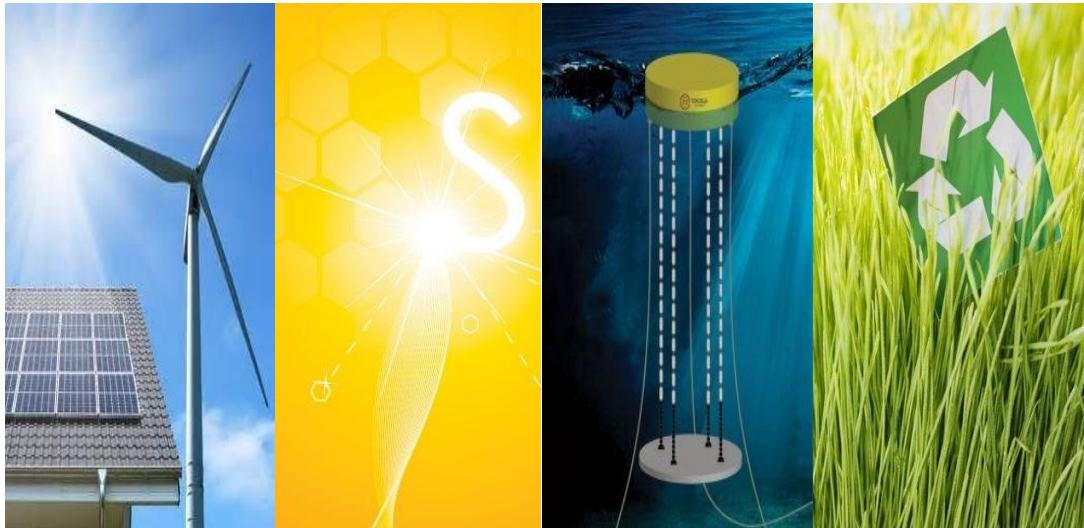


5th International Conference on
Renewable Energy Potential for Sustainable Initiatives
REPSI-2026
06th - 07th February 2026



Department of Electrical & Electronics Engineering
Bharati Vidyapeeth's College of Engineering,
Paschim Vihar, New Delhi,
INDIA

PROGRAM SCHEDEULE

06.02.2026 Friday	INAUGURAL SESSION Timings: 11:00 AM – 12:30 PM
Inaugural Address	1. Prof. (Dr.) Dharmender Saini, Principal 2. Prof. (Dr.) Kusum Tharani, Head, EEE Department
Key Note-1	Dr. Malathy Batumalay, INTI International University, Malaysia.
Key Note-2	Mr. Nikhil Pathak, Head – Contracts & Sustainability, Tata Power DDL.
Key Note-3	Ms. Meetali Bharti, Scientist at the CSIR – National Institute of Science Communication and Policy Research (CSIR – NIScPR) & Editor in Chief – Indian Journal of Engineering and Material Science.

06.02.2026 Friday 2:00 PM - 4:30 PM	Session - 1 Venue – F 401	
	Session Chair: Dr. Malathy Batumalay, INTI International University, Malaysia. Session Co-Chair: Dr. Sangeeta Gupta, Assistant Professor, Dept of ICE, BVCOE, New Delhi.	
Presentation Schedule		
S. No	Paper ID	Paper Title & Authors
1	81	Polymers and Other Advance Materials: State of Art Review <i>Ranjana Mishra</i> , Praveen Kumar Dwivedi, Sumit Chawla, Saurabh Kumar Agrawal, Amreeta Preetam, Pooja Bhati
2	111	Next-Generation Polymer Recycling for Circular and Sustainable Plastics <i>Nidhi Gupta – MSIT, New Delhi</i>
3	102	AI-Based Power Outage Preparedness Recommendation System Dr. Kusum Tharani, <i>Laiba Zeba</i> , Neeraj Kumar, K. Sudha, Arun Chaudhary - Ministry of New and Renewable Energy Government of India New Delhi
4	99	Comprehensive Study of Solar PV Modeling and Control Strategies for Photovoltaic Emulator Configuration <i>Simmi Sharma</i> , Dheeraj Joshi -JIIT, Noida, DTU Delhi
5	91	AI-IoT Enabled Energy-Efficient Smart Irrigation Using Piezoelectric Sensors for Sustainable Agriculture Kusum Tharani, <i>Anushka Sharma</i> , Diya Gupta, Khushi Goel, Aakash Seth
6	95	Intelligent Polymer-Integrated Wearable Platforms for Sustainable IoT and Predictive Health Monitoring for Migraine Detection Kusum Tharani, <i>Anika Ahuja</i> , Mehak Vasudeva, Yug
7	110	Polymer-Based Composite Systems for the Controlled Release of Agrochemicals: A Review of Strategies Against Major Potato Pathogens <i>Kajal Kaul</i>

06.02.2026 Friday 2:00 PM – 4:30 PM	Session – 2 Venue – F 402 Online Meeting Link - https://meet.google.com/qsv-bvpa-puc	
	Session Chair: Dr. Astitva Kumar, Assistant Professor, Department of Electrical Engineering, NSUT, New Delhi. Session Co-Chair: Dr. Saket Gupta, Assistant Professor, Dept of ICE, BVCOE, New Delhi.	
Presentation Schedule		
S. No	Paper ID	Paper Title & Authors
1	114	Design and Implementation of a Polymer-Integrated IoT- Based Smart Intravenous Fluid Monitoring System for Patient Safety Ritambra Katoch, <i>Saurabh Kumar</i>
2	116	Polymeric Materials in the Anthropocene: Environmental Accumulation, Human Health Concerns, and Cultural Response Vandita Sharma, Nitu Sehrawat, Manisha Verma, <i>Nisha Malhotra</i>
3	113	Regenerative Braking System in Solar Assisted Electric Vehicle Dr. Sunil Gupta, Dr. Nidhi Gupta, Dr. Abhishek Gandhar, Nirbhay Tiwari, Sujal, <i>Kartikeya Singh Negi, Isha Gupta</i>
4	118	Solar Power Forecasting using the LSTM Model Neeraj Kumar, Kusum Tharani, Mritsa Singh, Sadaf Naqvi, Simran Kaur, <i>Simran Bhatia</i>
5	56	Modern Heritage Restoration Using GANs: Insights into Polymer-Composite Aging Vijay Kumar, Apurva Jain, Rachna Narula, Deepika Varshney, Mohit Aggarwal, <i>Tulika Bhatia</i>
6	93	Electron Transfer in Eco-Friendly P3HT-rGO Hybrid Nano composites for Optoelectronic Applications <i>Sumit Kumar</i> , Tanvi Vats, Ashu Soni, Pratibha Tiwari (<i>online</i>)
7	75	Development and Performance Evaluation of GO-ZnO/PU Hybrid Nanocomposite Coatings for Improved Optical Transmission, Cooling, and Self-Cleaning in PV Systems Dr. Sandeep Sharma, Dr. K. Sudha, Dr. Nidhi Gupta, Dr. Bharat Singh, <i>Dr. G. Sivagurunathan</i> (<i>online</i>)
8	11	Development and Performance Evaluation of Polymer-Based Nanocomposite Coatings to Enhance the Efficiency of Solar Photovoltaic Panels Sandeep Sharma, <i>Lalit Mohan</i> , Ajay Dureja, Sandeep Banerjee, Bharat Singh (<i>online</i>)
9	65	Simulation Based Industrial Waste Water Driven Pico Hydro power Based Charging Sagar S. Patil, Deepali A Suryawanshi, <i>R.M. Holmukhe</i> , Datta. S. Chavan Atul J Patil (<i>online</i>)

06.02.2026 Friday 2:00 PM – 4:30 PM	Session – 3 Venue – F 403 Online Meeting Link - https://meet.google.com/sto-ofvv-qdb	
	Session Chair: Dr. Bhavnesh Kumar, Associate Professor, Department of Electrical Engineering, NSUT, New Delhi. Session Co-Chair: Dr. Sandeep Banerjee, Associate Professor, Dept of EEE, BVCOE, New Delhi	
Presentation Schedule		
S. No	Paper ID	Paper Title & Authors
1	90	A Hybrid model of ResNet50 integrated U-Net for image Denoising for Polymer and Composite Microstructure Analysis Akanksha Kochhar, Anu Yadav, Aarti Serhwat, Sanskar Kannaujia, <i>Rishabh Jain, Piyush Thakur</i>
2	88	Review of Polymers and Composites in the Design of Unmanned Aerial Vehicles Sandeep Banerjee, <i>Ojas</i>
3	96	Design and Implementation of Smart Grid Technologies for Efficient, Reliable, and Sustainable Power Distribution Abhishek Gandhar, Tripti Tiwari, Shashi Gandhar, Mohit Tiwari Dheeraj Garg - Conestoga High School, Pennsylvania, United States (<i>online</i>)
4	84	AI-Driven Lightning Strike Prediction Using Polymer-Integrated Sensor Platforms for Climate-Resilient Energy Systems in India Kusum Tharani, K. Sudha, Surinder Kaur, <i>Manish Talwar</i> , Neeraj Kumar
5	55	A Sustainable and Green Prototyping Framework for Low-Carbon and Resource-Efficient Virtual Product Development <i>Khiraling Patil</i> , Dr Sachhidanand Reur, Dr Ashok Kumar Vanageri (<i>online</i>)
6	103	Comparative Environmental and Economic Assessment of Wind Turbine Blade Materials <i>Abinash Singh</i> , Chandigarh University (<i>online</i>)
7	77	Explainable Machine Learning Integrated with Polymer-Based Diagnostic Technologies for Liver Health Classification Amrita Koul, N P Singh, <i>Jyotsana</i> (<i>online</i>)
8	82	Development and Thermal-Soiling Performance Evaluation of Boron-Nitride Reinforced Polymer Nanocomposite Coatings for Solar Photovoltaic Applications Sandeep Sharma, Bharat Singh, <i>Lalit Mohan Trivadi</i> , Ajay Dureja, K. Sudha (<i>online</i>)
9	119	Grey Wolf Optimizer Based STATCOM Control for Voltage Regulation in Solar-Wind Hybrid Microgrid <i>Dhammapal Kamble</i> , Totappa Hasarmani, Abhishek Gandhar, Santosh Tamke(<i>online</i>)

07.02.2026 Saturday 10:00 AM – 12:00 PM	Session –1 Venue – F 401 Online Meeting Link - https://calendar.app.google/JT8a7tTRneGok6R6 Session Chair: Dr. Shalabh Kumar Mishra, Assistant Professor, Department of Electronics and Communication Engineering, Madan Mohan Malviya University of Technology, Gorakhpur Session Co-Chair: Dr. Neeraj Kumar & Dr. Bharat Singh, Associate Professor, Dept of EEE, BVCOE, New Delhi	
Presentation Schedule		
S. No	Paper ID	Paper Title & Authors
1	51	Enhancing Sustainable Energy and Power Quality in Higher Education: A Pathway toward SDG 7 and 12 Diksha Chopade, <i>Rajesh Holmukhe</i> , Milind Patwardhan, Kalyani Chaudhari, Pranali Yawale, Abhishek Gandhar - BVUCOE Pune
2	63	CITIMAN: Sustainable Polymer-Driven Smart City Design to Monitor, Manage, And Mitigate Amrita Ticku, <i>Srishti Vashishtha</i> , Payal Malik, Nisha Malhotra, Jyoti Kumari
3	100	Green Miles - Carbon Neutral Flight Estimator Dr. Kusum Tharani, Trisha Rai, <i>Vanshika Budhiraja</i> , Rimjhim Bansal Dr. Seshadri A N - Smart Fuel Pvt Ltd.
4	86	Short-Term Load Forecasting via XGBoost: Integrating Predictive Modeling with Interactive Feature Analysis Using Streamlit Abhishek Gandhar, <i>Pranaya Bansal</i> , Shashi Gandhar, Ashish Kumar, Sanjay Agarwal - National Institute of Technology, Meghalaya
5	115	Machine Learning Assisted Design and Analysis of Polymer Composite Materials for Sustainable Renewable Energy Systems <i>Jatin Thakur</i> , Ramesh Narwa, Nishant Sharma - Jaypee University of Information Technology, Himachal Pradesh
6	112	Polymer and Composite Materials for Smart Potato Plant Disease Detection Systems: A Review <i>Kajal Kaul</i>
7	106	Modelling-Based Evaluation of Hybrid Natural–Synthetic Fiber Polymer Composites for Sustainable Energy Applications <i>Mahesh Kumar</i>