International Conference on
Sustainable Energy Technologies and Computational Intelligence (SETCOM 2025)
Department of Electrical Engineering, School of Energy Technology
Pandit Deendayal Energy University (PDEU), Gandhinagar, Gujarat, India
February 21 – 23, 2025

Technical Session Schedule (Venue C- Block, PDEU)

Day - 1 (21st Feb 2025, Friday) - 03:45 PM - 05:30 PM	
TS – 1 (C-001)	298, 534, 544, 552, 595, 638, 652
TS – 2 (C-002)	10, 308, 319, 320, 321, 356, 530
TS – 3 (C-003)	21, 304, 367, 497, 582, 616, 653
TS – 4 (C-005)	25, 70, 309, 402, 492, 498, 599

Day - 2 (22nd Feb 2025, Saturday) - 11:45 AM - 01:15 PM	
TS – 5 (C-001)	202, 203, 531, 568, 590, 644
TS – 6 (C-002)	47, 64, 268, 305, 345, 654, 664
TS – 7 (C-003)	474, 583, 613, 620, 660, 661
TS – 8 (C-004)	287, 379, 404, 564, 584, 598, 657
TS – 9 (C-005)	17, 265, 519, 503, 622, 650

Day - 2 (22nd Feb 2025, Saturday) - 03:45 PM - 05:30 PM	
TS – 10 (C-001)	65, 66, 332, 335, 425, 592, 643
TS – 11 (C-002)	41, 44, 205, 329, 330, 331, 525
TS – 12 (C-003)	30, 339, 397, 589, 606, 633, 641
TS – 13 (C-004)	360, 366, 430, 506, 591, 593, 632
TS – 14 (C-005)	40, 69, 214, 542, 619, 625, 639

Day - 3 (23rd Feb 2025, Sunday) - 09:30 AM - 11:00 AM	
TS – 15 (C-001)	53, 408, 524, 567, 656, 663, 666
TS – 16 (C-002)	60, 63, 317, 594, 658, 659
TS – 17 (C-003)	72, 333, 334, 353, 586, 623
TS – 18 (C-004)	1, 16, 71, 376, 361, 662, 665
TS – 19 (C-005)	13, 34, 67, 204, 207, 229, 667

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Technical Session (TS-01) Schedule
Day 1- Friday, 21st February 2025, Time: 03:45 - 05:30 PM

Session (Parallel)	Power Quality Aspects in Sustainable Electric Vehicle Systems (TT4- Modern Power System and Control)
Session Chair(s)	TBD
Paper ID: 298	**Paper Title:** Power Quality Analysis of a Distribution System Using A Novel Shunt Hybrid Filter. **Authors:** Pratap Sekhar Puhan, Sandeep S D, E Vinay Kumar, **G Shirisha, Ch Teja, M.Imran**.
Paper ID: 534	**Paper Title:** Analysis of Power Management in a Grid Connected PV System with Energy Storage Device. **Authors:** Sandeep S D, Sudarshan B S, **Pratap Sekhar Puhan**.
Paper ID: 544	**Paper Title:** Transformer Oil Analysis using DGA and UV Visible Spectroscopy for Condition Monitoring. **Authors: Hussain Kalathiripi**, Vipul Undety, Pratap Sekhar Puhan.
Paper ID: 552	**Paper Title:** Hybrid Renewable Energy Source Based Shunt Active Power Filter To Analyze the Power Quality in A Distribution System. **Authors:** Sunkey Sowjanya, T Rajeswari, **Pratap Sekhar Puhan.**
Paper ID: 595	**Paper Title:** Power Factor Correction (PFC) for EV Charger Using PI Controller in G2V Application. **Authors: Jyoshila Vinathi Adari**, Somesh Vinayak Tewari, Arghya Chakravarty, Ramanjaneya Reddy Udumula, G. Jawahar sagar, Tarkeshwar Mahto.
Paper ID: 638	**Paper Title:** High-Gain Switched-Capacitor based Novel DC-DC Converter for Renewable Energy Applications. **Authors:** Mihir Trivedi, Pratham Desai, **Kaibalya Prasad Panda.**
Paper ID: 652	**Paper Title:** Enhancement of Permanent Magnet Synchronous Motor Drive-Based Solar-Powered Electric Vehicle Drivetrain. **Authors:** G. Jawahar Sagar, V. Badrinath, V.Vivek Nag, Sivamshu Nagalingam, **Pratikanta Mishra**, Tarkeshwar Mahto.

Technical Session (TS-02) Schedule
Day 1- Friday, 21st February 2025, Time: 03:45 - 05:30 PM

Session (Parallel)	Applications of Advanced Materials and Storage System (TT3- Electric Transportation and Energy Storage)
Session Chair(s)	**TBD**
Paper ID: 10	**Paper Title:** Comparative Analysis of Dielectric Properties of ZnO and NiO Nanoparticles for Energy Storage Applications. **Authors: Shaik Abdul Khadir**, Darshith, Vinayakprasanna N Hegde, Savyasachi G K.
Paper ID: 308	**Paper Title:** Commercial and Technological Feasibility of Solar Powered e-Rickshaw: A Case Study in the Capital of Chhattisgarh. **Authors: Shravan kumar Singh**, Nihar Ranjan Sahu, Mohammad Arif Khan, Jagat Narayan Baiga, Rajesh Singh Rana, Nikhil Chander.
Paper ID: 319	**Paper Title:** Sustainable Modelling Framework for the Prediction in Ungauged Catchments: Leveraging Large-Sample Hydrology Datasets with Machine Learning. **Authors:** Ankit Deshmukh, **Sujal Thanki**, Durga Sharma.
Paper ID: 320	**Paper Title:** Analytical study for detecting rusting in cylindrical pillars in L Band. **Authors:** Akshay Pratap Singh, Kuldeep Singh, and **Rajendra Mitharwal.**
Paper ID: 321	**Paper Title:** Power Quality Enhancement in Electric Vehicle-Integrated Distribution Systems using a Solar-Powered Dynamic Voltage Restorer. **Authors:** Kambampati Lakshmi, **T Vijay Muni**, K Venkata Kishore, Sumalatha Kalakotla, N Narasimha Rao, Samala Nagaraju.
Paper ID: 356	**Paper Title:** Structural, Morphological and Dielectric Properties of Green Synthesised TiO2 Nanoparticles for Energy Storage Applications. **Authors: Latha S**, Bhushith M K, Vinayakprasanna N Hegde, Nagendra H, Chinthan S, Darshan R.
Paper ID: 530	**Paper Title:** Performance Enhancement of PV fed Dynamic Voltage Restorer using UVTG and Hysteresis Voltage Controller. **Authors: Ravikanth Mallajoshula**, I.E.S Naidu.

Technical Session (TS-03) Schedule
Day 1- Friday, 21st February 2025, Time: 03:45 - 05:30 PM

Session (Parallel)	Smart and Sustainable Intelligent Systems (TT6- Applied Computational Intelligence)
Session Chair(s)	TBD
Paper ID: 21	**Paper Title:** Dual-Polarized High Directivity and Wideband Cruciform Patch Antenna for Base Station Applications **Authors: M. Sai Debasisa Patra**, Sambhudutta Nanda.
Paper ID: 304	**Paper Title:** Reinforcement Learning for Adaptive Traffic Signal Control Using Deep Q-Networks. **Authors: Balaji Sunku**, Bhavsar Nitya Jignesh, Vishal V, Pawan Sai Sunkara.
Paper ID: 367	**Paper Title:** Performance Investigation of Electric Vehicle Charging Network Using FES and SOS Service Mechanism. **Authors:** Shreekant Varshney, **Manthan Shah**, Vidhi Manek.
Paper ID: 497	**Paper Title:** AutoCAS: An Automated Classroom Attendance System using Machine Learning. **Authors:** Prayag Thaker, Aarav Desai, Sneh Naik, Diya Contractor, and **Pradip Kumar Barik.**
Paper ID: 582	**Paper Title:** Sustainable Energy-Driven P2P Blockchain System for Tracking EV Performance and Maintenance **Authors:** Srinivas Odnala, Sri Laxmi Madapati, Akhilendra Prathap Singh, Pratikanta Mishra, **Nihar Ranjan Pradhan**
Paper ID: 616	**Paper Title:** Enhanced Road Defect Detection with Deep Learning: Integrating Surface Texture Analysis and Background Subtraction **Authors:** Priti Chakurkar, Deepali Vora , **Priyanshi Jain** , Saumya Jain.
Paper ID: 653	**Paper Title:** Deep Learning Approach for Evaluating Fairness in LLMs. **Authors: Laxmi Kumari**, Shilpa Serasiya, Santosh Bharti.

Technical Session (TS-04) Schedule
Day 1- Friday, 21ˢᵗ February 2025, Time: 03:45 - 05:30 PM

Session (Parallel)	Antenna Design and AI-based Intelligent System (TT5- Communication Systems for Sustainable Future)
Session Chair(s)	**TBD**
Paper ID: 25	**Paper Title:** Antenna Design with high Gain and Efficiency for Millimeter wave Applications. **Authors:** D.Hepzibha Rani, **Sambhudutta Nanda.**
Paper ID: 70	**Paper Title:** A CPW Fed Dual Band High Frequency Antenna for IoT Applications. **Authors:** Divya Kolusu, **Sambhudutta Nanda.**
Paper ID: 309	**Paper Title:** AutoDim: Automatic High/Low Beam Transition System. **Authors:** Tridib Das, Siddhant Lal, **Pradosh Ranjan Sahoo.**
Paper ID: 402	**Paper Title:** Enhancing AI Strategy in Checker through Minimax and Alpha-Beta Pruning Techniques. **Authors:** Roshani Raut, **Mayur Chaudhari**, Shreya Raipalli, Sankalp Banginwar.
Paper ID: 492	**Paper Title:** 360-Degree Signal Coverage: Design and Testing of an Omnidirectional Biquad Antenna. **Authors:** **Suyash Satish Shinde**, Tanishq Santosh Todkari.
Paper ID: 498	**Paper Title:** Advanced Stealth Protection for Android Devices. **Authors:** Govind Suryawanshi, Soham Patil, **Krishna H Sharma**, Amey Joshi, Aditya Gore.
Paper ID: 599	**Paper Title:** AI-Based Trash Collector Boat for Autonomous Waterway Pollution Management. **Authors:** N Bhuvaneswary, A.Antony Fedrick, **K. Sam Alltrin**, C.Jenkins John Jaspher, K. Sounder.

Technical Session (TS-05) Schedule
Day 2- Saturday, 22nd February 2025, Time: 11:45 AM - 01:15 PM

Session (Parallel)	Optimization in Solar and Wind Energy System (TT1- Renewable Energy and Smart Utilities)
Session Chair(s)	**TBD**

Paper ID: 202	**Paper Title:** Comparative Analysis of Solar Energy Generation Techniques in Maharashtra Using Deep Learning Approaches. **Authors: Atharva Waingankar,** Devansh Trivedi, Sharvil Gangan and Vikram Kulkarni.
Paper ID: 203	**Paper Title:** Mathematical modelling of a Solar-Wind Hybrid system for a Residence. **Authors:** Abhinav Krishnan R, **Adith Nair**, Gokul Suresh, Nandagopal P, Sharan Vikash S R, K.C Sindhu Thampatty.
Paper ID: 531	**Paper Title:** Performance Evaluation of Feed forward ANN Architectures Based Wind Speed Prediction for India. **Authors:** Harshini Allanki, Rajarohan Reddy Vaidyula, Vamshi Krishna Gattu, Thrishal Reddy Adaboina, **Amit Kumar Yadav**.
Paper ID: 568	**Paper Title:** Optimizing Critical Parameters Influencing Floating Solar PV System Performance Using Response Surface Methodology. **Authors: Amandeep Singh Makhija**, Shabbir S. Bohra, Vivek Tiwari, Shreekant Varshney.
Paper ID: 590	**Paper Title:** Comparative Study of Regularization and Mini-Batch Training Techniques for ANN Based Wind Speed Prediction. **Authors:** Devireddy Poojitha, Boddepalli Jahnavi, Naga Sai Dhanya, Deverakonda Durga Prasad**, Amit Kumar Yadav.**
Paper ID: 644	**Paper Title:** Comparative Assessment of MPPT Techniques for Optimizing Photovoltaic System Efficiency. **Authors: Rachna Dhir**, Rachana Garg, Priya Mahajan.

Technical Session (TS-06) Schedule
Day 2- Saturday, 22ⁿᵈ February 2025, Time: 11:45 AM - 01:15 PM

Session (Parallel)	Machine Learning Applications in Energy, Healthcare, and Finance (TT6- Applied Computational Intelligence)
Session Chair(s)	TBD
Paper ID: 47	**Paper Title:** Time-Series Forecasting of Energy Consumption Using LSTM Networks for Optimized Microgrid Management. **Authors:** **Kartik S. Pandya**, Rupesh Kumar Tipu, Jigna K. Pandya.
Paper ID: 64	**Paper Title:** Transfer Learning for Solar Energy Forecasting: A Comparative Study of BGRU and T-BGRU Models. **Authors:** **M. Shanker**, Vikram Kulkarni, Ashwini Rao and Sarat Kumar Sahoo.
Paper ID: 268	**Paper Title:** Impact of Deep Learning Techniques on Automated Sleep Staging Diagnosis using Brain EEG Signals. **Authors:** **Sahil Shah**, Aarav Kumar Shah, Jay Patel, Sonu Bodt, Nisarg Patel, Santosh Kumar Satapathy.
Paper ID: 305	**Paper Title:** Flexible Operation of Combined cycle Gas Based Power Plants in Western Region, India. **Authors:** Rajesh Kumar, Absar Ahmad, Pavitra Malik, **Deshraj Meena.**
Paper ID: 345	**Paper Title:** Deep Learning in Medical Imaging: CNN-Based Approach for Multi-Class Brain Tumor Classification. **Authors:** **Arya Kulkarni**, Umang Patel, Alice Cheeran.
Paper ID: 654	**Paper Title:** Enhanced automated brain tumour detection using convolutional neural network. **Authors:** **Tanisha Joshi**, Bhavika Chaudhary, Yashraj Prakash Gurjar, Shivangi Mehta.
Paper ID: 664	**Paper Title:** Predictive Analytics for Stock Market Trends Using LSTM Models **Authors:** Deepak Sahu, **Aditya Kothari**, Jigarkumar Shah, Shivam Jain, Hepin Ramani, Priyank Koradiya.

Technical Session (TS-07) Schedule
Day 2- Saturday, 22nd February 2025, Time: 11:45 AM - 01:15 PM

Session (Parallel)	**Autonomous Drive Systems in Smart Infrastructure** **(TT2- Power Converters and Energy Efficient Machine Drives)**
Session Chair(s)	**TBD**

Paper ID: 474	**Paper Title:** An Enhanced and High-Performance Algorithm for Accurate Named Entity Recognition in Legal Text. **Authors:** Varsha Naik, **Aniket Rahalkar.**
Paper ID: 583	**Paper Title:** Electric Vehicle Control Protocol for on Board System **Authors:** Prachi Salodkar, **Hitesh Maidurkar**, Altaf Q. H. Badar.
Paper ID: 613	**Paper Title:** Chaotic Adaptive Particle Swarm Optimization and Quantum-Inspired Genetic Algorithm for Robust Feature Selection in IoT Intrusion Detection **Authors:** Padmasri Turaka and **Saroj Kumar Panigrahy**
Paper ID: 620	**Paper Title:** Autonomous Intelligence: AI's Role in Transforming Vehicles, Drones, and Space Missions. **Authors:** **Shreya Sachin Patil**, Dipti Durgesh Patil.
Paper ID: 660	**Paper Title:** A Closed-Loop Virtual Synchronous Generator for Enhanced Stability in Islanded Solar Power Systems: Advancing Sustainable Energy Transition. **Authors:** Suparna Maity, **Sandip Chanda**, Alok Kr. Srivastava, Didhiti Dey, Soumya Sasmal, Debdeepta Ghosh.
Paper ID: 661	**Paper Title:** Digital Twin-Driven Predictive Maintenance: A Review of Induction Motor Bearing Fault Detection and Prognostics. **Authors:** **Sachin Jagdale**, Vijayshree More, Prajakta Murmude.

Technical Session (TS-08) Schedule
Day 2- Saturday, 22nd February 2025, Time: 11:45 AM - 01:15 PM

Session (Parallel)	Sustainable Electric Vehicle Infrastructure (TT3- Electric Transportation and Energy Storage)
Session Chair(s)	TBD

Paper ID: 287	**Paper Title:** Assessing state-wise policy frameworks for Electric Vehicle Adoption: Transportation Sector in India. **Authors: Chandra Kant Upadhyay**, Mohan Krishnan, Aditya Gupta, Sukhpreet Kaur.
Paper ID: 379	**Paper Title:** Applications of Sustainable Electric Vehicle Infrastructures Using Stochastic Threshold Strategies in Green Transportation and Highway Networks. **Authors:** Kuldeepkumar Ramabhai Nayi, Shreekant Varshney, Anurag Kumar Srivastava, Deepti Priyadarshini, **Om Patel.**
Paper ID: 404	**Paper Title:** Markov Modelling of Sustainable Electric Vehicle Infrastructures Using Priority Queues. **Authors:** Shreekant Varshney, Manthan Shah, Siddharth Shah, Mayank Gupta, Naveen Kumar, **Sherwin Abraham.**
Paper ID: 564	**Paper Title:** A Comprehensive Analysis and Detection of Wildfire Impact on Vegetation and Wildlife and Biomass Emission. **Authors:** Premanand Ghadekar, Rishi Jain, Saee Kadam, Rugved Junghare, Ishita Jasuja, Vinayak Wankhade and **Debabrata Swain.**
Paper ID: 584	**Paper Title:** AntiMicrobial Resistance Prediction Using Advanced Image Encoding Techniques. **Authors:** Premanand Ghadekar, Arjun Jaggi, **Debabrata Swain**, Aryan Ghadekar.
Paper ID: 598	**Paper Title:** Step-by-Step Reliability Analysis of Wireless Battery Charger for Electric Vehicles using the Markov Process. **Authors:** Vinayak Ajinath Mastud, **Ashok Kumar**, Sanjay Kumar Sena.
Paper ID: 657	**Paper Title:** A Review Summary on Recent Trends in the Application of Li-ion Battery in Power Delivery Systems. **Authors:** Soumyakanta Samantaray, Partha Kayal, **Dev Srivastava**.

Technical Session (TS-09) Schedule
Day 2- Saturday, 22nd February 2025, Time: 11:45 AM - 01:15 PM

Session (Parallel)	Advanced Control and Protection in Smart Power System (TT4- Modern Power System and Control)
Session Chair(s)	TBD

Paper ID: 17	**Paper Title:** Real-time Collision Detection and Traffic Congestion Control for Vehicular Networks. **Authors: Pradip Kumar Barik**, Aayushi Varmora, Ankita Dimri, Annshu Prajapati, and Brijesh Kavar.
Paper ID: 265	**Paper Title:** ADBS: Automatic Dynamic Braking System for Semi-autonomous Vehicles. **Authors: Pradip Kumar Barik**, Yash Jogani, and Nil Faldu.
Paper ID: 519	**Paper Title:** Adaptive Differential Protection of Large-Scale Generator Considering CT Saturation Phenomenon. **Authors: Sunilkumar Shah** and Nilesh Chothani.
Paper ID: 503	**Paper Title:** Model-Based Control for Enhanced Headlamp Performance. **Authors: Ananya Shivaraj**, Asmi Dhull, Y.P. Obulesu.
Paper ID: 622	**Paper Title:** A New Technique for Monitoring and Protection of Distribution Transformer during Single-Phasing Situation. **Authors:** Nilesh Chothani, **Swapnil Kumar.**
Paper ID: 650	**Paper Title:** Analysis of Parameters Influencing Electric Vehicle Range, Velocity, Acceleration & Battery Capacity. **Authors: Alok Jain** and Suman Bhullar.

Technical Session (TS-10) Schedule
Day 2- Saturday, 22ⁿᵈ February 2025, Time: 03:45 PM - 05:30 PM

Session (Parallel)	Energy Storage Integration & Challenges (TT3- Electric Transportation and Energy Storage)
Session Chair(s)	TBD
Paper ID: 65	**Paper Title:** Comprehensive Analysis of Hydrogen Storage: Addressing Geo-storage and critical challenges. **Authors:** **Ramanand Singh**, Uma Sankar Behera, Mayur Pal.
Paper ID: 66	**Paper Title:** A Review of Current Trends in Greenhouse Gas Emission Prediction through Machine Intelligence Learning Techniques and Future Challenges. **Authors:** **Aashna Mathur,** Rishi Khandelwal, Santosh Kumar Satapathy.
Paper ID: 332	**Paper Title:** A Global Challenge, A Global Solution: Battery Reuse and Recycling. **Authors:** **Atmiya Patel**, Kartik S. Pandya
Paper ID: 335	**Paper Title:** Integration of Green Hydrogen Production with Water Desalination: A Sustainable Path Forward. **Authors:** **Nanji J Hadia**, Himanshu S Choksi, Anurag Mudgal.
Paper ID: 425	**Paper Title:** Phase Change Materials in Thermal Energy Storage: A Comprehensive Review of Properties, Advances, and Challenges. **Authors:** Pramod Kale, **Prayas Gondane**, Piyush Bhutada, Aditya Patil, Yog Patil, Rahul Yadav.
Paper ID: 592	**Paper Title:** Investigation of hydrogen recirculation ratios in individual ejectors under various operating conditions for a 110 kW PEMFC. **Authors:** **Xiang Li**, Zhongxuan Du, Ruidan Zhang, Yu Li, Xiaoni Deng, Xuan Gu, Xuebin Yang.
Paper ID: 643	**Paper Title:** A web application for emmission reduction in coal mining. **Authors:** **Vedant Kulkarni**, Sarthak Pawar, Suraj Aher, Sneha Barwal, Mahesh Bhandari, Yogesh Deshpande, Pawan Wawage.

Technical Session (TS-11) Schedule
Day 2- Saturday, 22nd February 2025, Time: 03:45 PM - 05:30 PM

Session (Parallel)	Advancements in Renewable Power Systems (TT1- Renewable Energy and Smart Utilities)
Session Chair(s)	TBD
Paper ID: 41	**Paper Title:** Modeling and Analysis of Albedo effect on Bi-facial Module Configuration for Mega Solar PV Plant. **Authors: Sahil Kanjani**, Mayank Gupta, Brijesh Tripathi, Shreekant Varshney, Sakshi Gupta and Vivek Tiwari.
Paper ID: 44	**Paper Title:** Non-Unit Protection Scheme Assessment of Stand-Alone PV Generating System. **Authors: Saswat Mishra**, Gyan Ranjan Biswal, Papia Ray.
Paper ID: 205	**Paper Title:** Electric Vehicle Charging Strategies for Solar Integrated Office Parking Lots. **Authors: Hitesh Kumar Verma**, Nikhil Gupta, Praveen Kumar Agrawal, K.R. Niazi and Anil Swarnkar.
Paper ID: 329	**Paper Title:** A New Approach for Power-Flow Solutions in Radial Distribution Network with 12, 33, and 69 IEEE Bus System. **Authors:** Yatindra Gopal, J. Vijaychandra, P. Janaki, Karthik Tamvada, **Niharika Routh**, Shubrakant Pradhan.
Paper ID: 330	**Paper Title:** Evaluation of Cuckoo Search MPPT Alogorithm for Solar Photovoltaic Inverter Applications. **Authors**: Vijaychandra Joddumahanthi, Yatindra Gopal, Janaki Pakalapati, Veda Prakash Kakinada, **Varshitha Potnuru**, V.D.K.S.R. Rajesh.
Paper ID: 331	**Paper Title:** DNN-Driven Voltage Regulation in Wind Energy Systems with Electric Spring. **Authors:** Athimamula Srujana, **Nageswara Rao Paidipamula,** Raju Lakkabattula, Shamanty Suresh, Durga Prasad Ananthu.
Paper ID: 525	**Paper Title:** Field Performance Assessment of a 1.34 kW Rooftop PV plant in Delhi : Insight from two Comparative Periods. **Authors: Atul Avasthi**, Rachana Garg, Priya Mahajan.

Technical Session (TS-12) Schedule
Day 2- Saturday, 22ⁿᵈ February 2025, Time: 03:45 PM - 05:30 PM

Session (Parallel)	**Electric Vehicle Technologies with Power Electronics Application** **(TT2- Power Converters and Energy Efficient Machine Drives)**
Session Chair(s)	**TBD**

Paper ID: 30	**Paper Title:** A Low-Cost Hardware Design to Prevent Unauthorized Charging of Electric Vehicle Batteries. **Authors: Hardik Agravatt**, Indrajit Trivedi, Snehal Purani.
Paper ID: 339	**Paper Title:** Resilience to Flux Walking in Isolated Converters: A Comparative Study of Voltage Doubler and Diode Bridge. **Authors: Chandra Babu Guttikonda**, Pinni Srinivasa Varma, Malligunta Kiran Kumar, Kambhampati Venkata Govardhan Rao, Nittala Ramchandra, Thalanki Venkata Sai Kalyani.
Paper ID: 397	**Paper Title:** A New Eleven Level Switched Capacitor Multilevel Inverter with Reduced Power Semi Conductor Devices and Sources. **Authors:** M.L.N. Vital, Damarla Indira, Ramyasri Jampana, **B.V.S.R. Bhuvanesh**, N. Ganesh, P. Vamsi Krishna.
Paper ID: 589	**Paper Title:** Impact of Torque Ripple in PMSM on EV Energy Efficiency and Driving Range. **Authors: Kannan Selvam**, Vishnubhai Patel and Subhanarayan Sahoo.
Paper ID: 606	**Paper Title:** Comparative performance analysis of AOA-SHE control for SC-MLI with SO-SHE and PSO-SHE based control scheme. **Authors:** Priyanka Sen, Ashwin Kumar Sahoo, **Dev Srivastava**, Mitendar Kumar.
Paper ID: 633	**Paper Title:** Design and Development of Multi-Level Inverter Suitable for Solar Photovoltaic System. **Authors:** V. Varshini, **Sonu Kumar**, Santanu Kumar Dash, S. Arun Kumar, E. Kiran Kumar, V. Baby.
Paper ID: 641	**Paper Title:** An Inverter Control Strategy Pertaining to PSO Technique in the Grid Connected System. **Authors: Arpita Surywanshi**, Pranati Purohit, Arnab Ghosh.

Technical Session (TS-13) Schedule
Day 2- Saturday, 22nd February 2025, Time: 03:45 PM - 05:30 PM

Session (Parallel)	Control Strategies and Optimization in Drives (TT2- Power Converters and Energy Efficient Machine Drives)
Session Chair(s)	**TBD**

Paper ID: 360	**Paper Title:** Enhanced Two-Degree-of-Freedom Control for Polynomial and Sinewave Reference Trajectories. **Authors: Markana Anilkumar**, Ankit Shah.
Paper ID: 366	**Paper Title:** Queueing Network Analysis for Electric Vehicle Management Systems using G-Queues. **Authors:** Shreekant Varshney, Manthan Shah, Kapil Kumar Choudhary, Mayank Gupta, **Aksh Bavisi**, Bhasuru Abhinaya Srinivas.
Paper ID: 430	**Paper Title:** Optimal Green Energy Estimation for Sustainable Electric Vehicle Networks Using Queueing-Based Retrial Process. **Authors:** Shreekant Varshney, Jainit Raval, Rahul Priyadarshi, Vidhi Manek, **Yash Dadheech**, Manthan Shah.
Paper ID: 506	**Paper Title:** Comparitive analysis between coulomb counting algorithm and adaptive kalman filter algorithm for SOC estimation. **Authors:** Avinash R, **Poorvika A S**, Manju Jayaram, Darshan Gowda C M, Hasmukh V.
Paper ID: 591	**Paper Title:** Attitude Controller Design for a Flying Wing UAV. **Authors:** Prajakta P Nandanwar, **Anghan Prit Parashotambhai**, Hari Om Verma, Syed Alay Hashim.
Paper ID: 593	**Paper Title:** Second-Order Consensus in Heterogeneous Multi-Agent Systems by Distributed Sliding Mode Control. **Authors: Praveen Kumar**, Amit Anand, Dipayan Guha, Shubhi Purwar .
Paper ID: 632	**Paper Title:** A Simple Analytical Approach based Model Based Multi-loop PI Controller Design for Typical TITO Distillation Process. **Authors: A Maniramkrishna** and Soumya Ranjan Mahapatro.

Technical Session (TS-14) Schedule
Day 2- Saturday, 22nd February 2025, Time: 03:45 PM - 05:30 PM

Session (Parallel)	Advanced Smart Grid Integration Approach (TT1- Renewable Energy and Smart Utilities)
Session Chair(s)	TBD

Paper ID: 40	**Paper Title:** Overcurrent Relays coordination of Interconnected Power System using Modified Objective Functions and Multiple Standardized Tripping Curves. **Authors:** Shanker D. Godwal, Kartik S. Pandya, **Santosh C. Vora**, Chintan R. Mehta, Vipul N. Rajput.
Paper ID: 69	**Paper Title:** Artificial Intelligence-Based Solar Power Generation Prediction and Analysis. **Authors:** **Niraj H. Patel**, Prakruti Shah, Siddharth Joshi.
Paper ID: 214	**Paper Title:** Smart Solar Panel Maintenance: A Data-Driven Approach using IoT and Machine Learning. **Authors:** Sulalah Mirkar, Samahit Juvekar, **Arya Popat.**
Paper ID: 542	**Paper Title:** Harmonic Mitigation Using Active And Passive Filters. **Authors:** Upanya M, **Anushree S**, Mohammed Masood, Deekshitha G N, Naveena Kumara K P.
Paper ID: 619	**Paper Title:** Optimizing Grid Resilience and Sustainability with Renewable Energy and Battery Energy Storage Systems. **Authors:** **Atharva Joshi**, Archana Thosar.
Paper ID: 625	**Paper Title:** Performance of Stacked LSTM for Solar Energy Revenue Prediction. **Authors:** **Yuganshi Gaur**, Vinee Patel, Nirav D. Karelia, Vipin Shukla, Hasmukh Khatri.
Paper ID: 639	**Paper Title:** Demand Forecasting And Load Management For HT Consumer With Renewable Energy Application. **Authors:** **Mehul Kishorbhai Tamboli**

International Conference on
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Department of Electrical Engineering, School of Energy Technology
Pandit Deendayal Energy University (PDEU), Gandhinagar, Gujarat, India

February 21 – 23, 2025

Technical Session (TS-15) Schedule
Day 3- Sunday, 23rd February 2025, Time: 09:30 AM - 11:00 AM

Session (Parallel)	Role of Sustainability and Cybersecurity (TT5- Communication Systems for Sustainable Future)
Session Chair(s)	TBD
Paper ID: 53	**Paper Title:** Analyzing the Relationship of Carbon Dioxide Level with Physical Parameters in IoT-based Greenhouse Monitoring System **Authors: Mohd Azizuddin Ahmed**, Alokojjwal Das, Sandip Bordoloi.
Paper ID: 408	**Paper Title:** Evaluation of Energy Efficiency of a custom developed Physically Unclonable Function (PUF) for IoT Security. **Authors: Joy Acharya**, Paawan Sharma, Mohendra Roy.
Paper ID: 524	**Paper Title:** Enhancing Cybersecurity in Sustainable Energy: Regulatory Compliance, Challenges, and Policy Innovations. **Authors: Shruti Saxena**, Shivani Saxena, Nikunj Tahilramani, Ujjawal Patel, Vandana P. Talreja and Ashish Patel.
Paper ID: 567	**Paper Title:** A Sustainable Framework for Drought Modeling using Meteorological Drought Indicators as Proxies for Hydrological Drought. **Authors:** Ankit Deshmukh, **Gourav Najwani**, Shweta Kumari, Chanapathi Tirupathi.
Paper ID: 656	**Paper Title:** Design of Optimized Carry Select Adder (OCSA) for Low-Power IoT Applications. **Authors: Gunjan Thakur**, Devanshi Patel, Jay Patel.
Paper ID: 663	**Paper Title:** Machine Learning based Approach for Optimization and Control of Power Converters : An Overview. **Authors: Prashant Kumar Nayak**, Debabrata Swain, Kaibalya Prasad Panda.
Paper ID: 666	**Paper Title:** Leveraging Convolutional Neural Network and Explainable AI for Enhanced Pneumonia Detection. **Authors: Ramalingam Murugan,** Harshitha Patel.

Technical Session (TS-16) Schedule
Day 3- Sunday, 23rd February 2025, Time: 09:30 AM - 11:00 AM

Session (Parallel)	AI-Driven Energy Management and Innovations (TT1- Renewable Energy and Smart Utilities)
Session Chair(s)	**TBD**

Paper ID: 60	**Paper Title:** Maximum Power Point Tracking Using Particle Swarm Optimization for Photovoltaic Systems. **Authors: Mohd Ahfaz Khan**, Anand Singh.
Paper ID: 63	**Paper Title:** Measurement of Light Response in Luminescent Solar Concentrators. **Authors: Paramsinh Zala**, Brijesh Tripathi, Mayank Gupta, Manoj Kumar, Umesh Kumar Dwivedi.
Paper ID: 317	**Paper Title:** Optimization of Multiphase Buck Converter. **Authors: Aakash Shukla**, Raj Aryankumar, Nirav Karelia, Dishang V. Upadhyay, Kush Mehta, N. P. Singh.
Paper ID: 594	**Paper Title:** Fault Detection in clean energy system using wavelet transform and machine learning techniques. **Authors**: Koviri Jitendhra Sateesh, Hemalatha Mummana, Swasthik Kumar Jonnada, **Praveen Kumar Nelaparthi**, Sharan Sai Kanchumurthy, Ravi Uriti.
Paper ID: 658	**Paper Title:** Performance Analysis of P&O MPPT Technique for PV Panel and Array Integration with Boost Converter: An Analytical and MATLAB Simulation Approach. **Authors: Nikunj Dhimmar**, Ami Patel and Gaurang Patel.
Paper ID: 659	**Paper Title:** Reversing Voltage Topology for Multi-Level Inverters: Simulation and Experimental Validation. **Authors**: **Gaurangkumar C. Patel**, Ami T Patel, Nikunj J. Dhimmar.

Technical Session (TS-17) Schedule
Day 3- Sunday, 23rd February 2025, Time: 09:30 AM - 11:00 AM

Session (Parallel)	Advancements in Smart Power Systems (TT4- Modern Power System and Control)
Session Chair(s)	TBD

Paper ID: 72	**Paper Title:** Hilbert spectral analysis for PQ disturbances detection in Sustainable Energy Systems. **Authors:** **Uriti Ravi**, Praveen Kumar Nelaparthi, Shravani Kumari Botcha, Chidurala Saiprakash, Vasupalli Manoj, S Ramana Kumar Joga.
Paper ID: 333	**Paper Title:** Transmission Line Protection based on Fine- Tuning Cat Boost Fault Classification Technique. **Authors:** **Nilesh Chothani** and Dharmesh D. Patel.
Paper ID: 334	**Paper Title:** A Simulation Analysis of 300 kV DC Power Supply for Neutral Beam Injector Accelerator Grid. **Authors:** **Aritra Chakraborty**, Saurabh Kumar, Amal S, Paul D. Christian, Ashok Mankani, Ujjwal K. Baruah.
Paper ID: 353	**Paper Title:** Intelligent Frequency Regulation under a Deregulated Control System Using Distributed Energy Storage Systems. **Authors:** Shweta Prajapati, Dharmesh Patel, **Yogesh Prajapati.**
Paper ID: 586	**Paper Title:** Enhancement in High Resistance Fault Detection using Quadrilateral Relay for Transmission Line. **Authors:** Nilesh Chothani, **Jay Chaudhary**, T.V. Pavan Kumar.
Paper ID: 623	**Paper Title:** Adaptive Differential Protection of Electrical Busbar considering CT Saturation Detection using Power Spectral Density **Authors:** Nilesh Chothani, Swapnil Kumar and **Jay Chaudhary.**

Technical Session (TS-18) Schedule
Day 3- Sunday, 23rd February 2025, Time: 09:30 AM - 11:00 AM

Session (Parallel)	AI for Smart and Sustainable Systems (TT5- Communication Systems for Sustainable Future)
Session Chair(s)	TBD

Paper ID: 1	**Paper Title:** Forest Fire Severity Detection using AI. **Authors:** **Pradip Kumar Barik**, Jay Suthar, Raaj Patel
Paper ID: 16	**Paper Title:** Real-Time Smart Aquarium Monitoring System Driven by IoT. **Authors:** Tarun Patil, Sri Srujan Hari T, **Dr .Anitha M.**
Paper ID: 71	**Paper Title:** Cyber Security Risk Analysis of IoT Ecosystem. **Authors:** **Manish Kumar Srivastava**, Ujjaval Patel.
Paper ID: 376	**Paper Title:** IoT based pulse rate monitor powered with energy harvester. **Authors:** **Nutan Tanwar**, Rajiv Dey, Sandeep Kumar, and Lalit Tanwar.
Paper ID: 361	**Paper Title:** Experimental Insights into the Modeling and Control of Heater Systems Using Discrete PID Controllers. **Authors:** Shah Ankit K., **Markana Anilkumar**, Hardik R. Patel.
Paper ID: 662	**Paper Title:** Solar Powered EV Charging Station with Improved Adaptive LMS Control for V2G and G2V Operation. **Authors:** **Rajeswari Panigrahi**, Kaibalya Prasad Panda.
Paper ID: 665	**Paper Title:** Dual-Band Monopole Antenna Design for Low Profile IoT and Medical Applications. **Authors:** Potluru Yuva Sekhar, T. Venkata Sai Karthik, Kanhesh Agrawal, **M.Sai Debasisa Patra**, Sambhudutta Nanda.

Technical Session (TS-19) Schedule
Day 3- Sunday, 23rd February 2025, Time: 09:30 AM - 11:00 AM

Session (Parallel)	Machine Learning based Smart Applications (TT6- Applied Computational Intelligence)
Session Chair(s)	TBD
Paper ID: 13	**Paper Title:** Integration of smart Sensors and Machine Learning Algorithms for Automated Pest Management. **Authors:** Krrish Yadav, **Sritama Roy.**
Paper ID: 34	**Paper Title:** Human Crime Anomaly Detection using Deep Learning. **Authors:** **Malay Sanghvi**, Santosh Kumar Bharti.
Paper ID: 67	**Paper Title:** MongoDB in the Era of Big Data Architecture, Opportunities, Challenges, and Future Directions. **Authors:** **Lata Upadhyay**, Dipti Domadiya.
Paper ID: 204	**Paper Title:** Energy Efficient Pruning and Quantization Methods for Deep Learning Models. **Authors:** **Jay Gorvadiya**, Ankur Chagela, Mohendra Roy.
Paper ID: 207	**Paper Title:** Awareness analysis of online peer-to-peer lending services amongst Indian MSMEs. **Authors:** **Rohan Mathur**, Shweta Sharma.
Paper ID: 229	**Paper Title:** A Comprehensive Review of Machine Learning Techniques in Sleep Staging Systems. **Authors:** Santosh Kumar Satapathy, Hardi Patel, Aneri Shah, **Vraj Shah**, Somya Mehta, Suren Sahu.
Paper ID: 667	**Paper Title:** Deep Learning-Based Enhanced Object Detection for Humanoid Robots. **Authors:** **Akshit Negi**, Harshita Patel.