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IEEE
SILCHAR SUBSECTION

IEEE North-East India International Energy Conversion Conference and Exhibition (NE-IECCE) 2025

July 4-6, 2025

1st Flagship Conference of IEEE IAS Joint Chapter of IEEE Silchar Subsection | @ National Institute of Technology Silchar, Assam | India



IEEE IAS NE-IECCE Students Symposium (Poster Presentation Schedule)

DAY 1: 4th JULY 2025

IEEE IAS NE-IECCE Students Symposium
(Poster Presentation Session 1)

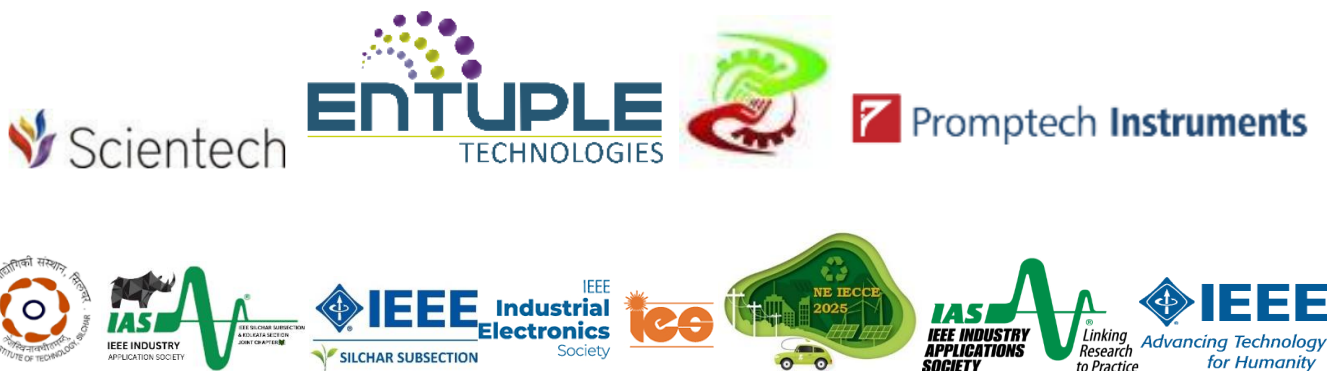
Venue: SAC Building (Near Central Library, NIT Silchar)

Time: 04.30 PM - 05.30 PM

Session Chairs: Dr. Hieu P. Nguyen, Texas Tech University; Prof. L. C. Saikia, NIT Silchar; Dr. Tarkeshwar Mahto, SRM University AP; Dr. M. Senthil Kumar, NIT Patna

Paper Ids	Paper Title
878	An eSO-CCF Based Fundamental Component Extraction for Three/Single-Phase System
663	Cost of Charging in a Solar Modules Integrated Electric Vehicles
460	State-of-Charge Estimation of Lithium-ion Capacitors Combining Impedance data and Deep Neural Network
396	A Modified Current Reference Generation Method for Minimizing Active Power Oscillations During Asymmetrical Low-Voltage Ride-Through (ALVRT) in Grid-Tied PV-Fuel Cell Systems

433	ANN Based Sampling Time Selection Criterion for Model Predictive Controlled Multilevel Converter
557	Design and Modeling of Inductorless Symmetric 9-Level Switched Capacitor Multilevel Inverter
853	A Method for Detecting and Mitigating Steady-State DC Bias Current in Dual Active Bridge Converter
888	Design and Analysis of Multi-Input SEPIC DC-DC Converter for UAVs Charging Applications
892	An Improved Methodology to Minimize Transient DC Bias Current in Dual Active Bridge Converter
893	Development and Simulation of a Dynamic Dual-Chamber Microbial Fuel Cell Model for Bioelectrochemical Energy Generation
894	Onboard EV Charger Using Totem-Pole PFC and Isolated DC/DC Converter for Enhanced Power Quality
688	Rotor Flux Model Reference Adaptive System based Speed Estimation for Field-Oriented Control of Induction Motor Drives
382	Peukert's Law Based Adaptive Control Strategy for EVs in VPP Based Energy Market
890	Dual-Polarised Broadband Antenna for RF Energy Harvesting in 5G Applications
513	Comparative Study of 6-sector and 9-sector DTC for Direct Drive-Wind Energy Conversion System
600	Comparative Performance of PI and ANN Controllers for DTC of a PMSG-based Direct-Drive Wind Energy Conversion System
742	Solar Array-Energized, Battery-Interfaced Sensored PMBLDC Motor-Propelled Water Pump Utilizing an Enhanced Landsman DC-DC Converter
887	Power Control of Offshore Grid by Frequency Matching for a DFIG Wind Power Farm Connected HVDC System under Voltage Fluctuations
904	Strengthening GMPP in Off-Grid BIPV Systems with Array Interconnections Coupled DC-DC Boost Converters Under Partial Shading
631	Integration of Pico Hydro Power System with PV based DC Microgrid
365	Estimation of Oil- Paper Insulation of Transformer using Optical Coherence Tomography: An Image Texture Feature- Based Analysis
581	Generative pretraining transformer based false data injection attack detection framework for DC Microgrid under uncertain operating condition
750	A Cost-Effective Driver Drowsiness Detection Using Embedded Vision Systems using Raspberry Pi for Enhanced Road Safety
329	Decentralized Load Frequency Control of a Multi-Area Cyber-Physical Power System
570	Robust fault tolerant control based on adaptive backstepping terminal sliding mode
586	Advance Technology based Circuit Breaker acknowledge through PZEM-004T Module
619	Comparative Analysis of Control methods for Enhancing the Performance of the Bidirectional DC-DC Buck-Boost Converter
745	Fixed-Time Super Twisting Sliding Mode Average Consensus of Perturbed Multi-agent Systems
784	Development and Execution of a Model Predictive Control Technique for Hybrid Microgrid
453	Voltage Boosting Interleaved DC to DC Converter



DAY 2: 5th JULY 2025

IEEE IAS NE-IECCE Students Symposium

(Poster Presentation Session 2)

Venue: SAC Building (Near Central Library, NIT Silchar)

Time: 09.30 AM - 10.30 AM

Session Chairs: Dr. Krishanu Nath, NIT Jalandhar; Dr. Avadh Pati, NIT Silchar; Dr. Kumari Sarita, Government Engineering College Aurangabad, Bihar

Paper Ids	Paper Title
774	Artificial Neural Network Based Fault Detection and Classification in Power System
776	Assessment of optimum operating state of HVDC converters under uncertain operating condition of hybrid AC-DC power system through a stochastic optimization based approach
780	Techno Economic Assessment and Sizing Analysis of PV, Fuel cell and battery Microgrid using HOMER Pro
803	Hybrid Energy Management System Employing Hysteresis Control for DC Microgrid
808	A Novel Three Phase Seventeen Level Inverter for Grid Tied PV Applications
810	User Need Based Charging Strategies for Electric Vehicle
813	Resonance Stability Analysis of Hydropower Plant Using Modified RH Criteria in Consideration of Sub-Synchronous Oscillation
401	Reconfigurable Ultra-High Gain DC-DC Converter for Renewable Energy Sources
411	Equilibrium Analysis and Linearization of an Oscillating Water Column Energy System for Stability and Control
437	Multi-Input Single-Output Topology with BWO MPPT for Efficient Solar-Powered BLDC Motor Drives in SCVs
455	Analysis and Control of SIDO Boosting Gain Converter
494	Analysis and QFT based Controller for Buck and Boost Based Double Input DC-DC Converter
598	Comprehensive Analysis and Simulation of a Grid Integrated Bidirectional PV System with Battery
610	Simple and Unified Voltage Mode Control Strategy for DC-DC Boost Converters
612	Enhancing Nine-level Quadruple Boost Inverter Operation with Reduced Output Distortions
616	Slime Mould Optimization-Based Integral-LQR Control for Grid Following Inverters
620	Zero-voltage Transition of Dual-switch Based PWM Boost Converter
625	Possibility of Distributed Generation Integration Through Composite AC-DC scheme
781	DCM Analysis of a Two-Switch, Fifth-Order Buck-Boost Converter under Unequal Duty Ratios Scheme

821	SOGI based Three Phase G2V, V2G Technology
823	Enhancing Distribution System Performance with Concurrent Planning of DG and SOP
835	Optimal Allocation of DG to Enhance System Reliability, Resiliency and Power Quality using Optimization
839	Investigating the Potential of Lead-Free Perovskite/Kesterite Dual Absorber Architectures with Varied Transport Layer Materials for Optimizing Tandem Solar Cell performance
840	An Improved Switched Inductor Switched Capacitor based High Gain Converter for EV Application
877	Bidirectional Power Flow Control in Triple Active Bridge Converters with Sensitivity Analysis

DAY 2: 5th JULY 2025

IEEE IAS NE-IECCE Students Symposium

(Poster Presentation Session 3)

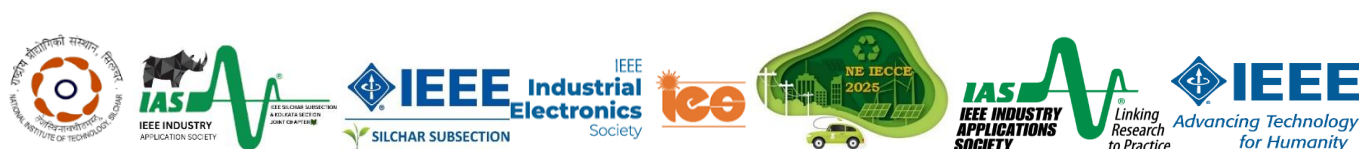
Venue: SAC Building (Near Central Library, NIT Silchar)

Time: 04.15 PM - 05.15 PM

Session Chairs: Dr. Rajen Pudur, NIT Arunachal Pradesh; Dr. Ujjal Chakraborty, NIT Silchar; Dr. Vipin Chandra Pal, NIT Silchar

Paper Ids	Paper Title
896	Recent Advances, Challenges and Future Prospects of Electric Vehicle (EV) Charging: A Technical Review
364	A High Gain Bidirectional Interlink DC-DC Converter to Integrate Unipolar and Bipolar DC Microgrids
366	Real-time Health Monitoring Framework for Rooftop Solar Panels: Efficient, Reliable, & Cost-effective Solution
431	Energy Management System for DC Microgrid: Balancing Sustainability and Economics
459	A Novel Passive Islanding Detection Method Using DFIG Stator Flux
461	Stability Analysis of a Solar PV Connected IEEE 33-Bus ON and OFF Grid Distribution Network
475	A Radial Basis Function Neural Network-Based Fault Detection Scheme for a Microgrid System
558	Ultra-High Voltage Gain Transformerless DC-DC Converter for Enhanced Renewable Energy Systems
567	Comparison in enhancement of GMPPs and LMPPs for new Hybrid cross-tie BIPV arrays under Non-uniform Shading Patterns
569	A Comprehensive Design and Analysis of Solar PV Emulator
584	Resilient Power Synchronization in Tactical Military Bases using CARO tuned enhanced TID Controller
593	Four port Bidirectional Converter with Sliding Mode Control for Hybrid Renewable Systems
617	A Coordinated Energy Management Control Scheme for a Grid-Integrated PV Hybrid Storage System
668	DC Bus Voltage Control in P&O MPPT based Wind-PMSG System using a DC-DC Bidirectional Converter with Storage System
673	Demand Response based optimally modified fractional cascade controller in hybrid AGC incorporating EV.
721	Optimized Frequency-Modulated MPPT Strategy for Enhanced Performance of CL3C Resonant Converter in PV Systems
723	Neural Network Based Wind Estimation and Predictive Control for Wind Energy Optimization

726	Efficient Solution of Multi-Period Three Phase OPF Problem Using Spatial Decomposition
741	A Design Oriented Dynamical Perspective on Proportional-Resonant Controller with 1- Φ Inverter
765	A Novel Resistance Switching Algorithm for Optimal Operation in Solar PV Systems
778	Robust Strategy for AGC and AVR in Isolated Hydropower Plants
783	Design and Implementation of Fuzzy Logic Control Strategy for PV-Battery Microgrid
786	Agro-Microgrid Frequency Stabilization Using Puma Optimizer Tuned Virtual Synchronous Systems
792	Design and Performance Comparison of Solar PV & PV/T Systems with Enhanced System Efficiency
605	Extended State Observer-based Controller for Cuk Converter



DAY 3: 6th JULY 2025
IEEE IAS NE-IECCE Students Symposium
(Poster Presentation Session 4)

Venue: SAC Building (Near Central Library, NIT Silchar)

Time: 11.00 AM - 12.00 PM

Session Chairs: Dr. Debayan Sarkar, NIT Silchar; Dr. Sudipto Chakraborty, NIT Silchar; Dr. Asadur Rahman, NIT Srinagar

Paper Ids	Paper Title
285	Load Frequency Control of Hydro Power Plant Microgrid Integrated with Solar Farms and BESS Using Genetic Algorithms for PID Controller
300	AI-Enhanced Framework for Predicting Shading and Soiling Impacts in Photovoltaic Systems
311	Novel Target Loop-Based IMC-PID Control Law for LF Regulation in Power Systems
335	Design & Development of StaLoi-Meter: IoT-based Standby Load monitoring & estimation system for household
350	Control Strategy for Grid Tied Hybrid System with Improved Power Quality, while Switching between GTM and IAM
858	Investigation on Different Magnet Geometries and Slot-Pole Combinations in Inner-Hollow Outer Rotor BLDC Motors for Yarn Feeding Textile Machinery
866	Performance Evaluation of Different Rotor Configurations in Brushless Permanent Magnet Motor for UAV Applications
328	Enhancing the frequency regulation in multi-area deregulated power system integrated with EV using modified LADRC controller
400	Target-loop based Cascaded Fractional-order Control for Non-integer Processes: Application on a PEM Fuel Cell
482	Enhancing the frequency regulation in hybrid deregulated AGC incorporating modified 2DOF cascaded controller.

