

## Track 2: Power, Control, Energy and Intelligent Transportation Technologies

### Day 1; 6th March 2025 (Thursday)

Paper ID	Paper Title	Mode of Presentation	Primary Contact Author Name	Authors	Date of Presentation
284	Review of Trends in the Development of Power Rectifiers used in Robotics	offline	Valery Vodovozov	Valery Vodovozov (Tallinn University of Technology)*; Zoja Raud (Tallinn University of Technology)	<b>6th March 2025 (Session 1); 12:45PM-2PM</b>
134	Twitter Sentiment Analysis of the Electric Vehicle Industry in India using NLP	Online	Rishabh Sharma	Rishabh Sharma (Delhi Technological University)*; Meha Joshi (Indira Gandhi Delhi Technical University for Women)	
154	Advancements of Solar Energy Research in the context of SDG-7 attainment: A Bibliometric Analysis using SPAR-4-SLR Protocol	Online	Jyoti Luhaniwal	Jyoti Luhaniwal (BITS Pilani, Pilani Campus)*; Shivi Agarwal (Birla Institute of Technology and Science, Pilani); Harish Puppala (SRM University AP); Trilok Mathur (Birla Institute of Technology and Science, Pilani)	
198	Analysis of a Grid-Connected Photovoltaic/Wind Hybrid Power System's Performance	Online	VIJAYA BHASKAR REDDY K	VIJAYA BHASKAR REDDY K (BV RAJU INSTITUTE OF TECHNOLOGY)*; Murali A (BVRIT); Archana Rao p (BV RAJU INSTITUTE OF TECHNOLOGY)	
277	Single Phase D-STATCOM Design and Prototyping	Online	Chaantrea Lamin	Chaantrea Lamin (Assam Engineering College)*; Purobi Patowaty (Assam Engineering College)	
344	Comparative Analysis of Various Properties of Sawdust, Bamboo, and Coconut Shell Pellets using Char Powder and Burn Oil as Binding Materials	Offline	Sakhi Katre	Sakhi Katre (Maulana Azad National Institute of Technology, Bhopal)*; Prashant Baredar (MANIT); Gaurav Dwivedi (Maulana Azad National Institute of Technology, Bhopal); Raj Suman (Maulana Azad National Institute of Technology, Bhopal)	
369	Decentralization, Customization, and Emergency Assistance: The Next Generation of Ride-Sharing	Online	Pradeep Kanchan	Pradeep Kanchan (NMAMIT)*; Avani Acharya (NMAM Institute of Technology); Ashlin Dsouza (NMAM Institute of Technology); Chaithra M (NMAM Institute of Technology)	
621	Experimental study of performance, combustion and emission behavior of turbocharged CRDi diesel engine with hydrogen enrichment	Offline	Kaustubh Singh	Kaustubh Singh (Maulana Azad National Institute of Technology)*; Tikendra Nath Verma (Maulana Azad National Institute of Technology); Gaurav Dwivedi (VIT University)	

### 6th March 2025 (Session 2); 2.30 PM – 3.45 PM

702	Machine Learning Based Diagnosis of Shaft Failures in Heavy Vehicles	Online	Ishan Undre	Ishan Undre (Vishwakarma Institute Of Information Technology)*; Urvish Vasani (Vishwakarma Institute Of Information Technology); Rudra Shete (Vishwakarma Institute Of Information Technology); Amey Kalsapnavar (Vishwakarma Institute Of Information Technology); Chudaman Sukte (Vishwakarma Institute Of Information Technology); Manohar Kodmelwar (Vishwakarma Institute Of Information Technology)	<b>6th March 2025 (Session 2); 2.30 PM – 3.45 PM</b>
727	LMI-Based Robust Control of a Knee Rehabilitation Exoskeleton Robot Using a Nonlinear Composite Controller	Online	Jyotindra Narayan	Sahar Jenhani (ENIT); Hassène Gritli (ENIT); Jyotindra Narayan (Imperial College London)*	
1008	Scalable Smart Parking System Using Sensors and Flutter Mobile Application	Online	Diya Pandey	Diya Pandey (Mukesh Patel School of Technology Management & Engineering)*; Pratham Mistry (Mukesh Patel School of Technology Management & Engineering); Priyanshu Panchal (Mukesh Patel School of Technology Management & Engineering); Sulalah Mirkar (Mukesh Patel School of Technology Management & Engineering)	
1093	Early Detection of Diabetic Retinopathy Using a Fine-Tuned VGG19 Convolutional Neural Network	Online	Bhoomika .	Bhoomika . (Chitkara University Institute of Engineering and Technology)*; Goldy Verma (Chitkara University Institute of Engineering and Technology, Chitkara University, Punjab, India )	
1270	Performance Evaluation of Full Bridge LCC Resonant Converter with Variable Frequency Control and Hybrid Power Control Strategies	Online	Hemendra Chouhan	Hemendra Chouhan (Shri Govindram Seksaria Institute of Technology and Science, Indore, Madhya Pradesh, India.)*; Ravindra S. Mandloi (Shri Govindram Seksaria Institute of Technology and Science, Indore, Madhya Pradesh, India)	
1277	Life Cycle Assessment and Sustainability Analysis of Anaerobic Digestion	Offline	Rahul Rajak	Rahul Rajak (MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY BHOPAL)*; Raj Suman (Maulana Azad National Institute of Technology); Gaurav Dwivedi (VIT University); Prashant Baredar (MANIT)	
1360	Antecedents of Adoption Intention of Electric Vehicles in Indonesia: Using Extended Theory of Planned Behavior	Online	Rastinia Hanum	Rastinia Hanum (Bina Nusantara University)*; Yessy Fouryana (Bina Nusantara University); Aryobagas Brahmanto (Bina Nusantara University); Brian Muchardie (Bina Nusantara University); Lianna Wijaya (Bina Nusantara University)	

1468	Performance Evaluation of Tunnel and Indirect-Type Solar Dryers: A Study Using Potato Slices	Offline	Raj Suman	Raj Suman (Maulana Azad National Institute of Technology)*; Gaurav Dwivedi (VIT University); Gurveer Singh (Maulana Azad National Institute of Technology); Prashant Baredar (Maulana Azad National Institute of Technology, Bhopal); Sakhi Katre (Maulana Azad National Institute of Technology, Bhopal)
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**6th March 2025 (Session 3); 4.45 PM – 6.15 PM**

2033	Economic and Feasibility Study of Solar Energy Utilization on Metro Rail Tracks via PVSyst	Online	Momotaj Jahan	Md. Abir Reza (Hajee Mohammad Danesh Science & Technology University); Momotaj Jahan (Hajee Mohammad Danesh Science & Technology University)*; Ushna Das (Hajee Mohammad Danesh Science & Technology University); Md. Shahriar Rahman (Hajee Mohammad Danesh Science & Technology University); Mohammad Bayzid (American International University- Bangladesh); Md. Rafiul Islam (Hajee Mohammad Danesh Science & Technology University)
2560	Smart EV Charger Locator And Slot Booking Manager APP For Chhattisgarh	Online	vijaya j	vijaya j (International Institute of Information Technology-Naya Raipur)*; Keshavee Bisen (International Institute of Information Technology-Naya Raipur); Lucky Banjare ( International Institute of Information Technology-Naya Raipur); Aryan Bramhe (International Institute of Information Technology-Naya Raipur )
2564	Comparative Study on Impact of Output Modes on User Experience in Object Detection and Distance Estimation Systems	Online	Garima Jain	Garima Jain (VIT Bhopal University)*; Prasidhi Nandwani (VIT Bhopal University); Rupayali Swaroop (VIT Bhopal University); Harshlata Vishwakarma (VIT Bhopal University); Sanat Jain (VIT Bhopal University)
2600	AI-Driven Traffic Congestion Management: A Predictive Analytics Approach for Smart Cities	Offline	Saurabh Pratap Singh Rathore	Saurabh Pratap Singh Rathore, Yousef Farhaoui, Ebuka Emmanuel Aniebonam, Tapsi Nagpal, Thanuja M, Priyanka Kaushik
1848	Predictive Modelling of Photocatalytic Wastewater Treatment Using Random Forest and XGBoost on Mn-Doped BiFeO <sub>3</sub> .	Online	RVS Praveen	Kasiniya K (Bannari Amman Institute of Technology)*; Pappu Kumar (Sardar Vallabhbhai Patel College); Kapil Aggarwal (Koneru Lakshmaiah Education Foundation (K L Deemed to be University).); Dr Raj Kumar Gupta (Sardar Vallabhbhai Patel College); Thulasirajan Krishnan (Annamacharya Institute of Technology and Sciences); Manoj R Sonawane (SVKM's Institute of Technology); Sudhir Kumar (Sardar Vallabhbhai Patel College)
2565	An Improved Bearing Fault Investigation Scheme using 1D CNN with PCA and SVM	Online	Rintu Khanna	Rajeev Kumar (Punjab Engineering College Chandigarh)*; R S Anand (Indian Institute of Technology Roorkee); Muhammad Nameer Akhtar (University of Petroleum and Energy Studies ); Rintu Khanna (Punjab Engineering College Chandigarh)
2637	Optimal fractional order Internal Model Control approach for altitude control of UAV	Offline	Ashish Singhal	Ashish Singhal (Sagar Institute of science Technology and Engineering Bhopal)*

**6th March 2025  
(Session 3);  
4.45 PM – 6.15 PM**

**Day 2; 7th March 2025 (Friday)**

1407	Design & Simulation of Totem-Pole PFC integrated LLC Resonant Converter For EV Application	Online	Sanjay Kushwaha	Sanjay Kushwaha (Shri G.S. Institute of Technology and Science)*; Arun Parakh (Shri G.S. Institute of Technology and Science )
1496	Optimizing Cluster-Based Vehicle Dispatching in Ride-Hailing Services: A Reinforcement Learning Approach to Demand-Supply Dynamics	Online	Rym Taallah	Rym Taallah (LaRINa, ENSTAB, University of Carthage)*; Ikbal Chammakhi Msadaa (LaRINa, ENSTAB, University of Carthage)
1520	Design of Fuzzy Controllers for Flexible joint Robotic Manipulator	Online	Rajesh Tanna	Rajesh Tanna (Vignan's Institute of Information Technology)*; Ratala Koteswara Naik (A. M. Reddy Memorial College of Engineering & Technology); Palisetty Mohan Krishna (Visakha Institute of Engineering and Technology); Budi srinivasa rao (aitam college); Dr. Kumarraja Andanapalli (SRKR ENGINEERING COLLEGE); Balasubbareddy M (Chaitanya Bharathi Institute of Technology)
1751	Computer Aided TranSmission Line Fault Detection and Classification Method Using Continuous Wavelet Transform and Decision Tree	Offline	Om Prakash Mahela	Rajnandani Yadav (Department of Computer Science and Engineering, Madhav University); Khushbu . (Department of Computer Science and Engineering, Madhav University); Nagendra Kumar Swarnkar (Department of Electrical Engineering, Suresh Gyan Vihar University); Om Prakash Mahela (Rajasthan Rajya Vidhyut Prasaran Nigam Ltd.)*

**7th March 2025  
(Session 4);  
9 AM – 10.00 AM**

1847	Genetic Algorithm Optimized Fractional Order STATCOM Alleviating Voltage Dip Caused By L-G Failure In A Utility Grid Tied Fuel Cell Micro Grid	Online	Nibedita Ghosh	Nibedita Ghosh (NIT Silchar)*	
1851	Design and Simulation of Battery Thermal Management System for Electric Vehicles	Online	Vanya Goel	Vanya Goel (KIET Group of Institutions, Delhi-NCR, Ghaziabad)*; Snigdha Chaturvedi ( KIET Group of Institutions, Delhi-NCR, Ghaziabad); Bandana Sharma ( KIET Group of Institutions, Delhi-NCR, Ghaziabad)	

**7th March 2025 (Session 5); 11 AM – 1.00 PM**

1938	Design and Optimization of a High-Precision Pneumatic Actuation Circuit for Industrial Automation and Thermal Management	Online	Rahul Gowtham Poola	Rahul Gowtham Poola (SRM UNIVERSITY, AP ANDHRA PRADESH)*; Siva Sankar Yellampalli (SRM UNIVERSITY, AP ANDHRA PRADESH); Yatin Tadiparthi (Robbinsville High School)	<b>7th March 2025 (Session 5); 11 AM – 1.00 PM</b>
2130	Scalable Blockchain Framework for Decentralized Energy Trading in Smart Grids Using Auction-Based Algorithms	Online	Chaitanya Mahamuni	Chaitanya Mahamuni (Amity University Maharashtra)*	
2131	Cybersecurity and Functional Safety measures need to be introduced in the Communication Protocol between EV and EVSE	Online	sreekumar u	sreekumar u (ARAI)*; Urmila Patil (Dr. D. Y. Patil Institute of Technology)	
2169	An Efficient Authentication and Key Agreement for Vehicular communications	Online	Arun Sekar Rajasekaran	Arun Sekar Rajasekaran (SR University)*; Obulesu A (Vidya Jyoti Institute of Technology); Azees Maria (VIT University-AP); Sivakumar T (Sri Eshwar College of Engineering); Vimalnath S (M.Kumarasamy College of Engineering)	
2266	Design and Optimization of Solar Photovoltaic Systems for University Campuses: A Case Study on Standalone and Grid-Connected Model	Online	Rubel Hossen	Rubel Hossen (Manarat International University)*; Sumaiya Mahbub (Manarat International University)	
2360	Blockchain-Based Solutions for E-Waste Management: A Review of Opportunities and Challenges	Online	Ishraq Samiha	Ishraq Samiha (Chittagong University of Engineering and Technology)*; Md. Imam Uddin Forkan (CUET); Adnan Sami Sarker (CUET); Arpita Das (CUET); Nishat Sultana (NSTU)	
2366	Vehicle Trajectory Clustering via Graph Transformer Networks and Contrastive Learning	Online	Prasenjit Chanak	Nuthan Chingeetham (IIT (BHU)); Ravi . (IIT (BHU)); Prasenjit Chanak (IIT (BHU))*	
2371	Control of Bidirectional Power Transfer in Grid-tied Fast Electric Vehicle Charging System	Online	MALLE LINGAMIAH	MALLE LINGAMIAH (MANIT-Bhopal)*	

**Day 3; 8th March 2025 (Saturday)**

1589	CURRENT MODE CONTROLLED INTERLEAVED KY BOOST CONVERTER WITH ENHANCED RESPONSE	Online	RAMA REDDY SATHI	RAMA REDDY SATHI (RAJALAKSHMI ENGINEERING COLLEGE (AUTONOMOUS))*; Kuber Visnu S (Rajalakshmi Engineering College); Dhiwakar J (Rajalakshmi Engineering College ); Sowmya Vijay (College of Engineering, Anna University)	<b>8th March 2025 (Session 6); 9 AM – 10.00 AM</b>
2072	Switching Study of Dual Two-Level Three-Phase VSI for Three-Level Action	Offline	Dr Shailesh Gupta	Dr Shailesh Gupta (IIMT Engineering College, Meerut (U.P.))*	
2282	On Enhancing Electric Vehicle Ecosystem in Urban Scenario	Offline	Tanish Nagrani	Tanish Nagrani (Indian Institute of Information Technology, Vadodara)*; Shivam Pandey (Indian Institute of Information Technology, Vadodara); Naveen Kumar (Indian Institute of Information Technology, Vadodara); Manish Chaturvedi (Institute of Infrastructure, Technology, Research And Management, Gujarat)	
2460	Performance Evaluation Of Various Bifacial Photovoltaic Technologies: HIT, TOPCon, PERC In Bhopal Using PVsyst Simulator	Offline	Harshita Raj	Harshita Raj (Maulana Azad National Institute of Technology, Bhopal)*; Raj Suman (Maulana Azad National Institute of Technology, Bhopal); Archana Soni (Maulana Azad National Institute of Technology, Bhopal); Arvind Mittal (Maulana Azad National Institute of Technology, Bhopal)	
2555	Intelligent Thermal Management of Electric Vehicle Batteries Using Controlled Liquid Immersion Cooling System	Online	Shreyas Thombare	Shreyas Thombare (IIT Kharagpur)*; Trupti Dhanadhya (DYPIT)	