

IEEE Industrial Electronics Society Annual On-Line Conference (ONCON) -2022 SCHEDULE

Day-1 : Friday, 09 December, 2022 (IST)

TIME (IST)	CORRESPONDING TIME IN OTHER TIME ZONES			SESSION TYPE	SPEAKER DETAILS & VENUE		
	SESSION-A (JST)	SESSION-B (CET)	SESSION-C (EST)				
06:30 AM – 07:15 AM	10:00 AM – 10:45 AM	02:00 AM – 02:45 AM	08:00 PM – 08:45 PM	Keynote Lecture-1	Prof. Saifur Rahman, PhD, Virginia Tech, USA <i>Terry Martin Auditorium</i>		
07:15 AM -- 08:00 AM	10:45 AM – 11:30 AM	02:45 AM – 03:30 AM	08:45 PM – 09:30 PM	Tutorial-1	Prof. Subhashish Bhattacharya, NCSU, USA <i>Terry Martin Auditorium</i>		
08:00 AM -- 09:30 AM	11:30 AM – 01:00 PM	03:30 AM -- 05:00 AM	09:30 PM -- 11:00 PM	Technical Paper Session-IA	Technical Paper Session-IA1 <i>Terry Martin Auditorium</i>	Technical Paper Session-IA2 <i>Xinghuo Yu Auditorium</i>	Technical Paper Session-IA3 <i>Kamal Al-Haddad Auditorium</i>
Break							
02:00 PM -- 02:45 PM	05:30 PM -- 06:15 PM	09:30 AM -- 10:15 AM	03:30 AM -- 04:15 AM	Plenary lecture-1	Prof. Leopoldo G. Franquelo, Sevilla University, Spain <i>Terry Martin Auditorium</i>		
02:45 PM -- 03:30PM	06:15 PM -- 07:00 PM	10:15 AM -- 11:00 AM	04:15 AM -- 05:00 AM	Industrial talk-1	Dr. Armin U. Schmiegel, Senior Vice President R&D ENG, REFU Drive <i>Terry Martin Auditorium</i>		
03:30 PM -- 05:00 PM	07:00 PM -- 08:30 PM	11:00 AM -- 12:30 PM	05:00 AM -- 06:30 AM	Technical Paper Session-IB	Technical Paper Session-IB1 <i>Terry Martin Auditorium</i>	Technical Paper Session-IB2 <i>Xinghuo Yu Auditorium</i>	Technical Paper Session-IB3 <i>Kamal Al-Haddad Auditorium</i>
Break							
06:00 PM – 07:30 PM	09:30 PM -- 11:00 PM	01:30 PM -- 03:00 PM	07:30 AM -- 09:00 AM	Technical Paper Session-IC	Technical Paper Session-IC1 <i>Terry Martin Auditorium</i>	Technical Paper Session-IC2 <i>Xinghuo Yu Auditorium</i>	Technical Paper Session-IC3 <i>Kamal Al-Haddad Auditorium</i>
07:30 PM -- 09:00 PM	11:00 PM -- 12:30 AM	03:00 PM -- 04:30 PM	09:00 AM -- 10:30 AM	WIE Lecture	WIE Co-ordinator: Prof. Lucia Lo Bello, University of Catania, Italy Speaker 1: Dr. Daniela Chrenko (HdR), Maître de Conférences, Responsable Master Mention Energie UTBM, France Speaker 2: Chaturika Wickramasinghe Brahmama, Capital One Finances, Richmond, VA. USA <i>Terry Martin Auditorium</i>		

Day-2 : Saturday, 10 December, 2022 (IST)

06:30 AM – 08:00 AM	10:00 AM – 11:30 AM	02:00 AM -- 03:30 AM	08:00 PM -- 09:30 PM	Technical Paper Session-IIA	Technical Paper Session-IIA1 <i>John Hung Auditorium</i>	Technical Paper Session-IIA2 <i>Gerard-Andre Capolino Auditorium</i>	Technical Paper Session-IIA3 <i>Leopoldo Garcia Franquelo Auditorium</i>
08:00 AM -- 08:45 AM	11:30 AM -- 12:15 PM	03:30 AM -- 04:15 AM	09:30 PM -- 10:15 PM	Keynote Lecture-2	Prof. David Perreault, Massachusetts Institute of Technology, USA <i>John Hung Auditorium</i>		
08:45 AM --09:30 AM	12:15 PM -- 01:00 PM	04:15 AM -- 05:00 AM	10:15 PM -- 11:00 PM	Plenary lecture-2	Prof. Leila Persa, Baskin School of Engineering, UC Santa Cruz, USA <i>John Hung Auditorium</i>		
09:30 AM -- 11:00 AM	01:00 PM -- 02:30 PM	05:00 AM -- 06:30 AM	11:00 PM -- 12:30 AM	Technical Paper Session-IIAA	Technical Paper Session-IIAA1 <i>John Hung Auditorium</i>	Technical Paper Session-IIAA2 <i>Gerard-Andre Capolino Auditorium</i>	Technical Paper Session-IIAA3 <i>Leopoldo Garcia Franquelo Auditorium</i>
Break							
02:00 PM -- 02:45 PM	05:30 PM -- 06:15 PM	09:30 AM -- 10:15 AM	03:30 AM -- 04:15 AM	Plenary lecture-3	Prof. Xinghuo Yu, RMIT University, Melbourne, Australia <i>John Hung Auditorium</i>		
02:45 PM -- 03:30PM	06:15 PM -- 07:00 PM	10:15 AM -- 11:00 AM	04:15 AM -- 05:00 AM	Industry Sponsor Session	OPAL-RT Technologies, ANSYS Technologies, Entuple Technologies and TSUYO Manufacturing Pvt. Ltd. <i>John Hung Auditorium</i>		
03:30 PM -- 05:00 PM	07:00 PM -- 08:30 PM	11:00 AM -- 12:30 PM	05:00 AM -- 06:30 AM	Technical Paper Session-IIB	Technical Paper Session-IIB1 <i>John Hung Auditorium</i>	Technical Paper Session-IIB2 <i>Gerard-Andre Capolino Auditorium</i>	Technical Paper Session-IIB3 <i>Leopoldo Garcia Franquelo Auditorium</i>
Break							
06:30 PM – 08:00 PM	10:00 PM -- 11:30 PM	02:00 PM -- 03:30 PM	08:00 AM -- 09:30 AM	Technical Paper Session-IIC	Technical Paper Session-IIC1 <i>John Hung Auditorium</i>	Technical Paper Session-IIC2 <i>Gerard-Andre Capolino Auditorium</i>	Technical Paper Session-IIC3 <i>Leopoldo Garcia Franquelo Auditorium</i>
08:00PM -- 08:45 PM	11:30 PM -- 12:15 AM	03:30 PM -- 04:15 PM	09:30 AM -- 10:15 AM	Industrial talk-2	Dr. Yebin Wang, Mitsubishi Electric Research Laboratories, Cambridge, MA <i>John Hung Auditorium</i>		

Day-3 : Sunday, 11 December, 2022 (IST)

06:30 AM – 08:00 AM	10:00 AM – 11:30 AM	02:00 AM -- 03:30 AM	08:00 PM -- 09:30 PM	Technical Paper Session-IIIA	Technical Paper Session-IIIA1 <i>Kouhei Ohnishi Auditorium</i>	Technical Paper Session-IIIA2 <i>Charles W. Einfeld, Jr. Auditorium</i>	Technical Paper Session-IIIA3 <i>Bogdan M. Wilamowski Auditorium</i>
08:00 AM -- 08:45 AM	11:30 AM -- 12:15 PM	03:30 AM -- 04:15 AM	09:30 PM -- 10:15 PM	Industrial talk-3	Dr. Mark Wehde, Mayo Clinic, USA <i>Kouhei Ohnishi Auditorium</i>		
08:45AM -- 09:30 AM	12:15 PM -- 01:00 PM	04:15 AM -- 05:00 AM	10:15 PM -- 11:00 PM	Tutorial-2	Prof. Biplab Sikdar, National University of Singapore, Singapore <i>Kouhei Ohnishi Auditorium</i>		

09:30 AM –10:30 AM	01:00 PM -- 02:00 PM	05:00 AM -- 06:00 AM	11:00 PM -- 12:00 AM	Keynote Lecture-3	Prof. Yoichi Hori, Tokyo University of Science, Japan		
					Kouhei Ohnishi Auditorium		
					Break		
02:00 PM -- 02:45 PM	05:30 PM -- 06:15 PM	09:30 AM -- 10:15 AM	03:30 AM -- 04:15 AM	Plenary lecture-4	Prof. Marco Liserre, Kiel University, Kiel, Germany		
					Kouhei Ohnishi Auditorium		
02:45 PM -- 03:30PM	06:15 PM -- 07:00 PM	10:15 AM -- 11:00 AM	04:15 AM -- 05:00 AM	IES Technical Committee(s) Session	IES TC Presentations		
					Kouhei Ohnishi Auditorium		
03:30 PM -- 05:00 PM	07:00 PM -- 08:30 PM	11:00 AM -- 12:30 PM	05:00 AM -- 06:30 AM	Technical Paper Session-IIIB	Technical Paper Session-IIIB1	Technical Paper Session-IIIB2	Technical Paper Session-IIIB3
					Kouhei Ohnishi Auditorium	Charles W. Einolf, Jr. Auditorium	Bogdan M. Wilamowski Auditorium
					Break		
06:30 PM – 08:00 PM	10:00 PM -- 11:30 PM	02:00 PM -- 03:30 PM	08:00 AM -- 09:30 AM	Technical Paper Session-IIIC	Technical Paper Session-IIIC1	Technical Paper Session-IIIC2	Technical Paper Session-IIIC3
					Kouhei Ohnishi Auditorium	Charles W. Einolf, Jr. Auditorium	Bogdan M. Wilamowski Auditorium
08:00PM -- 09:00 PM	11:30 PM -- 12:30 AM	03:30 PM -- 04:30 PM	09:30 AM -- 10:30 AM	Award and Valedictory Session	Award and Valedictory Session		
					Kouhei Ohnishi Auditorium		

Day-1 : Friday, 09 December, 2022 (IST)

Paper ID	Paper Title	Track	Author's Affiliation	Country
Technical Paper Session-IA1 / Microgrid Technologies		Venue: Terry Martin Auditorium		
ONCON22-000076	Multi-head Attention based Model for Non-Intrusive Appliance State Detection in Smart Buildings	Power Systems and Smart Grid	IIT Bhubaneswar	India
ONCON22-000078	Distributed Cooperative Control for DC Microgrids with Communication Time Delays Using Networked Predictive PI Scheme		Southern University of Science and Technology	China
ONCON22-000190	Multi-Objective Optimal Component Capacity and MPC-based Optimal Scheduling in Smart Apartment Building		University of the Ryukyus	Japan
ONCON22-000195	Optimal placement allocation and capacities of storage batteries in future grid		University of the Ryukyus	Japan
ONCON22-000226	Decentralized Dynamic Disturbance Compensation control strategy for Multiple Parallel Inverters in microgrid		University of Science and Technology Beijing	China
ONCON22-000171	Comparative Study of ML Algorithms for Load Redistribution Attack Detection		Indian Institute of Technology Kharagpur	India
Technical Paper Session-IA2 / Electric Drives - Modulation and Torque Control		Venue: Xinghuo Yu Auditorium		
ONCON22-000066	Study on Commutation Torque Ripple Reduction Strategy for Brushless DC Motor Targeting Electric Vehicle Applications	Electrical Machines and Drives	National Institute of Technology Calicut	India
ONCON22-000071	A Combined Second-Order-Generalized-Integrator Based FLL and Two-Degree-of-Freedom PID Current Control scheme with Quintic Torque Sharing Function for Torque Ripple Minimization in SRM Drives		Indian Institute of Technology,Bhubaneswar	India
ONCON22-000123	A Direct Torque Control Scheme for BLDC Motor Drives with Open-end Windings		Indian Institute of Space Science and Technology, Thiruvananthapuram	India
ONCON22-000141	Universal Model of a Multiphase Permanent Magnet Synchronous Motor		Moscow Power Engineering Institute	Russian Federation
ONCON22-000177	Investigation on the vibration of a 3-phase SRM Analysis		IEST, Shibpur	India
ONCON22-000217	Effects of Inset-Magnet Depth on the Performance of Axial-Flux PM BLDC Machine		I-Hub Foundation for cobotics, IIT Delhi	India
Technical Paper Session-IA3 / DC-DC Converters - Design		Venue: Kamal Al-Haddad Auditorium		
ONCON22-000013	Design and Control of a Silicon Carbide (SiC)-Based Isolated Full-Bridge Converter with Current-Doubler Rectifier	Power Electronics & Energy Conversion	Indian Institute of Technology, Madras	India
ONCON22-000015	Design of a Parasitic Inductance Based Shoot-Through Protection Scheme for SiC MOSFET Gate Driver		Indian Institute of Technology, Madras	India
ONCON22-000035	High Step-up Common Grounded Switched Quasi Z-Source dc-dc Converter Using Coupled Inductor		Senior Lecturer in Smart Power Systems, Federation University Australia	Australia
ONCON22-000228	A High Gain Modified Voltage Lift Cell Based DC-DC Converter Using Single Switch		NIT Raipur	India
ONCON22-000053	A Design Principle Ensuring Uniform Flux Density Distribution of the Two Middle Legs Planar Core for LLC Converter		Zhejiang University	China
ONCON22-000130	Design and Development of Multi-pulse Rectifier Based DC Injection Circuit for More Electric Aircraft Application		Malaviya National Institute of Technology (MNIT)	India
Technical Paper Session-IB1 / Advanced Control and Automation		Venue: Terry Martin Auditorium		
ONCON22-000021	On Synchronization of Van der Pol Oscillator Based Multi-agent Systems	Control, Robotics, and Mechatronics	RMIT University	Australia
ONCON22-000043	Composite Learning Control for Hypersonic Flight Vehicle Using Historical Stack		Harbin Institute of Technology	China
ONCON22-000088	Generalization Enhancement of Operator-LSSVM-Based Hysteresis Model Using Improved Particle Swarm Optimization for Piezoelectric Actuators		Department of Electrical Engineering, King Saud University	Saudi Arabia
ONCON22-000114	Mixed H _∞ /H ₂ Control of a Soft Robotic Structure Actuated by Dielectric Elastomers		Polytechnic University of Bari	Italy
ONCON22-000128	Sensor Fault Estimator and Fault Tolerant Controller for Boost Converter		Northumbria University	United Kingdom
ONCON22-000212	On the Remote Control of Differential Drive Mobile Robots through Wireless Networks		National and Kapodistrian University of Athens	Greece
Technical Paper Session-IB2 / Emerging Trends in Industrial Motor Drives and Controls		Venue: Xinghuo Yu Auditorium		
ONCON22-000170	Active Disturbance Rejection Control-Based Speed Control of Sensorless BLDC Motor	Emerging Trends in Industrial Motor Drives and Controls	IIT Roorkee	India
ONCON22-000232	Open Switch Fault Diagnosis of VSI-fed PMSM Drive using MPC Cost Function and Burg Algorithm		Vellore Institute of Technology, Vellore	India
ONCON22-000233	Performance Comparison of Different Multi-Carrier based PWM Approaches for Cascaded H-Bridge Inverter-fed Induction Motor Drives		College of Technology ,Pantnagar	India
ONCON22-000257	Controller Design Based on Fractional Filter with IMC-PID: Application to Servo System and Single Area Power System		Indian Institute of Technology, Roorkee, Uttarakhand-247667	India
ONCON22-000259	DC-link Capacitor Voltage Balancing Technique for Four-Level π -Type Inverter fed PMSM for Marine Propulsion Application		IIT Roorkee	India
ONCON22-000260	Solar PV Assisted Dual Active Bridge Based Multiport EV Fast Charging Circuit		IIT Roorkee	India
Technical Paper Session-IB3 / DC-DC Converters - Analysis and Control		Venue: Kamal Al-Haddad Auditorium		
ONCON22-000220	Sliding Mode Control for Single-Leg Multi-Mode Converter for Battery Storage Applications	Power Electronics & Energy Conversion	Texas A&M University	Qatar
ONCON22-000011	A Comparative Investigation of Design Methods for Control of dc/dc Power Supplies		Technical University of Iasi	Romania
ONCON22-000080	A Gate Driver Circuit with Variable Gate to Source/Emitter Voltage Applicable on Si-MOSFETs, SiC MOSFETs and IGBTs		Indian Institute of Science Bangalore	India
ONCON22-000179	Small-Signal Analysis of Parallely Connected Buck Converters and Nonlinear Droop Control Design for Ultra-Fast Transient Performance in DC Microgrids		Associate Professor, IIT Kharagpur	India
ONCON22-000213	Fundamental Comparison of Efficiencies of Voltage Source Converter Phase-Leg Configurations with Super-Junction MOSFETs		University of Strathclyde	United Kingdom
ONCON22-000198	PID Controller Tuning in Scalable Multiphase Buck Converters under Constant On-Time Control for Ultra-Fast Transient with Phase Current Balancing		Associate Professor, IIT Kharagpur	India
Technical Paper Session-ICI / Advanced Control and Informatics		Venue: Terry Martin Auditorium		
ONCON22-000022	Optimizing the process of Police hotlines	Cloud Computing, Big Data and Software Engineering	PhD student at saint joseph university	Lebanon
ONCON22-000163	A Programmatical Method for Real-time Simulation of Black-box LSTM-based Models of Power Electronic Converters in Hypersim		École de technologie supérieure (ÉTS)	Canada

ONCON22-000146	Robust Distributed MPC for Constrained Multi-Agent Systems against DoS Attacks	Control, Robotics, and Mechatronics	University of Victoria	Canada
ONCON22-000157	Creep and Hysteresis Compensation with Feedforward/Feedback Controller for an Ultra-Precise Nanopositioning Stage		Department of Electrical Engineering, King Saud University	Saudi Arabia
ONCON22-000112	Sharing the digital product memory on the supply chain in the context of Industry 4.0	Industrial Automation, Communication, Networking, and Informatics	Universidade de São Paulo, Escola Politécnica	Brazil
ONCON22-000280	An Integrated Simulation Framework for Construction Site Operations		Mälardalen University	Sweden
Technical Paper Session-IC2 / Electric Drives - Control Aspects		Venue: Xinghuo Yu Auditorium		
ONCON22-000031	Fuzzy Based Adaptive Linear Active Disturbance Rejection Control for High Speed PMSM	Electrical Machines and Drives	Kiel University	Germany
ONCON22-000039	A New Torque Ripple Minimization Approach for Switched Reluctance Drives		University of Strathclyde	United Kingdom
ONCON22-000062	Performance Investigation of a Traction Electric Drive Under Various Modulation Strategies, DC-link Voltages and Switching Frequencies		University of Windsor	Canada
ONCON22-000205	A torque-based MRAS estimator for position/speed sensor-less control of DFIG systems		University of Pretoria	South Africa
ONCON22-000137	SiC inverter induction motor drive for automotive powertrains		Hella Timisoara	Romania
ONCON22-000244	Virtual Voltage Space Vector based Direct Torque Control Scheme with Common Mode Voltage Elimination for Induction Motor Drives		Indian Institute of Space Science and Technology, Thiruvananthapuram	India
Technical Paper Session-IC3 / Battery Energy Storage System - Modeling and Estimation		Venue: Kamal Al-Haddad Auditorium		
ONCON22-000131	Performance Analysis of R-int Approximation in Battery Equivalent Circuit Models	Electrical Energy Storage Systems	University of Windsor	Canada
ONCON22-000132	Real-time Battery Capacity Estimation Based on Opportunistic Measurements		University of Windsor	Canada
ONCON22-000133	Tabular Open Circuit Voltage Modelling of Li-ion Batteries for Robust SOC Estimation		University of Windsor	Canada
ONCON22-000247	State-of-charge estimation of batteries using the extended Kalman filter: insights into performance analysis and filter tuning		University of Windsor	Canada
ONCON22-000251	Development of a Machine Learning Technique to Accurately Estimate Battery State of Charge		University of Wisconsin-Madison	United States
ONCON22-000065	Power Electronics Based High-Speed Switching Module for 1500 V dc Traction Rectifier Stations	Electric Transportation	NA	Germany
ONCON22-000219	A Comprehensive Review of Active EV Battery Cell Voltage Balancing Systems: Current Issues and Prospective Solutions		Ontario Tech University	Canada

Day-2 : Saturday, 10 December, 2022 (IST)

Paper ID	Paper Title	Track	Author's Affiliation	Country
Technical Paper Session-IIA1 / Renewable Energy: Photovoltaics		Venue: John Hung Auditorium		
ONCON22-000045	Stability Analysis of Active Front End Rectifier in Low-Voltage AC Micro-grid	Renewable Energy Generation and Harvesting	University of Nottingham Ningbo China	China
ONCON22-000090	Irradiance Effect on the Bifaciality Factors of Bifacial PV Modules		IIT KGP	India
ONCON22-000096	Control of Single Phase Grid-Integrated Isolated Converter Based PV Supply		Shri G. S. Institute of Technology and Science Indore	India
ONCON22-000104	A Combined Adaptive Coefficient Particle Swarm Optimization MPPT approach and TT configured PV Array to Enhance Maximum Power under PSC		National Institute of Technology Goa	India
ONCON22-000142	Minimizing the Energy Storage Size in a Full Solar EV Charging Station by Optimising the Size and Orientation of PV Panel Group Sets		Politeknik Pertanian Negeri Payakumbuh	Indonesia
ONCON22-000273	Control of a Two-Stage Multiple Photovoltaic and Central BES Based Microgrid		Indian Institute of Technology Delhi	India
Technical Paper Session-IIA2 / DC-DC Converters: HFAC systems		Venue: Gerard-Andre Capolino Auditorium		
ONCON22-000207	Implementation and Efficiency Calculation of Fuel-Cell Vehicles Using a Bidirectional DC/DC Converter with ZVS	Power Electronics & Energy Conversion	Senior Lecturer in Smart Power Systems, Federation University Australia	Australia
ONCON22-000208	A New Transformer-Less Common Grounded Nine-Level Grid-Connected Boost Inverter		Senior Lecturer in Smart Power Systems, Federation University Australia	Australia
ONCON22-000249	A New Modulation Technique for H6 Transformerless Inverter to Minimize Leakage Current with Reduced Power Loss		Senior Lecturer in Smart Power Systems, Federation University Australia	Australia
ONCON22-000286	Power Quality Improvement of the Distribution System using a Solid-State Transformer		University of Wollongong	Australia
ONCON22-000101	Prevention of an Overvoltage Problem by adding a Receiver Circuit for a Wireless Power Transfer System with Misalignment		Tokyo University of Marine Science and Technology	Japan
ONCON22-000069	Dual CL/LLC DC/DC Resonant Circuit Modules For Step-up Power Interface in Microwave Magnetron Application		York University	Canada
Technical Paper Session-IIA3 / Grid Connected Converters - Modeling and Control			Venue: Leopoldo Garcia Franquelo Auditorium	
ONCON22-000002	Model-Free Neural-Network-Based Adaptive Control for Single-Phase Dual-Active-Bridge Converter	Modeling and Control Techniques for Distributed Grid Connected PE Devices	Saint-Joseph University of Beirut	Beirut
ONCON22-000140	Stability Design of Single-loop PI Controller for Grid-Forming Converter with Compact LLCL Filter		TU Kaiserslautern	Germany
ONCON22-000174	A virtual impedance droop controller to reduce the circulating current and enhance the transient response of parallel inverters during island operation of AC microgrids		École de technologie supérieure ÉTS	Canada
ONCON22-000175	A Particle Swarm Optimization based Hybrid Pulse Width Modulation Strategy for Single DC Source per Phase Fed Binary Asymmetric Cascaded H-bridge Photovoltaic Inverter			India
ONCON22-000204	Artificial neural network based auto-tuned PI compensator to enhance the dynamic response of the DC-link voltage in a grid-connected voltage source converter		University of Sousse	Tunisia
ONCON22-000019	Real-Time Simulation of a Neutral Point Clamped Dual Active Bridge Converter	Electronic System on Chip and Embedded Control	Polytechnique Montréal	Canada
Technical Paper Session-IIAA1 / DC-DC Converters - Topologies		Venue: John Hung Auditorium		
ONCON22-000085	A Novel Hybrid DC Circuit Breaker Topology with Extended Operating Time Suitable for Mechanical Switches	Power Electronics & Energy Conversion	Indian Institute of Science Bangalore	India
ONCON22-000106	A Bridge-less Cuk-derived Voltage Doubler Based Power Factor Correction Rectifier		MNIT Jaipur	India
ONCON22-000107	Integrating Second Life EV batteries to a PV based DC system using a Novel Bidirectional Four-Port Converter		IIT Kharagpur	India
ONCON22-000125	INTERNAL MODEL CONTROL SCHEME BASED PV BATTERY CHARGING SYSTEM UTILISING BUCK CONVERTER FOR EV APPLICATION		NIT Patna	India
ONCON22-000117	PI controller with decoupler design for SIDO buck converter based on frequency response approximation		NIT Patna	India
ONCON22-000203	A Single Phase DC-AC Converter using Dual Active Bridge fed Unfolder Circuit with Current Stress Minimization		Indian Institute of Technology Delhi	India
Technical Paper Session-IIAA2 / Electric Machine and Drives		Venue: Gerard-Andre Capolino Auditorium		
ONCON22-000004	Evaluation of DC Machine Armature Winding Temperature Estimation Using Temperature Measured on Brush and Bearing	Electrical Machines and Drives	Universiti Malaysia Pahang	Malaysia
ONCON22-000038	A Pulse-injection Based Position Sensorless Control of SRM with Adaptive Commutation Angle For EV		IIT Delhi	India
ONCON22-000026	Design of Single-Stage Light Electric Vehicles Battery Charger based on Isolated Bridgeless Modified SEPIC Converter with Reduced Switch Stress	Electric Transportation	IIT Delhi	India
ONCON22-000033	Estimation of Iron Losses in a SynRM with Segmented Rotor	Electrical Machines and Drives	Universiti Malaysia Pahang	Malaysia
ONCON22-000172	Exploring Multi Phase Transformer and Floating Voltage Source Inverter based Induction Motor Drive System		IIT Delhi	India
ONCON22-000055	A Three Phase Universal PEV Charger Based on SRC-FBLLC DC-DC Converter for Wide Category of Electric Four Wheelers	Electric Transportation	IIT Delhi	India
Technical Paper Session-IIAA3 / Power System and Smart Grid		Venue: Leopoldo Garcia Franquelo Auditorium		
ONCON22-000040	A Surface Reconstruction Control Algorithm-Derived Bidirectional Battery Charger for Smart Building	Electric Transportation	IIT Delhi	India
ONCON22-000032	A Single-Stage Fully Bridgeless Switched-Inductor Based Modified SEPIC AC-DC Converter with High Step-Down Gain for LVEVs Charging Applications		IIT Delhi	India
ONCON22-000178	Multi-Input Bridgeless Charger with Reduced Filter Capacitance for PV Panel Powered LEV		IIT Delhi	India
ONCON22-000034	An Adaptive Control for Dispersed Multi-Source AC/DC Microgrid Enabling Regulated Grid Power	Renewable Energy Generation and Harvesting	IIT Delhi	India
ONCON22-000081	A New Cascaded Medium Voltage Converter for Direct Integration of Large-Scale Solar Plant	Power Electronics & Energy Conversion	IIT Delhi	India
ONCON22-000084	Flexible Operation of Interlinking Converter Harmonizing Hybrid AC/DC Microgrid	Renewable Energy Generation and Harvesting	IIT Delhi	India

Technical Paper Session-IIB1 / DC-AC Converters - Modeling and Control		Venue: John Hung Auditorium	
ONCON22-000063	Suppression of circulating currents in islanded parallel inverters	Power Electronics & Energy Conversion	Universitat Politècnica de València Spain
ONCON22-000041	Neural Network and Bias Correction Controls for Fast Transient Response of DC-DC Converter		Nagasaki University Japan
ONCON22-000143	An Optimal Voltage Vector Based FCS-MPC Four-level Nested Neutral-Point Clamped Converter		Fuzhou University Cameroon
ONCON22-000159	Current Mode Control of a laboratory fabricated SiC-based High Frequency Interleaved Synchronous Buck Converter		Indian Institute of Engineering Science & Technology, Shibpur India
ONCON22-000048	A New Multiport DC-AC Power Converter for Distributed Energy Applications		Technical University of Crete, School of Electrical & Computer Engineering Greece
ONCON22-000073	Intelligent control of a PFC based integrated converter with inherent active power decoupling		IIT Bhubaneshwar India
ONCON22-000221	A Mid-Point Clamped Five-Level Inverter With Limited Switched-Capacitor Inrush Current For PV Applications		MNIT Jaipur India
Technical Paper Session-IIB2 / Power System - Operation Aspects and Policy		Venue: Gerard-Andre Capolino Auditorium	
ONCON22-000275	Operation strategies using the Smart Grid Ready interface in solar heat pump systems	Power Systems and Smart Grid	Saarland University Germany
ONCON22-000278	Peer-to-Peer Decentralized Community Energy Management System Using Blockchain Technology		Birla Institute of Technology - Mesra India
ONCON22-000283	Adaptive Control Policy Via Switching Controller for Load Frequency Control Using Improved Particle Swarm Optimization		IIT ROORKEE India
ONCON22-000284	Fractional Order PID for Load Frequency Control of Time Delayed Islanded Microgrid		IIT ROORKEE India
ONCON22-000189	Maximizing the harvested energy from mechanical random vibrations with a matching network: a stochastic analysis	Renewable Energy Generation and Harvesting	Politecnico di Torino Italy
ONCON22-000242	Case Study Related to the Maintenance and On-Site Detection of Faulty Photovoltaic Panels in a 14 Years Old System Based on Thermal Camera		ational Institute for Research and Development in Electrical Engineering ICPE-CA Romania
Technical Paper Session-IIB3 / Embeded Control and Signal Processing		Venue: Leopoldo Garcia Franquelo Auditorium	
ONCON22-000191	Novel CUSUM methods for repetitive change detection in sensor signals	Signal and Image Processing and Computational Intelligence	IIT KHARAGPUR India
ONCON22-000227	Real-Time Image and Video Processing Applications Using Raspberry Pi		Firat University Turkey
ONCON22-000288	Virtual Reality: A Paradigm Shift in Architecture and Urban Design Education		Heliopolis University Egypt
ONCON22-000147	COVID-Net Architecture Modification for Covid-19 Detection on Chest X-ray Images		Universitas Trunojoyo Madura Indonesia
ONCON22-000127	FPGA based odour recognition with TensorFlow and High-Level Synthesis	Electronic System on Chip and Embedded Control	Royal Holloway, University of London United Kingdom
ONCON22-000119	ROS-Based Digital Twin for Power Wheelchair		NOVA University Lisbon Portugal
Technical Paper Session-IIC1 / Electric Machine and Drives		Venue: John Hung Auditorium	
ONCON22-000070	Experimental Implementation Of a Nonlinear PI Predictive Control Strategy for Electrical Vehicle	Electrical Machines and Drives	Département de Génie électrique, École de Technologie Supérieure de Montréal (ÉTS) Canada
ONCON22-000126	Torque Ripple Reduction in a Traction IPMSM With Resistance Asymmetry Using an Adaptive PIR Current Controller		University of Windsor Canada
ONCON22-000209	Comparison Between Finite Element Analysis and Winding Function Theory of a Field Regulated Reluctance Machine		University of Idaho United States
ONCON22-000224	Dynamical Flow Rate and Pressure Artificial Neural Network Estimators for a Centrifugal Fan Driven by an Induction Motor Drive		The University of Warwick United Kingdom
ONCON22-000134	Identification of Rotor Yoke Material of a hydrogenerator		École de Technologie Supérieure Canada
ONCON22-000261	Impact of Sub-Synchronous Resonance on Torsional Vibration of Large Rated Variable Speed Pumped Storage Unit	Emerging Trends in Industrial Motor Drives and Controls	IIT ROORKEE India
Technical Paper Session-IIC2 / Power System and Smart Grid		Venue: Gerard-Andre Capolino Auditorium	
ONCON22-000027	An Aggregator for Energy Dispatch among Plug-in Electric Vehicles for V2X Application	Power Systems and Smart Grid	École de technologie supérieure Canada
ONCON22-000051	Coordination of different agents in a microgrid using DC-Bus Signaling		Grupo de Sistemas Electrónicos Industriales del Departamento de Ingeniería Electrónica, Universitat Politècnica de València Spain
ONCON22-000129	Highly Compact Transformerless Universal Power-Flow and Quality Control Circuit		Duke University United States
ONCON22-000144	On the Economic Vulnerability Analysis of Power Grids to False Data Injection Attacks against Wide Area Measurement Systems		Lakehead University Canada
ONCON22-000188	Fault Analysis of Microgrids with Inverter Interfaced Resources in Grid-Connected and Islanded Modes		Ontario Tech University Canada
ONCON22-000253	1-D Convolutional Graph Convolutional Networks for Fault Detection in Distributed Energy Systems		Clarkson University United States
Technical Paper Session-IIC3 / Grid Connected Converters - Modeling and Control		Venue: Leopoldo Garcia Franquelo Auditorium	
ONCON22-000061	Droop Control Approach to Reduce Frequency Deviation and Enhance Active and Reactive Power sharing	Power Electronics & Energy Conversion	ETS Canada
ONCON22-000153	D-Q Impedance Modeling of Grid-forming Converters Viewing from DC Side		University of Houston United States
ONCON22-000155	Online Optimization of the Triple-Active-Bridge Converter Control Parameters for Maximum Efficiency Point Tracking		Arizona State University United States
ONCON22-000156	Comprehensive Mathematical Modelling and Design of DM EMI Filter for Totem-pole PFC Converter		Arizona State University United States
ONCON22-000287	A Robust Nonlinear Multi-Variable Controller for a 5-Switch Bi-Directional DC-DC Converter for DC-Microgrids Applications		Concordia University Canada
ONCON22-000113	A Comparative Analysis of Different Control Strategies for Three-Level Neutral Point Clamped based Photovoltaic Central Inverter under Unbalanced Grid Operation		IIT Kharagpur India

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Paper ID	Paper Title	Track	Author's Affiliation	Country
Technical Paper Session-IIIA1 / Grid Connected Converters		Venue: Kouhei Ohnishi Auditorium		
ONCON22-000194	Unified Discrete-Time Large/Small-Signal Modeling for Stability and Performance Analysis of Digitally Controlled Boost PFC under CCM, CrM and DCM	Power Electronics & Energy Conversion	Associate Professor, IIT Kharagpur	India
ONCON22-000196	Performance and Stability Analysis of a Multiphase Buck Converter under Mixed-Signal Current Mode Control for Mobile and Automotive Applications		Associate Professor, IIT Kharagpur	India
ONCON22-000216	H-Infinity Based Control of Solid State Transformer for Power Distribution Network		VNIT NAGPUR	India
ONCON22-000218	Analytical Evaluation of Stabilizing PR Controller Gains for Single Phase Front End Converter		Indian Institute of Technology Patna	India
ONCON22-000118	H _∞ criterion based PI controller for DC-DC boost converter		National Institute of Technology Patna	India
ONCON22-000049	A Nine-Level Common-Ground Type Boost Inverter for PV Applications		Malaviya National Institute of Technology Jaipur	India
Technical Paper Session-IIIA2 / Electric Transportation		Venue: Charles W. Einolf, Jr. Auditorium		
ONCON22-000094	Closed Loop Fault Tolerant Control Algorithm for Brushless DC Motor Drives	Electric Transportation	IIT Ropar	India
ONCON22-000151	A New Topology of Multilayer Interior Permanent Magnet Synchronous Motor With Reduced Rare Earth Magnets		IIT Delhi	India
ONCON22-000173	Zero-Torque Charging Using Five-phase Dual-Inverter Drive for Electric Vehicle		VNIT-Nagpur	India
ONCON22-000176	Fire In Electric Vehicles: A Review		MNIT Jaipur	India
ONCON22-000236	Nearly Constant Losses Current Regulation Strategy for an Open-end Winding Traction Induction Motor		Moscow Power Engineering Institute	Russian Federation
ONCON22-000046	A Droop-based Energy Management Strategy for Electric Aircraft Hybrid Power System		NWPU	China
ONCON22-000246	An Weak Bus Based Bridgeless Charger for Three Wheeler EVs		Jashore University of Science and Technology	Bangladesh
Technical Paper Session-IIIA3 / Renewable Energy and Microgrids		Venue: Bogdan M. Wilamowski Auditorium		
ONCON22-000145	Performance Analysis of an Adaptive MPPT Control for a Grid-connected PV Solar System	Renewable Energy Generation and Harvesting	Lakehead University	Canada
ONCON22-000181	Performance of Ship Microgrid With Power Management		Indian Institute of Technology Delhi	India
ONCON22-000184	Power Harmonics Damping Based Reference Current Generation for Reliable DFIG Operation Under Grid Voltage Distortions		National Institute of Technology Silchar, Assam	India
ONCON22-000187	MROGI and MPS-P&O MPPT Technique Based Self Reliant SEC-BES System		Department of Electrical Engineering IIT Roorkee	India
ONCON22-000215	Improved LVRT Performance of Direct Drive Wind Turbines by Torque Limitation and DriveTrain Damping Control		Department of Electrical Engineering IIT Roorkee	India
ONCON22-000255	Hierarchical Control of Grid-Connected Hydrogen Electrolyzer Providing Grid Services		Clarkson University	United States
Technical Paper Session-IIIB1 / Power Converters		Venue: Kouhei Ohnishi Auditorium		
ONCON22-000166	Analysis of Using a Thermoelectric Module for Power Electronics Cooling	Power Electronics & Energy Conversion	University of Nottingham	United Kingdom
ONCON22-000167	Generic real-time simulator for power converters implemented using the model-based-design and FPGA-in-the-loop workflow		University of Sousse	Tunisia
ONCON22-000186	Determination of the optimum transformation ratio for a trapezoidal modulated dual active bridge converter for wide range voltage operation.		University of Warwick	United Kingdom
ONCON22-000199	Comparative analysis of B4 and B6 inverter topologies for grid-connected operation		Universitat Politècnica de València	Spain
ONCON22-000086	New Toroidal Inductor Configurations for Improved Inductance		IIT Ropar	India
ONCON22-000211	Inherent Dead-time Distortion Compensation Feature Of Conventional One-Cycle Control In Single Phase PWM VSI		Indian Institute of Engineering Science and Technology, Shibpur	India
Technical Paper Session-IIIB2 / Industrial Informatics		Venue: Charles W. Einolf, Jr. Auditorium		
ONCON22-000018	simbloTe: a simulator for building Cyber-Physical System and Internet of Things environments	Industrial Automation, Communication, Networking, and Informatics	Auckland University of Technology	New Zealand
ONCON22-000020	A game-based distributed fault-tolerant control method for multi-agent systems		Harbin Institute of Technology	China
ONCON22-000042	Web Analytics and Visualization for Online Laboratories		Wuhan University	China
ONCON22-000060	Automatic Segmentation of Resource Utilization Data		Mälardalen University	Sweden
ONCON22-000124	An Approach to Bridge ROS 1 and ROS 2 Devices into an OPC UA-based Testbed for Industry 4.0		CEA List	France
ONCON22-000193	Automatic path and program generation for fixtureless welding with two synchronized robots		Osnabrück University of Applied Sciences	Germany
Technical Paper Session-IIIB3 / Energy Storage System - Modeling and Estimation		Venue: Bogdan M. Wilamowski Auditorium		
ONCON22-000056	Optimization of Energy Harvesting in CapMix Cells	Renewable Energy Generation and Harvesting	University of Oviedo	Spain
ONCON22-000057	Sizing of Supercapacitor-based Energy Storage System for Elevator Applications		University of Zagreb Faculty of Electrical Engineering and Computing	Croatia
ONCON22-000087	A Nonlinear Programming Solver based on Battery Efficiency Maximization for Quasi-Z-source Cascaded H-bridge Multilevel Inverter with PV and Battery		University of Cadiz	Spain
ONCON22-000231	Universal Active Filter for Standalone Hydro-Electric System with SPV and Battery Support		Indian Institute of Technology Delhi	India
ONCON22-000234	A Transformerless Solar PV Inverter with Battery Energy Support for Residential Buildings		IIT Delhi	India
ONCON22-000103	A Complete Frequency Response Service Scheme using PV-Supercapacitor Cascade Topology	Electrical Energy Storage Systems	IIT Kharagpur	India
Technical Paper Session-IIIC1 / Grid Connected Converters - Analysis and Control		Venue: Kouhei Ohnishi Auditorium		
ONCON22-000222	Leakage Current Analysis of Grid-Connected Transformerless Photovoltaic Energy Systems		ASSISTANT PROFESSOR, IIT DELHI	India
ONCON22-000235	Highly Integrated Electric Drive with Modular Reconfigurable Batteries		TU Kaiserslautern	Germany

ONCON22-000237	Design of a Digital PR Controller for Harmonic Compensation of Single-Phase Grid-Tied Inverter with System Parameter Uncertainty	Power Electronics & Energy Conversion	Department of Applied Physics, University of Calcutta	India
ONCON22-000238	Overall Parameters Affecting the Parasitic Capacitance of the Magnetic Components		IMAMU	Saudi Arabia
ONCON22-000248	Parameter Insensitive Fast Tracking Sliding Mode Control for Solar PV Module with Boost Converter		Motilal Nehru National Institute of Technology Allahabad	India
ONCON22-000067	State Machine based Inductor Current Estimation Technique for Digitally Controlled DC-DC Converter		IIT Bhubaneswar	India
Technical Paper Session-IIIC2 / Battery Energy Storage Systems and EV Technologies		Venue: Charles W. Einolf, Jr. Auditorium		
ONCON22-000044	Power Capability Prediction of Lithium-Ion Batteries Using Physics-Based Model and NMPC	Electric Transportation	Chalmers University of Technology	Sweden
ONCON22-000093	A High Torque Density Flux-Focusing Halbach Magnetic Gear for Electric Vehicle Applications		École de technologie supérieure	Canada
ONCON22-000154	Performance Enhancement of PM Motor Drives in a Light Electric Vehicle Using Switching Vector Transition Control		University of Michigan-Dearborn	United States
ONCON22-000180	Potential Impacts and Severity Analysis of Onboard Electric Vehicle Battery Charging Infrastructure Against Sophisticated Cyber Threats		ASSISTANT PROFESSOR, IIT DELHI	India
ONCON22-000054	Low-cost Systems to Measure the Volume Variation of Lithium-ion Cells	Electrical Energy Storage Systems	University of Pisa	Italy
ONCON22-000256	Wide-ranging parameter extraction of Lithium-ion Batteries to Estimate State of Health using Electrochemical Impedance Spectroscopy	Electric Transportation	Ontario Tech University	Canada
Technical Paper Session-IIIC3 / Nano Technologies and Intelligent Control		Venue: Bogdan M. Wilamowski Auditorium		
ONCON22-000139	Comparative Study of the Resolution of Ge-on-Si Photodetectors for 1 μ m Infrared Signals	Sensors, Actuators, Systems Integration and Nano Technologies	TU Delft	Netherlands
ONCON22-000030	Acquisition of Association Rules between a Situation and an Operation of Driving Behavior by using Time Series Clustering based on Coupled-GP-HSMM	Signal and Image Processing and Computational Intelligence	Suwa University of Science	Japan
ONCON22-000072	A Machine Learning Approach: NIR Scattering Data Analysis for Breast Cancer Detection and Classification		Simon Fraser University	Canada
ONCON22-000120	An Indoor Localization Technique Based on Visible Light Communication		Universidade Federal de Juiz de Fora	Brazil
ONCON22-000241	A Fault Detection Scheme Utilizing Convolutional Neural Network for PV Solar Panels with High Accuracy	Renewable Energy Generation and Harvesting	Lakehead University	Canada
ONCON22-000092	Passivity-Based Nonlinear Control for DC/DC Boost Converter in Wireless Power Transfer Systems with Constant Power Load	Power Electronics & Energy Conversion	NTNU	Norway
ONCON22-000185	Running Virtual Services for the Intelligent Edge: A Review	Cloud Computing, Big Data and Software Engineering	University of Pretoria	South Africa