TT1: Power Converter		Venue: CR1, LHC-C (Session Chair: Arun Verma, IIT Jammu)

Date & Time 19-12-2024, 9:00-10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	967	**Two-Stage Module-Based Buck-Boost Converter For Cell Equalization Of Series Connected Cells For Electric Vehicle Battery Pack Applications;** *Ashis Kumar Nayak, Kalpana R, and Kenguru Manjunath*
09:15-09:30	686	**Bootstrap Gate Driver for GaN-based Solar Inverter: Design Challenges and Solutions;** *Chirag Kishor Sarode, Akash Gangwar, Abhishek Arvind Chanekar, Sandeep Anand*
09:30-09:45	620	**Soft and Hard-Switched Synchronous Buck Converter Comparison for USB Power Delivery;** *Harshada Vijay Ahire, Utsab Kundu, Vinod John, Anant Kamath and S. Ramkumar*
09:45-10:00	777	**A Multifunctional Current Fed Triple Active Bridge Converter for EV application;** *Rajat Kumar Shukla, Dipankar Saha and Baylon G. Fernandes*
10:00-10:15	253	**Design and Analysis of Soft Switched Current-Fed Full Bridge DC-DC Converter for Renewable Energy Applications;** *Mahidhar Reddy Gandavarapu, K V Anandkrishnan, Sugali Harinaik, Shelas Sathyan*
10:15-10:30	693	**A Modified Dual Switch High Gain Boost Converter with Control Liberty for PV Application;** *Atul Kumar Lal and Anmol Ratna Saxena*

TT2: Power Devices, Passive Components, EMI/EMC and Packaging		Venue: LH1, LHC-C (Session Chair: Dr. Suvendu Samanta, IIT Kanpur)

Date & Time 19-12-2024, 9:00-10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	453	**Planar Litz Inductor Design for High-Frequency Soft-switched PWM Converter;** *Nithyadas P V, Utsab Kundu, Vinod John and Vishnu Mahadeva Iyer*
09:15-09:30	658	**A passive dv/dt Filter For Integrated Induction Motor Drive Fed From 3-phase 2-level GaN Based Inverter;** *Shambhunath Dutta and Apurv Kumar Yadav*
09:30-09:45	521	**Design of a Low Leakage Pulse Transformer for Gate Driving of Multiple SiC MOSFETs for Induction Heating Applications;** *Arun K Paul and Sai Ram Boggavarapu*
09:45-10:00	607	**Analysis of IGBT and GaN Based Hybrid Switch under Diverse Switching Conditions;** *Anudeep Kumar Bandarupalli; Mohd Alam ; and Narayana Murthy Malladi*
10:00-10:15	655	**Active Gate Driving Technique for the Voltage Balancing of Series Connected GaN Devices for Higher Voltage Application;** *Siddhartha Suyal and Apurv Kumar Yadav*
10:15-10:30	741	**Experimental Method for Accurate Measurement of High-Frequency Bridge Loss;** *Uppal Das; Manish Mandal; Shailesh Ghotgalkar and Kaushik Basu*

TT3: Electrical Machines and Industrial Drives		Venue: LH2, LHC-C (Session Chair: Sashidhar Sampathirao, IIT Goa)

Date & Time 19-12-2024, 9:00-10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	44	**A Novel Trapezoidal EMF Flux Switching Brushless dc Motor for a Pedal-Assist E-Bicycle;** *Ansh Rajdev and Sashidhar Sampathirao*
09:15-09:30	155	**Torque Ripple Reduction in Delta Connected FPIM under Double Phase Fault with EV as load;** *Jahera Shaik and R Chudamani*
09:30-09:45	188	**Impedance Distortions based Interturn Fault Diagnosis in PMSM Drive;** *Shivateja Manala and Jeevanand Seshadrinath*
09:45-10:00	204	**An Auxiliary Circuit for Improving Torque Per Ampere of Switched Reluctance Machines** *Shashank Kurm and Shailendra Kumar*
10:00-10:15	238	**Comparative Study of Q-PLL and DSOGI With SMO based Sensorless Control of PMSM Drive;** *Abhishek Panchal; Siva Rama Krishna Merugu ; Jeevanand Seshadrinath and Sumit Saroha*
10:15-10:30	239	**Performance Analysis of A Ferrite Assisted Synchronous Reluctance Motor For Mid-Mounted Electric Two-Wheeler;** *Rachna Panwar; Rajath Kashyap; Ravi Prasad Sharma and Mahalingam Koushik B*

TT4: Transportation		Venue: LH3, LHC-C (Session Chair: Sheron Figarado, IIT Goa)

Date & Time 19-12-2024, 9:00-10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	135	**Design and Analysis of a Novel Multi-Functional Onboard Battery Charger for Electric Vehicles** *Marrapu Sai Harsha Naidu ; Josephine R and Nikitha Devarakonda*
09:15-09:30	152	**A Bridge-Structured Switched-Capacitor Voltage Equalizer for Li-ion Battery Strings** *Abhaya Kumar Sahoo and V. Sankaranarayanan*
09:30-09:45	171	**Design of Feedback Controller for On-board Wireless EV charging systems using Adaptive Random Search** *Algorithm;* *P Srinivasa Rao Nayak and Ganesh Babu Mahaparthi*
09:45-10:00	173	**Hotel Load Converters for Indian Railways** *Dakshina Murthy Bellur and Latif Shaikh*
10:00-10:15	187	**Performance Comparison of FOC and DTC Techniques for SynRM in EV applications** *Iqra Sheikh; Siva Rama Krishna Merulu and Jeevanand Seshadrinath*
10:15-10:30	232	**A Control Technique for Achieving ZVS and Reduced Conduction Loss in Dual Active Bridge for EV Applications;** *Kumar Maddi ; Adarsh Dubey; Karthik Singh Parihar; Jahangeer Ahmad Dar ; Apurv Kumar Yadav and Mukesh Pathak*

TT5: Control and Automation		Venue: LH4, LHC-C (Session Chair: Josep Ojo, USA)

Date & Time 19-12-2024, 9:00-10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	111	**Fractional IMC-PIDA Control Technique for Mitigation of Time Delay Attack in Power System** *Vivek Kumar ; Yogesh V. Hote and Suvra Pattanayak*
09:15-09:30	119	**Hybrid Deep LSTM-XGBoost Based Fault Line Identification and Distance Estimation in Grids with Distributed Generators** *Pavan Kumar Bais and Narendra D Londhe*
09:30-09:45	233	**A Finite Control Set Based Model Predictive Control for Reducing Inductor Current Ripple in Dual Active Bridge Converter** *Somnath Meikap; Chandan Kumar ; Fernanda Carnielutti and Jose Rodriguez*
09:45-10:00	246	**Enhancing Load Frequency Control with Non-linear ADRC for Cyber-attacks Mitigation** *Suvra Pattanayak ; Yogesh V. Hote; Sateesh K. Peddoju and Vivek Kumar*

Time Slot	Paper ID	Paper Details
10:00-10:15	249	**Demand Response Based on Anomaly Detection and Non-Intrusive Load Monitoring** *Gautam A Raiker; Deepti L Ravi ; Vasundhara V Baligar and B. Subba Reddy*
10:15-10:30	250	**A cyber-resilient control scheme for AGC of hydropower system** *Pulakraj Aryan and Thanga Raj Chelliah*

TT6: Renewable Energy Systems and Energy Storage Venue: LH5, LHC-C (Session Chair: Dr. Senthil, NIT Trichy)

Date & Time 19-12-2024, 9:00-10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	55	**A Novel Hybrid Virtual Synchronous Control Strategy for Enhanced Grid Resilience in Renewable Energy Integration** *Lavanya M C; Sashidhar Sampathirao ; Deea Kurup and Rajesh Katyal*
09:15-09:30	88	**Performance Evaluation of a Hybrid Renewable Energy System with Different Storage Technologies for an off-grid Rural Household** *Surajit Sannigrahi ; Sriparna Roy Ghatak and Parimal Acharjee*
09:30-09:45	116	**Adaptive Reconfigurable Battery Pack Employing Switching Matrix Circuit to Maximize the Capacity of the Battery Bank** *Pravin Murugesan ; Anil Marneni and Senthil Kumar Subramaniam*
09:45-10:00	117	**Bayesian inference framework for probabilistic power flow analysis for microgrid uncertainty problem** *Neeraj Gupta*
10:00-10:15	145	**Effective PLL-Based Control Technique for Seamless Transition Between Grid-Connected and Islanding Modes** *Deepak Gehlot; Mukesh Pathak ; Shoubhik Mukherjee ; A S Krishnapriya and Eswar Rao*
10:15-10:30	153	**Single Cell Development Platform for SOC Estimation of Li-ion Battery** *Amrit Raj and Kunwar Aditya*

TT7: Smart Grids & Power Quality Venue: LH6, LHC-C (Session Chair: Dipti Saxena, MNIT Jaipur)

Date & Time 19-12-2024, 9:00-10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	68	**A novel six-switch three-output DC-DC converter with isolated buck characteristics and its derivation from a novel four-switch two-output non-isolated DC-DC converter with modified boost and complimentary buck operation,** *Arkabrata Dattaroy and Avik Bhattacharya*
09:15-09:30	856	**Photovoltaic Driven Versatile Single In Dual Out Non-Isolated Converter for Electric Vehicle Charging System;** *Ramanathan G, Bharatiraja C and Sivaprasad Athikkal*
09:30-09:45	129	**Simplified Average model of Voltage Source Inverter for Controller Design** *Avishek Munsi, Rohan kumar, and Kunwar Aditya*
09:45-10:00	154	**Knowledge Inference Concept of Control Sharing: Mitigation of Power Quality Disturbances in Grid-Tied PV Systems** *Ajitesh Pandey, and Rajendra Kumar Pandey*
10:00-10:15	185	**Optimal Reactive Power Control in Standalone Hybrid Power System by using Harris Hawks algorithm tuned Statcom tilt controller** *Sachin G M, Abhik Banerjee, and Deepa N S N*
10:15-10:30	225	**A Simplified Multi-objective Technique for Placement of RESs and Capacitor Banks in Unbalanced Radial Distribution Network** *Pappu Kumar Saurav, Swapna M, and Partha Kayal*

TT8: Power Engineering Educations and Issues Venue: LH7, LHC-C (Session Chair: Dinesh Kumar, Danfoss, Denmark)

Date & Time 19-12-2024, 9:00-10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	718	**Learning-Platform for Mixed Domain Control of Power Electronics Converters** *Sumedh Amrutrao Awathare; Arnab Dey; NITHYADAS P V ; Vihan Shahu and Utsab Kundu and Vinod John*
09:15-09:30	378	**Novel Converter Topology for Bipolar DC Programmable Power Supply Application** *Nimmy Paulson ; Rijil Ramchand and Harish and Sudhakaran Nair*
09:30-09:45	395	**PV-Solar based Hybrid Telecom Power Plant for Roof-top Mobile Towers** *Rajendra R Sawant ; Bhalchandra Chaudhari ; Dr. Yerramreddy Srinivasa Rao ; Darshana Sankhe and Anshal Padole*
09:45-10:00	678	**Wide duty ratio DC DC Converter for ultracapacitor based EV drive** *Nithin T, MoonSneha Ashok, nikhil sasidharan and Shreelakshmi MP*
10:00-10:15	616	**A High-Voltage Bipolar Pulsed Power Generator Based on a Three-level F-type Inverter** *Priyankar Roy and A Bandyopadhyay Priyankar Roy and A Bandyopadhyay*
10:15-10:30	601	**Comparison of Sub-modules for Cascaded Multi-level MVAC to DC Solid State Transformer** *Harisyam P V, Surjakanta Mazumder, Abhay Gupta, Saichand Kasicheyanula, Shashidhar Mathapati and Kaushik Basu*

TT9: Applications of AI and ML Techniques to Power Electronics Venue: LH8, LHC-C (Session Chair: Dr. Jora M Gonda, NITK)

Date & Time 19-12-2024, 9:00-10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	42	**Harmonic Optimization in a Nine-Level Cascaded H-Bridge Inverter: Leveraging Support Vector Machine Algorithm with LSPWM Technique,** *Rishiraj Sarker (Indian Institute of Technology Roorkee)*; Subhabrata Pal and Avik Bhattacharya*
09:15-09:30	92	**Artificial Intelligence-Driven Inductor Current Prediction in HD-SPWM-Controlled 3-Level DAB Converter for Fast EV Charging Application,** *Subhabrata Pal ; Rishiraj Sarker and Avik Bhattacharya*
09:30-09:45	294	**Multi-Area Load Frequency Control using an Adaptive Reaching Law-Based Integral Terminal Sliding Mode Scheme** *Tushar Kanti Roy, Md Apel Mahmud and Amanullah Maung Than Oo*
09:45-10:00	252	**Enhancing Cyber Security in DC Microgrids With Intelligent Control Against False Data Injection Attacks** *Venkata Siva Prasad Chowdary Machina ; Suprabhath Sriranga Koduru ; Sreedhar Madichetty and Sukumar Mishra*
10:00-10:15	525	**Edge Computing enabled Battery State of Charge (SOC) estimation using TinyML techniques,** *Anshul Kumar Yadav; Rajesh Kumar ; Anil Kumar Saini; P Ragupathy ; Aashish Ranjan ; Anand Abhishek and Dhiraj Sangwan*
10:15-10:30	704	**A Data Driven Energy Efficient Control of Induction Motor Drive with Vector Control,** *Arka Dutta ; Bheemaiah Chikondra ; Pradipta Kumar Pal and Kartick Chandra Jana*

TT1: Power Converter		Venue: CR1, LHC-C (Session Chair: Avanish Tripathi, IIT Delhi)
Date & Time 19-12-2024, 15:30-17:30		
Time Slot	**Paper ID**	**Paper Details**
15:30-15:45	650	**Active Power Decoupling for Reduced-Switch Current-Fed Switched Inverter with Enhanced Gain** *Pramit Nandi, Ravindranath Adda, Cilaveni Satish Chandra and Vaishnavvignesh G Iyer*
15:45-16:00	563	**A Flying Capacitor Based Neutral Voltage Balancing System for Three Phase Four Wire Inverter with State Feedback Control** *Ribhu Chakraborty and Dr. Arun Rahul S*
16:00-16:15	408	**Design of High-Frequency Current Transformer for Capacitive Wireless Power Transfer Systems** *Subhabrata Basak, Utsab Kundu and L. Umanand*
16:15-16:30	765	**Modeling and Design of Internal Energy Balance Controller with Circulating Current Suppression for Modular Multilevel Converter** *Pranav B Narkhede and Amit Kumar Jain*
16:30-16:45	696	**Soft Switched Common Ground Transformer Less Single-Phase PV Inverter** *Raghavendra Bandaru , Prajyot Gaonkar, Sreeraj E. S. and Puneet Kumar Goel*
16:45-17:00	595	**A Resonant Reset Forward Converter with Ultra-High Conversion Gain** *Shubham Srivastava, Mandeep S. Rana and Santanu K. Mishra*
17:00-17:15	552	**Reverse Conduction Loss and (dv/dt) Induced False Triggering Protection of GaN-HFET Based Power Converter for EV Charging** *Subhendu Bikash Santra, Kirshan Kumar Gautam, Dinkar Prasad and Debashis Chatterjee*
17:15-17:30	429	**PSFB Converter based Programmable DC Power Supply;** *Aman Maurya and Harish Sudhakaran Nair*

TT1: Power Converter		Venue: LH1, LHC-C (Session Chair: Vinod Kumar Bussa IIT Patna)
Date & Time 19-12-2024, 15:30-17:30		
Time Slot	**Paper ID**	**Paper Details**
15:30-15:45	339	**Design and Analysis of an Asymmetrical 21-Level Multilevel Inverter With Reduced Switch Count** *Swapan Kumar Baksi, Dr.Ranjan Kumar Behera and Utkal Ranjan Muduli*
15:45-16:00	742	**High Gain DC-DC Converter Fed PMSM Drive with Field-Oriented Control Techniques for Fuel Cell-based Electric Vehicles** *Madhav Kumar, Kaibalya Prasad Panda, Akash Singh, Ritula Thakur and Gayadhar Panda*
16:00-16:15	602	**Generalization of Multiple Series-Connected Three-Level Boost Modules** *Sachin Dhyani and Dr. Shabari Nath*
16:15-16:30	611	**Implementation of Current Sensorless Level Shifted PWM Strategy for Modular Multilevel Converter** *Pranav B Narkhede and Amit Kumar Jain*
16:30-16:45	236	**A Fault Tolerant Multilevel Inverter for Preserved Rated Power Output During Post-Fault** *Balram Kumar, Sankar Peddapati and Prangya Mohanty*
16:45-17:00	669	**Small Signal Modeling of LLC Converter based on Time Domain Analysis and Equivalent Circuit Reduction** *Preethi Eashwar, Sanjeet Singh, Naveen Kothuri and Kaushik Basu*
17:00-17:15	647	**A Seven-level Triple Boost Common Ground Inverter without H-Bridge** *Mohammad Zaid, Muneeb Afroz Bhat, Mohammad Anas Anees, Atif Iqbal, Adil Sarwar and Saad Mekhilef*
17:15-17:30	421	**A Reduced Stage Half-Bridge based Isolated Interleaved Totempole Unidirectional AC-DC Converter** *Gyana M Sahoo and Vivek Agarwal*

TT3: Electrical Machines and Industrial Drives		Venue: LH2, LHC-C (Session Chair: Amarendra Edpuganti, IIT Kanpur)
Date & Time 19-12-2024, 15:30-17:30		
Time Slot	**Paper ID**	**Paper Details**
15:30-15:45	260	**Sensorless Speed Control of Brushless DC Motor using Artificial Neural Network Predicted Back EMF** *Sindhu M R; Md Akhthar Ali and Duvvuri S P Ramakrishna*
15:45-16:00	284	**An Improved Model Predictive Current Control for Medium-Voltage Motor Drives** *Hoang Le, Apparao Dekka and Deepak Ronanki*
16:00-16:15	296	**Dynamic Inductance Model for Synchronous Reluctance Motor Control;** *Sonalika Singh; Ritesh Kumar Keshri; Vijay Borghate and Chandan Chakraborty*
16:15-16:30	298	**State Feedback Speed Control of PMSM using Multithreaded Controller** *Harikrishnan S and Arun Rahul S*
16:30-16:45	823	**Dynamic Stator Resistance Adaptation in Sensorless Direct Torque Control of SynRm** *Asif Khan Kayamkhani and Srirama Srnivas*
16:45-17:00	832	**A Design Procedure for Double Stator Axial Flux Switched Reluctance Motor** *Vinayak Kumbhar and Parthasarathi Sensarma*
17:00-17:15	348	**Minimization of Torque Ripple in Dual Inverter Fed High-Power Wound Rotor Induction Motor Drive** *Saumya Tripathi and Amit Kumar Jain*
17:15-17:30	351	**Analytical Prediction of the Unsaturated Inductance Profile of a Switched Reluctance Machine Using a Flux-Tube-Based Method** *Samrat Das and Gopalaratnam Narayanan*

TT3: Electrical Machines and Industrial Drives		Venue: LH3, LHC-C (Session Chair: Deepak Ronanki, IIT Madras)
Date & Time 19-12-2024, 15:30-17:30		
Time Slot	**Paper ID**	**Paper Details**
15:30-15:45	547	**Optimized Voltage Harmonic Injection Strategies to Mitigate Speed Fluctuations in PMSM EV Drives** *Alok Ranjan and Vijaya Bhaskar Devara*

Time Slot	Paper ID	Paper Details
15:45-16:00	600	**Modified MTPA Controlled Interior Permanent Magnet Synchronous Motor Drive for Electric Vehicle Application Considering Magnetic Saturation** *Sai Chandu Kadupu; Vaishnav K S; Nilesh Pandey and Piyush Kant*
16:00-16:15	617	**Synchronized IPMSM Drive Operation for EVs Over Complete Speed Range** *Vinit Vivekanand Kavalekar and Krishna Raj Ramachandran Potti*
16:15-16:30	645	**A Novel 9-Level Multilevel Inverter for Water Pumping System** *Alluri Hemanth Kumar Raju; Venugopal Reddy Barry; Suresh Mikkili and Gadiraju Harish Kumar Varma*
16:30-16:45	747	**Wide Speed Range Operation of PMaSynRM for Electric Vehicle Application;** *Vaishnav K S; Sai Chandu Kadupu; Vivek Chaudhary and Piyush Kant*
16:45-17:00	661	**Detection of Stator and Rotor Winding Faults by Monitoring Air-gap Flux Spectrum of Slip-ring Induction Motor** *Tushar Gulabrao Vilhekar and Makarand Ballal*
17:00-17:15	671	**Enhancing Performance of Interior Permanent Magnet Synchronous Machines Through Rotor Surfacing and Flux Guide Optimization** *Om Jee Singh and Praveen Kumar*
17:15-17:30	721	**Precision Power Amplifier with Enhanced Current Capacity for Characterization of Magnetic Materials** *Aditya Raj; Shahjahan Ahmad Syed and Gopalaratnam Narayanan*

TT4: Transportation   Venue: LH4, LHC-C (Session Chair: K Chinmaya, IIT BHU Varanasi)

Date & Time 19-12-2024, 15:30-17:30

Time Slot	Paper ID	Paper Details
15:30-15:45	264	**Estimation of Transmitter Coil Separation for Enhanced Dynamic Wireless Power Transfer;** *Utkarsha Bulkunde and Vivek Agarwal*
15:45-16:00	288	**CLOSED-LOOP CONTROLLER FOR BIDIRECTIONAL WEINBERG DC-DC CONVERTER FOR SPACE SATELLITE APPLICATION;** *K V ANAND KRISHNAN ; SHARUK SHAIK ; Shelas Sathyan (NIT-Tiruchirappalli)*; Dibyaranjan Senapati and VENKATA SASTRY VADLAMANI*
16:00-16:15	291	**Anti-Resonant Tank-based Wireless Charging of EVs for Ultra-Wide Voltage Applications;** *Sunil Kumar Gautam and Moumita Das*
16:15-16:30	312	**Model Predictive Controlled Level-3 Reconfigurable Battery Charger for Future Electric Transportation;** *HARISH KARNEDDI and Deepak Ronanki*
16:30-16:45	317	**Battery-Ultracapacitor fed Parallel Active Interleaved Bidirectional Converter Controlled BLDC Motor for E-Bike Application;** *Pradyumna Kumar Behera; MONALISA PATTNAIK (National Institute of Technology, Rourkela)**
16:45-17:00	324	**Fast Charging of Electric Vehicles Using a Multi-Winding Transformer** *TASADUQ HUSSAIN; Ridam Kumari and Anandarup Das*
17:00-17:15	383	**Optimized Model Predictive Current Control for Enhanced Light Commercial Vehicle Performance** *Alok Ranjan and Vijaya Bhaskar Devara*
17:15-17:30	386	**A Combined Control for Efficiency Improvement of Integrated Three-Port Dual Active Bridge Converter;** *Kamran Asad; Nachiketa Deshmukh; Mayank Deo; Pramod Chaudhary and Rakesh Maurya*

TT4: Transportation   Venue: LH5, LHC-C (Session Chair: Kunwar Aditya, IIT Jodhpur)

Date & Time 19-12-2024, 15:30-17:30

Time Slot	Paper ID	Paper Details
15:30-15:45	397	**Bidirectional Dual-Input DC-DC Converter for Ultra-capacitor/Battery HESS in Electric Vehicles;** *Raj Moyal; PUSHPANT KUMAR; Karthik Singh Parihar and Mukesh Pathak*
15:45-16:00	402	**Optimized DSSq Transmitter Coil-based Charging Pad Scheme to Mitigate Misalignment Issues for Wireless EV Chargers;** *Rajanikant Rajanikant and Vivek Agarwal*
16:00-16:15	442	**Renewable Energy-Based Hybrid Power Conversion System for Induction Motor Driven Light Electric Vehicle;** *SHYAMANTAK R BARMAN; Anish Ahmad; Asim Datta and Vinod Kumar Bussa*
16:15-16:30	466	**Optimal Charging Station Locations for Different Battery Sizes of Electric Vehicles in a Road Network;** *Adepu Vamshi and Jayaram Nakka*
16:30-16:45	491	**Low Ripple Predictive Torque Control of MLI-fed Induction Motor for Marine Propulsion Systems;** *Hoang Le; Apparao Dekka and Deepak Ronanki*
16:45-17:00	498	**A Novel Reconfigurable Inductive Power Transfer System with Pulse Density Modulation for Constant Current and Constant Voltage Charging Applications;** *Rakesh Pulletikurthi and Deepak Ronanki*
17:00-17:15	504	**Traction-Braking of an EV in Mountainous Terrain with Hybrid Energy Storage System;** *Md Irshad Ansari and Himanshu Misra*
17:15-17:30	534	**Adaptive Sliding Mode Controlled On-Board Dual Stage EV Charger with Enhanced Power Quality;** *Akshay Chabukswar; Jaydeep Kukde; Praveen Vankadari; Rupesh Wandhare; Ravikumar Bhimasingu and Jose Titus*

TT5: Control and Automation   Venue: LH6, LHC-C (Session Chair: Ravita Lamba, IIT Roorkee)

Date & Time 19-12-2024, 15:30-17:30

Time Slot	Paper ID	Paper Details
15:30-15:45	346	**Analysis of Control Methods for BLDC Motors in Electric Vehicle Powertrain Systems** *Koushik S; Santhosha Kumar A; Soumitra Das and Kavita Nanshikar*
15:45-16:00	425	**Simultaneous Automatic Synthesis of 2-DOF QFT for Unstable Maglev system** *Sai Lakshmi; Jeyasenthil Ramamurthy; Tarakanath Kobaku and Vivek Agarwal*
16:00-16:15	479	**Unified Active Disturbance Rejection Control Strategies for Time-Varying Disturbances: Case Study on a DC-DC Boost Converter** *Faraz Haider and Ahmad Ali*

Time Slot	Paper ID	Paper Details
16:15-16:30	626	**Generating High Switching Frequency by Integration of FPGA with DSP using SPI** *Mahendra Patel; Sachin Dhyani and Shabari Nath*
16:30-16:45	672	**Dynamic Surface Sliding Mode Control Scheme for Load Frequency Control of Multi-Area Grids** *Dip Kumar Biswas; Sanjoy Debbarma and Piyush Pratap Singh*
16:45-17:00	868	**Trajectory Tracking Controller Design for a Ball-Plate Balancing System using ANFIS** *Kaushik Halder and Felix Orlando Maria Joseph*
17:00-17:15	872	**Design and Development of a Cost-Effective AC/DC Current Probe for Academia** *Sidharth S; Libby Zacharia Saji ; Hadi Shamal; Aadarsh Jayadeep and Harish Sudhakaran Nair*
17:15-17:30	959	**Three-Level Boost Converter for EV Charging in Bipolar Microgrids** *Vinod S Patil*

TT6: Renewable Energy Systems and Energy Storage   Venue: LH7, LHC-C (Session Chair: Santosh Singh, IIT BHU Varanasi)

Date & Time 19-12-2024, 15:30-17:30

Time Slot	Paper ID	Paper Details
15:30-15:45	165	**A Three-Winding Based Triple Active Bridge Converter for Multipurpose Electric Vehicle Charger** *Ranjeeth Kumar Sha; Shashank Kurm and Shailendra Kumar*
15:45-16:00	177	**Seamless Operation and Improved Control of a Standalone Solar-Wind-BES Driven 3P4W System Designed for Remote Onshore Island Applications** *Subhadip Chakraborty; Bhim Singh and Bijaya Ketan Panigrahi*
16:00-16:15	192	**Securing BESS Modules: Anomaly Detection in Cell Voltages through Statistical Analysis** *Sarthak Chopra; Sarnaduti Brahma and Rishi Relan*
16:15-16:30	213	**Ageing Estimation of Transformer Oil by Ladder Phenomena** *Sandipan Kr Paul; Biswajit Chakraborty; Subhajit Maur; Biswendu Chatterjee; Sovan Dalai and Arpan Pradhan*
16:30-16:45	237	**Speed Control of PV-Fed BLDC Motor with Energy Storage Integration Using Modified Adaptable Step-Size P&O MPPT Technique** *Ayush Purwar; Risha Mal and Saheli Ray*
16:45-17:00	275	**Binary Search-based adaptive P&O MPPT algorithm for TLBC-based Photovoltaic system** *Vaishnavvignesh G Iyer; Cilaveni Satish Chandra ; Pramit Nandi; Ravindranath Adda and Praveen Tripathy*
17:00-17:15	290	**The Study of Optimizing Profit for Solar-Energy Integrated Battery Swapping Stations** *Ankita Singh; Premalata Jena; Ravi Prakash Singh and Sri Nivas Singh*
17:15-17:30	313	**Virtual Synchronous Generator based PV-Battery System with a Current-Fed Switched Inverter** *Batta Sivaprasad; N K Swami Naidu; Santosh K Singh; Vulavakayala siva and Naveen Yalla*

TT7: Smart Grids & Power Quality   Venue: LH8, LHC-C (Session Chair: Rajeev Kumar Singh, IIT BHU)

Date & Time 19-12-2024, 15:30-17:30

Time Slot	Paper ID	Paper Details
15:30-15:45	234	**AC Short-Circuit Fault Detection and Isolation in Islanded Microgrid** *Lakshmi kant Rao and Chandan Kumar*
15:45-16:00	240	**Optimizing EV Charging Power Quality with Enhanced PLL-Driven Active Power Filter** *Alok Ranjan,Vijaya Bhaskar Devara, Amitesh Prakash; and Utkal Ranjan Muduli*
16:00-16:15	837	**Net Zero Energy Consumption for MW Scale Solar PV Supported Network Through Utility Grid Based Banking,** *Sourav Ghimirey; Avanish Tripathi and Rabindra Mohanty*
16:15-16:30	254	**Performance Comparison of State-Observer Algorithms for Mitigation of False Data Injection Attacks on Automatic Generation Control System** *Upasana Sarma and Chandrasekaran S*
16:30-16:45	98	**Bidirectional Proportional Multi-SOGI Based OCC for LV PV-STATCOM with Trapezoidal Modulation** *Guddy Satpathy and Dipankar De*
16:45-17:00	380	**Optimal DG Placement and Sizing for Multi-objective Performance Enhancement of Radial Distribution Systems** *Amit Chakraborty, Saheli Ray, Ayush Purwar, and Pappu Kumar Saurav*
17:00-17:15	434	**Design of ACE-based neighborhood microgrid controller towards self-resilient net zero grid** *Ambika Biswas Neela, Utakarsh Thakare, Sachin Srivastava, Anupama Kowli, and Pallavi Bharadwaj*
17:15-17:30	490	**LCL Filter with Trap Branch for Effective Harmonic Suppression in Grid-Connected Inverters** *Mrinal Kanti Rajak, Roshan Kumar, and Rajen Pudur*

TT1: Power Converter		Venue: CR1, LHC-C (Session Chair:Dr. Bhim Singh IIT Delhi)
Date & Time 20-12-2024, 09:00 - 10:30		
Time Slot	**Paper ID**	**Paper Details**
09:00-09:15	738	**Reduced Footprint Extended Arm Thyristor Leg Converter A VSC with Enhanced Power Handling Capacity for HVDC Applications;** *Shourya Sharma, Siba Kumar Patro and Anshuman Shukla*
09:15-09:30	625	**Improved Phase-Clamping PWM Techniques with Space Vector Approach for Five-Phase System;** *Sourabh Ashok Sadale , Devendra R Dhore, and Ramsha Karampuri*
09:30-09:45	323	**Reconfigured Series Stacked energy Buffer (SSB) for Voltage drop Compensation;** *Saprativ Saha and Santosh K Singh*
09:45-10:00	318	**A Seven Level Symmetrical Reduced Switch MLI for Grid-Tied Application;** *Pragya Gawhade, Aditya Sirsa; Anchal Raghuwanshi, Amit Ojha, Sharvendra Kumar Omre and Ravi Kumar Gupta*
10:00-10:15	292	**Grid Emulator-based Testing of Power Factor Correction Circuit;** *Cilaveni Satish Chandra, Vaishnavvignesh G Iyer, Ravindranath Adda and Praveen Tripathy*
10:15-10:30	231	**Design and Analysis of A Novel Bi-Directional High Gain DC-DC Converter For Renewable Applications;** *Manikanta Kuraganti, Amit Kumar, Ramulu Chintam and Vinay Kumar V*

TT1: Power Converter		Venue: LH1, LHC-C (Session Chair: Jaison Mathew, GCE)
Date & Time 20-12-2024, 09:00 - 10:30		
Time Slot	**Paper ID**	**Paper Details**
09:00-09:15	808	**A Compact Low Cost and High-Efficiency Switched-Capacitor Multilevel Boost Type Inverter Topology;** *Ahmed Awadelseed, Arkadiusz Lewicki, Atif Iqbal, and Mohammad Zaid*
09:15-09:30	954	**MPC Based Phase Angle Adjustment for Optimal Power Transfer in Neutral Point Clamped Dual Active Bridge Converter;** *Somnath Meikap, Ram Gopal, Chandan Kumar, and Jose Rodriguez*
09:30-09:45	922	**A Non-isolated High Step-up DC-DC Converter based on Modified Quadratic Boost and Cuk Converter;** *Sunil Mandal, Prajof P, and Mohammadreza Adib*
09:45-10:00	736	**Experimental analysis of Quasi Z Source Resonant Converter at Fixed Frequency Phase Shift Modulation;** *Santoshkumar M. Mahadev Hunachal, Arunkumar G, Srikanth Pulipaka, and Sudarshan B S*
10:00-10:15	653	**Improved Boost Type-ANPC 5L Inverter Topology;** *Jagabar S Sathik, Arpan Hota, Vigna K Ramachandaramurth,*
10:15-10:30	414	**A Dual Output High-gain Flyback Converter for DC Microgrid Application;** *Ananya Pritilagna Biswal, Krishna Roy, and Arnab Ghosh*

TT2: Power Devices, Passive Components, EMI/EMC and Packaging		Venue: LH2, LHC-C (Session Chair: Kaushik Basu, IISc)
Date & Time 20-12-2024, 09:00 - 10:30		
Time Slot	**Paper ID**	**Paper Details**
09:00-09:15	818	**Effect of parasitic inductance on switching transition for Four-Quadrant Switches in Current Source Inverter**; *Ashish Kumar, and Apurv Kumar Yadav*
09:15-09:30	895	**Quality Factor Optimization of Single-Layer Air Core Toroidal Inductors;** *Ayush Dixit, Pranjal Sachan, Sreyam Sinha, and Sumit Pramanick*
09:30-09:45	899	**Optimizing DC-Link Capacitor Size in Ten-Switch Neutral Point Clamped Converter;** *Narendrababu A, and Pradyumn Chaturvedi*
09:45-10:00	900	**An Improved Approach for Design of Inductors with Air Gaps;** *Geethika Kilari, Sai Vinay Kishore Nannapaneni, and Seshadri Sravan Kumar Vanjari*
10:00-10:15	909	**A Four Switch SiC Solid State Relay with Inrush Current Protection for High Voltage and High Power Converters;** *Prateek Singh, Deeksha Bhule, and Sudharshan Karthik*
10:15-10:30	927	**Design and Development of 10kA 1kV Synchronized Thyristor based Static Switch for Evaluation of Breaking Performance of Low Voltage Circuit Breakers;** *Nunnagoppula Maheswara Rao*

TT3: Electrical Machines and Industrial Drives		Venue: LH3, LHC-C (Session Chair: Phaneedra Babu, Hyderabad)
Date & Time 20-12-2024, 09:00 - 10:30		
Time Slot	**Paper ID**	**Paper Details**
09:00-09:15	377	**Speed Sensorless Power Hardware In the Loop Emulation of PMDC Machine with Fuzzy Based Observer;** *Dr. Arun Rahul S, and Harikrishnan S*
09:15-09:30	388	**Complex Vector Disturbance Observer for Syn-RL Motor with Speed Estimation;** *Saurabh Mishra, and Bhim Singh*
09:30-09:45	392	**A Variable Duty Cycle Based Method for High Resistance Connection Fault Detection in BLDC Motor Drives;** *Annima Gupta*

Time Slot	Paper ID	Paper Details
09:45-10:00	403	**A Novel Design of Switched Reluctance Machine using the Rotor of Synchronous Reluctance Machine;** *Angshudeep Majumdar*
10:00-10:15	405	**Investigations on Rotary Transformer Configurations for Brushless Operation of Electrically-Excited Synchronous Machines;** *Mitul A Wankhede, Shovan Dey, Annoy Kumar Das, and Baylon G. Fernandes*
10:15-10:30	438	**Experimental Studies on Speed-Dependent Vibrations of a 30,000 rpm Switched Reluctance Machine;** *Shreyas Srivatsa, Syed Shahjahan Ahmad, Samrat Das, Sakshi Narchail, Pramod Kumar, and Gopalaratnam Narayanan*

TT3: Electrical Machines and Industrial Drives   **Venue: LH4, LHC-C (Session Chair: Dr. Senthil, NIT Trichy)**

Date & Time 20-12-2024, 09:00 - 10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	746	**Agricultural Photovoltaic Water Pumping System Performance During Partial Shading Condition;** *Kalpana Beura, and Omar Al Zaabi*
09:15-09:30	853	**Minimum Pulse Width adjustment in duties of SVPWM Technique for Synchronous Motor Drives using a 3 Level NPC inverter;** *Saurabh Kumar, S. P. Das, and Piyush Kant*
09:30-09:45	760	**Saliency Enhancement Design of PMaSynRM through Kriging Surrogate Modeling Optimization;** *Naga Sampath*
09:45-10:00	787	**Investigation of Inclined Coil Configurations for 3-Phase Dual Rotor Single Stator Winding;** *Vaibhav Bhardwaj, Durgesh Kumar Banchhor, Amit Kumar Jain, Ankit Dalal, and Dattatraya Shelke*
10:00-10:15	788	**Impacts of Earth Fault on Neighboring AC Motor Drives in Isolated Neutral (IT) Grid Systems;** *Seshadri Gopalan, and Dinesh Kumar*
10:15-10:30	820	**Effect of Input Voltage Unbalanced Harmonics on DC bus Capacitors of Adjustable Speed Drives;** *Seshadri Gopalan, and Dinesh Kumar*

TT4: Transportation   **Venue: LH5, LHC-C (Session Chair: Dr Suvendu Samanta, IIT Kanpur)**

Date & Time 20-12-2024, 09:00 - 10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	939	**Effect of Rotor Core Shapings and Ribs on the Performance of Reduced Rare Earth Interior Permanent Magnet Synchronous Machines**; *Abhishek Shukla, and Saptarshi Basak*
09:15-09:30	584	**Hexverter Based Medium Voltage Fast-Charger with Medium Frequency Isolation;** *Rydham Agarwal, and Tanmoy*
09:30-09:45	594	**Effect of Harmonics due to Grid Integration of Electric Vehicles: Case Study and Analysis;** *Rajeshwari M, and Tulika Bhattacharjee*
09:45-10:00	882	**Reconfigurable Battery with Multiple Input Bidirectional DC-DC Converter for Electric Vehicle;** *Saket Kumar, Lalit Kumar Sahu, and Dr. R N Patel*
10:00-10:15	628	**A Voltage-based Charge Balancing Algorithm to Mitigate the Charge Recovery Effect of Li-ion Batteries;** *Ramesh Parnapalli, Jyotirmaya Sahoo, Amit Patra, and Deba Prasad Kastha*
10:15-10:30	654	**Loss Comparison of GaN, SiC, and IGBT based inverters for Low Voltage High Current Two-Wheeler EV Applications;** *Siddhartha Suyal, Shambhunath Dutta,and Apurv Kumar Yadav*

TT6: Renewable Energy Systems and Energy Storage   **Venue: LH6, LHC-C (Session Chair: Kundan Kumar, NIT Manipur)**

Date & Time 20-12-2024, 09:00 - 10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	327	**Mitigation of Circulating Currents in Parallel-Connected Solar PV Inverters: Real-Time Implementation and Analys;** *Lekshmi KR, ATHIRA B P, Anoop P, Jinuraj KG, and Aby Joseph*
09:15-09:30	352	**Implementation of Microgrid System and its Operation Under Line to Ground fault Condition in Grid Voltage;** *Shoubhik Mukherjee, Rupesh Wandhare, Deepak Gehlot, A.S Krishnapriya, and S ESWARA RAO*
09:30-09:45	365	**Power Control Technique of a Multiport Converter for Low Voltage Standalone Solar PV Applications;** *Monishankar Ghosh, and Jose Thankachan*
09:45-10:00	387	**Linear Phase-locked Loop based Hybrid Grid Synchronization for Grid-Forming Inverters;** *Dev Srikrishna Alla Animesh K Sahoo, Sandeep Negi, and Chandrasekaran S*
10:00-10:15	390	**Digital Evaluation of Li-ion cells: Impact of concentration based diffusivity on P2D models;** *Saksham Mamtani, Jose Mathew, Dijo Jose, and Sudesh Sudesh (MBRDI)*
10:15-10:30	391	**PV System Dynamic Performance Maximisation using a Novel Drift-Free MPPT Method;** *Srinivasarao Kavuru Pradyumna Kumar Behera, Monalisa Pattnaik, Pravat Ray, and Prof. Anura Wijayapala*

TT6: Renewable Energy Systems and Energy Storage		Venue: LH7, LHC-C (Session Chair: Vinod Khadkikar, UAE)

Date & Time 20-12-2024, 09:00 - 10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	744	**Modular Hybrid Series-Parallel DC-DC Converter for HVDC to MVDC applications;** *Chandan Kumar, Prakash Tandi, Lalit Kumar, Mukul Mohan Yadav, Aayush Kumar Singh, and Siba Kumar Patro*
09:15-09:30	406	**A Single-Stage Grid-Following PV Inverter Featuring a Current Management System to Handle MPPT and LVRT with Fewer Sensors;** *Ajay Kumar Jena, Durga Nair S, and Dr. Arun Rahul S*
09:30-09:45	407	**Maximum Power Estimation of a Partially Shaded PV String Using a Novel Elliptical Foci Based Technique;** *Durgesh Chandra Nautiyal, Shivam Tripathi, and Himanshu Sahu*
09:45-10:00	435	**Advanced Sample-Based ANN MPPT for TCT Solar Panels in Partial Shading Environments;** *Gaurav Kumar and Suresh Mikkili*
10:00-10:15	470	**Design and Development of Dual-Input Single-Output High-Gain DC-DC Converter for Renewable Energy Application;** *Kumaravel S and Ranjesh Kumar*
10:15-10:30	475	**Development of Non-Isolated Bidirectional Quadratic DC-DC Converter with Reduced Switch Current Stress;** *Kumaravel S, Anjana M P, Jins Biju, Avanthika Muraleedharan, Aleena Shaju, and Fathima Habeeb*

TT7: Smart Grids & Power Quality		Venue: LH8, LHC-C (Session Chair: Sanjiy Debbarma, NIT Meghalaya)

Date & Time 20-12-2024, 09:00 - 10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	500	**Dual Virtual Inertia Control of Interlinking Converter in Hybrid Microgrid;** *Shwetank Agrawal, Barjeev Tyagi, Vishal Kumar, and Pawan Sharma*
09:15-09:30	189	**Improved ANPC Three-Level Inverter with Voltage Boosting Ability;** *Jagabar S Sathik, Vigna K Ramchandramurthy, Dhananjaya M, Mamdouh L. Alghaythi, and Meshari Alshammari and Saad Mekhilef*
09:30-09:45	512	**Flexibility Trading from P2P Networks to Improve the Grid Frequency Response in the Presence of RTEM and MARL-Based AGC Systems** *Liza Debbarma, Sanjoy Debbarma, and Piyush Pratap Singh*
09:45-10:00	924	**Commutation Torque Ripple Reduction in Open-end winding BLDC Motor Drives;** *Rajeevan PP and Harikrishna U*
10:00-10:15	541	**Performance Study of a Three-phase SEIG Feeding Single-phase Non-linear Loads;** *Samrat Chakraborty and Rajen Pudur*
10:15-10:30	792	**Grid Disturbance and Internal Voltage Source Saturation Impact on Power-Angle Curves of GFM**; *Divyanshu Bansal, Aravind G, Atmanandmaya Atmanandmaya, and L. Umanand*

TT1: Power Converter		Venue: CR1, LHC-C (Session Chair: Dr. Subrata Banerjee NIT Durgapur)
Date & Time 20-12-2024, 03:30 - 05:30		
Time Slot	**Paper ID**	**Paper Details**
15:30-15:45	427	**Multi-arm MMC Analysis for Resolving Power Mismatch Issues** *Sualiha Bazaz, Krishna Raj R and Anandarup Das*
15:45-16:00	662	**Battery-Powered Current Regulated Automotive LED Driver;** *Madhuri Bavupally*
16:00-16:15	588	**High Performance SRM Drive for Household Appliances;** *Vipin Kumar singh, Jitendra Gupta and Bhim Singh*
16:15-16:30	975	**Design of an Active PFC Flyback Converter for Auxiliary Power Supply in Power Electronic Converter;** *Julakanti Satheesh Reddy, Arun Karuppaswamy*
16:30-16:45	357	**Model Predictive Control of 3-Level T-Type Converter for Grid-Tie Application;** *Shivani Soni and Sreenivasarao D*
16:45-17:00	338	**Asymmetrical Low Switch Count 15-Level Multilevel Inverter with Multi-Carrier PWM Control;** *Swapan Kumar Baksi , Dr.Ranjan Kumar Behera, and Utkal Ranjan Muduli*
17:00-17:15	907	**Phase-Shift Control Analysis of a 25 kV DC Supply Utilizing Voltage Multiplier;** *Aashish Ranjan, Brijendra Verma, Niraj Kumar, Dhiraj Sangwan, Anil Kumar Saini, and Anand Abhishek*
17:15-17:30	734	**Grid Forming Control of PHC Based STATCOM;** *Anil Kumar Tiwari, IbhanChand Rath, and Siba Kumar Patro*

TT1: Power Converter		Venue: LH1, LHC-C (Session Chair: Dr. P. Prajof, NITK)
Date & Time 20-12-2024, 03:30 - 05:30		
Time Slot	**Paper ID**	**Paper Details**
15:30-15:45	715	**Master-Slave Control Design on High Powered Interleaved Boost Converter;** *Sudarshan Singh, Dalija Rath and Susovon Samanta*
15:45-16:00	353	**Determining Power Loss of Motor Controller at Different Torque and Speed for Electric 2-Wheeler Application;** *Prathamesh Deshpande, Meera Murali, Kapil Kalantri, and Rohan Deshpande*
16:00-16:15	293	**Control and Implementation Aspects of Totem-Pole Power Factor Correction Circuit in Digital Domain;** *Cilaveni Satish Chandra, Vaishnavvignesh G Iyer, Pramit Nandi, Ravindranath Adda, and Sreenath J G*
16:15-16:30	277	**Dual Switch Switched Inductor-Capacitor Network-based High Gain DC-DC Converter with Reduced Switch Current Stress and Continuous Input Current;** *Kumaravel S and Vinu Varshath S*
16:30-16:45	926	**Study and Performance Evaluation of Design and Control Methods for CC/CV based EV Charging in WPT Topologies;** *Jalaj Kumar, Ritesh Gupta, Avanish Pandey, Suvendu Samanta, and Akshay Kumar Rathore*
16:45-17:00	842	**Optimized Switched Inductor-Capacitor Architecture for High Voltage DC-DC Conversion;** *Seshagiri Rao Vemparala, Sagar B Mahajan, Mahmoud F. Elmorshedy, Dhafar Almakhles, and Kumaravel S*
17:00-17:15	711	**Switched Capacitor-based Buck/Boost DC-DC Converter For Low Power Applications;** *Kundala Sai Varun, Mattaparthi Pradeepthi Neha, Jakkana Sai Dev Lohith, Sachin Singh, Avula Muneeswari, Maddu Esther Pravallika,*
17:15-17:30	633	**Use of Artificial Neural Network to Predict Duty Ratio in Two Sub-modes of CI-SIDO Boost Converter;** *Vigneshwaran R, Angan Sarkar, and Shabari Nath*

TT1: Power Converter		Venue: LH2, LHC-C (Session Chair: Dr. B. Dastagiri Reddy NITK)
Date & Time 20-12-2024, 03:30 - 05:30		
Time Slot	**Paper ID**	**Paper Details**
15:30-15:45	548	**Analysis and Design of a Non-Isolated Bidirectional DC-DC Converter with High Voltage Ratio for Battery Storage System;** *Dharavath Anusha and Srinivasan Pradabane*
15:45-16:00	506	**A Transformerless Quadratic DC-DC Boost Converter Based on Switched-Capacitor Structure with Reduced Switch Voltage Stress;** *Soham Chakraborty and Prasun Mishra*
16:00-16:15	382	**Low-Frequency Common Mode Voltage Mitigation in Si/SiC Based Ten-Switch Neutral-Point Clamped Converter;** *Narendrababu A, Naveen Yalla and Kishore Hirekar*
16:15-16:30	315	**A Generalized Multilevel Converter System and its State Observation;** *Jagannath Samantaray and Sohom Chakrabarty*
16:30-16:45	215	**Diode Assisted High Gain DC-DC Converter Abstract;** *Shri Prakash Sonkar*
16:45-17:00	65	**A novel six-switch two-output port isolated DC-DC converter acting as a DC Transformer for battery voltage step-up and battery-to-PV changeover applications;** *Arkabrata Dattaroy and Avik Bhattacharya*
17:00-17:15	850	**Design of Compact Si-IGBT Module Based Power Converter fed Vector Controlled IM Drives For EV Application;** *Nilesh Pandey, Vaishnav K S and Piyush Kant*
17:15-17:30	833	**Disturbance model for the integrated PSFB and inverter system in grid-tied PV applications;** *Sri Chaitanya and Krishna Vasudevan*

TT3: Electrical Machines and Industrial Drives		Venue: LH3, LHC-C (Session Chair: Dr. Manjunath Sharma K, NITK)
Date & Time 20-12-2024, 03:30 - 05:30		
Time Slot	**Paper ID**	**Paper Details**
15:30-15:45	487	**Novel Line-Start Rib-less PM-assisted Synchronous Reluctance Motor for Submersible Bore-well Pump;** *Vishal M J, Harikrishnan S, and Baylon G. Fernandes*
15:45-16:00	494	**A Transistorized DC Commutatorless Series Motor Drive with Reduced Torque Ripple for Electrified Vehicle Applications;** *Moyukh Mandal and Kaushik Mukherjee*

Time Slot	Paper ID	Paper Details
16:00-16:15	508	**Pole Number Optimization and Closed Loop Control of an Outer Rotor BLDC Motor for UAV Application;** *Surajit Saha, Cheshta Jain, and Amit Kumar Jain*
16:15-16:30	518	**Chaotic Behavior Assessment of Switched Reluctance Motor in Dynamic Conditions;** *Yaheya Al Aman and N C Sahoo*
16:30-16:45	524	**A Simple and Accurate Analytical Approach for Calculation of Air-gap Flux Density in PMSM;** Sagar Gupta, Vaibhav
16:45-17:00	526	**Torque Enhancement of BLDC Motor Considering Iron Loss: Modeling and Compensation Approach;** Amitesh Prakash, Alok Ranjan, Dr. Vijaya Bhaskar Devara, and Utkal Ranjan Muduli
17:00-17:15	530	**A Comprehensive Approach with Optimizing Current Harmonic Regulation in IPMSM Drive;** *Alok Ranjan and Vijaya Bhaskar Devara*
17:15-17:30	535	**Performance Evaluation of Brushless PM Motor with Less-Rare-Earth Mixed Grade Segmented Poles for UAV Applications;** *Vaibhav Bhardwaj and Amit Kumar Jain*

TT4: Transportation		Venue: LH4, LHC-C (Session Chair: Dr. Dharavath Kishan NITK)
Date & Time 20-12-2024, 03:30 - 05:30		
Time Slot	**Paper ID**	**Paper Details**
15:30-15:45	657	**A Modified T-type Based Single-Stage 3-Level Isolated Bidirectional Off-Board Charger For Electric Vehicles;** *Nilesh Pandey, Piyush Kant, and Sunil Kumar Dube*
15:45-16:00	709	**Compensation Tuning for Efficiency Maximization in LCC/LCC Compensated Inductive Power Transfer based Charging Systems;** *Kukkala Satya Prakash and Chandrasekhar Perumalla*
16:00-16:15	713	**Reconfigurable Wide Voltage Range Battery Charger for Electric Transportation Applications;** *Anguru Deepak Datta, Jammy Ramesh Rahul, and Chandrika Vadrevu*
16:15-16:30	714	**LCL Compensated Series Transmitter Array Based Inductive Wireless Charger for Multiple EV Charging Application;** *Abhishek Singhal, Venkata Ratnam Vakacharla, and Narasareddy*
16:30-16:45	728	**An Analytical Approach of Higher Order Electric Vehicle System Reduction Using Truncation Based Approximation;** *Sameer Singh, Vinay Pratap Singh, Umesh Kumar Yadav, Akhilesh Mathur, Suryansh Kumar Pandey, Shailendra Kumar, and Krishna Murari*
16:45-17:00	958	**Model Predictive Control of Solar PV and Battery Converters using Droop Control;** *Devendra Kumar, Somnath Meikap, Chandan Kumar, Fernanda Carnielutti, and Jose Rodriguez*
17:00-17:15	814	**Vehicle-to-Grid (V2G) Technology: Global Scenario, Future Scope, Challenges, and Implementation;** *Akshay Kumar Rathore, Bala Krishnan B Sivaneasan, Dhivya Sampath Kumar, Anurag Sharma, and Kuan Tak Tan*
17:15-17:30	932	**Modular Three-Phase Matrix-Based Single-Stage High-Frequency Link Bidirectional PFC Converter for EV Charging;** *Akshay Kumar Rathore, Nil Patel, Luiz Lopes, Jose Rodriguez, and Arun Kumar Verma*

TT6: Renewable Energy Systems and Energy Storage		Venue: LH5, LHC-C (Session Chair: Dr. Chandan Kumar, IITG)
Date & Time 20-12-2024, 03:30 - 05:30		
Time Slot	**Paper ID**	**Paper Details**
15:30-15:45	477	**Self-Sustaining Photovoltaic Power System with High-Gain Boost Converter for DC Nanogrid Equipped with Hybrid Storage Unit;** *Pradyumna Kumar Behera, Manishankar Verma, and Monalisa Pattnaik*
15:45-16:00	489	**Restoration and Grid Integration of Unbalanced and Distorted Distribution System using Inverter based Renewable Energy Systems;** *Diptiman Dey and Suryanarayana Doolla*
16:00-16:15	492	**Comparative Study of Single-Phase Five-Level Transformerless Solar PV Grid-Connected Inverters;** *Sanket Subhash Tambe and Anubrata Dey*
16:15-16:30	509	**Reliability Analysis of SEIG-ELC System using Markov Modelling;** *Shalini Sinha and Rajen Pudur*
16:30-16:45	514	**Bi-Level Optimization Framework for Energy Management in Networked Microgrids;** *Vikas Ranveer Singh Mahala, Anshul Kumar Yadav, D. Saxena, and Rajesh Kumar*
16:45-17:00	533	**Dual Configured SEIG-Based WES Using Modified SVM Technique for Three Level Back to Back Converter;** *Navin Kumar and Giribabu Dyanamina*
17:00-17:15	549	**Approximation of Higher Order Fuel Cell System Employing Error Minimization;** *Rahila Parveen, P.D. Dewangan, S.L. Sinha, and Vinay Pratap Singh*
17:15-17:30	559	**Design and experimental investigation of Battery Management System;** *Abitha A, Swetha, Ramesh P, Aby Joseph, and Sreeranjini S V*

TT6: Renewable Energy Systems and Energy Storage		Venue: LH6, LHC-C (Session Chair: Sunanda, MNIT Jaipur)
Date & Time 20-12-2024, 03:30 - 05:30		
Time Slot	**Paper ID**	**Paper Details**
15:30-15:45	567	**Smart Utility Interface for Solar PV Fed Vector Controlled Induction Motor Drive For Water Pump Applications;** *Vishal Tyagi, Taniya Goyal, and Sumit GhatakChoudhuri*
15:45-16:00	631	**Enhanced VSG-Based Control for Parallel Grid-Forming Converters in an Autonomous Microgrid;** *Uzair Malik,*
16:00-16:15	635	**Shading;** *Sadhana Anantha, Vinay Kumar Kolakaluri, and Vaskar Sarkar*
16:15-16:30	639	**Particle Swarm Optimization-based Sensorless Active Power Decoupling for Active-Front-End Impedance-Source Inverters;** *Pramit Nandi, Ravindranath Adda, Cilaveni Satish Chandra, and Vaishnavvignesh G Iyer*
16:30-16:45	651	**Supercapacitor Voltage Prediction using a Dynamic Fractional Order Parameter Optimization;** *Shifa H Rahman, Jagadanand G, and Shreelakshmi MP*
16:45-17:00	668	**Investigating Temperature Variations in AC Impedance with an Indigenously Developed EIS Test-Bed;** *Sarbani Mandal, Shaurya Pandey, Bikash Sah, Sai Krishna Mulpuri, and Praveen Kumar*
17:00-17:15	681	**A VUF Constrained Neutral Current Reduction Strategy for 4-Leg Grid Forming Inverter;** *Vedant Chandak, Imran Khan, and Suryanarayana Doolla*

Time Slot	Paper ID	Paper Details
17:15-17:30	684	**A Two-stage PV-Battery Grid Forming Control With Current Limitations on Both AC and DC Side;** *Kanishka Ravi Madishetty, Imran Khan, and Suryanarayana Doolla*

TT6: Renewable Energy Systems and Energy Storage	Venue: LH7, LHC-C (Session Chair: Yashwant Kashyap, NITK)

Date & Time 20-12-2024, 03:30 - 05:30

Time Slot	Paper ID	Paper Details
15:30-15:46	685	**On the Development of a FCS-MPC based Power Amplifier for Power-Hardware-in-the-Loop Tests;** *Vineeth K P, Imran Khan, and Suryanarayana Doolla*
15:45-16:01	697	**Hybrid Model-based and Heuristic Optimal Parameter Estimation for a PV-fed DC-DC Converter with Maximum Power Extraction;** *Akshay Chabukswar, Praveen Vankadari, Akurathi Sai Sarath Chandra, Avinash Naramu, Rahul Raj Kar, and Rupesh Wandhare*
16:00-16:16	701	**Active Balancing of LiFePO4 Battery Modules using Phase-Shift type DC-DC Converter for High Voltage Applications;** *Akurathi Sai Sarath Chandra, Avinash Naramu, Akshay Chabukswar, Praveen Vankadari, and Rupesh Wandhare*
16:15-16:31	717	**Fault Signal Formulation For Fault Analysis In DC Microgrid;** *Aditi Sharma, Venkata Ratnam Vakacharla, and Tummuru Narsa Reddy*
16:30-16:46	735	**Grid Forming Control of Star Connected Cascaded H-Bridge STATCOM;** *Anil Kumar Tiwari, IbhanChand Rath, and Siba Kumar Patro*
16:45-17:01	737	**Dynamic Droop Control for Optimal Power Sharing in Renewable Rich Hybrid Islanded Microgrids;** *Amit Gupta and Chandrasekhar Perumalla*
17:00-17:16	875	**Solar Microinverter with ESS for Rural Households;** *Ajay Kumar Sahu, Dr. R N Patel, and Dr. Lalit Kumar Sahu*
17:15-17:31	750	**DC-AC Conversion In PV Based Series Modular Converter;** *Shourya Sharma, Allamsetti Jahnavi, Komarapu Hanisha, Nellepalli Parthasarathi Vaishnavi, Siripangi Sai Teja, Tarunveer Tarunveer, and Siba Kumar Patro*

TT7: Smart Grids & Power Quality	Venue: LH8, LHC-C (Session Chair: Anand Sathyan, USA)

Date & Time 20-12-2024, 03:30 - 05:30

Time Slot	Paper ID	Paper Details
15:30-15:45	969	**Design and Analysis of IPMSM with Modular Stator Structure for Electric Vehicular Applications;** *Gowtham Vegireddy, Deepak Ronanki, and Apparao Dekka*
15:45-16:00	703	**Fault Detection in Autonomous Microgrid with Distributed Secondary Controlled DGs;** *Praveen P, and Vishal Kumar*
16:00-16:15	707	**Adaptive Harmonic Compensation Strategy based Frequency Lock Loop for Grid Connected PV System Under Abnormal Grid Voltages;** *Manash Kumar Mishra, Prakash Ji Barnawal, Vivek Nandan Lal, and Rajeev Kumar Singh*
16:15-16:30	874	**Integral Dual Fractional Derivative Frequency Controller for Thermal Power Plant with Delay;** *Deepak Kumar, G. Lloyds Raja, Mohamed Alkhatib, Omar Al Zaabi, Khalifa Hassan Al Hosani, and Utkal Ranjan Muduli*
16:30-16:45	781	**Design and Control of Three Phase Active Front End Converter fed Isolated Voltage Balancer for Bipolar DC Microgrid;** *Praveen Vankadari and Rupesh Wandhare*
16:45-17:00	784	**Utilization of Master and Smart Meter Readings for Pin Pointing Electricity Theft using Correlation Analysis;** *Janani T and Suman Murugesan*
17:00-17:15	811	**Sinusoidal Amplitude Integrator-based Harmonic Extraction for Active Harmonic Filter;** *Praveen Vankadari, Vavilala Mohana Venkata Naga Sai Kishore, Rahul Raj Kar, and Rupesh Wandhare*
17:15-17:30	836	**Current Vector Oriented Control Scheme for Power Sharing in Open-end Winding Transformer Based Microgrids;** *Rajeevan PP, NAUFAL N, and Rajesh J Abraham*

TT1: Power Converter		Venue: CR1, LHC-C (Session Chair: Dr. Md Waseem Ahmad NITK)
Date & Time 21-12-2024, 9:00-10:30		
Time Slot	**Paper ID**	**Paper Details**
09:00-09:15	513	**Performance Optimization in Phase Shifted Full Bridge Converter using Parallel Loop Shaping Technique** *Healsa Henry*
09:15-09:30	420	**Transition and Fault-tolerant Scheme for Single-phase Inverter** Priya Singh Bhakar, Naga Brahmendra, *Yadav Gorla and Kalaiselvi J*
09:30-09:45	366	**Power Quality Enhancement of Five-level Converter Using Floating H-bridges of Voltage Ratio 4:1/2:1/4** *Shashank Dabral and Satyabrata Sahoo*
09:45-10:00	269	**Control Strategies for 3L-T-type Inverter in Islanded and Grid-Tied Modes Using Controller-Hardware in the Loop** *Dhiraj Kumar, Yojan Sharma, Aakash Singh and Suvendu Samanta*
10:00-10:15	259	**Estimation of Parasitic Inductances of a Two-Phase Interleaved Buck Converter with Coupled Inductors Through Detailed Experiments** *Sayantan Chanda, Gourab Banerjee,Dona Chakraborty and Mainak Sengupta*
10:15-10:30	630	**A Common Grounded ASISC DC-DC Converter without Oscillation across Switches;** *Avneet Kumar, Sahendara Kumar and Raghuram M*

TT1: Power Converter		Venue: LH1, LHC-C (Session Chair: Dr. Ravi Raushan, NITK)
Date & Time 21-12-2024, 9:00-10:30		
Time Slot	**Paper ID**	**Paper Details**
09:00-09:15	864	**Seamless Dispatchable Grid Integration of an FPPT-Controlled PV System with Limited Local Energy Storage** *Sadhana Anantha; Vinay Kumar Kolakaluri; Sura Chanukya and Vaskar Sarkar*
09:15-09:30	883	**Design of Solar Photovoltaic System for Off-Grid Domestic Applications,** *Mohamamd Junaid and Bhim Singh*
09:30-09:45	901	**Control of a Two-Stage High-Frequency Isolated PV-Grid Integrated System with Improved Power Quality,** *Sruthi M; Jeevanand P; Sooraj Suresh Kumar; Jayaprakash P. and Akhil Chacko*
09:45-10:00	925	**Enhancing System Performance with Wind Farm Using Fuzzy Logic Coordination Between AVR and PSS Controllers,** *Jawaharlal Bhukya; K. Surender and Chandrakant Rathore*
10:00-10:15	935	**Identification of Li-ion Battery Parameters Using Neural Networks,** *Chandrasekhar azad Narlapati; Jeyasenthil Ramamurthy; Tarakanath Kobaku; Vivek Agarwal; Pratik Kumar Singh and Venkata Ramana Kasi*
10:15-10:30	949	**Enhancing Voltage Stability in Bipolar Microgrids,** *Vinod S Patil*

TT1: Power Converter		Venue: LH2, LHC-C (Session Chair: A Karthikeyan, NITK)
Date & Time 21-12-2024, 9:00-10:30		
Time Slot	**Paper ID**	**Paper Details**
09:00-09:15	507	**Intelligent Inductor Characterization for Power Converters;** *Mohammed Ali Khan; Ramkrishan Maheshwari; Kasper Mayntz Paasch and Thomas Ebel*
09:15-09:30	977	**Three-Phase Decomposition-based PWM for CMV Elimination in Dual Inverter-fed Six-Phase Motor Drive Fed From A Single DC source;** *Prasoon Chandran Mavila; Sobhan Mohamadian; Rajeevan PP; Concettina Buccella and Carlo Cecati*
09:30-09:45	505	**Deadbeat Controller for Current Injection Circuit-based Front-End Converter,** *Ramkrishan Maheshwari; Kasper Mayntz Paasch and Thomas Ebel*
09:45-10:00	590	**Influence of Insulation Requirement on PMSM Design and Performance Driven by a Multi-Level Inverter,** *N. Rezwana S Popsi; Himavarsha Dhulipati; K. Lakshmi Varaha Iyer; Narayan Kar*
10:00-10:15	767	**Advanced Discrete-Time Modeling and State Feedback Control of an Interleaved Buck Converter,** *Galina Mirzaeva, Yunxun Mo and Eduardo Espinosa*
10:15-10:30	766	**The Use of Power Factor Optimisation to Improve Harmonic Performance of Matrix Converters,** *Galina Mirzaeva, Yuan Liu and Eduardo Espinosa*

TT1: Power Converter (ONLINE)		Venue: LH3, LHC-C (Session Chair: Dattatraya Narayan Gaonkar)
Date & Time 21-12-2024, 9:00-10:30		
Time Slot	**Paper ID**	**Paper Details**
09:00-09:15	345	**Enhanced Control Structure for Servo Drives with Adaptive PWM,** *Manuel Weiss; Florian Frick; Armin Lechler and Alexander Verl*
09:15-09:30	638	**Detection of Wind Turbine Induced Forced Oscillations using Periodogram and DEF Techniques**, *Piyush Rai, Kumar Abhinav, Priyesh Saini, Abhineet Prakash, and Sanjoy Kumar Parida*
09:30-09:45	184	**Control of Single Phase Full Bridge VSI Using Modified Peak and Valley Current Control With Optical Isolation**, *Betsy Baby and Mathew K .*
09:45-10:00	341	**AI Reduced Order Model of Induction Machine;** *Farid Zidat; Spyridon Foivos Mallios; Lavanya Vadamodala; Karun Teja Avula and Philippe Wendling*
10:00-10:15	424	**Interleaved Sigma-Delta Current Sense for Improved Direct Torque Control of PMSM,** *Vaidehi Anil Deoskar; Nima Tashakor; Stefan Goetz and Thomas Leyrer*
10:15-10:30	320	**Mitigating SSR in DFIG-Based Wind Farms using a Robust Terminal Sliding Mode Controller** *Tushar Kanti Roy, Md Apel Mahmud and Amanullah Maung Than Oo*

TT6: Renewable Energy Systems and Energy Storage (ONLINE)		Venue: LH4, LHC-C (Session Chair: Anurag Sharma, Newcastle Uni, UK)

Date & Time 21-12-2024, 9:00-10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	858	**A Fault-Tolerant Multilevel Inverter Topology Configured with Three Sources with Improved Performance in Post-Fault Conditions** *Marif Daula Siddique, Mehdi Seyedmahmousian, Saad Mekhilef and Alex Stojcevski*
09:15-09:30	971	**Reduced-sensor-based OSS-MPCC for Grid-tied Inverter with LCL filter** *Mohammad Anas Anees, Mostefa Kermadi, Saad Mekhilef, Marizan Mubin, and Marif Daula Siddique*
09:30-09:45	860	**Power Quality Comparison of Even and Odd Number of Levels with Active Neutral Point Clamped Configured Topologies,** *Marif Daula Siddique; Mehdi Seyedmahmousian; Saad Mekhilef and Alex Stojcevski*
09:45-10:00	121	**High-Power Three-Port Converter for Efficient EV Fast Charging Using Partial Power Processing;** *Zarren Firdous (Universiti Malaya)*; Saad Mekhilef ; Marizan Mubin; Ahmed Elsanabary; Marif Daula Siddique and Obid AL Shammari Hail*
10:00-10:15	305	**A High-Gain Non-Isolated Boost-SEPIC DC-DC Converter,** *Victoria T Alencar and Romero Andersen*
10:15-10:30	596	**Traction to Auxiliary Power Transfer in Modular EV Drivetrain;** *Harminderjit Singh Toor; Viraaj Lulla; Lakshmi Varaha Iyer; Narayan Kar and Caniggia Viana*

TT6: Renewable Energy Systems and Energy Storage (ONLINE)		Venue: LH5, LHC-C (Session Chair: Panduranga Vittal K)

Date & Time 21-12-2024, 9:00-10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	266	**A Cloud-Based Solution for Remote Access to a Microgrid Experimental Platform,** *Varun Balan (University of Wisconsin-Madison); Maitreyee Marathe (University of Wisconsin-Madison)*; Giri Venkataramanan (University of Wisconsin-Madison)*
09:15-09:30	412	**Evaluation of Thermal Performance of Oil-immersed Power Electronics** *Giri Venkataramanan; Ratnesh Singh and Dan Ludois*
09:30-09:45	27	**Minimum Switch Double Boost Switched Capacitor Inverter with Phase Disposition PWM Control;** *Geno Peter, Albert Alexander S, Vijayakumar Arun and Samat Iderus*
09:45-10:00	28	**Double Boost Switched Capacitor Multi-Level Inverter with Modified PWM Control;** *Geno Peter; Albert Alexander; Vijayakumar Arun and Samat Iderus*
10:00-10:15	649	**Comprehensive drive-cycle-based analysis of hairpin vs stranded windings for EV;** *Mohamed Abdulsamad; Himavarsha Dhulipati and Hicham Chaoui*
10:15-10:30	580	**Design and Analysis of RLS-Based Torque Estimation for Control of EV Traction PMSMs,** *Shashwat Shukla; Gourab Ghosh and Anchal Saxena*

TT6: Renewable Energy Systems and Energy Storage (ONLINE)		Venue: LH6, LHC-C (Session Chair:Manjunatha Sharma K)

Date & Time 21-12-2024, 9:00-10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	170	**Integrating Data Intrusion Defense Strategy in PV Power Forecasting Framework,** *Vikash Kumar Saini; Ameena Saad Al-Sumaiti and Rajesh Kumar*
09:15-09:30	227	**Sustainable Microgrids: TLBO-Driven Multi-Objective Optimization Modeling for Cost-Effective Emission-Embedded Solution,** *Manisha; Vikash Kumar Saini; Meena Kumar; Rajesh Kumar and Ameena Saad Al-Sumaiti*
09:30-09:45	515	**Truncation Based Reduction of Interconnected Hybrid Power System** *V. P. Sharma, Akhilesh Mathur, V. P. Singh, Krishna Murari, Mrityunjay Kumar Mishra, and Ameena Saad Al-Sumaiti*
09:45-10:00	754	**Efficient Load Frequency Regulation of Islanded Microgrids with Fractional-Order PI Controller;** *Tarun kumar Bashishtha, Vinay Pratap Singh, Akhilesh Mathur, Krishna Murari, Mrityunjay Kumar Mishra, and Ameena Saad Al-Sumaiti*
10:00-10:15	622	**Rule-based Controller Design for Frequency control in Islanded Microgrids;** *Sugandh Singh, Vinay Pratap Singh, and Francesco Benedetto*
10:15-10:30	618	**A Rule-Based Energy Management System for Remote Area Hybrid Standalone Energy Systems with Hydrogen Energy Storage Systems to Improve the Reliability** *Tushar Kanti Roy, Md Apel Mahmud and Amanullah Maung Than Oo*

TT7: Industrial Drives (ONLINE)		Venue: LH7, LHC-C (Session Chair: SMT.M.C.LAVANYA, NIWE)

Date & Time 21-12-2024, 9:00-10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	612	**Efficient Evaluation of Short-Circuit Faults in Active Distribution Networks** *Ghanshyam Meena, Akhilesh Mathur, V. P. Singh, Krishna Murari, and Sukumar Kamalasadan*
09:15-09:30	613	**A Generic Load Flow solution for Droop-controlled AC Microgrids considering Electric Vehicle loads** *Ghanshyam Meena, Akhilesh Mathur, V. P. Singh, Krishna Murari, and Sukumar Kamalasadan*
09:30-09:45	217	**Recovering Below LVD Li-ion Batteries for BMS Based Rechargeable Electrical Appliances,** *Mohua Biswas; Md Zamilur Reza Mazumder and Tanmoy Acharya*
09:45-10:00	295	**Advanced Driver System for Enhanced Efficiency in Emergency LED Lights,** *Mohua Biswas; Md Zamilur Reza Mazumder and Tanmoy Acharya*

| 10:00-10:15 | 193 | **Soft Switching Region Expansion for Three-Phase Dual Active Bridge based on Phase Shift Design of Wye-Asymmetric Extended Delta Transformer,** *Olorunfemi Ojo* |
| 10:15-10:30 | 473 | **ITAE Index Based Control Design Strategy to Mitigate Frequency Deviation of Renewable Integrated Islanded-Microgrid,** *Tarun Kumar Bashishtha; Vinay Pratap Singh; Akhilesh Mathur; Krishna Murari; Mrityunjay Kumar Mishra and Ameena Saad Al-Sumaiti* |

TT1: Power Converter and Circuits (ONLINE)   Venue: LH8, LHC-C (Session Chair: Gururaj MV IIT Kanpur)

Date & Time 21-12-2024, 9:00-10:30

Time Slot	Paper ID	Paper Details
09:00-09:15	511	**Shipboard Microgrid Frequency Control Using Error Performance Criteria** *Akanksha V Waghmare, Vinay Pratap Singh, Akhilesh Mathur, Krishna Murari, Mrityunjay Kumar Mishra, and Ameena Saad Al-Sumaiti*
09:15-09:30	172	**Evaluation of an Intelligent Controller for Electric Vehicle Charging with Vienna Rectifier Topology** *Adithya Lingadahalli ; Nima Tashakor Hans Joerg Wiehoff ; Hui Wang and Stefan Goetz*
09:30-09:45	355	**SOGI-FLL Based Advanced Adaptive Control of a PV-BES System for Weak Grid Operation** *Mukul Chankaya, Masiha Aijaz, Ikhlaq Hussain, Shameem Ahmad Lone, and Bhim Singh*
09:45-10:00	143	**An Improved Power Quality EV Charger Using a Modified Bridgeless Cuk Converter** *Manish Kumar, Bhabani Kumari Choudhury and Mukesh Kumar Pathak*
10:00-10:15	248	**Open Circuit Fault-Tolerant Two-Level STATCOM with Balanced Line Currents** *Abanishwar Chakrabarti, Koustuv Sarkar, Soham Chakraborty, Dipten Maiti, Susovan Mukhopadhyay, and Sujit Biswas*
10:15-10:30	99	**A Sine-Cosine Algorithm Optimized PI-PD Cascade Controller for Load Frequency Control** *Abhineet Prakash, Kumar Abhinav, Piyush Rai, and Sanjoy Kumar Parida*