

Day-1: Thursday, 11th December, 2025 (IST)

Each paper timing is 15 minutes (12 minutes for Presentation and 3 minutes for Q & A Session)

Paper ID	Paper Title	Author's Name	Track
Technical Paper Session-1A1 / Power Electronics Converter - I		Time: (10:00 AM - 11:30 AM IST) (5:30 AM - 7:00 AM CET)	
ONCON25-000034	Optimized Design of DC-DC LLC Converter Resonant Tank for High Gain Linearity and Efficiency	Rahim Mohamed,Alielden Abouelseoud,Amr Medhat,Fatma Ibrahim,Abdelrahman Farghly,Ahmed Ibrahim	Power Electronics and Energy Conversion (PE1)
ONCON25-000069	Weighting-Factor-Free Finite-Control-Set MPC with Neutral-Point Voltage Balancing Capability for Vienna Rectifiers	Abdul Nazer P,Harish Sudhakaran Nair	
ONCON25-000072	Optimised Boundary Conduction in Variable Frequency Synchronous Buck Converter for Enhanced Efficiency	Gourab Banerjee,Aparajita Sengupta,Mainak Sengupta	
ONCON25-000127	Structured controller design in grid following converters for guaranteed performance and robustness against weak grids. An LMI approach	Guillermo Navarro Patrón,Carlos Diaz-Sanahuja,Ander Ordone,Marc Guillamon Ferrer,Raúl Ortiz Cardenas,Ignacio Peñarrocha Alós	
ONCON25-000135	Interleaved Active Switched Inductor Converter Using Adaptive Delta Modulation Control Loop for Renewable Energy Applications	farag alargt,ahmed ashur,Ahmad Kharaz	
ONCON25-000188	Analysis of Single-stage Resonant DAB Microinverter Based on Mode Switching	Jiaran Xu,Shanshan Gao,Shouheng Han,Yijie Wang,Dianguo XU	
Technical Paper Session-1A2 / Solar PV Systems		Time: (10:00 AM - 11:30 AM IST) (5:30 AM - 7:00 AM CET)	
ONCON25-000027	Full-Day Experimental Evaluation of Partial Shading Effects on Polycrystalline PV Modules under Dynamic Urban Scenarios	Mohammad Mahdi Asghari,Sarmad Rostami,Aslan Gholami,Majid Zandi,Roghayeh Gavagsaz-Ghoachani,Matheepot Phattanasak	Renewable Energy Generation and Harvesting (RE1)
ONCON25-000030	Quantifying the Impact of Partial Shading on Monocrystalline PV Panels under Varying Shading Scenarios: a Full-Day Experimental Study	Sarmad Rostami,Mohammad Mahdi Asghari,Aslan Gholami,Roghayeh Gavagsaz-Ghoachani,Matheepot Phattanasak,Majid Zandi	
ONCON25-000152	Current-sensorless Embedded Maximum Power Tracker Implementation for PV Interfaced Reconfigurable Power Processor for Wide Voltage Range Application	Aditya Navinkumar Roy,Kausik Biswas,Olive Ray	
ONCON25-000157	A single current sensor based control of three-channel interleaved DC-DC boost converter for PV application	Debarati Dam,Saptarshi Basak	
ONCON25-000189	Analysis of Inertia Emulation by PV Fed BESS Integrated Virtual Synchronous Generator Controlled Inverters	BIKRAM KUMAR SAMANTA,Supratik Bhowmick,Suman Maiti,Chandan Chakraborty	
Technical Paper Session-1A3 / Control System and Application-I		Time: (10:00 AM - 11:30 AM IST) (5:30 AM - 7:00 AM CET)	
ONCON25-000058	Automatic Parameter Adjustment Law for Robust PID Control Systems with Guaranteed Disturbance Attenuation Performance for Polytopic Uncertain Multi-Input Multi-Output Systems	Yuki Ito,Hayate Sawato,Kouki Shibuya,Haruto Takahashi,Yoshikatsu Hoshi,Hidetoshi Oya	Control, Robotics, and Mechatronics (CR1)
ONCON25-000162	The Regional Division Approach to Stability Analysis of T-S Fuzzy Systems with Time-Varying Delays	Junlin Wang,Shuanghe Yu,keqing Bu,Menghan Jiang	
ONCON25-000171	Optimal Control of Multi-Agent Systems under a Graphical-Game Framework with Reciprocal Control Barrier Functions	Jihang Zhao,Shuanghe Yu,Menghan Jiang	
ONCON25-000173	Greedy Adaptive Critics and Integral Reinforcement Learning: Convergence and Optimal Control for Constrained-Input Systems	Fengyu Geng,Shuanghe Yu,Menghan Jiang	
ONCON25-000184	Development of a Compact Hybrid Energy Storage System for Pulsed Load Applications in Unmanned Ground Vehicles	Sunil Palande,Rohan Kumar,Kunwar Aditya	
Technical Paper Session-1B1 / Power Electronics Converter - II		Time: (2:00 PM - 3:30 PM IST) (9:30 AM - 11:00 AM CET)	
ONCON25-000009	Advanced IGBT Short-Circuit Protection Strategies and Considerations in Multilevel Power Converters	Adekunle Joshua Awoniyi,Sohel Ahmad	Power Electronics and Energy Conversion (PE2)
ONCON25-000070	Performance Assessment of GaN, SiC, and IGBT Technologies for Medium Power NPC Inverters	Suganthi Ramasamy,Ramkrishan Maheshwari,Antonio Piras,Thomas Ebel,Gianluca Gatto,Amit Kumar	
ONCON25-000089	Switching Angle Control of Three-Level Multilevel Inverter Permanent Magnet Motor Drives for Variable Speed/Frequency Operations	Olusegun Solomon	
ONCON25-000111	A Novel SHE-PWM Switching Angle Correction Technique in Five Level CHB Inverters with Varying DC Sources	Manish Kumar Meena,A. V. Ravi Teja	
ONCON25-000166	Improved Model Predictive Control for Three-Phase Vienna Rectifiers with Asymmetric DC-Link Voltages	Abdul Nazer P,Harish Sudhakaran Nair	
ONCON25-000183	Modified SHE for Binary and Trinary Asymmetric CHB Inverters with Varying DC Sources	Manish Kumar Meena,A. V. Ravi Teja	
Technical Paper Session-1B2 / Energy Harvesting, Devices & Management		Time: (2:00 PM - 3:30 PM IST) (9:30 AM - 11:00 AM CET)	
ONCON25-000023	Using Circuit Theory and Swarm Intelligence for the Design and Optimization of Energy Harvesters for Ambient Mechanical Vibrations	kailing song,Michele Bonnin,Fabrizio Bonani,Fabio Traversa	Renewable Energy Generation and Harvesting (RE2)
ONCON25-000028	Advancing Thermal Energy Solutions: How Nanomaterials Transform Phase Change Materials	Mohammad Mahdi Asghari,Aslan Gholami,Majid Zandi,Roghayeh Gavagsaz-Ghoachani,Matheepot Phattanasak	
ONCON25-000064	Communicating Energy Concepts and Devices to the Public Using Animal Metaphors	Mohammad Afkar,Parham Karimi,Roghayeh Gavagsaz-Ghoachani,Matheepot Phattanasak,Serge Pierfederici	
ONCON25-000112	Signal reconstruction for wave excitation force and actuator fault in wave energy converters	Zhiwei Gao	
ONCON25-000124	Enhancing Wind Speed and Power Forecasting Accuracy Using Machine Learning Techniques: A Case Study of Jaisalmer Wind Park, India	Raja Owais Ahmad,Aparna Unni,Manjeet Singh,Ravi Sharma,Mohd Abuzar Sayeed,Sunil K Singla	
ONCON25-000192	Hybrid Direct Current Circuit Breakers – A Review	DIPANKAR CHATTERJEE,Chandan Chakraborty	
Technical Paper Session-1B3 / Control System and Application-II		Time: (2:00 PM - 3:30 PM IST) (9:30 AM - 11:00 AM CET)	
ONCON25-000019	Finite-time Simultaneous Rest-to-rest Setting Control for Dual Modes of a String Using Half-odd Trigonometric Functions	Taichi Okamoto,Shigeo Kotake	Control, Robotics, and Mechatronics (CR2)
ONCON25-000020	Optimal Vibration Suppression Control of Overhead Cranes with Single-phase Induction Motor by Data-driven Finite-time Settling Control	Rei Kusumoto,Shigeo Kotake	
ONCON25-000035	2D vibration-damped transfer of a 1DOF overhead traveling crane under open-loop finite-time settling control using half-odd-integer trigonometric functions with two-step acceleration/deceleration	Shigeo Kotake	
ONCON25-000050	Synthesis of Inverse Optimal Regulator for Uncertain Neutral Time-Delay Systems	Hayate Sawato,Kouki Shibuya,Haruto Takahashi,Tuyoshi Matsuki,Hidetoshi Oya	
ONCON25-000057	Prediction of the Effect of Electrical Defibrillation Based on Wavelet Transform with Pseudo-Differential Operators	Yuki Ichiba,Noguchi Shunta,Takayuki Okai,Hidetoshi Oya,Rahman Masudur,Minoru Yoshida	

Technical Paper Session-1C1 / Grid Dynamics & Control		Time: (6:00 PM - 7:30 PM IST) (1:30 PM - 3:00 PM CET)	
ONCON25-000090	Reinforcement Learning-Based Power Scheduling in Microgrids with Dynamic Constraints	Chengfang Hu,Yunqi Wang,Xinghuo Yu,Lasantha Meegahapola,Zhaohui Liu	Power System and Smart Grid (PS1)
ONCON25-000099	Design of Resilient Wide-Area Damping Controllers Using Birds of Prey-Based Optimization Algorithm	Murilo E. C. Bento	
ONCON25-000110	Robust Load Frequency Control via Flood-Optimized Super-Twisting SMC	ABHILASH S,Deepak M	
ONCON25-000123	Computing the Load Margin of Power Systems Using Birds of Prey-Based Optimization Algorithm	Murilo E. C. Bento	
ONCON25-000133	Securing Inverter-based Renewable Energy Resources : A Wind Farm Case Study	talaye Sanatkar,Masoud Babaei Vavdareh,Ghazaleh Sanatkar,Michel Kadoch	
ONCON25-000164	A Novel Distribution System State Estimation for Non-Gaussian Measurement Noise	Kapil Chauhan,Md Arif,Priyanka Yadav	
Technical Paper Session-1C2 / Electric Machines & Drives-I		Time: (6:00 PM - 7:30 PM IST) (1:30 PM - 3:00 PM CET)	
ONCON25-000024	Computationally Efficient Flux Linkage Estimation of PMSynRMs Using Physics Informed Neural Networks	Ahmad Almomani,Khanh Phan,Mohammad Sedigh Toulabi,Shaahin Filizadeh	Electric Machines and Drives(EM1)
ONCON25-000037	Optimal Design of a Traction Induction Motor Using a Data-Driven DOE-Based Method for Electric Vehicle Applications	Omolbanin Taqavi,Ze Li,Glenn Byczynski,Narayan Kar	
ONCON25-000054	Efficiency Evaluation and Considerations in a Wide-Bandgap Device-Based SynRM Drive Incorporating a Finite-Element Motor Model	Yazan Al-Jizawi,Ahmad Almomani,Mohammad Sedigh Toulabi,Shaahin Filizadeh	
ONCON25-000109	An Interpretable Sparse Fourier-Based Convolutional Neural Network (SpFFT-CNN) for Eccentricity Faults Classification	Latifa Yusuf,Belaid Moe,Thirumarai Ilamparithi	
ONCON25-000125	Detection of Stator Winding Short-Circuits and Voltage Imbalance in a Simulated Three-Phase Induction Motor Using Symmetrical Components	Lucas Gremonini,Thiago de Paula Machado Bazzo,Ângela Ferreira,João Pedro Assumpção Bastos,Cecilia Pagnozzi do Nascimento,Narco Afonso Ravazzoli Maciejewski,Bruno Akihiro Tanno Iamamura	
ONCON25-000013	Comparative Analysis of Harmonic Injection based Excitation Topologies in High Power Brushless Wound Field Synchronous Motors for EVs	Surajit Saha	
Technical Paper Session-1C3 / Sensors, Embedded Control & Applications		Time: (6:00 PM - 7:30 PM IST) (1:30 PM - 3:00 PM CET)	
ONCON25-000092	Smart Glasses for the Visually Challenged Using YOLO V8n	Chetan Gode,Sandip Desai,Aniket Sakhare,Prabhakar Dorge,Simran Katkar,Akshay Kadu	Electronic System on Chip and Embedded Control (EC1)
ONCON25-000116	Comparative Analysis of Inverter Technologies for Electric Vehicles and FPGA-Based Control	Akhila Chinmayee Dittakavi,Aravind Sajith,Sai Kiran Challagundla,Pravika M	
ONCON25-000163	Design and FPGA Implementation of Low-Power Clock Gated CNN Accelerator	Jaykumar Patel,Gunjan Thakur,Devanshi Patel,Ankur Changela	
ONCON25-000179	Enhancing Autonomous Vehicle Security: An Adaptive CAN Bus Testbed Architecture	Bastien Morantin,Robin Hatier,Tarek Ould-Bachir,Nora Boulahia-Cuppens,Frederic Cuppens	
ONCON25-000093	Design and Implementation of a K-Type Thermocouple Amplifier with Cold-Junction Compensation	Atharv Vashisht	

Day-2: Friday, 12th December, 2025 (IST)

Each paper timing is 15 minutes (12 minutes for Presentation and 3 minutes for Q & A Session)

Paper ID	Paper Title	Author's Name	Track
Technical Paper Session-2A1 / Power Electronics Converter - III		Time: (10:00 AM - 11:30 AM IST) (5:30 AM - 7:00 AM CET)	
ONCON25-000031	Control of a boost converter-based electronic load	Thong-In Suyata,Krittayot Sengsui,Srimongkhon Udomkaew,Nitchamon Poonnoy,Wiset Saksiri,Montree Siripruchyanun,Roghayeh Gavagsaz-Ghoachani,Matheepot Phattanasak,Serge Pierfederici	Power Electronics and Energy Conversion (PE3)
ONCON25-000052	Nonlinear Model Predictive Control with Extended Kalman Filter for Robust Voltage Regulation in DC-DC Converters	Muzammil Ahmed,Shyamatak Raj Barman	
ONCON25-000055	Comparative Study of Bridgeless Totem-pole PFC Performance with PI and 2p2z Controller	Quoc Nam Trinh	
ONCON25-000141	CFD-Driven Kite Dynamics Emulator for Airborne Wind Energy System using PMSM	Pankaj Kumar,Yashwant Kashyap	
ONCON25-000149	Hybrid CNN-Reinforcement Learning Framework for Intelligent and Adaptive Control of Power Electronic Converter.	DHARAVATH SAIDA,JOSEPHINE R L	
ONCON25-000186	Dynamic Analysis and Control of a Non-Isolated Multi-Port Inverting DC-DC Converter	Jiaxing Hu,Shanshan Gao,Shouheng Han,Yijie Wang,Dianguo XU	
Technical Paper Session-2A2 / Industrial Control and Informatics-I		Time: (10:00 AM - 11:30 AM IST) (5:30 AM - 7:00 AM CET)	
ONCON25-000016	Securing Industrial AI Systems: A Practitioner-centric Pedagogical Framework	Jing Tian	Industrial Automation, Communication, Networking, and Informatics (IA1)
ONCON25-000046	Flow Matching vs. Denoising Diffusion Models: A Unified Perspective on Generative Modeling	Zhaolun Wang,Xin Zhao	
ONCON25-000077	Development of Dependable Systems Using Constrained Colored Petri Nets	Carolina Oliveira,Filipe Moutinho,Luis Gomes	
ONCON25-000087	BiLQoS: Stacked Bi-LSTM for Operator-Agnostic QoS Prediction in C-V2X Smart Cities	Milap Patel,Tathya Patel,Kavya Patel,Anuja Nair,Tarjni Vyas,Shivani Desai,Sudeep Tanwar	
ONCON25-000126	Sustainability in the IoT-enabled Digital Manufacturing Networks in Industry 4.0	Claudia-Melania Chituc	
ONCON25-000084	XAI and ANN-Driven Safe Navigation in Autonomous Ride-Sharing Against GPS Spoofing	Tarjni Vyas,Shivani Desai,Sudeep Tanwar,Dhruv Thakkar,Kavya Patel,Anuja Nair	
Technical Paper Session-2A3 / Control System and Application-III		Time: (10:00 AM - 11:30 AM IST) (5:30 AM - 7:00 AM CET)	
ONCON25-000060	Biological Data Analysis of Cows and Development of Discrimination Systems Based on Time Transition of Feature Parameters for Calving Phase	Takaya Harada,Shugo Nouchi,Ryota Kobana,Hidetoshi Oya	Control, Robotics, and Mechatronics (CR3)
ONCON25-000062	Variable Gain Robust Formation Control with Disturbance Attenuation Performance for Uncertain Multi-Agent Systems	Takuma Kawakami,Hayate Sawato,Kouki Shibuya,Haruto Takahashi,Yoshikatsu HOSHI,Hidetoshi Oya	
ONCON25-000063	Analysis of Body Surface Temperature Data of Cows and Development of Estimation Systems for Optimal AI Timing Based on Wavelet Transform with Pseudo-Differential Operators	Ryota Kobana,Shugo Nouchi,Takaya Harada,Hidetoshi Oya	
ONCON25-000146	Obstacle Avoidance for Indoor Mobile Robots Using Multi-Sensor Fusion and Deep Reinforcement Learning	renpeng cui,Yan Yan	
ONCON25-000147	Class- K^∞ Function-Based Adaptive Quantized Nonsingular Terminal Sliding Mode Control for a 2-DOF Helicopter System: Theory and Experiments	ruiheng zhu,Yan Yan,Shuanghe Yu	
ONCON25-000160	A Delta-Operator-based Decoupled Periodic Output Feedback Control for Multivariable Systems	Ankita Kumari,Bijnan Bandyopadhyay,Deepakkumar Fulwani	
Technical Paper Session-2B1 / Power System Performance & Control		Time: (2:00 PM - 3:30 PM IST) (9:30 AM - 11:00 AM CET)	
ONCON25-000022	Development and Experimental Validation of a Cost-Efficient Concept for Peak Load Shaving in LVDC Grids with Energy Storage Systems	Benjamin Gutwald,Nicolas Baumann,Benedikt Wolesak,Luca Werthmann,Martin Barth,Jan Hinrich Krüger,Tobias Reichenstein,Jörg Franke	Power System and Smart Grid (PS2)
ONCON25-000049	Unified State-Feedback Control of a Hybrid Distribution Transformer using Particle Swarm Optimization Tuning	Dave Figueroa,Alvaro Carreno,MARIUSZ Malinowski,Liu Yang,Zhihong Zhao	
ONCON25-000066	Analysis of the influence of fault resistance on the performance of distance protection in transmission lines supplied by power converters	Abdoul Aziz NDIAYE,Francisco Magraner,Ricardo Vidal-Albalade,Enrique Belenguer	
ONCON25-000117	A Hierarchical Zonal Visualization Framework for Large-Scale Power Networks	Zimian Pan,Paul Cuffe	
ONCON25-000118	Drawing Power Grid Diagrams To Explicitly Separate Different Nominal Voltage Levels	Tarun Indira Kumar Babu,Paul Cuffe	
Technical Paper Session-2B2 / Electric Machines & Drives-II		Time: (2:00 PM - 3:30 PM IST) (9:30 AM - 11:00 AM CET)	
ONCON25-000032	Optimal Design of High-Voltage Flameproof Induction Motors through Active Materials Mass Reduction	Cecilia Pagnoz do Nascimento,Bruno Baptista,Thiago de Paula Machado Bazzo,Ângela Ferreira	Electric Machines and Drives (EM2)
ONCON25-000036	Impact of Mesh Density and Time-step Variation on Losses and Torque Characteristics in 3D and 2D FEM Models of an Axial Flux Machine	Vineetha Puttaraj,Sonja Karin Tidblad Lundmark,Torbjörn Thiringer	
ONCON25-000041	A Comprehensive Study on the Effect of Stator Slot-Tooth Structure in Self-Starting Outer Rotor Brushless PM Motors using FEA and Analytical Methods	Surajit Saha	
ONCON25-000076	Optimised design and fabrication of SRM	Debmalya Rakshit,Devraj Roy,Mainak Sengupta,Aparajita Sengupta	
ONCON25-000108	Investigation of NVH Characteristics in an SRM under Variation of Stator Winding Turns	Md Wahid Rahaman,SUJATA BHOWMICK,SUVARUN DALAPATI,Mainak Sengupta	
ONCON25-000178	Comparative Analysis of Winding Configurations for Six-Phase Interior Permanent Magnet Synchronous Machines in Electric Vehicle	Suparna Kanti Das,Abhishek Shukla,Saptarshi Basak	
Technical Paper Session-2B3 / Advance Computing and Applications-I		Time: (2:00 PM - 3:30 PM IST) (9:30 AM - 11:00 AM CET)	
ONCON25-000004	A Model to Expose Deep Fake Content in Images and Videos Using Residual Networks and Long Short-Term Memory with Convolutional Neural Network	Ayesha Anjum,Husna Tabassum,Syeda Sadia Tabassum,Mohazzeba Tanveer Raza,Smitha Kurian,Janita J	Cloud Computing, Big Data and Software Engineering (CC1)
ONCON25-000006	NoteStop: A Lightweight NLP Model for Educational Applications	Arin Parashar,Kratika Dariyani,MK Vidhyalakshmi	
ONCON25-000015	Explainable AI for Industrial Practitioners: A Taxonomy and Instructional Framework	Jing Tian	
ONCON25-000044	Design and Implementation of an Integrated IoT Device for Comprehensive Environmental Sensing	Hyuntae Cho	
ONCON25-000051	DMBA-SCDNet: A Dual-Modal Branch-Attention Network for Short-Window Early Prediction of Sudden Cardiac Death	Haichun Huang,Hui Wang,Jianing Xue	
ONCON25-000098	Intelligent Gesture Recognition for Safety Assessment of Mechanical Manufacturing Learners Using Immersive VR and AI Technologies	Mohamed Amine BENYAHIA,issam dridi,Med Karim Azizi,Leila Mekacher,NOUREDDINE BEN YAHIA	

Technical Paper Session-2C1 / Power Electronics Converter - IV		Time: (7:30 PM - 9:00 PM IST) (3:00 PM - 4:30 PM CET)	
ONCON25-000038	A DC Link Voltage Controller for Fulfilling Grid Converter Post-fault Power Ramping Requirement	MD AAMIR RAHMANI, Jon Are Suul, Bruce Mork	Power Electronics and Energy Conversion (PE4)
ONCON25-000119	Modeling and Experimental Validation of a MHz GaN HEMT Class D Amplifier	Ba Vu Tran	
ONCON25-000120	Metaheuristic Control Optimization for Buck Converters: A GA-PSO Comparative Framework	Ba Vu Tran, Randolph Huang	
ONCON25-000129	Disturbance Observer Control to face delays and hidden dynamics in grid connected VSCs	Carlos Diaz-Sanahuja, Ander Ordone, Marc Guillamon Ferrer, Raúl Ortiz Cardenas, Guillermo Navarro Patrón, Ignacio Peñarrocha Alós	
ONCON25-000136	A Buck Power Factor Corrector Circuit with Reduced DC Bus Capacitor	Hari Venkata Sai Kishore Pabbisetty, ARNAB PAL, Snehamoy Patra, Amit Kumar Singha	
ONCON25-000182	On the Effective Fault-Ride Through Operation of Grid-Forming Inverters under Asymmetrical Faults in Low-Inertia AC Microgrids	Ahmed Lakhdar Kouzou, Muhammad F. Umar, Sertac Bayhan, Hussein Alnuweiri, Haitham Abu-Rub	
Technical Paper Session-2C2 / Electric Machines & Drives-III		Time: (7:30 PM - 9:00 PM IST) (3:00 PM - 4:30 PM CET)	
ONCON25-000101	On the variable density mesh generation with region assignment using CGAL	Shirish Singh, Anurag Bhale, Rajneesh Kumar, Sharmili Das	Electric Machines and Drives (EM3)
ONCON25-000106	On the removal of degenerate elements on curved domains in the context of FEMG for rotating electric machines	Shirish Singh, Anurag Bhale, Rajneesh Kumar, Sharmili Das	
ONCON25-000114	A new Modular five-level Inverter for induction motor drive	Sakshee Chouhan, Anchal Raghuvanshi, Amit Ojha, Pankaj Swarnkar, Shushma Gupta	
ONCON25-000131	Comparative Analysis and Final Selection of the Best Reference Frame for MTPA Control Implementation in DI-WRIM Drives	Cheshta Jain, Abhishek Shaw, Amit Jain	
ONCON25-000132	A Speed Range Expansion Scheme for Direct Torque Controlled Dual-Inverter Fed IM Drives Fed with a Single DC Power Source	Rajeevan P P, Anjuna K P, Roshan Jabeen K	
ONCON25-000134	Variable Voltage Strategy for Minimum Current Operation in the Flux Weakening Region of DI-WRIM Drive	Cheshta Jain, Abhishek Shaw, Amit Jain	
Technical Paper Session-2C3 / Control System & Applications-IV		Time: (7:30 PM - 9:00 PM IST) (3:00 PM - 4:30 PM CET)	
ONCON25-000008	Discrete-time sensor fault estimation and fault tolerant control scheme for wave energy converters	Zhiwei Gao	Control, Robotics, and Mechatronics (CR4)
ONCON25-000025	On disturbance observer based control for DC-DC boost power converter with restricted input	German De La Cruz, Mizraim Martinez-Lopez, Marco Moran-Armenta, Javier Moreno-Valenzuela	
ONCON25-000078	Retrofitting of power wheelchairs using Petri nets for improved safety and controllability	Mafalda Cardoso, Carolina Oliveira, Luis Gomes	
ONCON25-000139	Adaptive Tube-Based Model Predictive Control with a Control Barrier Function-Based Safety Layer	Md Rezwan Parvez, Hugo O. Garces	
ONCON25-000140	Conformal Distributionally-Robust Model Predictive Control with a Budgeted Multi-Step Barrier	Md Rezwan Parvez, Hugo Garces H.	
ONCON25-000180	Position/Force Control with Direct Voltage Limitation for a Robotic Gripper with DC Motor	Emilio Carfagna, Giovanni Migliazza, Fabio Immovilli, Emilio Lorenzani	

Day-3: Saturday, 13th December, 2025 (IST)

Each paper timing is 15 minutes (12 minutes for Presentation and 3 minutes for Q & A Session)

Paper ID	Paper Title	Author's Name	Track
Technical Paper Session-3A1 / Power Electronics Converter - V		Time: (9:15 AM - 10:45 AM IST) (4:45 AM - 6:15 AM CET)	
ONCON25-000033	A MULTIPORT FIVE-LEVEL BUCK- BOOST PFC RECTIFIER FOR EV CHARGING APPLICATION	Aakanksha Jain	Power Electronics and Energy Conversion (PE5)
ONCON25-000053	Review of Synchronverter-Based VSG Control in Modern Power Systems	Preet Kanan, Anya Shandilya, Arushi Garg, Nandini Saini, MEGHA DUA, Pankaj Gupta	
ONCON25-000128	Robust grid current estimation in LCL-based voltage source converters via extended-state observer	Ander Ordone, Marc Guillamon Ferrer, Raúl Ortiz Cardenas, Guillermo Navarro Patrón, Carlos Diaz-Sanahuja, Ignacio Peñarrocha Alós	
ONCON25-000158	Multi-Resonant Disturbance Observer for Harmonic Suppression in Grid-Connected Converters	Marc Guillamon Ferrer, Raúl Ortiz Cardenas, Ander Ordone, Carlos Diaz-Sanahuja, Guillermo Navarro Patrón, Ignacio Peñarrocha Alós	
ONCON25-000161	Flexible Centralized–Decentralized Hybrid Control of Parallel Grid-Connected Converters with Reduced Current Sensors	MIDHU DAS B, Arun Rahul S	
ONCON25-000168	Lyapunov-based Reward Function Design for Reinforcement Learning Control of Grid-Connected Multilevel Inverters: A PUC5 Case Study	Alamera Nouran Alquennah, Ahmed Lakhdar Kouzou, Tasneem Zamzam, Sertac Bayhan, Mohamed Trabelsi, Haitham Abu-Rub, Ali Ghreyeb	
Technical Paper Session-3A2 / Energy Source, Ancillaries & Integration		Time: (9:15 AM - 10:45 AM IST) (4:45 AM - 6:15 AM CET)	
ONCON25-000071	Energy Router for Off-Grid Solar Inverter with Energy Storage System	Ajay Kumar Sahu, Lalit Kumar Sahu, Ramnarayan Patel	Renewable Energy Generation and Harvesting (RE3)
ONCON25-000097	Hybrid Energy System based on Five-Level Reduced Switch Multilevel Inverter	Het Bhalja, Amit Sant	
ONCON25-000150	Comparative Assessment of Energy Recovery from Agricultural Biomass via Anaerobic Digestion and Direct Combustion	Omar Mohamed Aboelenen, A. Nader, Miral A. Mosaad, Theodora S. Isaac, A. S. Shafey, Amr Maher. A. Norhan M. Ahmed, Peter A. Anis, Salah S. Eishami, Hady Fayek	
ONCON25-000159	Correcting Aging-Induced Drift in Simulation Models of AEM Electrolyzers via Bayesian Parameter Adaptation	Joshua Galys, Lukas Peter Wagner, Felix Gehlhoﬀ	
ONCON25-000187	Releasing Market Power to Enable Stackelberg Game Based Voltage Quality Management in Distribution System	Haonan Zhu, Pengfeng Lin, Miao ZHU, Tengfei Ma	
ONCON25-000176	STATE OF CHARGE BASED CELL BALANCING USING ARTIFICIAL NEURAL NETWORK IN A TWO-STAGE BUCK BOOST CONVERTER FOR SERIES CONNECTED LITHIUM-ION CELLS	Kalpana R	
Technical Paper Session-3A3 / Advance Computing and Applications-II		Time: (9:15 AM - 10:45 AM IST) (4:45 AM - 6:15 AM CET)	
ONCON25-000045	Optimization and Application of Support Vector Machines in Large-Scale Data Processing for Industrial IoT	Peixu Yan, Xin Zhao	Cloud Computing, Big Data and Software Engineering (CC2)
ONCON25-000144	A Medical Time Series Classifier with False Negative and Positive Mitigation via UNITS Transformer Learning	Yuchen Liu, Yushu Suo, Meitong Li, Jing Chen, Hanhan Wu, Wei Liu, Dawei Shi	
ONCON25-000145	Analysis of CNN Model Vulnerabilities through Adversarial Attack-based Image Generation Technique	Seonyul shin, Dongho Shin, Jeongwon Kim	
ONCON25-000151	DFIFNet: Deep Feature Interacting and Fusion Network for Remote Sensing Change Detection	xiaoqi zhang, Shuanghe Yu, keqing Bu	
ONCON25-000153	Seoul District Recognition with CNNs and OCR-Guided Late Fusion	Seungbin Choi, Dongho Shin, Jeongwon Kim	
ONCON25-000007	Modified Local Binary Pattern-Based Brain Tumor Detection for Resource-Constrained IoT and Industrial Electronics Platforms	SUMAN REKHA DIP, Hemant Kumar Meena	
Technical Paper Session-3B1 / Electric Transportation Systems		Time: (2:45 PM - 4:15 PM IST) (10:15 AM - 11:45 AM CET)	
ONCON25-000073	AI-Driven Approaches For Efficient Power Management of EV Charging Station: A Systematic Review	Muzakkir Ali Khan, Ahteshamul Haque	Electric Transportation (ET1)
ONCON25-000083	Review of Indian and Global Electric Vehicle Charging Standards: Opportunities and Challenges for Emerging Economies	Meet Parab, Het Bhalja, Amit Sant, Nirav Karelia	
ONCON25-000086	Embedded AI-Enabled Fault Detection System for Electric Vehicle Powertrains	Timothy Adegbite, Shady Khalil, Mostafa Farrag, Amira Mohammed	
ONCON25-000103	Performance and Efficiency Analysis of Manual Transmission Coupled Electric Powertrains under Standard Drive Cycles	Shirish Singh, Anurag Bhale, Rajneesh Kumar, Sharmili Das	
ONCON25-000167	An Efficiency Improvement Technique for Induction Motors using Carbon Nanotubes for Automotive Applications	Atul Verma, Shubham Dabral, Abhishek Shukla, Saptarshi Basak	
ONCON25-000190	Variable Frequency Approach for Improved Power Flow in WPT System under Variable Misalignment	Suman Saurav, Ritesh Keshri, Hiralal Suryawanshi	
Technical Paper Session-3B2 / Industrial Control and Informatics-II		Time: (2:45 PM - 4:15 PM IST) (10:15 AM - 11:45 AM CET)	
ONCON25-000017	Towards Formalized Process Description (FPD) in Industry 4.0 : A Structured Mapping from FPD to AAS	Hesam Rezaee Ahvanouee, Lasse Beers, Galyna Tabunshchik, Alexander Fay	Industrial Automation, Communication, Networking, and Informatics (IA2)
ONCON25-000021	From Mental Models to Data-Enriched Knowledge Graphs as a Basis for Operator Assistance	Josua Hoefgen, Birgit Vogel-Heuser, Fan Ji, Dorothea Pantfoerder	
ONCON25-000040	Towards a Standardized and Dynamic Toolchain in Automation Engineering	Hesam Rezaee Ahvanouee, Alexander Fay	
ONCON25-000048	Towards Efficient Formal Verification of GRAFCET Specifications using LLMs	Darko Divkovic, Gianluca Manca, Franz Christopher Kunze, Alexander Fay	
ONCON25-000056	Counter Example Guided Abstraction Refinement for IEC 60848 GRAFCET	Robin Mroß, Luca Söthe, Darko Divkovic, Aron Schnakenbeck, Marcus Völker, Alexander Fay, Stefan Kowalewski	
ONCON25-000065	Alarm Root-Cause Analysis via Sensor–Actuator Relationships Extracted from Control Software	Ziming Wen, Jan Wilch, Zhiqi Zhu, Xiaolin Li, Birgit Vogel-Heuser	
Technical Paper Session-3B3 / Advance Computing and Application-III		Time: (2:45 PM - 4:15 PM IST) (10:15 AM - 11:45 AM CET)	
ONCON25-000155	Comparison Through Analysis of the Performance and Security of Asymmetric Key Encryption Algorithms	Minjun Kwon, Dongho Shin, Jeongwon Kim	Cloud Computing, Big Data and Software Engineering (CC3)
ONCON25-000175	Attention-LSTM Based Time-Series Deep Learning Model for Real-Time Exercise Posture Error Correction	Kyuseung Kim, Dongho Shin, Jeongwon Kim	
ONCON25-000191	Robust Industrial Localization of Dot-Pattern Data Matrix Codes on Metallic Surfaces	Chungang Han, Yipeng Liu, Jinyong Yu	
ONCON25-000194	TA-LSTM and IoT Based Energy Management for PV-Powered Greenhouses	Soumya Ranjan Biswal, Tanmoy Roy Choudhury, Babita Panda	
ONCON25-000195	Transfer Learning for Survival Analysis with Application to Breast Cancer Risk Prediction	Houtian Yi, Xin Zhao	
ONCON25-000177	Development of a Prototype Smart Classroom Using Arduino Uno	Devanshish Ganatra	

Technical Paper Session-3C1 / Renewable Energy & Microgrids		Time: (6:00 PM - 7:30 PM IST) (1:30 PM - 3:00 PM CET)	
ONCON25-000085	Towards Reliable Microgrids: Investigation and Mitigation of Power Quality Disturbances	Eamam Hasan Tanvir,Shady Khalil,Mostafa Farrag,Amira Mohammed	
ONCON25-000130	Nonlinear Control using Bernoulli Polynomial Algorithms of EV Charger in Distribution Systems	SUDHANSHU MITTAL,Prakash Chittora,Alka Singh	
ONCON25-000143	Photovoltaic Modelling and Loss Prediction System	Devansh Behl,Anuradha Tomar,Aakarsh Rana,Satvika Sharma,Meet Singh	
ONCON25-000174	Coordinated PQ-Control for Enhanced Voltage Sag Recovery in Weak IBR-Grids	Saikat Das,Arif Sarwat,Sukanta Roy	
ONCON25-000193	Resilience-Aware Optimal Switch Placement with Droop-Constrained Partitioning in Radial Microgrids	Nour Shabar,Khaled Al Jaafari,Hatem Zeineldin	
Technical Paper Session-3C2 / Electric Machines & Drives-IV		Time: (6:00 PM - 7:30 PM IST) (1:30 PM - 3:00 PM CET)	
ONCON25-000024	Computationally Efficient Flux Linkage Estimation of PMSynRMs Using Physics Informed Neural Networks	Ahmad Almomani,Khanh Phan,Mohammad Sedigh Toulabi,Shaahin Filizadeh	
ONCON25-000037	Optimal Design of a Traction Induction Motor Using a Data-Driven DOE-Based Method for Electric Vehicle Applications	Omolbanin Taqavi,Ze Li,Glenn Byczynski,Narayan Kar	
ONCON25-000054	Efficiency Evaluation and Considerations in a Wide-Bandgap Device-Based SynRM Drive Incorporating a Finite-Element Motor Model	Yazan Al-Jizawi,Ahmad Almomani,Mohammad Sedigh Toulabi,Shaahin Filizadeh	
ONCON25-000109	An Interpretable Sparse Fourier-Based Convolutional Neural Network (SpFFT-CNN) for Eccentricity Faults Classification	Latifa Yusuf,Belaid Moe,Thirumarai Ilamparithi	
ONCON25-000125	Detection of Stator Winding Short-Circuits and Voltage Imbalance in a Simulated Three-Phase Induction Motor Using Symmetrical Components	Lucas Gremonini,Thiago de Paula Machado Bazzo,Ângela Ferreira,João Pedro Assumpção Bastos,Cecilia Pagnozzi do Nascimento,Narco Afonso Ravazzoli Maciejewski,Bruno Akihiro Tanno Iamamura	
ONCON25-000013	Comparative Analysis of Harmonic Injection based Excitation Topologies in High Power Brushless Wound Field Synchronous Motors for EVs	Surajit Saha	
Technical Paper Session-3C3 / Energy Storage Systems		Time: (6:00 PM - 7:30 PM IST) (1:30 PM - 3:00 PM CET)	
ONCON25-000156	Stranded Energy Management in Li-ion Batteries During Transportation	Banuselvasaraswathy Balasubramanian,Prarthana Pillai,Balakumar Balasingam	
ONCON25-000165	Understanding the Effect of Measurement Noise in Fast Pulse-Based Impedance Spectroscopy	Sneha Sundaresan,Krishna Pattipati,Balakumar Balasingam	
ONCON25-000169	Improved Linear Estimation for 2RC Battery Model Parameters from Pulse-Relaxation Data	Sooraj Sunil,Krishna Pattipati,Balakumar Balasingam	
ONCON25-000170	Uncertainty Quantification of Electrochemical Impedance Spectroscopy for Battery State of Health Estimation	Prarthana Pillai,Banuselvasaraswathy Balasubramanian,Krishna Pattipati,Balakumar Balasingam	
ONCON25-000181	Implementation of a Workplace Charging Facilities: Sizing and Preliminary Data Collection	Niccolò Nicodemo,Roberto Di Rienzo,Federico Baronti,Roberto Roncella,ROBERTO SALETTI	
ONCON25-000185	Modelling,analysis,real time simulation of 2.2KW Interleaved Nonisolated positive Buckboost DC-DC converter for POD Battery Charging Application	VENKATESH B,Lakshminarasamma N,Ashok Jhunjhunwala	