i>   |
| 12:30 – 01:00 PM | <b>Dr. Ashish A Prabhu</b><br><b>Department of Biotechnology, National Institute of Technology Warangal, Telangana, India</b><br><i>Invited Lecture 4: Engineering of Yarrowia lipolytica for the efficient production of D-lactic acid using food waste hydrolysate</i><br><b>Venue:</b> Room No. G204/A<br><b>Link:</b> <a href="https://meet.google.com/nfg-qrne-fhv">https://meet.google.com/nfg-qrne-fhv</a> |
| 01:00 – 02:00 PM | <b>Lunch Break</b>  |

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|---|---|
| <b>Scientific Session: 9</b><br>Chair – Prof. Satyapaul Singh<br>BITS Pilani, Hyderabad Campus<br>Link: <a href="https://meet.google.com/nfg-qrne-fhv">https://meet.google.com/nfg-qrne-fhv</a> |   |
| <b>Oral Presentations</b>   |   |
| 02:00 – 02:10 PM  | <b>Saranraj G</b><br><b>Centre for Pollution Control and Environmental Engineering, Pondicherry University, Pondicherry</b><br><i>VAL55: Alocasia based Constructed Wetland-Microbial Fuel Cells for Fish Market Waste Water treatment coupled green energy generation</i>      |
| 02:10 – 02:20 PM  | <b>Uday Kumar Darapuneni</b><br><b>GITAM (Deemed to be University), Visakhapatnam</b><br><i>VAL56: Study on variability of Heavy Metal concentration in Soils and Weeds of Kapuluppada, Bheemunipatnam waste dumping area and Yendada residential area of Visakhapatnam, AP</i> |
| 02:20 – 02:30 PM  | <b>I. Becky Miriyam</b><br><b>SRM Institute of Science and Technology, Chennai</b><br><i>VAL57: Biodegradable Keratin Adsorbent Derived from Solid Waste for Phthalate Ester Removal: A Circular Strategy for Waste Management</i>  |
| 02:30 – 02:40 PM  | <b>Jag Prasad</b><br><b>Indian Institute of Petroleum and Energy, Vizag</b><br><i>VAL58: Recovery of the Valuable Products from Solid Waste of Aerospace Industry</i>   |
| 02:40 – 02:50 PM  | <b>Nidhi Chhabra Talreja</b><br><b>Indian Institute of Technology, Guwahati</b><br><i>VAL59: Exploring Biomethane Potential of Agro-Industrial Residue with Energy Grass</i>  |
| 02:50 – 03:00 PM  | <b>Pavithra Sreenivasan</b><br><b>Vel Tech Rangarajan Dr. Sagunthala R&amp;D Institute of Science and Technology, Chennai</b><br><i>VAL60: Optimizing Methane Production from Bituminous Coal Using Anaerobic Microbes</i>  |
| 03:00 – 03:10 PM  | <b>I. Abernaebenezer Selvakumari</b><br><b>Anna University, Chennai</b><br><i>VAL61: Sustainable Malic Acid Production from Biodiesel Refineries: A Techno-Economic Feasibility Study</i>   |

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|---------------------|---|
| 03:10 – 03:30 PM    | <b>Tea Break</b>  |
| 03:30 – 04:00 PM    | <p><b>Dr. Jose Pinto</b><br/> UCIBIO – Applied Molecular Biosciences Unit, Department of Chemistry / Department of Life Sciences, NOVA School of Science and Technology, Universidade NOVA de Lisboa, 2829-516 Caparica, Portugal</p> <p><b>Invited Lecture 5:</b> <i>Merging metabolic networks with deep neural networks under the SBML standard</i></p> <p><b>Venue:</b> Room No. G204/A<br/> <b>Link:</b> <a href="https://meet.google.com/nfq-grne-fhv">https://meet.google.com/nfq-grne-fhv</a></p> |
| 04:00 – 04:30 PM    | <p><b>Dr. S. Venkata Mohan</b><br/> Bioengineering and Environmental Sciences Lab, CSIR-Indian Institute of Chemical Technology, Hyderabad, India</p> <p><b>Invited Lecture 6:</b> <i>Biorefinery-Driven Circular Interventions for Sustainable Carbon Management</i></p> <p><b>Venue:</b> Room No. G204/A<br/> <b>Link:</b> <a href="https://meet.google.com/nfq-grne-fhv">https://meet.google.com/nfq-grne-fhv</a></p>  |
| 04:30 – 5:00 PM     | <b>VALEDICTORY SESSION</b>  |
| <b>END OF DAY 2</b> |   |

DAY 3: Saturday 25<sup>th</sup> January 2025

Venue: Room No. G204/A

**Post-Conference Workshop**

|                  |   |  |
|------------------|---|--|
| 10:00 – 10:30 AM | <b>Introductory Session</b>   | G204/A   |
| 10:30 – 11:00 AM | <b>Biomethanation</b><br>Prof. P. Sankar Ganesh                       | DST-PURSE Lab<br>A-Block Cellar                      |
| 11:00 – 11:30 AM | <b>Methane to Hydrogen</b><br>Prof. Satyapaul A. Singh                | <b>Colloids and Interfaces Laboratory</b><br>D-Block |
| 11:30 – 12:00 PM | <b>Membrane Fuel Cells</b><br>Prof. Chanchal Chakraborty              | DST-PURSE Lab<br>A-Block Cellar                      |
|                  | <b>Energy Management</b><br>Prof. Ankur Bhattacharjee                 |  |
| 12:00 – 1:00 PM  | <b>Biogas to Electricity</b><br>Prof. Supradeepan K                   | On-Campus Sewage Treatment Plant                     |
|                  | <b>Field visit to Biomethanation Plants</b><br>Prof. P. Sankar Ganesh |  |
| 1:00 PM          | <b>End of Workshop and Lunch</b>                                      |  |



**ValORIZATION 2025:**

The International Conference on Science & Technology Integration for Circular Economy (Hybrid Mode) is organized by the DST - SATHI - PURSE Team at Birla Institute of Technology & Science (BITS) Pilani, Hyderabad Campus, India is scheduled on 23<sup>rd</sup> and 24<sup>th</sup> Jan 2025, followed by a hands-on workshop on 25<sup>th</sup> Jan 2025. <https://www.bits-pilani.ac.in/valorization/>



**DST-SATHI Project:**

The Department of Science and Technology launched the "Sophisticated Analytical & Technical Help Institute (SATHI)" initiative to establish shared, professionally managed Science and Technology infrastructure facilities. <https://dst.gov.in/sophisticated-analytical-technical-help-institutes-sathi>



**DST-PURSE Project:**

"Promotion of University Research and Scientific Excellence (PURSE)" is an infrastructure programs of the Department of Science and Technology exclusively for the university sector, to strengthen the research capacity. <https://dst.gov.in/promotion-university-research-and-scientific-excellencepurse>

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