Day		11th May 2025 (Sunday)				12th May 2025 (Monday)			13th May 2025 (Tuesday)			14th May 2025 (Wednesday)	
Start Time	End Time												
0800	0830	Registration				Parallel Session 1 Venue - Studio Rooms			Parallel Session 3 Venue - Studio Rooms				
0830	0900											Suma MN - Venue: GBR	
0900	0930	Vinod John and Anwesha Mukhopadhyay Venue: Room 1	Ayan Mallik Venue: Room 2	Umanand Venue: Room 3	Sarasij Das Venue: Room 4							Narayanan G - Venue: GBR	
0930	1000					Inauguration & Exhibtion Open Venue: GBR			B G Fernandes - Venue: GBR			Bhim Singh - Venue: GBR	
1000	1030	Marco Rivera and José Rodríguez Pérez Venue: Room 1	Mukul Chandorkar Venue: Room 2	Sheldon Williamson Venue: Room 3	Brad Lehman and Pallavi Bharadwaj Venue: Room 4				Frede Blaabjerg - Venue: GBR			Jun-ichi ITOH - Venue: GBR	
1030	1100					Break			Break			Break	
1100	1130	Break				Dushan Boroyevich - Venue: GBR			Jose Rodriguez - Venue: GBR			Panel Discussion 2 -Future of Electric Mobility in India Venue: GBR	
1130	1200	Liuchen Chang and Shang Xu Venue: Room 1	Paolo Mattavelli Venue: Room 2	Stig Munk Nielsen, Thomas Ebel and Ramkrishan Maheswari Venue: Room 3	Sairaj Dhople Venue: Room 4	Johann Kolar - Venue: GBR			Dragan Maksimovic - Venue: GBR				
1200	1230					Jinjun Liu - Venue: GBR			Sewan Choi - Venue: GBR			De Doncker - Venue: GBR	
1230	1300	Madhav Manjrekar, Vedanadam Acharya, Mohanraj M Venue: Room 1	Kyo-Beum Lee Venue: Room 2	Ke Ma Venue: Room 3	Johan Enslin Venue: Room 4	Tarunjeet Sarao - Venue: GBR			Marco Liserre - Venue: GBR			Prasad Enjeti - Venue: GBR	
1300	1330					Lunch			Lunch			Lunch	
1330	1400	Lunch											
1400	1430					Deepak Divan - Venue: GBR			Sudip Mazumder - Venue: GBR			Shashidhar M - Venue: GBR	
1430	1500	Avik Bhattacharya, Sharmili Das, Rishiraj Sarker, Shubhajit Pal Venue: Room 1	Petar. J. Grbović Venue: Room 2	Supratim Basu Venue: Room 3	Moumita Das, Lakshmi Narasamma, Nagesha Chitpadi Venue: Room 4	Panel Discussion 1 - Can the Frid Survive the Exponential Frowth of Inverter Based Resources without a Fundamental Paradigm Change Venue: GBR			Udaya Madawala - Venue: GBR			Cian O Mathuna - Venue: GBR	
1500	1530								Sanjib Kumar Panda - Venue: GBR			Partha Sarathi Sensarma - Venue: GBR	
1530	1600	Sujit Biswas Venue: Room 1		Kalpana Venue: Room 3	M K Badapanda Venue: Room 4	Gourab Majumdar - Venue: GBR			Akshay Kumar Rathore - Venue: GBR			Pat Wheeler - Venue: GBR	
1600	1630					Break			Break			Break	
1630	1700	Break		PELS Chapter Chairs Meeting Venue: Room 1		Parallel Session 2 Venue: Studio Rooms	Speaking Slot for Silver Sponsors Venue: GBR	APECC Meeting Venue: Innovate 3	Parallel Session 4 Venue: Studio Rooms	Mini Workshop 1, 2 Venue: GBR 1,2	ECCE Asia CC Meeting Venue: Innovate 3	Parallel Session 5 Venue: Studio Rooms	Mini Workshop 3, 4 Venue: GBR 1,2
1700	1730	Jose Rodriguez Venue: Room 3											
1730	1800												
1800	1830	WiE Event Venue: GBR				PELS Regional Strategic Meeting Venue: GBR - 3			YP Event and Conference Committee Meeting Venue: GBR/ Conf room			Closing Ceremony	
1830	1900												
1900	1930	Welcome Reception - Venue: Grand Ball Room				Conference Committee Meeting - Board Room			Gala Dinner - Venue: Rooftop Terrace				
1930	2000												
2000	2030												

Oral Session

Oral Session Name	Number of Papers
1. AC-DC Power Conversion – 1	6
2. DC-AC Inverters – 1	5
3. Distributed Generation-1	6
4. Magnetics Design – 1	6
5. Modelling and Simulation – 1	6
6. Multi-Level Inverter – 1	6
7. Power Converter Analysis – 1	6
8. Power Converter Analysis – 2	6
9. Power Converter Control – 1	6
10. Power Converter Control – 2	6
11. Power Converter Modulation – 1	6
12. Power Semiconductor Devices – 1	6
13. Machine Learning and AI – 1	7
14. Wireless Power Transfer – 1	6
15. Control of Electric Drives – 1	6
16. Induction Machine Design and Control – 1	6
17. DC-DC Converter Topology – 1	6
18. DAB Converter Topologies	7
19. Design of Electric Drives	7
20. Power Systems	7
21. Modular Multi-Level Converter	6
22. Resonant Converters	6
23. AC and DC Microgrids – 1	7
24. EV System Design – 1	7
25. AC-DC Power Conversion – 2	6
26. DC-AC Inverters – 2	6

27. Distributed Generation – 2	7
28. Magnetics Design – 2	6
29. Modelling and Simulation – 2	7
30. Multi-Level Inverter – 2	5
31. Power Converter Analysis – 3	6
32. Power Converter Analysis – 4	6
33. Power Converter Control – 3	6
34. Power Converter Control – 4	6
35. Solid-state Transformers	6
36. Reliability of Power Converters – 1	7
37. Machine Learning and AI – 2	7
38. Wireless Power Transfer – 2	5
39. Control of Electric Drives – 2	6
40. Induction Machine Design and Control – 2	6
41. DC-DC Converter Topology – 2	6
42. EV Charging	6
43. PMSM Design and Analysis	6
44. Power Semiconductor Devices – 2	6
45. Model Predictive Control	7
46. Power Converter Modulation	6
47. Energy Storage Systems – 1	7
48. EV System Design – 2	7
49. Machine Learning and AI – 3	7
50. Wireless Power Transfer – 3	5
51. Control of Electric Drives – 3	6
52. Traction Inverter	6
53. DC-DC Converter Topology – 3	6
54. EV Control	6
55. SRM Control and Design	6
56. Reliability of Power Converters – 2	5

57. EMI/ EMC and Gate Drive of Power Converters	6
58. AC and DC Microgrids – 2	6
59. Energy Storage Systems – 2	6
60. EV System Design – 3	4

Session Number	**:**	**S-1.1**	**Session Name**	**:**	**AC-DC Power Conversion - 1**
Session Chair	**:**	**Moumita Das**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Studio 1**
Session Link (if any)	**:**	**Zoom Link – Studio 1**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	483	Next-Generation 3-Phase Reduced-Stage AC-DC Converter with Minimal Switch Count for High-Power Isolated On-Board EV Chargers	Gyana Sahoo (IIT, Bombay); Vivek Agarwal (IIT Bombay)
0815 to 0830	547	Design Optimization of a 7.2 kW Totem pole PFC Converter for Onboard Electric Vehicle Charger Applications	Nagamalleswararao Kamarajugadda (Indian Institute of Technology Bombay)*; Sai Susrush Kadiyala (Indian Institute of Technology Bombay); Baylon G Fernandes (Indian Institute of Technology Bombay); Kishore Chatterjee (Indian Institute of Technology Bombay)
0830 to 0845	41	Design and Implementation of an interleaved Totem-pole Bridgeless PFC with Wide Range Output Voltage	Jun-Yuan Yu (National Taiwan University of Science and Technology)*; yun-yen Chen (Taiwan tech); YU-CHEN CHANG (National Taiwan Tech.); Yi-Hwa Liu (National Taiwan Tech.); HUANG-JEN CHIU (National Taiwan Tech.)
0845 to 0900	82	A Fully Soft-Switched AC/DC Converter With ZVT Cell And Magnetic Integration for 800V On-Board Charger	Dinh Tuyen Nguyen (Ho Chi Minh City University of Technology); Ravi Nath Tripathi (Kyushu Institute of Technology Kitakyushu, Fukuoka)*; Hai N Tran (xEVTech); Minh V. Vo (XEVTECH); Cuong P. Ha (Ho Chi Minh City University of Technology); Long H. B. Nguyen (Ho Chi Minh City University of Technology)
0900 to 0915	123	A Reduced Stage Half-Bridge based Isolated Interleaved Totempole Unidirectional AC-DC Converter	Gyana Sahoo (IIT, Bombay)*; Vivek Agarwal ("Indian Institute of Technology,Bombay")
0915 to 0930	247	DAB-based Swiss Rectifier for Wide-range Voltage Output with Universal Input	Soichiro Oyoshi (Nagaoka University of Technology)*; Keisuke Kusaka (Nagaoka University of Technology)

Session Number	**:**	**S-1.2**	**Session Name**	**:**	**DC-AC Inverters - 1**
Session Chair	**:**	**To Be Announced**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Studio 2**
Session Link (if any)	**:**	**Zoom Link – Studio 2**			

Time	Paper ID	Paper Title	Authors
0815 to 0830	246	Independent pole arm current control of hybrid MMC under DC grid faults	Shishuai Chen (Zhengzhou University); Jinmu Lai (Zhengzhou University)*; Lang Jiang (Huazhong University of Science and Technology); Junhong Chen (Zhengzhou University)
0830 to 0845	248	Power quality improvement of multifunctional hybrid transformer with series-shunt reconfiguration capability	Huan Liu (Zhengzhou University); Jinmu Lai (Zhengzhou University)*; Xin Yin (Wuhan University of Technology); Yaoqiang Wang (Zhengzhou University)
0845 to 0900	445	Battery Integrated 1-phase DC-AC Inverter for Peak Load Shaving Application	prasanna rajagopal (Live4est Technology India Pvt. Ltd.)*; Souradeep Pal (Live4est Technology India Pvt. Ltd.); Ranjit Gharpurey (Live4est Technology)
0900 to 0915	281	A Cascaded 2 Level Z-Source Dual Inverter with Single Source and Reduced Battery Voltage.	Vasuda K V (Government Engineering College Thrissur)*; REMYA K P (GEC Thrissur); Dr Jaison Mathew (GEC Thrissur)
0915 to 0930	390	Series Active Filtering Technique for L-type Single-Phase Bridge Inverter	XIAOCHEN ZHU (North China University of Technology)*; Shuang Xu (University of New Brunswick); Guichen Zhang (North China University of Technology); Liuchen Chang (University of New Brunswick)

Session Number	**:**	**S-1.3**	**Session Name**	**:**	**Distributed Generation - 1**
Session Chair	**:**	**Srinivas Karanki**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Studio 3**
Session Link (if any)	**:**	**Zoom Link – Studio 3**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	186	A Novel Distributed Arc Suppression Method of Flexible Grounding Distribution Networks	Junhong Chen (Zhengzhou University); Jinmu Lai (Zhengzhou University)*; Xin Yin (Wuhan University of Technology); Yaoqiang Wang (Zhengzhou University); Shishuai Chen (Zhengzhou University); Xianggen Yin (Huazhong University of Science and Technology)
0815 to 0830	313	Impedance Analysis of Dimmable LED Lighting and Its Impact on Residential Distribution Grids	Jeet Panchal (Virginia Tech, CPES)*
0830 to 0845	53	Novel Virtual Resistance Method To Maximize Current Utilization by Grid Forming Inverter During Asymmetrical Fault Ride Through	Jack Benjamin (IIT dharwad)*; Animesh Sahoo (IIT Dharwad); Pratyasa Bhui (IITDH)
0845 to 0900	77	Integrated Synchronous Machine Emulation in Enhanced Droop Control for Grid-Forming Inverter-Based PV Plant Management	Buch, Kushal*; Chowdhury, Prithwiraj Roy ; Manjrekar, Madhav
0900 to 0915	211	Interaction of Power Plant Controller with Power Point Tracking Algorithm of Grid Following Inverter in a PV Plant	H R Sai Kiran Pandit (Indian Institute of Science, Bangalore)*; Sarasij Das (Indian Institute of Science)
0915 to 0930	222	Volt-VAR Control of Grid Connected PV Inverters to Increase PV Penetration in CIGRE European LV Distribution Network	Mecon Joshi (Pulchowk Campus, Institute of Engineering, Tribhuvan University)*; Manoj Godar (Pulchowk Campus, Institute of Engineering, Tribhuvan University); Avishek Panta (Pulchowk Campus, Institute of Engineering, Tribhuvan University); Kshitij Basnet (Pulchowk Campus, Institute of Engineering, Tribhuvan University); Jeetendra Chaudhary (Pulchowk Campus, Institute of Engineering, Tribhuvan University)

Session Number	**:**	**S-1.4**	**Session Name**	**:**	**Magnetics Design - 1**
Session Chair	**:**	**Pradyumn Chaturvedi**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Studio 4**
Session Link (if any)	**:**	**Zoom Link – Studio 4**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	13	A Core Loss Estimation Model for the Corner of E- and U-Cores using SC Mapping	Binhao Wang (Zhejiang University)*; Deqiu Yang (Zhejiang University); Junming Zhang (Zhejiang University)
0815 to 0830	71	Design of Transformer Parameters for Energy Efficiency Enhancement of Semi-Active Bridge Converter.	Siva Prabhakar (IIT Bombay)*; Shiladri Chakraborty (IIT Bombay); Sandeep Anand (Indian Institute of Technology Kanpur); Sagar De (Indian Institute of Technology Bombay)
0830 to 0845	187	A novel hybrid distribution transformer with integrated flexible voltage and current compensation capability	Zijian Wu (Zhengzhou University); Jinmu Lai (Zhengzhou University)*; Ming Ma (Guangdong Power Grid Co); Xin Yin (Wuhan University of Technology); Jiaxuan Hu (Huazhong University of Science and Technology); Yaoqiang Wang (Zhengzhou University)
0845 to 0900	201	Mitigating Magnetic Saturation in Coupled Inductor VRMs with a Novel Interleaved Winding Arrangement	Deqiu Yang (Zhejiang University)*; Binhao Wang (Zhejiang University); Junming Zhang (Zhejiang University)
0900 to 0915	224	Design and Assembly of a Low-Parasitic-Capacitance Medium-Frequency Medium-Voltage Transformer	Zhixing Yan (Aalborg University)*; Shaokang Luan (Aalborg University); Gao Liu (Aalborg University); Stig Munk-Nielsen (Aalborg University); Hongbo Zhao (Aalborg University)
0915 to 0930	339	A Planar Transformer Design with Integrated Output Terminals for LLC DCX of Low-voltage and High-current Output	zhaoliang wen (Harbin Institute of Technology)*; Sen Fu (Harbin Institute of Technology); Dianguo Xu (Harbin Institute of Technology)

Session Number	**:**	**S-1.5**	**Session Name**	**:**	**Modelling and Simulation - 1**
Session Chair	**:**	**Samir Hazra**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Studio 5**
Session Link (if any)	**:**	**Zoom Link – Studio 5**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	94	Efficient Thermal Simulation of Power Modules using Proper Orthogonal Decomposition	Zlatko Bosnjic (Graz University of Technology/EALS)*; Michael Hartmann (Graz University of Technology/EALS)
0815 to 0830	95	Simplified Power Semiconductor Loss Evaluation With SPICE Models in PLECS	Sivamani Sudhakar Kukunuri (Schneider Electric)*; Sanjay Kandula (Schneider Electric); Sivakumar Gannamraju (Schneider Electric); Naveen Kumar (Datamatics)
0830 to 0845	111	Review on Condition Monitoring Methods of IGBT Power Devices	Xinming Yu (aalborg unversity)*
0845 to 0900	128	Closed Loop Power Hardware in the Loop Back EMF and Current Emulation of a PMDC Machine	Harikrishnan S (IIT Palakkad); Dr. Arun Rahul S (Indian Institute of Technology Palakkad)*
0900 to 0915	195	A Generalized Analytical Gain Model for CLLC Resonant Converter with Asymmetric Parameters	Wenqi Du (Zhejiang University)*; Binhao Wang (Zhejiang University); Junming Zhang (Zhejiang University)
0915 to 0930	198	A Novel Online Estimation Method for Low Equivalent Series Resistance of Smoothing Capacitors	Yusuke Sawada (Nagoya University)*; Kengo Nagai (Nagoya University); Sihoon Choi (Nagoya University); Yu Yonezawa (Nagoya University); Jun Imaoka (Nagoya University); MASAYOSHI YAMAMOTO (Nagoya University); Toshiumi Tatsuki (Toray industries); Masatoshi Ohkura (Nagoya University)

Session Number	**:**	**S-1.6**	**Session Name**	**:**	**Multi-Level Inverter - 1**
Session Chair	**:**	**Utsab Kundu**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Studio 6**
Session Link (if any)	**:**	**Zoom Link – Studio 6**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	15	Optimal Split Capacitor DC-Link Design for Partial Load Multi-Level Inverters	Christoph Sachs (University Esslingen)*; Fabian Stamer (Bosch GmbH); Jan Allgeier (Bosch GmbH); Martin Neuburger (University Esslingen)
0815 to 0830	290	A Multilevel Power Converter for Switched Reluctance Motors with Integrated Battery Charging Capability	Gautam kumawat (Indian Institute of Technology Ropar)*; Saifullah Payami (Indian Institute of Technology Ropar)
0830 to 0845	102	A Nine-Level Switched-Capacitor Based Quadruple Boost Inverter Using Finite Control Set MPC	Vijay Kumar Singh (Rajiv Gandhi Institute of Petroleum Technology)*; BHEEMAIAH CHIKONDRA (Rajiv Gandhi Institute of Petroleum Technology); Saurabh Pandey (Rajiv Gandhi Institute of Petroleum Technology Jais, Amethi, U.P.); Ravi Nath Tripathi (Kyushu Institute of Technology Kitakyushu, Fukuoka); Manoj Badoni (Thapar Institute of Engineering and Technology, Patiala)
0845 to 0900	190	Analysis of the High Capacitor Voltage Ripple Design for the MMC with Active and Passive Circulating Current Suppression Methods	haiyu chen (Xi'an Jiaotong University)*; Jinjun Liu (Xi'an Jiaotong University); Sixing Du (Xi'an Jiaotong University)
0900 to 0915	230	Semiconductor Loss Balancing of a 9-level Cascaded H-Bridge multilevel Inverter through Novel Carrier-reassignment PWM Scheme	Little Pradhan (IIT Dharwad)*; Abhijit Kshirsagar (IIT Dharwad); Renuka Varma P C (IIT Dharwar)
0915 to 0930	240	Hardware implementation of PDS-PWM for Five-Level Active Neutral Point Clamped Inverter using LaunchXL F28379D	Vaishnavvignesh G Iyer (IIT Guwahati)*; JAGATH VALLABHAI MISSULA (IIT GUWAHATI); Cilaveni Satish Chandra (IIT Guwahati); Ravindranath Adda (IIT Guwahati)

Session Number	**:**	**S-1.7**	**Session Name**	**:**	**Power Converter Analysis - 1**
Session Chair	**:**	**Vishnu Mahadev Iyer**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Studio 7**
Session Link (if any)	**:**	**Zoom Link – Studio 7**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	91	Analysis of Current Spikes in Direct AC/AC SST	Archit Joshi (Indian Institute of Technology Guwahati)*; Dr. Shabari Nath (Indian Institute of Technology Guwahati)
0815 to 0830	92	Robustness Analysis of Temperature-Sensitive Electrical Parameters of SiC MOSFETs	Laurids Schmitz (ISEA - RWTH Aachen University)*; Isabel Austrup (ISEA - RWTH Aachen University); Rik W. De Doncker (ISEA - RWTH Aachen University)
0830 to 0845	117	Analysis and Design of LCC Resonant Converter with Capacitive Filter for Wide Output Voltage Range Applications	PREETI UPADHYAY (Indian Institute of Science)*; Utsab Kundu (Indian Institute of Technology Kanpur); Vinod John (Indian Institute of Science, Bangalore)
0845 to 0900	138	Characterizing the Influence of Circuit Parasitics on a New Passive Regenerative Snubber for Phase-Shifted Full-Bridge Converter	Shubham Rawat (Indian Institute of Science)*; Kaushik Basu (IISc-Bangalore)
0900 to 0915	159	Investigation on Electrical Parameter Stability of SiC MOSFETs in Switching Conditions	Shaopeng Xue (Xi'an Jiaotong University)*; Yan Zhang (Xi'an Jiaotong University); Yang Li (Xi'an Jiaotong University); Xianting Li (Xi'an Jiaotong University); Jinjun Liu (Xi'an Jiaotong University)
0915 to 0930	189	Revisiting and Extending Parasitic Capacitance in Inductors	AMBADI VINAYAK (NITC)*; Ashiq Muhammed (National Institute of Technology, Calicut); Rijil Ramchand (National Institute of Technology Calicut)

Session Number	**:**	**S-1.8**	**Session Name**	**:**	**Power Converter Analysis - 1**
Session Chair	**:**	**To Be Announced**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Converge 1**
Session Link (if any)	**:**	**Zoom Link – Converge 1**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	194	A Buck-Converter-Based Inductor Loss Emulator for Multiple Power Electronics Applications	Yuto Saito (Tokyo Metropolitan University)*; Koushi Takano (Tokyo Metropolitan University); Keiji Wada (Tokyo Metropolitan University)
0815 to 0830	265	Comparison of Inductor Current Ripples between GaN and Si-based CI-SIDO Buck Converter	Angan Sarkar (IIT Guwahati)*; Dr. Shabari Nath (Indian Institute of Technology Guwahati)
0830 to 0845	284	Mode-transition Analysis for Safe-operation of Reconfigurable On-Board Converter for Electric Vehicles	Ritankar Kumar (IIT Bhubaneswar)*; Olive Ray (Indian Institute of Technology Bhubaneswar)
0845 to 0900	303	Influence of Discontinuous Modulations on DC Capacitor Power Dissipation and Capacitor Lifetime in Cascaded H-Bridge StatComs	Qingxiang Liu (School of Electrical and Electronic Engineering, Nanyang Technological University)*; Ezequiel Rodriguez (Energy Research Institute at NTU, Nanyang Technological University); Glen G. Farivar (Department of Electrical and Electronic Engineering, University of Melbourne); Christopher D. Townsend (Department of Electrical, Electronic and Computer Engineering, University of Western Australia); Ramon Leyva (Departament d'Enginyeria Electrònica, Elèctrica i Automàtica, Universitat Rovira i Virgili); Josep Pou (School of Electrical and Electronic Engineering, Nanyang Technological University); Jose Rodriguez (Faculty of Engineering, Universidad San Sebastian)
0900 to 0915	324	MOSFET Noise Source-Based Closed-Form Solution for Mixed-Mode Conducted Emission EMI Noise in a Single-phase PFC	Connor Reece (Arizona State University); AYAN MALLIK (Arizona State University)*
0915 to 0930	342	Fast thermal reconstruction method for power module based on dilated convolution	Weixiang Chen (Xi'an Jiaotong University)*; Laili Wang (Xi'an Jiaotong University); Jin Zhang (Xi'an Jiaotong University); Zhewei Zhang (Xi'an Jiaotong University)

Session Number	**:**	**S-1.9**	**Session Name**	**:**	**Power Converter Control - 1**
Session Chair	**:**	**To Be Announced**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Converge 2**
Session Link (if any)	**:**	**Zoom Link – Converge 2**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	321	Fast Terminal Sliding Mode Control with Nonlinear Disturbance Observer for Buck Converter with Space Vector Pulse Width Amplitude Modulation	Sho Morita (Tokyo University of Science)*; Keitaro Kawarazaki (Tokyo University of Sceince); Taiki Mikami (Tokyo University of Science); Nobukazu Hoshi (Tokyo University of Science)
0815 to 0830	121	Double-Frequency Control of Multi-Active Bridge Converters for Soft-Switching Range Extension	André Thönnessen (ISEA RWTH Aachen University)*; Carsten Fronczek (RWTH Aachen University); Rik W. De Doncker (ISEA RWTH Aachen University)
0830 to 0845	218	Novel soft switching pulse generator using auxiliary power for Capacitive load high voltage and high frequency applications	Kento, Hiraoka*, Kazuhiro Umetani (Okayama University), Masataka Ishihara (Okayama University), Kota Shimomura (DAIHEN Corporation), Eiji Hiraki (Okayama University)
0845 to 0900	219	An improved fault ride-through control of hybrid transformer with considering reclosing scheme	Zijian Wu (Zhengzhou University); Jinmu Lai (Zhengzhou University)*; Ming Ma (Guangdong Power Grid Co); Xin Yin (Wuhan University of Technology); Jiaxuan Hu (Huazhong University of Science and Technology); Yaoqiang Wang (Zhengzhou University)
0900 to 0915	229	Control method for triangular current mode without bottom current detection in MHz band DC-AC converter	Shogo Hiroike (Nagaoka university of Technology)*
0915 to 0930	236	Research on Smooth Soft-Start Control of Two-Switch Buck-Boost	Yingqi Zhao (School of Electrical Engineering Xi'an Jiaotong University); Kangping Wang (School of Electical Engineering Xi'an Jiaotong University)*; Chenglong Yu (School of Electical Engineering Xi'an Jiaotong University); Daoxi Wang (School of Electical Engineering Xi'an Jiaotong University); Yuhang Ning (School of Electical Engineering Xi'an Jiaotong University)

Session Number	**:**	**S-1.10**	**Session Name**	**:**	**Power Converter Control - 2**
Session Chair	**:**	**To Be Announced**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Converge 3**
Session Link (if any)	**:**	**Zoom Link – Converge 3**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	249	Comparative Study of Tracking Error for Booster Synchrotron Power Supply: Effects of Reference Profile Variations and Feedforward Compensation in a Prototype Fast-Ramped Power Supply	Aradhana kumari (RRCAT)*; KANDIPALLI GOPI (RRCAT); Ujjwal Yadav (Raja Ramanna Centre for Advanced Technology); Manoj Gandhi (Raja Ramanna Centre for Advanced Technology)
0815 to 0830	282	A Reactive Power Control Decoupled Grid Forming Strategy with Direct Power Control as the Inner Loop	Liang Chen (NingboTech University)*; JunHao Bao (NingboTech University); Xin Liu (NingboTech University)
0830 to 0845	288	Three/Single-Phase Switchable DAB Matrix Converter and Active Power Decoupling Method with Center-Tapped Transformer	Kousei Irimura (Nagaoka University of Technology)*
0845 to 0900	458	Mitigation of Voltage Sag using Super-Capacitor Based Transformerless Dynamic Voltage Restorer	Mithila Aithagani (IIT Bombay)*; Zaid Sifat (-); Anil Kulkarni (IIT Bombay); Shiladri Chakraborty (IIT Bombay)
0900 to 0915	526	Power Factor Correction in Medium Voltage CSR-CSI-fed Drives with VSI-assisted SCR Commutation	Pratyush Pandey (IIT Madras, India)*; Harikrishna P. (IIT Madras, India); Kamalesh Hatua (IIT Madras, India)
0915 to 0930	170	Cascaded Control System for a Three-level Boost Converter of Multi-String PV Inverter	Sevastyan Grishin (Moscow Power Engineering Institute); Egor Kulik (Moscow Power Engineering Institute); Maxim Lashkevich (Moscow Power Engineering Institute); Evgeniy Stolyarov (Moscow Power Engineering Institute); Galina Demidova (Moscow Power Engineering Institute); Alecksey Anuchin (Moscow Power Engineering Institute)*

Session Number	**:**	**S-1.11**	**Session Name**	**:**	**Power Converter Modulation - 1**
Session Chair	**:**	**Ashiq Muhammed**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Innovate 1**
Session Link (if any)	**:**	**Zoom Link – Innovate 1**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	22	Reduced Common Mode Voltage SVDPWM Strategy with Switching Loss Minimization in Four-Level NPC Inverter	Le Nam Pham (Ho Chi Minh City University of Technology - VNUHCM)*; Quoc Dung PHAN (HCMUT); Nho-Van Nguyen (Ho Chi Minh City University of Technology - VNUHCM)
0815 to 0830	125	Digital Voltage-Mode Control of a Mixed-Type SIMO Converter Under Time-Multiplexing scheme	Madhu Sudhan Rao Ravada (IIT Mandi)*; Amit Singha (IIT Mandi)
0830 to 0845	162	A Modified Carrier-Based PWM with High DC Voltage Utilization for Three-Level Inverters with Unbalanced Neutral-Point Voltage	Yuhang Zou (Tsinghua Univeristy)*; Li Zhang (Hohai University); Yan Xing (Nanjing University of Aeronautics and Astronautics); Kai Sun (Tsinghua University); Chennan Huang (Hohai University); Zhen Li (JiangSu JinFan Power Technology Co., Ltd.)
0845 to 0900	167	Support Vector Machine with HD-MCPWM Technique for Effective Harmonic Prediction and Reduction in Inverters	Rishiraj Sarker (Indian Institute of Technology Roorkee)*; Subhabrata Pal (Indian Institute of Technology Roorkee); Avik Bhattacharya (Indian Institute of Technology Roorkee); Anand Reddy (IFB Industries Ltd., Bangalore)
0900 to 0915	178	Optimal modulation of Penta-phase shifted Multi-Active-Bridge for EV charging	PROSEN DEY (Indian Institute of Science, Bangalore)*; Kaushik Basu (IISc-Bangalore)
0915 to 0930	263	Advanced Double Discontinuous Pulse Width Modulated Three-Phase Power Converter	Ramkrishan Maheshwari (University of Southern Denmark)*; Ruman Kalyan Mahapatra (University of Southern Denmark); Thomas Ebel (University of Southern Denmark)

Session Number	**:**	**S-1.12**	**Session Name**	**:**	**Power Semiconductor Devices - 1**
Session Chair	**:**	**Soumya Shubhra Nag**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Innovate 2**
Session Link (if any)	**:**	**Zoom Link – Innovate 2**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	336	Comparative Analysis of Power Devices in Power Supply Units for AI Server Applications	Shuang-Quan Tsai (Shuang-Quan Tsai); Wan-Chien Chen (Chen Wan-Chien)*; Prakash Gundabathina (Prakash); Po-Hung Chen (Po-Hung Chen); Bing-Yue Tsui (Bing-Yue Tsui); Chang-Ching Tu (Chang-Ching Tu); Yi-Kai Hsiao (Yi-Kai Hsiao); Chia-Lung Hung (Chia-Lung Hung)
0815 to 0830	350	Validation of dynamic RDS(on) and MOSFET paralleling topologies for high power applications	Niranjan Hegde (Tektronix)*; Srikrishna N.H. (Tektronix India Pvt. Ltd.); Shubha B (Tektronix India Pvt. Ltd.)
0830 to 0845	421	Analytical Modelling of Turn off characteristics in a SiC MOSFET based half bridge configuration	Satwik Komma (Indian Institute of Technology Madras)*; Lakshminarasamma N (Indian Institute of Technology Madras)
0845 to 0900	432	Current Measurement of GaN HEMTs Without Insertion Impedance and Unaffected by Magnetic Field Noise Using Two Optical Probe Electric Current Sensors	Taro Takamori (The University of Tokyo)*; Kuan-Ting Li (National Yang Ming Chiao Tung University); Han-Lin Wang (National Yang Ming Chiao Tung University); Tetsutaro Otobe (Citizen Finedevice); Satoshi Sue (Citizen Finedevice); Ryu Nagahama (Iwatsu Electric); Po-Hung Chen (National Yang Ming Chiao Tung University); Makoto Takamiya (The University of Tokyo)
0900 to 0915	467	Investigation into the Reverse Recovery Dynamics of High-Voltage Fast Recovery Diodes	Anjana G (IISc Banglore)*; Kiran Babu (C-DAC); Utsab Kundu (IIT Kanpur); Vinod John (IISc Banglore); Subhash Joshi T. G. (C-DAC)
0915 to 0930	486	A Practical Approach to Accurate Modeling of SiC MOSFET Turn-Off Switching Losses	Ashwini Kumar Dubey (University of Colorado Boulder)*; Sayan Paul (University of Colorado Boulder); Dragan Maksimovic (University of Colorado Boulder)

Session Number	**:**	**S-2.1**	**Session Name**	**:**	**Machine Learning and AI - 1**
Session Chair	**:**	**Lakshmi Narasamma**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**1630 to 1815**	**Session Room**	**:**	**Studio 1**
Session Link (if any)	**:**	**Zoom Link – Studio 1**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	451	Non-intrusive load monitoring using two-point sensors for load measurement, identification and localization	Ranjit Gharpurey (4EST); Prasanna U. R (4EST)*; Bimal Mehta (4EST)
1645 to 1700	245	Temperature-adaptive Smart Electric Vehicle Fast Charging System	Tanzeela Mir (Indian Institute of Technology Gandhinagar)*; Pallavi Bharadwaj (IIT Gandhinagar)
1700 to 1715	277	FPGA-Based Fuzzy Logic Control for BLDC Motors used in Lightweight Electric Vehicles	Kausik Biswas (Indian Institute of Technology Bhubaneswar)*; Olive Ray (Indian Institute of Technology Bhubaneswar); Chandrashekhar Bhende (IIT Bhubaneswar)
1715 to 1730	295	Load-Following Control and Fuzzy Logic-Based Energy Management in Fuel Cell Hybrid Electric Vehicles	Som Ankar (National Institute of Technology, TIRUCHIRAPPALLI)*; Sivanesan M (NIT Thiruchirappalli); Pinkymol K.P (NIT Thiruchirappalli)
1730 to 1745	401	Reduction of Conducted Electromagnetic Interference in the EV OFF-Board Charger Using ANN	RAJALAKSHMI ALAVANTHAN (RAJALAKSHMI ENGINEERING COLLEGE)*; ABHINESH P (Rajalakshmi Engineering College); LOKESH R (Rajalakshmi Engineering College); Pranav Aravindhan V (Rajalakshmi Engineering College)
1745 to 1800	485	Precise Analytical Model Assisted Machine Learning Framework for Parameter Estimation of Litz-Wire and Ferrite Core-based Rectangular WPT Coils with Lateral Misalignment	Avanish Pandey (IIT KANPUR)*; Manideep Donkena (IIT KANPUR); Suvendu Samanta (IIT KANPUR); Amarendra Edpuganti (IIT KANPUR)
1800 to 1815	607	HPPC-Based ECM Parameter Optimisation of Lithium-ion Battery: A Comparative Analysis of Non-Linear Least Squares Methods	Pratik Pradhan (National Institute of Technology)*; Dipanjan Pradhan (Sikkim Manipal Institute of Technology); Dr. Aurobinda Panda (National Institute of Technology Sikkim)

Session Number	**:**	**S-2.2**	**Session Name**	**:**	**Wireless Power Transfer - 1**
Session Chair	**:**	**Chandan Kumar**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Studio 2**
Session Link (if any)	**:**	**Zoom Link – Studio 2**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	107	Towards a Unified Charging Infrastructure: Integrating Conductive and Wireless Charging Methods	Gutturu Praveen Kumar (IIT Bombay)*; Vivek Agarwal ("Indian Institute of Technology, Bombay")
1645 to 1700	112	Novel Coil Pitch Configuration of Rectangular coil for Improved Misalignment Tolerance in Wireless Charging of EVs	Utkarsha Bulkunde (IIT Bombay)*; Vivek Agarwal ("Indian Institute of Technology, Bombay")
1700 to 1715	199	A Dynamic Capacitive Wireless Power Transfer System using Four Vertical Plates for Electric Mobility Applications	KODEESWARAN S (National Institute of Technology Andhra Pradesh)*; Kannabhiran Arumugam (SASTRA Deemed to be University); Sheldon Williamson (Ontario Tech University)
1715 to 1730	279	Integration of On-board and Wireless Charging for Electric Vehicles with Single Stage Resonant Converter	ADAPA RAJESH (Indian Institute of Technology, Mandi)*; Moumita Das (IIT Mandi)
1730 to 1745	292	A Multiphase Non-Overlapping Bipolar Electromagnetic Coupler for High Power Contactless Charging Of Electric Vehicles	SUKUMAR DAS (IIT ROORKEE); Apurv Kumar Yadav (Indian Institute of Technology, Roorkee)*
1745 to 1800	316	Single-Stage Solar PV Wireless Charging System for Electric Vehicles Ultra-Wide Voltage Applications	Sunil Kumar Gautam (Indian Institute of Technology Mandi)*; Moumita Das (IIT MANDI)

Session Number	**:**	**S-2.3**	**Session Name**	**:**	**Control of Electric Drives - 1**
Session Chair	**:**	**Marco Rivera**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Studio 3**
Session Link (if any)	**:**	**Zoom Link – Studio 3**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	559	Design, Analysis and Fabrication of a High Speed Inner-Hollow Outer rotor Brushless DC Motor for Yarn Feeding Textile Machinery	Surajit Saha (Indian Institute of Technology, Delhi)*; Abhishek Shaw (Indian Institute of Technology, Delhi); Amit Jain (Indian Institute of Technology, Delhi)
1645 to 1700	56	Applicability of Equivalent Iron Loss Model for PMSM	Hiroto Kawai (Tokyo Denki University)*; Kantaro Yoshimoto (Tokyo Denki University); Hajime Ota (Nissan Motor Co., Ltd)
1700 to 1715	215	Analytical Subdomain Modelling and Analysis of a Single Rotor Induction Assisted IPM Motor for EVs	Surajit Saha (Indian Institute of Technology, Delhi)*; Amit Jain (Indian Institute of Technology Delhi)
1715 to 1730	237	Speed Sensorless Direct Torque Control of Asymmetric Six-Phase Induction Motor	Jay Pandit (VNIT, Nagpur); Mohan Aware (VNIT); Dr Ramsha Karampuri (VNIT Nagpur)*
1730 to 1745	238	Research on automotive motors suitable for LCA, including motors with aluminum windings	Daichi Washio (Yokohama National University)*; Kan Akatsu (Yokohama National University)
1745 to 1800	299	Control of Grid-Connected Dual-VSI DFIG-dc System With Series Connection at DC-link	Apurva Verma (Indian Institute of Technology Delhi)*; Amit Jain (Indian Institute of Technology Delhi)

Session Number	**:**	**S-2.4**	**Session Name: Induction Machine Design and Control - 1**		
Session Chair	**:**	**To Be Announced**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Studio 4**
Session Link (if any)	**:**	**Zoom Link – Studio 4**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	367	An Offline Loss Minimization Framework in Induction Motor- Based Traction Drives Using Improved Deadbeat Control Method	Priyanshu Singla (IIT Madras)*; Srikanthan Sridharan (Indian Institute of Technology Madras)
1645 to 1700	448	Active Harmonic Filter Based Topology and Control of Medium Voltage High Power Traction Motor Drive for Enhanced Performance	ASHISH PANDA (IIT DELHI)*; Avanish Tripathi (IIT Delhi)
1700 to 1715	66	Design of an Induction Machine with a Rotor Slot Opening Modulation Providing a Rotor-Fixed Anisotropy for Self-Sensing Control	Constantin Schepe (Leibniz University Hannover)*
1715 to 1730	86	Design Aspects of Inverter for 9-ϕ Pole Phase Modulated Induction Motor Drives	Monika Jain (Indian Institute of Technology Indore); Prathap Reddy B (Indian Institute of Technology Indore)*
1730 to 1745	104	Active Neutral Point Clamped Voltage Source Inverter fed Five Phase Induction Motor Drive Using Carrier Based PWM	BHEEMAIAH CHIKONDRA (Rajiv Gandhi Institute of Petroleum Technology)*; Vijay Kumar Singh (Rajiv Gandhi Institute of Petroleum Technology); Saurabh Pandey (Rajiv Gandhi Institute of Petroleum Technology Jais, Amethi, U.P.)
1745 to 1800	118	Dual-CPU DSP Based Implementation of Instantaneous Torque Ripple Estimation in Inverse Connected Cascaded WRIM	Keerthi R Gopan (Indian Institute of Technology Delhi)*; SHAYAK CHAUDHURI (Indian Institute of Technology, Delhi); Amit Jain (Indian Institute of Technology Delhi)

Session Number : **S-2.5** **Session Name: DC-DC Converter Topology - 1**

Session Chair : **Utsab Kundu** **Session Date** : **12th May 2025**

Session Time : **1630 to 1800** **Session Room** : **Studio 5**

Session Link (if any) : **Zoom Link – Studio 5**

Time	Paper ID	Paper Title	Authors
1630 to 1645	419	Voltage Multiplier Cells Non-isolated Dual Input DC-DC Converter with Wide Voltage Gain for EV Charging Applications	Sunil Sapavatu (NITK Surathkal)*; Debashisha Jena (NITK Surathkal); Tukaram Moger (NITK Surathkal)
1645 to 1700	234	Self-Commissioning Single-Inductor Dual-Output (SIDO) DC-DC Bi-Polar Converter	Vibhore Jain (IISc)*; Vaidika Pardhi (IISc); L. Umanand (Indian Institute of Science Bangalore); Gopakumar K (IISc)
1700 to 1715	20	Improved Switching Performance and Active Current Sharing for SiC Modules in the Skewed Composite Bridge-Leg Arrangement	Mason Parker (University Of Edinburgh)*; Sebastian Neira (University Of Edinburgh); Edward Horsley (Siemens Gamesa Renewable Energy); Stephen Finney (University Of Edinburgh); Paul Judge (University Of Edinburgh)
1715 to 1730	113	Output Power Control of Three-Phase Isolated Secondary-Resonant Single-Active-Bridge DC-DC Converter Using a Δ-Y Connected Transformer	Takehito Fukushima (Nagoya Institute of Technology)*; Wataru Kitagawa (Nagoya Institute of Technology); Takaharu Takeshita (Nagoya Institute of Technology)
1730 to 1745	139	Four-Port DC-DC Converter for Hybrid Energy Systems	rajvir Kaur (National Institute of technology Puducherrry)*; Hemachander Allamsetty (National Institute of Technology Puducherry); Ravi Nath Tripathi (Kyushu Institute of Technology Kitakyushu, Fukuoka); Ramya R (NIT puducherry)
1745 to 1800	176	Topological identicality between converters of otherwise dissimilar SMPCs: Current Doubler Rectifier and Interleaved Buck Converter	Gourab Banerjee (IIEST Shibpur)*; Sambhuti Pathak (IIEST Shibpur); Mainak Sengupta (Indian Institute of Engineering Science and Technology, Shibpur)

Session Number	**:**	**S-2.6**	**Session Name:**	**DAB Converter Topologies**	
Session Chair	**:**	**Lakshmi Narasamma**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**1630 to 1815**	**Session Room**	**:**	**Studio 6**
Session Link (if any)	**:**	**Zoom Link – Studio 6**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	10	Reconfigurable DAB Converter with Ultra-Wide Gain Range in Universal PEV Charging Applications	Yingjian Zhuge (ShanghaiTech University); Dongdong Shushu (ShanghaiTech University); Haoyu Wang (ShanghaiTech University)*
1645 to 1700	110	Decoupled Control of Triple Active Bridge Converter for Charging of Electric Vehicles	Surbhi Mittal (IIT Bombay)*; Vivek Agarwal ("Indian Institute of Technology,Bombay")
1700 to 1715	235	Design and Analysis of GaN and Planar Magnetics based DAB Converter for EV On-Board Chargers	Abhishek Kumar (NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA)*; Kalpana R (National Institute of Technology, Karnataka, Surathkal)
1715 to 1730	298	DAB-based Bidirectional DC-AC Converter with both 3-ϕ-1-ϕ Capability	Dharani Deepika Pidiyar (Indian Institute of Technology Bombay)*; Shiladri Chakraborty (IIT Bombay)
1730 to 1745	93	A New Three-phase Single-stage DAB Isolated Phase-modular PFC Topology with Sextuple Active Bridges	Soumya Ghorai (Indian Institute of Technology Kharagpur)*; Souvik Chatopadhyay (IIT Kharagpur)
1745 to 1800	450	Design Optimization of a 3 kW Bi-Directional Dual Active Bridge Converter for Battery Energy Storage Application	Souradeep Pal (Live4est)*; Prasanna UR (Live4est); Ranjit Gharpurey (Live4est)
1800 to 1815	578	Design of a GaN-based Series Resonant Dual Active Bridge DC-DC converter for EV Charging Application	Malingu G (Delta Electronics India Pvt Ltd.)*; Shamibrota Kishore Roy (Delta Electronics India Pvt Ltd.); Aishwarya B (Delta Electronics India Pvt Ltd.); Sreehari Venugopal (Delta Electronics India Pvt Ltd.); Venkatesh A P (Delta Electronics India Pvt Ltd.); Ravali N (Delta Electronics India Pvt Ltd.); CY LIN (Delta Electronics Pvt Ltd.); Yingfan CHEN (Delta Electronics Pvt Ltd.); Leon Li (Delta Electronics Pvt Ltd.); Shashidhar Mathapati (Delta Electronics Pvt Ltd.); Taha M S (Delta Electronics India Pvt Ltd.)

Session Number	**:**	**S-2.7**	**Session Name :**	**Design of Electric Drives**	
Session Chair	**:**	**Ashiq Muhammed**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**1630 to 1815**	**Session Room**	**:**	**Studio 7**
Session Link (if any)	**:**	**Zoom Link – Studio 7**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	51	Experimental Evaluation of Efficiency and Power Distribution Control by 3-Level Inverter Drive for DC-Inputs Direct Electric Power Converter (D-EPC)	Seiryu Yoshii (Tokyo Denki University)*; Kantaro Yoshimoto (Tokyo Denki University)
1645 to 1700	60	20 MVA Wind Turbine Power Conversion System with PM Vernier Generators	Taeyun Kim (Jeonbuk national university)*; Jaehoon Choi (Jeonbuk national university); Heewon Choi (Jeonbuk national university); Byungtaek Kim (Kunsan National University); Yongsug Suh (Jeonbuk national university)
1700 to 1715	141	A Space Vector PWM based Speed-range Extension Scheme for a Split-phase Machine under OC Fault	Deeksha Bhule (Indian Institute of Space Science and Technology)*; Sudharshan Kaarthik (IIST)
1715 to 1730	322	An Extended EMF Based Sensorless Control for a Dual Parallel Interior Permanent Magnet Synchronous Motor Drives Fed by a Single Inverter	Byeong-Soo Kang (Ajou University); Kyo-Beum Lee (Ajou University)*
1730 to 1745	544	Analytical Study on Fault-Tolerant Control of Five-Phase Induction Motor Drive	JEEBAN NAYAK (IIT Patna)*; Sesadri Sahoo (IIT Patna); Ranjan Behera (IIT Patna); Bheemaiah Chikondra (Rajiv Gandhi Institute of Petroleum Technology)
1745 to 1800	55	Study of Current Control for High-Speed Motor Drive Systems	Yuto Hirao (TokyoDenkiUniversity)*; Kantaro Yoshimoto (TokyoDenkiUniversity)
1800 to 1815	278	Semi analytical modelling of bearingless interior permanent magnet slice motor	Krishan Kant (GE Vernova)*; David Trumper (MIT)

Session Number	**:**	**S-2.8**	**Session Name**	**:**	**Power Systems**
Session Chair	**:**	**Sarasij Das**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**1630 to 1815**	**Session Room**	**:**	**Converge 1**
Session Link (if any)	**:**	**Zoom Link – Converge 1**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	311	High Power Density Solid State Marx Generator based pulsed power driver for Nonlinear Transmission Line	Abhinav Chinnusamy (UW Madison)*; Hyeongmeen BAIK (UW Madison); Jinia Roy (Academic)
1645 to 1700	31	Protection of transmission systems with Hilbert Huang Transform	PAHELI TALUKDER (IIT JODHPUR)*; Prof. Abdul Gafoor (IIT Jodhpur)
1700 to 1715	341	Performance of Directional Relay in presence of Grid forming inverter	hema sundar jakkula (IIT dharwad)*; Pratyasa Bhui (IIT dharwad); Animesh Kumar Sahoo (IIT Dharwad)
1715 to 1730	545	Impedance Shaping schemes for Single-phase DERs integrated to Three-phase systems	Nisheet Soni (IIT Indore)*; Amod C. Umarikar (IIT Indore); A. S. Vijay (IIT Indore)
1730 to 1745	39	A New Power Flow Controller for HVDC Grids and its Protection against Ground Faults	Shubhangi Bhadoria (KTH)*; Tingzhen Ye (KTH); Frans Dijkhuizen (Hitachi Energy); Hans-Peter Nee (KTH)
1745 to 1800	582	An active filter compensation solution for high power energy sources	Ileana-Diana Nicolae (University of Craiova); Petre-Marian Nicolae (University of Craiova, Romania)*; Marian - Stefan Nicolae (University of Craiova)
1800 to 1815	174	Fault Identification Scheme for HVDC Systems Based on Single-Sided Trigger Angle Signal and CWT-CNN	zhenxing wang (Shanghai Maritime University)*

Session Number : **S-2.9** **Session Name: Modular Multi-Level Converter**

Session Chair : **Pradyumn Chaturvedi** **Session Date** : **12th May 2025**

Session Time : **1630 to 1800** **Session Room** : **Converge 2**

Session Link (if any) : **Zoom Link – Converge 2**

Time	Paper ID	Paper Title	Authors
1630 to 1645	301	Modeling and Experimental Validation of a Single-Phase MMC-Based Front-End Converter with SM Voltage Balance Control	Pranav Narkhede (Indian Institute of Technology, Delhi)*; Amit Jain (Indian Institute of Technology Delhi)
1645 to 1700	402	DESIGN AND IMPLEMENTATION OF SIC-BASED MODULAR MULTILEVEL CONVERTER	Vivek P V (Indian Institute of Technology, Bombay)*; Rajat Shahane (Indian Institute of Technology, Bombay); Anshuman Shukla (Indian Institute of Technology, Bombay)
1700 to 1715	535	Unbalanced AC Grid Operation of a Power-Dense, Cost-Effective, and Efficient Hybrid Modular Multilevel Converter	Jayesh Kumar Motwani (Center for Power Electronics Systems, Virginia Tech)*; Jian Liu (Delta Electronics); Rolando Burgos (Center for Power Electronics Systems, Virginia Tech); Dushan Boroyevich (Center for Power Electronics Systems, Virginia Tech); Zhi Zhou (GE Vernova); Dong Dong (Center for Power Electronics Systems, Virginia Tech)
1715 to 1730	404	POWER MISMATCH ELIMINATION IN THREE PHASE GRID CONNECTED MODULAR MULTILEVEL CONVERTERS USING QUADRUPLE ACTIVE BRIDGES	Vivek P V (Indian Institute of Technology, Bombay)*; Anshuman Shukla (Indian Institute of Technology, Bombay)
1730 to 1745	427	Asymmetrical PV Power Injection in Modular Multilevel Converter with Battery Energy Storage Systems for Ripple Power Reduction	Hitesh Malviya (IIT Guwahati)*; Jose Rodriguez (Universidad San Sebastian); Chandan Kumar (IIT Guwahati)
1745 to 1800	585	A three-phase Synchronous Reference Frame controller-based DC link voltage balancing technique for CHB-based modular SST	Vasishta Burugula (North Carolina State University)*; Partha Pratim Das (North Carolina State University); Osamah Aljumah (North Carolina State University); Harshal Talur Lokesha (North Carolina State University); Subhashish Bhattacharya (North Carolina State University)

Session Number	**:**	**S-2.10**	**Session Name**	**:Resonant Converters**	
Session Chair	**:**	**To Be Announced**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Converge 3**
Session Link (if any)	**:**	**Zoom Link – Converge 3**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	225	Design and Development of LCCL Resonant Circuit-Based 85kHz Magnetic Field Generator for Biological Research	Kaiki Ueda (Tokyo Metropolitan University)*; Ryosuke Ota (Tokyo Metropolitan University); Keiji Wada (Tokyo Metropolitan University); Yukihisa Suzuki (Tokyo Metropolitan University)
1645 to 1700	264	SRC based Auxiliary Power Supply with a Split Planar Transformer for High Isolation	Kailas S Vel (IISc Bangalore)*; Vishnu Mahadeva Iyer (Indian Institute of Science); Vinod John (Indian Institute of Science, Bangalore); Gautham Krishnan (Electrohms Pvt. Ltd.); Giridhara M S (Electrohms Pvt. Ltd.)
1700 to 1715	338	Output Power Control of Three-Phase Secondary-Resonant Single-Active-Bridge DC-DC Converter	Taisei Kato (Nagoya Institute of Technology)*; Takaharu Takeshita (Nagoya Institute of Technology)
1715 to 1730	375	Design and Optimization of 1-MHz 48-12 V LLC Resonant Converter with GaN Devices and FPCB Planar Transformer	Siyao Hu (Kyushu University)*; Naoki Agatsuma (Kyushu Unversity); Wataru Saito (Kyushu Unversity); Shinichi Nishizawa (Kyushu Unversity)
1730 to 1745	481	Synchronous Rectification for GaN-Based LLC Converter	Sanjeet Singh (Indian Institute of Science)*; Bharath Kumar M (Texas Instruments); Malingu G (Delta Electronics); Kaushik Basu (Indian Institute of Science)
1745 to 1800	523	Unified Design of DC-DC Resonant Tank Circuits for High Gain Applications	Uzma Khan (IIT Madras)*

Session Number : **S-2.11** **Session Name** : **AC and DC Microgrids - 1**

Session Chair : **D Venkatramanan** **Session Date** : **12th May 2025**

Session Time : **1630 to 1815** **Session Room** : **Innovate 1**

Session Link (if any) : **Zoom Link – Innovate 1**

Time	Paper ID	Paper Title	Authors
1630 to 1645	396	Quadratic Switched Inductor-Capacitor Multi-Port Converter for DC Microgrid Application	Sunil Sapavatu (NITK Surathkal)*; Debashisha Jena (NITK Surathkal); Tukaram Moger (NITK Surathkal)
1645 to 1700	144	A Geometric Based Cyber-Attack Detection Approach for DC Microgrids	Luis Herrera (University at Buffalo)*; Xiu Yao (University at Buffalo); Shulin Li (The High School Affiliated to Xi'an Jiaotong University)
1700 to 1715	160	Multi-Objective Tertiary Layer Optimization for DC Microgrids	Himani Modi (IIT Jodhpur)*; Deepak Fulwani (IIT Jodhpur)
1715 to 1730	203	Mitigation of Voltage Imbalance and Improving the Reliability of a Bipolar DC Microgrid using a Multiport Compensator	Pragya Nand Singh (Indian Institute of Technology Bhubaneswar)*; Ravi Ranjan (Indian Institute of Technology Bhubaneswar); Srinivas Karanki (IIT Bhubaneswar)
1730 to 1745	502	Power Quality Enhancement Using Diffusion-Probabilistic Least Mean Square Technique	Dr. Manoj Badoni (Thapar Institute of Engineering and Technology)*
1745 to 1800	530	Investigation of Stability Challenges in MEA Onboard DCMGs using MTPA based DTC	Ramavath Naik (IIT Roorkee)

Session Number	**:**	**S-2.12**	**Session Name**	**:**	**EV System Design - 1**
Session Chair	**:**	**Samir Hazra**	**Session Date**	**:**	**12th May 2025**
Session Time	**:**	**1630 to 1815**	**Session Room**	**:**	**Innovate 2**
Session Link (if any)	**:**	**Zoom Link – Innovate 2**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	48	A method for evaluating a series hybrid system using a DC-input direct electric-power converter (D-EPC) in mode driving with a virtual vehicle model	Mikiya Itagaki (Tokyo Denki University)*; Kantaro Yoshimoto (Tokyo Denki University)
1645 to 1700	61	Loss-Optimized Inverter Modulation in Battery-Electric Powertrains Based on Harmonic Loss Models	Maximilian Hagedorn (Leibniz University Hannover)*
1700 to 1715	122	Performance Analysis of Low-Speed Regenerative Braking using Advanced Short Circuit Switching Scheme for BLDC Drive	Vishnu Sheshadri (Vitesco Technologies India Pvt. Ltd.)*; Someswara Rao Pallagani (Vitesco Technologies India Pvt. Ltd.); Ramashis Kumar Mishra (Vitesco Technologies India Pvt. Ltd.)
1715 to 1730	173	A Unidirectional Current-Fed DC-DC Converter with Low Cost and High Efficiency for EV Systems	Cong Li (Xi'an Jiaotong University)*
1730 to 1745	425	Improving Durability and Performance of PEMFC-Powered Electric Vehicles with Advanced Thermal Management and Degradation Insights	bharatiraja C (Centre for Electric Mobility (CEM), SRM Institute of Science and Technology,Kattankulathur, TN, India)*; Navinkumar T M (SRM Institute of Science and Technology)
1745 to 1800	560	Investigation on Hairpin Winding Configurations for High-Efficiency Brushless Wound Field Synchronous Motors in EVs	Surajit Saha (Indian Institute of Technology, Delhi)*; Amit Jain (Indian Institute of Technology, Delhi)
1800 to 1815	517	State of Charge Estimation and Constant Current Constant Voltage Charging of Lithium-Ion Battery for Electric Vehicle Applications	Rajesh Pindoriya (Thapar Institute of Engineering and Technology, Patiala)*; Harshit Thakur (Thapar Institute of Engineering and Technology, Patiala, Punjab); Surya Prakash (Thapar Institute of Engineering and Technology, Patiala, Punjab)

Session Number	**:**	**S-3.1**	**Session Name:**	**AC-DC Power Conversion - 1**	
Session Chair	**:**	**Moumita Das**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Studio 1**
Session Link (if any)	**:**	**Zoom Link – Studio 1**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	293	Modified Voltage Controller to Reduce Harmonics in Three-Level Boost PFC Converter	Sachin Dhyani (Indian Institute of Technology Guwahati)*; Dr. Shabari Nath (Indian Institute of Technology Guwahati)
0815 to 0830	304	A Novel Single-Stage Integrated Active Filter Isolated Matrix-Type Three-Phase AC/DC Converter	Daifei Zhang (University of Toronto)*; Paolo Sbabo (Department of Information Engineering (DEI), University of Padova); Davide Biadene (University of Padova); Paolo Mattavelli (University of Padova); Johann Kolar (ETH Zurich)
0830 to 0845	348	Ultra-Efficient Three-Phase Integrated-Active-Filter Isolated Rectifier for AI Data Center Applications	Paolo Sbabo (Department of Information Engineering (DEI), University of Padova)*; Daifei Zhang (University of Toronto); Davide Biadene (University of Padova); Paolo Mattavelli (University of Padova); Johann Kolar (ETH Zurich)
0845 to 0900	455	Addressing Challenges of GaN HEMTs in Ripple Power Compensation Integrated Totem-Pole PFC Converters	Nagamalleswararao Kamarajugadda (Indian Institute of Technology Bombay)*; Jenson Joseph C Attukadavil (Indian Institute of Technology Bombay); Baylon G Fernandes (Indian Institute of Technology Bombay); Kishore Chatterjee (Indian Institute of Technology Bombay)
0900 to 0915	475	A Novel Modulation Strategy of a DAB-based Single-stage Three-phase AC-DC converter	Naresh Rana (Indian Institute of Science, Bengaluru)*; Sayan Paul (Indian Institute of Science, Bengaluru); Kaushik Basu (Indian Institute of Science, Bengaluru)
0915 to 0930	601	PFC Converter with Three Phase and Single Phase Grid Compatibility and Integrated APD Circuit	PRADEEP KUMAR M (IIT Dharwad)*; Little Pradhan (INDIAN INSTITUTE OF TECHNOLOGY DHARWAD)

Session Number	**:**	**S-3.2**	**Session Name**	**:**	**DC-AC Inverters - 2**
Session Chair	**:**	**Arman Oshnoei**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Studio 2**
Session Link (if any)	**:**	**Zoom Link – Studio 2**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	400	A Single-Phase Single-Stage Boost Inverter with Sensorless Balancing of Capacitors	Sree Yashwanth Ch (Maruti Suzuki India Limited); Aman Jain (Maruti Suzuki India Limited); Yadvendra Singh (Thapar Institute of Engineering and Technology Patiala); Pranathi Mehra (Thapar Institute of Engineering and Technology Patiala); Sunil K Singla (Thapar Institute of Engineering and Technology Patiala); Krishna Gupta (Thapar University)*
0815 to 0830	476	Single-Phase Bridge Inverter with Modified LCL-LC Filter	Shuang Xu (University of New Brunswick)*; Shufeng Zhang (University of New Brunswick); Xiaochen Zhu (University of New Brunswick); Haitham Elmasry (University of New Brunswick); Liuchen Chang (University of New Brunswick)
0830 to 0845	491	Zero Current Switching Based Current-Source Inverter With Reduced Switches in IPT Application	Akhouri Sinha (IIT Kanpur)*; Jalaj Kumar (IIT Kanpur); Suvendu Samanta (IIT Kanpur)
0845 to 0900	37	Control of Utility Interfaced PEM Fuel Cell, Solar Energy Conversion System and Battery Storage	Vivek Narayanan (National University of Singapore)*; Dharani K (National University of Singapore); Sanjib Panda (National University of Singapore)
0900 to 0915	266	Three-Phase Switched Inductor-Capacitor Split Source Inverter for Enhanced Boost	REMYA K P (GEC Thrissur)*; Vasuda K V (Government Engineering College Thrissur); Dr Jaison Mathew (GEC Thrissur)
0915 to 0930	527	Chopper Circuit based DC Voltage Balancing in Neutral Point Clamped Dual Active Bridge Converter	Mouni Rishitha Perika (IIT Guwahati); Somnath Meikap (IIT Guwahati)*; Chandan Kumar (IIT Guwahati)
0930 to 0945	377	Fault Localization and Severity Estimation in Power Systems	Mohammed Ali Khan (University of Southern Denmark)*; Navid Bayati (University of Southern Denmark); Thomas Ebel (University of Southern Denmark)

Session Number	**:**	**S-3.3**	**Session Name :**	**Distributed Generation - 2**	
Session Chair	**:**	**Srinivas Bhaskar Karanki**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Studio 3**
Session Link (if any)	**:**	**Zoom Link – Studio 3**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	232	Grid Forming Solar Inverter with Energy Storage Under Partial Shading Conditions	Hein Wai Yan (Nanyang Technological University)*; Gaowen Liang (Nanyang Technological University); Ezequiel Rodriguez (Nanyang Technological University); Glen Farivar (University of Melbourne); Enrique Nunes Di Pierri (School of Electrical and Electronic Engineering, Nanyang Technological University); Josep Pou (City University of Hong Kong)
0815 to 0830	244	Active Power Control Method for Voltage Support with Three-phase Series PV Inverter in Low-Voltage Distribution Networks	Qiang Bi (Tsinghua University)*; Kai Sun (Tsinghua University)
0830 to 0845	269	A Novel Passive Anti-islanding Detection Method for Synchronverter Controlled Grid Forming Inverter	Lipun Naik (Indian institute of technology dharwad); Animesh Sahoo (IIT Dharwad)*; Pankaj Achlerkar (IIT Bhubaneswar)
0845 to 0900	329	“AC Cube”: A Single-Stage PV/Battery/Grid Energy Router	Soham Manjrekar (Georgia Institute of Technology Center for Distributed Energy)*; Anirudh Marellapudi (Georgia Institute of Technology Center for Distributed Energy); Satish Belkhode (IIT ROORKEE); Joseph Benzaquen (Georgia Institute of Technology Center for Distributed Energy); Deepak Divan (Georgia Institute of Technology Center for Distributed Energy)
0900 to 0915	366	Delay Optimizing Based Passivity Enhancement of Converter-Side Current Controlled LCL-Type Grid Converters	Zhengyuan Zhou (Xi'an Jiaotong University); Zeng Liu (Xi'an Jiaotong University)*; Xujie Wang (Xi'an Jiaotong University); Jinjun Liu (Xi'an Jiaotong University)
0915 to 0930	548	Black Start Strategy for Modern Power Systems Using Inverter-Based Resources	DEV MANHAR (IIT Delhi)*; Avanish Tripath (IIT Delhi); Rabindra Mohanty (IIT Delhi)
0930 to 0945	592	Control of Integrated Magnetic-Based Active Harmonic Filter for Three-Phase Standalone Application	NARESH MEENA (INDIAN INSTITUTE OF SCIENCE)*; L Umanand (INDIAN INSTITUTE OF SCIENCE); Gopakumar K (INDIAN INSTITUTE OF SCIENCE)

Session Number	**:**	**S-3.4**	**Session Name**	**:**	**Magnetics Design - 2**
Session Chair	**:**	**Ashiq Muhammed**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Studio 4**
Session Link (if any)	**:**	**Zoom Link – Studio 4**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	374	Performance Improvement of Multi-Output Auxiliary Power Supply with Planar Magnetics Design	Akash Harsh (Jaguar and Land Rover)*; Ishan Garg (Jaguar and Land Rover); Dharmendhra Krishnan (Jaguar and Land Rover); Arnab Sarkar (Jaguar and Land Rover); Sangeet Yadav (Jaguar and Land Rover); alokh sathu (Jaguar and Land Rover); shubham giri (Jaguar and Land Rover); karthik bandi (Jaguar and Land Rover)
0815 to 0830	531	Design of Transformer Turn-ratio for Maximizing the ZVS Region of Dual Active Bridge Converter	yongbin kim (Hanyang University ERICA Campus)*; Hyunggun Jung (Hanyang University ERICA Campus); Sungmin Kim (Hanyang University ERICA Campus)
0830 to 0845	84	Optimal Design of Planar Transformers for DAB Converters Based on Model-Free Reinforcement Learning	Minseung Kim (Hanyang University)*; Eun S. Lee (Hanyang University)
0845 to 0900	434	MEC-based Design Methodology for an Integrated Magnetics Structure	Neha Rajput (Indian Institute of Science, Bangalore)*; Gautham Ram Chandra Mouli (Delft University of Technology, Delft); Vishnu Mahadeva Iyer (Indian Institute of Science, Bangalore)
0900 to 0915	459	X-type Planar Winding Arrangement Having Low Intrawinding Capacitance	SHASHANK MISHRA (IIT Roorkee); Anubrata Dey (INDIAN INSTITUTE OF TECHNOLOGY (IIT), ROORKEE)*
0915 to 0930	89	Optimal Transformer Turn Design of LLC Resonant Converters for High Efficient Operation	Hojun Lee (Hanyang University)*; Seul Lee (Hanyang University); Eun S. Lee (Hanyang University)

Session Number	**:**	**S-3.5**	**Session Name:**	**Modelling and Simulation - 2**	
Session Chair	**:**	**Abhijit Kshirsagar**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**0800 to 0945**	**Session Room**	**:**	**Studio 5**
Session Link (if any)	**:**	**Zoom Link – Studio 5**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	271	Modeling and Control of Buck Active Power Decoupling Circuit in Power Factor Correction Circuits	Cilaveni Satish Chandra (IIT Guwahati)*; Vaishnavvignesh G Iyer (IIT Guwahati); Ravindranath Adda (IIT Guwahati)
0815 to 0830	285	Experimental Small-signal Characterization of Frequency Modulated Converters	Arnab Dey (IISc, Bangalore)*; Utsab Kundu (Indian Institute of Technology Kanpur); Vinod John (Indian Institute of Science, Bangalore)
0830 to 0845	353	Electrodynamic Suspension Design and Force Measurement of Rotating Conducting Disk facing Electromagnet	Janardan Kundu (IISc Bengaluru)*; Sameer Nandmehar (IIT BHU); Dr. Rakesh Kumar Srivastava (IIT BHU)
0845 to 0900	97	Hardware-In-Loop: The Next Generation of Sustainable Testing Technologies to Enhance UPS Resilience and Reliability	Sivamani Sudhakar Kukunuri (Schneider Electric)*; Shiva Prasad Ellendula (Schneider Electric); Tanya . (Schneider Electric); Deepika P (Schneider Electric); Aranganathan Narasimhan (Schneider Electric)
0900 to 0915	453	Multi-objective energy management of virtual power plant with electric vehicle parking lots, and carbon capture and storage facility	Gargi Biswas (Indian Institute of Technology Kharagpur)*; Nibir Baran Roy (Indian Institute of Technology Kharagpur); Debapriya Das (Indian Institute of Technology Kharagpur)
0915 to 0930	480	Development of hybrid experimental environment using PHIL for multi-unit power converter networks	Kazuki Maruo (Chiba University)*; Kenji Natori (Chiba University); Jin Xu (Myway Plus Corporation); Noboru Shimosato (Myway Plus Corporation); Yukihiko Sato (Chiba University)
0930 to 0945	267	Black-box Dynamic Model Identification for a Quadruple-Active-Bridge Converter	Behnam Daftary Besheli (Kiel University)*; Arkadeb Sengupta (KIel University); Marco Liserre (Kiel University)

Session Number	**:**	**S-3.6**	**Session Name**	**:**	**Multi-Level Inverter - 2**
Session Chair	**:**	**To be Announced**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**0815 to 0930**	**Session Room**	**:**	**Studio 6**
Session Link (if any)	**:**	**Zoom Link – Studio 6**			

Time	Paper ID	Paper Title	Authors
0815 to 0830	417	A Quadruple-Boost Nine-Level Inverter With Common Source and Load Ground	Ajit Kumar Upadhiya (India Institute of Technology Madras (IIT Madras))*; N. Lakshminarasamma (India Institute of Technology Madras (IIT Madras)); Mahesh Kumar Mishra (India Institute of Technology Madras (IIT Madras))
0830 to 0845	397	Rolling-Capacitors Topology: A Simplified Phase-modular Solution to Obtain Stepped-up Three-Phase Five-level AC from a Single DC Source	Krishna Gupta (Thapar University)*; Pallavee Bhatnagar (National Institute of Technical Teachers' Training and Research, Bhopal); Yadvendra Singh (Thapar Institute of Engineering and Technology Patiala); Pranathi Mehra (Thapar Institute of Engineering and Technology Patiala)
0845 to 0900	510	A Reduced Switch Series Topology 15-level and 27-level Multilevel Inverter	GANESHKUMAR S (COLLEGE OF ENGINEERING GUINDY)*; Vijayaraja L (Sri Sairam Institute of Technology, Chennai, India3,4); Dhanasekar R (Sri Sairam Institute of Technology, Chennai, India3,4); Vetrivel S (Anna University)
0900 to 0915	557	Dual Point Grounded Five-Level T-type Inverter for Photovoltaic Applications	Soniya Agrawal (BMS College of Engineering, Bangalore)*; Sateesh Kumar Kuncham (National Institute of technology Tiruchirappalli); Prema V (BMS College of Engineering, Bangalore); Geetha R S (BMS College of Engineering, Bangalore)
0915 to 0930	241	Three-level Boost integrated Five-level Active Neutral Point Clamped Inverter for improved DC-link utilisation	Vaishnavvignesh G Iyer (IIT Guwahati)*; Cilaveni Satish Chandra (IIT Guwahati); Ravindranath Adda (IIT Guwahati)

Session Number	**:**	**S-3.7**	**Session Name :**	**Power Converter Analysis - 3**	
Session Chair	**:**	**Chandan Kumar**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Studio 7**
Session Link (if any)	**:**	**Zoom Link – Studio 7**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	357	Analysis of Inherent Damping Mechanism and Its Contribution to Stability in DCM Grid-Tied Inverters with LCL Filters	Cheng Huang (University of Tsukuba)*; Tomoyuki Mannen (University of Tsukuba); Takanori Isobe (University of Tsukuba)
0815 to 0830	362	Active Snubber for Voltage Overshoot Reduction	Anirban Dey (Indian Institute of Technology, Kanpur)*; Parthasarathi Sensarma (Indian Institute of Technology, Kanpur)
0830 to 0845	424	Analytical Loss Estimation of Triple Active Bridge Converter	BOYA VINOD (INDIAN INSTITUTE OF SCIENCE(IISc))*; VISHNU MAHADEVA IYER (INDIAN INSTITUTE OF SCIENCE(IISc))
0845 to 0900	484	A Generalised Harmonic Model of an Integrated Three Dual Active Bridge Converter with Different Transformer Configuration	Jenson Joseph Attukadavil (IIT Bombay)*; Baylon G Fernandes (IIT Bombay)
0900 to 0915	529	Efficiency Analysis of Four-Switch Buck-Boost Converter in Two- mode Modulation and Quadrangle Modulation	Lee HyunSeok (Hanyang University)*; Jung Hyunggun (Hanyang University); Sungmin Kim (Hanyang University)
0915 to 0930	546	A High-Gain Non-Isolated Single-Switch DC-DC Boost Converter: Design and Analysis	Anmol Saxena (National Institute of Technology Delhi)*; Jyoti . (National Institute of Technology Delhi)

Session Number	**:**	**S-3.8**	**Session Name:**	**Power Converter Analysis - 4**	
Session Chair	**:**	**To Be Announced**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Converge 1**
Session Link (if any)	**:**	**Zoom Link – Converge 1**			

Time	Paper ID	Paper Title	Authors
0815 to 0830	349	A methodology for Analysing and Diagnosing Renewable Grid Tie Inverter designs	Niranjan Hegde (Tektronix)*; Srikrishna N.H. (Tektronix India Pvt. Ltd.); Shubha B (Tektronix India Pvt. Ltd.)
0830 to 0845	507	A Comprehensive Approach of LCL Filter Design for High Switching Frequency Inverters Tied to Weak Grid	Biswajit Acharya (Indian Institute of Science)*; Samir Hazra (Indian Institute of Science)
0845 to 0900	430	Design and Analysis of a PSFB Current Doubler for VRFB: Impact of Magnetic Components and Snubber Circuit Requirements	Vishnu K (IIT Delhi)*; Sumit Pramanick (IIT Delhi); Phani Teja Bankupalli (SRM Chennai); Anil Verma (IIT Delhi)
0900 to 0915	564	Analyzing Loss Mechanisms in PSFB Current Doublers for Telecom Tower Applications: Impact of Frequency and Power Levels	Vishnu K (IIT Delhi)*; Sumit Pramanick (IIT Delhi); Phani Teja Bankupalli (SRM Chennai); Anil Verma (IIT Delhi)
0915 to 0930	537	Switching Loss of Power MOSFET in Switched-Capacitor Converters	Shuyu Zhu (University of Electronic Science and Technology of China); Yingyi Yan (UESTC)*; Qingguo Ma (University of Electronic Science and Technology of China); Zhihao Wang (University of Electronic Science and Technology of China); Gaoqiang Deng (University of Electronic Science and Technology of China); Bo Zhang (University of Electronic Science and Technology of China)

Session Number	**:**	**S-3.9**	**Session Name:**	**Power Converter Control - 3**	
Session Chair	**:**	**Samir Hazra**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Converge 2**
Session Link (if any)	**:**	**Zoom Link – Converge 2**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	181	Robust Control Strategy for Mitigating Harmonic Distortion in Solar PV and BES Microgrid	DIVYANK SRIVASTAVA (Institute of Engineering and Technology)*; Vivek Narayanan (National University of Singapore); Subhadip Chakraborty (Indian Institute of Technology Delhi); Bhim Singh (Indian Institute of Technology Delhi); Arunima Verma (Institute of Engineering and Technology)
0815 to 0830	231	Coordinated Control Architecture of Dual Converters in Grid-forming DFIG Wind Turbine: Modeling, Analysis and Comparison	Boyang Shen (Xi‘an Jiaotong University)*; Ronghui An (Xi'an Jiaotong University); Zhiheng Huang (Xi'an Jiaotong University); Ziwen Zhao (Xi'an Jiaotong University); Jinjun Liu (Xi'an Jiaotong University)
0830 to 0845	308	Re-examining MPPT Control Dynamics in Solar PV Converters using Classical-control & State-space Perspectives	Ronak Matai (IIT Bombay)*; D Venkatramanan (IIT Bombay)
0845 to 0900	370	Enhance Renewable Integration via Hybridization: PV Hydro Hybrid System Control Strategy and Field Practices	Pengyuan Wang (GE Vernova)*
0900 to 0915	405	An Improved Control Strategy to Enhance the Stability of Type-4 Wind Farms Under Weak Grid Conditions	Vidyasagar Karanam (5129168900519679)*; Arghadeep Chowdhury (5129168900519679); Kalyan Ram T (5129168900519679); Aryesh V Namboodiri (5129168900519679); Balakrishna Singam (5129168900519679)
0915 to 0930	456	Comparison of Classical Controllers in DTC of PMSG Based Wind Energy Conversion Systems	SAPAM RHISON SINGH (EE, NIT SILCHAR)*

Session Number	**:**	**S-3.10**	**Session Name:**	**Power Converter Control - 4**	
Session Chair	**:**	**Soumya Shubhra Nag**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Converge 3**
Session Link (if any)	**:**	**Zoom Link – Converge 3**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	394	Generic serial communication implementation in Texas Instruments' MCU to support AI based applications	Shamik Basak (Texas Instruments)*; Adithya Thonse (Texas Instruments)
0815 to 0830	180	Comparative Performance Analysis of Classic and Modulated FCS-MPC for Grid-Tied Inverters	Marco Rivera (University of Nottingham)*; Jakson Bonaldo (Universidade Federal de Mato Grosso); Patrick Wheeler (Nottingham University); Jaime Rohten (Universidad del Bío Bío); Jose Espinoza (please add your institution)
0830 to 0845	193	Study on Novel In-wheel Actual Using MagnetoRheological Elastomer	Rakibul Islam (Yokohama National University)*; Kan Akatsu (Yokohama National University)
0845 to 0900	272	Design, Selection and Implementation of Conditioning Circuits for Digital Control Applications	Cilaveni Satish Chandra (IIT Guwahati)*; Vaishnavvignesh G Iyer (IIT Guwahati); Ravindranath Adda (IIT Guwahati)
0900 to 0915	388	A Study on improvement of single phase PLL algorithm stability and accuracy	IN KWON PARK (RTDS Technologies)*; Yi Zhang (RTDS Technologies)
0915 to 0930	553	Impact of optimally integrated green energy resources on microgrid loss allocation using novel distribution power flow algorithm	Annu Ahlawat Bhatia (Indian Institute of Technology Kharagpur)*; Nibir Baran Roy (Indian Institute of Technology Kharagpur); Debapriya Das (Indian Institute of Technology Kharagpur)
0930 to 0945	182	Comparative Analysis of PI and Fuzzy Logic Control in High-Efficiency Triple-Output DC-DC Converters	Mofeeda Pangadil (Mindanao State University–Iligan Institute of Technology); Marco Rivera (University of Nottingham)*; Patrick Wheeler (Nottingham University); Noel Estoperez (Mindanao State University–Iligan Institute of Technology); Jakson Bonaldo (Universidade Federal de Mato Grosso)

Session Number	**:**	**S-3.11**	**Session Name :**	**Solid-state Transformers**	
Session Chair	**:**	**Utsab Kundu**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**0800 to 0930**	**Session Room**	**:**	**Innovate 1**
Session Link (if any)	**:**	**Zoom Link – Innovate 1**			

Time	Paper ID	Paper Title	Authors
0800 to 0815	103	Sensorless Implementation of Pulse Density Modulation in Direct AC/AC SST	Archit Joshi (Indian Institute of Technology Guwahati)*; Dr. Shabari Nath (Indian Institute of Technology Guwahati)
0815 to 0830	355	Control Architecture for Two-stage Solid-state Transformer with Effective Power Sharing	Surjakanta Mazumder (Indian Institute of Science, Bengaluru)*; Harisyam PV (Indian Institute of Science, Bengaluru); Kaushik Basu (Indian Institute of Science, Bengaluru)
0830 to 0845	525	Measurement of Leakage Inductance in Multi-Port Medium Frequency Transformers Using Power Experiments of Multi-Active Bridge Converter	Jung Hyunggun (Hanyang University)*; Park Inje (Hanyang University); Kim Sungmin (Hanyang University)
0845 to 0900	495	Experimental Characterization of High-frequency Transformers for Isolated DC-DC Converters	Shadab Ansari (Indian Institute of Technology Bombay)*; Venkatramanan D (Indian Institute of Technology Bombay)
0900 to 0915	327	3.3 kW On-Board Charger (OBC) Thermal Management and Packaging	Chandrasekar V (CDAC Thiruvananthapuram); Udaya Sagar V (CDAC Thiruvananthapuram); VISHNU C V (CDAC Thiruvananthapuram)*
0915 to 0930	429	Conceptualization and Validation of a Novel Power Electronics Transformer without High-frequency AC Link	Krishna Gupta (Thapar University)*; Pranathi Mehra (Thapar Institute of Engineering and Technology Patiala); Yadvendra Singh (Thapar Institute of Engineering and Technology Patiala); Shakti Singh (Thapar Institute of Engineering and Technology Patiala); Pallavee Bhatnagar (National Institute of Technical Teachers' Training and Research Bhopal)

Session Number	**:**	**S-3.12**	**Session Name: Reliability of Power Converters - 1**		
Session Chair	**:**	**Ramsha Karampuri**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**0800 to 0945**	**Session Room**	**:**	**Innovate 2**

Time	Paper ID	Paper Title	Authors
0800 to 0815	513	Testing of a Concept for In-situ Detection of Humidity-Driven Degradation of IGBT Modules under Accelerated Ageing	Benedikt Kostka (Leibniz Universität Hannover)*; Axel Mertens (Leibniz Universität Hannover)
0815 to 0830	135	Fault Detection and Isolation of a Speed Sensorless Quadruplex BLDC Motor for Aerospace Applications	Jithin S (Indian Institute of Space Science and Technology)*; Sudharshan Kaarthik (IIST)
0830 to 0845	251	Manufacturing and Reliability of Flip Chip SiC Power Module for Common-Mode Noise Reduction	Thiyu Warnakulasooriya (Nagoya University)*; Sihoon Choi (Nagoya University); Yu Yonezawa (Nagoya University); Jun Imaoka (Nagoya University); MASAYOSHI YAMAMOTO (Nagoya University)
0845 to 0900	256	Common-Mode Voltage Reduction of Three-Level ANPC Inverters for High-Speed Drives	Bastian Wibisana Tarigan Silangit (Yeungnam University); Dong-Choon Lee (Yeungnam University)*
0900 to 0915	261	Multi-Switch Fault Analysis of Six-Phase Inverters Using CNN and Data Augmentation with Limited Training Dataset Utilization	Dong-Choon Lee (Yeungnam University)*, Bijen Mali (Yeungnam University)
0915 to 0930	340	Input Series Output Parallel Connection based Fault Tolerant LV Power Supply in Automotive Applications	Arnab Sarkar (Jaguar Land Rover)*; Alokh Reddy Sathu (Jaguar Land Rover); Sangeet Yadav (Jaguar Land Rover); Shubham Giri (Jaguar Land Rover); Karthik Bandi (Jaguar Land Rover); Akash Harsh (Jaguar Land Rover)
0930 to 0945	439	Hybrid Thermal Management System for High-Power Electronics: Integrating Phase Change Materials with Liquid Cooling for Enhanced Heat Dissipation	Nakkeeran R (SRM institute of science and technology)*; Nirmal Kumar (SRM institute of science and technology); C. Bharatiraja (SRM institute of science and technology)

Session Number	**:**	**S-4.1**	**Session Name:**	**Machine Learning and AI - 2**	
Session Chair	**:**	**Lakshmi Narasamma**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**1630 to 1815**	**Session Room**	**:**	**Studio 1**
Session Link (if any)	**:**	**Zoom Link – Studio 1**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	191	Recurrent Neural Network Modelling of DC-DC Converter Systems for High Power EV Charging Applications	Seshadri Sivakumar (Pasumai Energytech)*; Shyamala Sivakumar (Saint Mary's University)
1645 to 1700	21	Solar PV Integration enhancement into weak AC Grid by using Adaptive Neural Network controlled DSTATCOM	Kanchan Jha (Indian Institute of technology, Jodhpur)*; Prof. Abdul Gafoor (IIT Jodhpur)
1700 to 1715	184	Hybrid AI Model for Enhanced Battery RUL Prediction in Electrolytic Capacitor-Less Solar-Battery Integrated Power Processor	Aman Kumar (Indian Institute of Technology (BHU) Varanasi)*; Anantha Padmanabhan Nk (Indian Institute of Technology (BHU) Varanasi); S K Singh (IIT BHU); Rajeev Kumar Singh (IIT(BHU) Varanasi); Dr. V. N Lal (Dept of Electrical Engineering, IIT (BHU) Varanasi)
1715 to 1730	469	Integrating Advanced Feature Extraction with Deep Learning Models for Accurate Forecasting of Peak Load Demand and Solar Power Generation	Rachit Jain (Indian Institute of Technology Gandhinagar)*; SAMBHAV PRABHU DESSAI (Indian Institute of Technology Gandhinagar); Pallavi Bharadwaj (Indian Institute of Technology Gandhinagar)
1730 to 1745	149	Introducing Time-lag and Bi-LSTM Neural Network for In-Operando Surface Temperature Estimation in Lithium-ion Batteries	Akash Samanta (Ontario Tech University)*; Sheldon Williamson (Ontario Tech University)

Session Number	**:**	**S-4.2**	**Session Name:**	**Wireless Power Transfer - 2**	
Session Chair	**:**	**Moumita Das**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**1630 to 1745**	**Session Room**	**:**	**Studio 2**
Session Link (if any)	**:**	**Zoom Link – Studio 2**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	330	Optimized LCC-Series Resonant DC-DC Converter for Efficient Inductive Charging of EV's with 400V and 800V Battery Systems	Dr Dharavath Kishan (NIT K)*
1645 to 1700	384	Photovoltaic Powered Autonomous Wireless Power Transfer charging for Marine Electric Vehicle	Nakkeeran R (SRM institute of science and technology)*; Bharatiraja Chokkalingam (SRM institute of science and technology)
1700 to 1715	482	A Novel Field-Optimization of DDQ Transmitter for Highly Uniform Rotating Magnetic Field-based Wireless UAV Charging	Rajanikant . (IIT Bombay)*; Vivek Kumar Srivastava (IIT BOMBAY); Vivek Agarwal (IIT Bombay)
1715 to 1730	227	Current balancer integrated impedance matching circuit for Mega-hertz High-power WPT system	Masamichi YAMAGUCHI (Nagaoka University of Technology)*; Hiroki Watanabe (Nagaoka University of Technology); Jun-ichi Itoh (Nagaoka University of Tec.)
1730 to 1745	385	Development of a Wireless Charging System Using A Reconfigurable Dynamic Inductive Power Transfer Technology with Constant Voltage and Constant Current Charging	Nakkeeran R (SRM institute of science and technology)*; Bharatiraja Chokkalingam (SRM institute of science and technology)

Session Number	**:**	**S-4.3**	**Session Name:**	**Control of Electric Drives - 2**	
Session Chair	**:**	**Sudharshan Kaarthik**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Studio 3**
Session Link (if any)	**:**	**Zoom Link – Studio 3**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	307	PCB Winding-based High-frequency Three-winding Rotary Transformer Enabling Brushless Bipolar Field Control from Stator of EESM/HESM	Mitul Wankhede (IIT Bombay)*; Shovan Dey (Indian Institute of Technology Bombay); Annoy Das (Indian Institute of Technology, Bombay, India); Baylon Fernandes (Indian Institute of Technology Bombay)
1645 to 1700	323	Stable I/F Control for Dual Parallel Interior Permanent Magnet Synchronous Motor Drives fed by a Single Inverter	Sang-Jun Lee (Ajou University); Kyo-Beum Lee (Ajou University)*
1700 to 1715	326	A Novel Current Vector Control of Series-end Winding Converters in Switched Reluctance Motor Drives	Jiaming Lian (Tokyo University of Science)*; Keitaro Kawarazaki (Tokyo University of Sceince); Nobukazu Hoshi (Tokyo University of Science)
1715 to 1730	356	Machine Learning-based Trajectory Planning for Single-loop Flatness-based Control of PMSMs	Milad Akrami (Université de Strasbourg); Arta Mohammad Alikhani (McMaster University); EHSAN JAMSHIDPOUR (Université de Lorraine)*; Vincent Frick (Université de Strasbourg); Babak Nahid-Mobarakeh (McMaster University); Serge Pierfederici (Université de Lorraine)
1730 to 1745	487	Bidirectional I-F Speed Control and Alignment Strategy for Permanent Magnet Synchronous Motors	Yerim Shim (Hanyang University, ERICA Campus)*; Sungmin Kim (Hanyang University, ERICA Campus)
1745 to 1800	505	Anomaly Detection in Industrial Machinery Using Machine Learning and Deep Learning Techniques with Vibration Data for Predictive Maintenance	Md Ismail Hossain (American International University-Bangladesh)*; Hasanur zaman Anonto (American International University-Bangladesh); Nasimur Rezwan (National University); Sudipto Roy (Lamar University); Abu Shufian (American International University-Bangladesh)

Session Number	**:**	**S-4.4**	**Session Name: Induction Machine Design and Control - 2**		
Session Chair	**:**	**To Be Announced**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Studio 4**
Session Link (if any)	**:**	**Zoom Link – Studio 4**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	172	Finite Element Analysis of a split phase induction machine with open circuit fault and its mitigation	shinoy k s (VSSC)*; ANISH GOPINATH (VIKRAM SARABHAI SPACE CENTRE); Sudharshan Kaarthik (IIST)
1645 to 1700	253	Inverter Based Measurements of Common Mode Power to monitor Arching in Bearings of Wound Rotor Machine	Kapil Jha (GE Vernova)*; Ritam Chakraborty (GE-Vernova (ARC)); Arvind Tiwari (GE Vernova)
1700 to 1715	347	Effect of Winding Design on the Energy Efficiency of Pole-Changing Induction Motors	SHUBHAM DABRAL (IITD)*; Saptarshi Basak (IIT Delhi)
1715 to 1730	354	Design and Feasibility Study of Transverse-flux Double-sided Linear Induction Motor	Janardan Kundu (IISc Bengaluru)*; Prabhakar Kumar; Sonu Kumar (IIT BHU); Dr. Rakesh Kumar Srivastava (IIT BHU)
1730 to 1745	420	Performance Evaluation of IM Drive Operated with Synchronous Sine-Triangle PWM with Odd Non-Triplen Pulse Number	SHAYAK CHAUDHURI (Indian Institute of Technology, Delhi)*; Avanish Tripathi (Indian Institute of Technology, Delhi); Amit Jain (Indian Institute of Technology, Delhi)
1745 to 1800	437	Design, Analysis and Fabrication of a Long-primary Short-secondary TF-DSLIM	Prabhakar Kumar; Janardan Kundu (IISc Bengaluru); Pravin Kumar (IIT Kanpur);Vinod Kumar Yadav (IIT Kanpur);Rakesh Kumar Srivastava (IIT BHU)

Session Number : S-4.5 **Session Name : DC-DC Converter Topology - 2**

Session Chair : To be Announced **Session Date : 13th May 2025**

Session Time : 1630 to 1800 **Session Room : Studio 5**

Session Link (if any) : Zoom Link – Studio 5

Time	Paper ID	Paper Title	Authors
1630 to 1645	216	Non-isolated Interleaved High Step-down DC-DC Converter with Reduced Switched Capacitor Stages for Data Center Applications	Taira Shirahase (Okayama university)*; Kazuhiro Umetani (Okayama University); Masataka Ishihara (Okayama University); Eiji Hiraki (Okayama University)
1645 to 1700	16	A Bi-directional Three-phase Y-Y CLLC Resonant Circuit with Adjustable Bridge Arms applied to a Wide Output Range	Yi-Feng Lin (National Ilan University); Chung-Tsai Liu (National Ilan University)*; Yue-De Wang (National Ilan University)
1700 to 1715	242	Dual Active Bridge-Based Isolated Single-phase Single-Stage DC-link AC/AC Converter with Minimum Charge Storage Requirement	Soumya Ghorai (Indian Institute of Technology Kharagpur)*; Souvik Chatopadhyay (IIT Kharagpur)
1715 to 1730	332	A novel 36 kV, 24 A DC power supply with 24-pulsed input and ripple free output capability	M. K. Badapanda (Raja Ramanna Centre for Advanced Technology, Indore); Akhilesh Tripathi (Raja Ramanna Centre for Advanced Technology, Indore)*; Rinki Upadhyay (Raja Ramanna Centre for Advanced Technology, Indore); Rajeev Kumar Tyagi (Raja Ramanna Centre for Advanced Technology, Indore); Sachin Rathi (Raja Ramanna Centre for Advanced Technology, Indore); Rajendra Kumar Deo (Raja Ramanna Centre for Advanced Technology, Indore); T. Reghu (Raja Ramanna Centre for Advanced Technology, Indore); Mahendra Lad (Raja Ramanna Centre for Advanced Technology, Indore)
1730 to 1745	363	Series Resonant Converter based Pulsed Power Supply for Radars	Venkatesh Prabhu (LRDE)*; Vinod John (Indian Institute of Science)
1745 to 1800	441	A Novel Charge Pump Cell Based Modified Quadratic Boost Converter	BHARATH GULAGATTU (NATIONAL INSTITUTE OF TECHNOLOGY,WARANGAL); VARIPALLI KRUPAKAR (NATIONAL INSTITUTE OF TECHNOLOGY,WARANGAL)*; Bidyadhar Subudhi (NATIONAL INSTITUTE OF TECHNOLOGY,WARANGAL); B.L NARASIMHARAJU (NATIONAL INSTITUTE OF TECHNOLOGY,WARANGAL); P. RAVITEJA (NATIONAL INSTITUTE OF TECHNOLOGY,WARANGAL)

Session Number	**:**	**S-4.6**	**Session Name**	**:**	**EV Charging**
Session Chair	**:**	**Abhijit Kshirsagar**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Studio 6**
Session Link (if any)	**:**	**Zoom Link – Studio 6**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	100	A Single-Stage Matrix Converter-based SRC-CV Controller for EV Charging Systems with an Integral Anti-Windup PI Controller	Akash Kumar Swain (Indian Institute of Technology Bombay)*; Vivek Agarwal ("Indian Institute of Technology,Bombay")
1645 to 1700	109	Multiport Fast-charging Station Architecture based on Hexverter with High-frequency Isolation	Rydham Agarwal (Indian Institute of Technology Kharagpur)*; Tanmoy Bhattacharya (IIT Kharagpur)
1700 to 1715	335	A Novel Overvoltage Withstand Circuit with Plug-and-Play Feature for EV Chargers	Rajyavardhan Kumar (Varroc Engineering Pvt Ltd); Bhavya Dholu (Varroc Engineering Pvt Ltd); santosh tambe (varroc Engineering Limited)*; Nachiketa Deshmukh (Varroc Engineering Pvt Ltd); Mayank Deo (Varroc Engineering Pvt Ltd); Pramod Chaudhary (Varroc Engineering Pvt Ltd)
1715 to 1730	372	Multifunctional Onboard Charger for Electric Vehicles with Single and Three phase Grid Compatibility	Nagamalleswararao Kamarajugadda (Indian Institute of Technology Bombay)*; Baylon G Fernandes (Indian Institute of Technology Bombay); Kishore Chatterjee (Indian Institute of Technology Bombay)
1730 to 1745	534	Optimal Planning of Battery Swapping Stations for e-Taxis in a Coupled Transportation-Distribution Network	KUTIKUPPALA NARESHKUMAR (IIT Kharagpur)*; Nayanita Sikder (IIT Kharagpur); Debapriya Das (IIT Kharagpur)
1745 to 1800	569	Three Phase Matrix Based High Power AC-DC Fast Charger for Low Voltage Electric Vehicles	Subhranil Barman (IIT Bombay)*; Tharun Mahesh (IIT Bombay); Shiladri Chakraborty (IIT Bombay)

Session Number	**:**	**S-4.7**	**Session Name :**	**PMSM Design and Analysis**	
Session Chair	**:**	**To Be Announced**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Studio 7**
Session Link (if any)	**:**	**Zoom Link – Studio 7**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	96	Multiple Saliency as a Source of Information for Anisotropy-based Self-Sensing Control of PMSM	Viktor Willich (Leibniz University Hannover)*; Niklas Himker (Leibniz University Hannover); Axel Mertens (Leibniz University Hannover)
1645 to 1700	126	Influence of Winding Configuration on the Electromagnetic Performance of Interior Permanent Magnet Synchronous Machine	OM SINGH (Indian Institute of Technology, Guwahati)*; PRAVEEN KUMAR (Oak Ridge National Laboratory)
1700 to 1715	254	Improvement of PMSM loss estimation accuracy focusing on over 50,000rpm	Atsuya Sano (Yokohama National University)*; Kan Akatsu (Yokohama National University)
1715 to 1730	291	Method to Estimate IPMSM Parameters	Bhim Singh (Indian Institute of Technology Delhi); CHESHTA JAIN (Indian Institute of Technology, Delhi); Utsav Sharma (IIT Delhi)*; Natsuki Miyasita (HIOKI India Pvt. Ltd.)
1730 to 1745	386	Comparative Analysis of Loss Minimizing and Torque Maximizing Control Techniques for IPMSM Drives	Nikhil Pragada (Indian Institute of Technology Madras)*; Srikanthan Sridharan (Indian Institute of Technology Madras)
1745 to 1800	438	Back EMF based Full Speed Range sensorless control of IPMSM assisted by High Frequency Signal Injection	Deepak Verma (IIT Kharagpur)*; Tanmoy Bhattacharya (IIT Kharagpur); Dipankar Debnath (IIT Kharagpur)

Session Number : **S-4.8** **Session Name: Power Semiconductor Devices - 2**

Session Chair : **D Venkatramanan** **Session Date** : **13th May 2025**

Session Time : **1630 to 1800** **Session Room** : **Converge 1**

Session Link (if any) : **Zoom Link – Converge 1**

Time	P: ID	Paper Title	Authors
1630 to 1645	600	High-Voltage-Design and Ultrafast-Switching Issues of an UWBG Vertical Ga2O3 MOSFET	Sudip Mazumder (University of Illinois Chicago)*; Uttam Singisetti (University of Buffalo); Hongping Zhao (Ohio State University); Xiu Yao (University of Buffalo)
1645 to 1700	520	Active Gate Driver for SiC MOSFET Based on Voltage Sensing	Manish Jaiswal (Indian Institute of Science Bangalore)*; Samir Hazra (Indian Institute of Science Bengaluru)
1700 to 1715	566	Dynamic Voltage Equalization approach for Series-Connected SiC MOSFETs Body Diodes	Ganesan P (CDAC-Trivandrum)*; Saravanan Dhanasekaran (Indian Institute of Technology Madras); Ajay Rai (Indian Institute of Technology Madras); Vamshi Krishna Miryala (Indian Institute of Technology Madras); Kamalesh Hatua (Indian Institute of Technology Madras); Subhashish Bhattacharya (North Carolina State University)
1715 to 1730	503	Amplified OFF State Voltage Stress across SiC MOSFETs of 4-Quadrant Switch	NISHANT ANURAG (IIT Guwahati)*; Shabari Nath (IIT Guwahati)
1730 to 1745	207	Design of A Compact Gate Driver Power Supply for Medium Voltage SiC MOSFET with Low Coupling Capacitance	Xuhui Song (Xi'an Jiaotong University)*; Xiaolu Zhang (Xi'an Jiaotong University); Jianfu Chen (Zhuhai Power Supply Bureau of Guangdong Power Grid Co., Ltd.); Xingyu Pei (Zhuhai Power Supply Bureau of Guangdong Power Grid Co., Ltd.); Hongyuan Wu (Zhuhai Power Supply Bureau of Guangdong Power Grid Co., Ltd.); Yukun Niu (Xi'an Jiaotong University); Yuze Zheng (Xi'an Jiaotong University); Fan Zhang (Xi'an Jiaotong University)
1745 to 1800	250	A Temperature-Dependent Behavior Model of High-Voltage SiC MOSFETs Considering Third-Quadrant Characteristics	Xiaolu Zhang (Xi'an Jiaotong University)*; Xuhui Song (Xi'an Jiaotong University); Xu Cheng (Zhuhai Power Supply Bureau of Guangdong Power Grid Co., Ltd.); Yong Chen (Zhuhai Power Supply Bureau of Guangdong Power Grid Co., Ltd.); Ruixiong Yang (Zhuhai Power Supply Bureau of Guangdong Power Grid Co., Ltd.); Yuze Zheng (Xi'an Jiaotong University); Yukun Niu (Xi'an Jiaotong University); Fan Zhang (Xi'an Jiaotong University)

Session Number	**:**	**S-4.9**	**Session Name:**	**Model Predictive Control**	
Session Chair	**:**	**Marco Rivera and Jose Rodriguez**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**1630 to 1815**	**Session Room**	**:**	**Converge 2**
Session Link (if any)	**:**	**Zoom Link – Converge 2**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	185	Dual-Objective Model Predictive Control for Three-Phase PWM Rectifier with Series-Stacked Buffer Under Unbalanced Grid	Xinran Meng (Zhengzhou University)*; Lianghui Dong (Zhengzhou University); Jinmu Lai (Zhengzhou University)
1645 to 1700	220	Finite Control Set Model Predictive Control of Grid-Connected Inverters with Extended Prediction Horizon	Euntaek Nam (Pohang University of Science and Technology)*; Suyong Chae (Pohang University of Science and Technology)
1700 to 1715	473	Model Predictive Control of Interleave DC-DC Boost Converter	Srishti Srishti (PDPM IIITDM Jabalpur)*; Prabin Kumar Padhy (PDPM IIITDM Jabalpur); Marco Rivera (university of nottigham); Dip Prakash Samajdar (PDPM IIITDM Jabalpur)
1715 to 1730	522	Model Predictive Control based Adaptive Phase Shift Modulation for Neutral Point Clamped Dual Active Bridge Converter System	Somnath Meikap (IIT Guwahati)*; Chandan Kumar (IIT Guwahati); Jose Rodriguez (Universidad San Sebastian)
1730 to 1745	528	Design and Development of Model Predictive Control for Enhanced performance of SIMO DC-DC converter	Muzammil Ahmed (IIT Bhubaneswar)*; Dr. Olive Ray (IIT Bhubaneswar)
1745 to 1800	26	Model Predictive Control Strategy for Optimal Operation of Dual Active Bridge Converter Based Battery Energy Storage System	Moningi Srivalli (IIT Kharagpur)*; Deepak Pullguram (IIT Kharagpur); Siddhartha Mukhopadhyay (IIT kharagpur)
1800 to 1815	98	Integrated State of Charge and Thermal Active Balancing in Lithium-Ion Batteries: A Finite Set Model Predictive Control Approach	Hoda Sorouri (Aalborg university)*; Arman Oshnoei (Aalborg university); Ashkan Safari (University of Windsor); Remus Teodorescu (Aalborg university)

Session Number	**:**	**S-4.10**	**Session Name : Power Converter Modulation**		
Session Chair	**:**	**Utsab Kundu**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Converge 3**
Session Link (if any)	**:**	**Zoom Link – Converge 3**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	346	Application of Optimization Methods to obtain Switching Angles for Selective Harmonic Minimization Pulse Amplitude Modulation (SHM-PAM) Technique for 3-Phase Seven Level CHB Multilevel Inverter	Palisetty Maneesh (National Institute of Technology Durgapur); Samudra Panda (National Institute of Technology Durgapur); Subrata Banerjee (NIT Durgapur)*; Sourabh Kundu (National Institute of Technology Durgapur); Kingsuk Majumdar (Dr B C Roy Engineering College Durgapur); Kundan Kumar (National Institute of Technology Jamshedpur)
1645 to 1700	594	A Discontinuous Modulation Scheme on a ZVS Differential Mode Resonant Switched Capacitor Buck Inverter	Sadegh Rad (University of Illinois Chicago); Sudip Mazumder (University of Illinois Chicago)*
1700 to 1715	571	Optimized Selective Harmonic Elimination for Three-Phase Cascaded Multilevel Inverters with Unequal DC Sources	Javad Ebrahimi (Queen's University)*
1715 to 1730	398	Novel implementation method of Selective Harmonic Elimination (SHE) on a low cost FPGA controller for V2G application	Selvanathan Thiyagarajan (College of Engineering Guindy, Anna university)*; Kavitha Anbukumar (College of Engineering Guindy,Anna University)
1730 to 1745	462	Modulation Schemes for an Isolated Boost PFC Converter with Active Clamp	Himanshu Bhusan Sandhibigraha (Indian Institute of Science, Bengaluru)*; Vishnu Mahadeva Iyer (Indian Institute of Science, Bengaluru)
1745 to 1800	85	Power balancing controller design of multiple resonant converters by PFM and PWM methods	Seul Lee (Hanyang University)*; Hojun Lee (Hanyang University); Eun S. Lee (Hanyang University)

Session Number	**:**	**S-4.11**	**Session Name :**	**Energy Storage Systems - 1**	
Session Chair	**:**	**Srinivas Bhaskar Karanki**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**1630 to 1815**	**Session Room**	**:**	**Innovate 1**
Session Link (if any)	**:**	**Zoom Link – Innovate 1**			

Time	P: ID	Paper Title	Authors
1630 to 1645	42	Smart Hybrid Battery: Integrating Active Cell Balancing and Peak Power Enhancement in Lithium-ion Batteries	Tanzeela Mir (Indian Institute of Technology Gandhinagar)*; Kiritkumar Vala (Indian Institute of Technology, Gandhinagar); Pallavi Bharadwaj (IIT Gandhinagar)
1645 to 1700	120	A Data-Selection Framework for Data-Efficient Battery Parameter Estimation	Nicolai Weinreich (Aalborg University)*; Remus Teodorescu (Aalborg University); Kim Larsen (Aalborg University)
1700 to 1715	134	Ripple Current Analysis in Vanadium Redox Flow Batteries: Implications for Performance	Vishnu K (IIT Delhi)*; Sumit Pramanick (IIT Delhi); Phani Bankupalli (SRM INSTITUTE OF SCIENCE AND TECHNOLOGY); Anil Verma (IIT Delhi)
1715 to 1730	337	A Method for Reducing AC Battery Current in Dual-Source Train Fed by Battery and AC Catenary	Ngo Nhan (Institute of Science Tokyo)*; Suzuki Atsuya (Institute of Science Tokyo); Makoto Hagiwara (Institute of Science Tokyo); Yoshiaki Taguchi (Railway Technical Research Institute)
1730 to 1745	373	SOH Estimation of Lithium-ion Batteries using Deconvoluted EIS based LSTM Model	Abdul Shakoor Akram (Soongsil University); Muhammad Sohaib (Soongsil University); Woojin Choi (Soongsil University)*
1745 to 1800	442	Combined Model for P-S or S-P Configured Lithium-ion Batteries and Equalization Electronics for Spacecraft	Ananda S (U R Rao Satellite Centre)*; Lakshminarasamma N (IIT Madras); Maria Shalini (U R Rao Satellite Centre)
1800 to 1815	62	Techno-Economic Comparison of State-of-Charge and State-of-Health Balancing in Second-Life Modular Battery Energy Storage Systems	Enrique Nunes Di Pierri (School of Electrical and Electronic Engineering, Nanyang Technological University)*; Gaowen Liang (Nanyang Technological University); Ezequiel Rodriguez Ramos (Nanyang Technological University); Glen G. Farivar (Department of Electrical and Electronic Engineering, The University of Melbourne); Hein Wai Yan (Nanyang Technological University); Josep Pou (Department of Electrical Engineering, City University of Hong Kong)

Session Number	**:**	**S-4.12**	**Session Name :**	**EV System Design - 2**	
Session Chair	**:**	**Ashiq Muhammed**	**Session Date**	**:**	**13th May 2025**
Session Time	**:**	**1630 to 1815**	**Session Room**	**:**	**Innovate 2**
Session Link (if any)	**:**	**Zoom Link – Innovate 2**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	465	SOLAR POWERED BATTERY CHARGER FOR LIGHT COMMERCIAL ELECTRIC VEHICLES	Kiran D (IIT Kharagpur)*; Sanam Agnihotri (IIT Kharagpur); Dipankar Debnath (IIT Kharagpur)
1645 to 1700	433	Triple Switch Flexible Step-Up Converter for Fuel Cell Electric Vehicle	AAKASH SINGH (IIT BHU)*; Rajbala Purnima Priya (IIT Kanpur); Amarendra Edpuganti (IIT Kanpur); Prabodh Bajpai (IIT Kanpur)
1700 to 1715	129	Investigations on Achieving Zero Energy Hill-Hold Condition in an Electric Vehicle with a Doubly Salient Parallel Path Magnetic Motor	Maryam Salehi (University of North Carolina at Charlotte)*; Madhav Manjrekar (University of North Carolina - Charlotte)
1715 to 1730	262	Research on Heat Transfer Coefficient of Rotor Oil Jet Impingement Cooling of Permanent Magnet Synchronous Motor in Electric Vehicles	Bowei Li (Yokohama National University)*; Kan Akatsu (Yokohama National University)
1730 to 1745	409	A Comprehensive Design, Analysis and Fabrication of a Brushless Permanent Magnet Motor for UAV Applications	Vaibhav Bhardwaj (Indian Institute of Technology Delhi)*; Durgesh Kumar Banchhor (Indian Institute of Technology Delhi); Amit Jain (Indian Institute of Technology Delhi)
1745 to 1800	33	Optimal Performance Analysis of Grid-to-Vehicle Charging System Using Zeta Converter	VIVEK PRAKASH DIWAKAR (BIT MESRA); AYUSH MEHTA (BIT MESRA); Nidhi Mishra (BIT Mesra)*; KUMAR NIKHIL (BIT MESRA)
1800 to 1815	30	PV, Battery & Supercapacitor based Electric Vehicle with BLDC motor	Shilpa Mishra (Indian Institute of Technology, Jodhpur)*; Prof. Abdul Gafoor (IIT Jodhpur);Kanchan Jha (Indian Institute of technology, Jodhpur)

Session Number : S-5.1 **Session Name : Machine Learning and AI - 3**

Session Chair : To Be Announced **Session Date : 14th May 2025**

Session Time : 1615 to 1800 **Session Room :Studio 1** **Session Link: Zoom Link – Studio 1**

Time	P:ID	Paper Title	Authors
1615 to 1630	488	ANN Development and Testing for Fault Detection, Classification, and Location in Solar Array	PRAVIN KUMAR (Indian Institute of Technology Kanpur)*; Vinod Kumar Yadav (Indian Institute of Technology Kanpur); Sparsh Rai (Deloitte tothmatsu LLP); Janardan Kundu (IISc Bengaluru); Sachidananda Sen (SR University, Warangal)
1630 to 1645	274	Artificial Neural Network-Based Control for Capacitor Voltage Ripple Balancing in Cascaded H-Bridge Converters	Shriya Shukla (Nanyang Technological University Singapore)*; Zeng Yu (Nanyang Technological University Singapore); Gaowen Liang (Nanyang Technological University); Liu Qingxiang (Nanyang Technological University Singapore); Ezequiel Rodriguez (Nanyang Technological University Singapore); Boyou Liu (Nanyang Technological University); Josep Pou (City University of Hong Kong (CityU)); Christopher H. T. Lee (Nanyang Technological University Singapore); James Wang Ming (Nanyang Technological University Singapore)
1645 to 1700	208	Low-Sampling Frequency Parameter Identification in Buck Converters via Physics-Informed Neural Network	Shuyu Ou (Aalborg University)*; Subham Sahoo (Aalborg University); Ariya Sangwongwanich (Aalborg University); Frede Blaabjerg (Aalborg University); Mahyar Hassanifar (CAU Kiel University); Martin Votava (CAU Kiel University); Marius Langwasser (CAU Kiel University); Marco Liserre (CAU Kiel University)
1700 to 1715	155	Pioneering Cloud-enhanced Real-time Control of Modular-Multilevel Reconfigurable Battery Packs for Automotive Applications	Dominic Karnehm (University of the Bundeswehr Munich)*; Akash Samanta (Ontario Tech University); Antje Neve (University of the Bundeswehr Munich); Sheldon Williamson (Ontario Tech University)
1715 to 1730	584	IoT-Enabled ExoLimb: A Cost-Effective Exoskeleton for Enhanced Mobility and Medical Rehabilitation	MD. ASIF IMTIAZ ANIK (American International University-Bangladesh)*; Abu Shufian (American International University-Bangladesh); Md Redwanul Islam (American International University Bangladesh); Tasfia Tasnim (American International University Bangladesh)
1730 to 1745	294	Initial Set Point Prediction of Adaptive PI Controller using Machine Learning Algorithm	Mukesh Maurya (IIT Kanpur)*; Abhishek Sharma (IIT Kanpur); Gururaj Vishwanath (Indian Institute of Technology Kanpur)
1745 to 1800	310	Integrating Physics-Informed Neural Networks and GRU for SciML-based Surface Temperature Prediction Li-ion Battery	Mohit Sharma (Ontario Tech University)*; Akash Samanta (Ontario Tech University); Sheldon Williamson (Ontario Tech University)

Session Number	**:**	**S-5.2**	**Session Name :**	**Wireless Power Transfer - 3**	
Session Chair	**:**	**To Be Announced**	**Session Date**	**:**	**14th May 2025**
Session Time	**:**	**1630 to 1745**	**Session Room**	**:**	**Studio 2**
Session Link (if any)	**:**	**Zoom Link – Studio 2**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	474	An improved control method of a resonant-inductive wireless charger with input power factor correction	Deniss Stepins (Riga Technical University)*; Janis Zakis (Riga Technical University); Arathy Sundaresan (Riga Technical University); Jismon Joseph (Riga Technical University); Kamal Khandakji (Tafila Technical University)
1645 to 1700	580	An Improved Compensation Circuit Design for Efficient Wireless Power Transfer Using EF_2 Resonant Inverter	Ranjib Behera (IIT Patna)*
1700 to 1715	562	Design and Implementation of Static Wireless Power Transmission System in Electric Vehicles	Ram Harish (PES University)*; Aryan Aggarwal (PES University); Gaurav Agrawal (PES University); Naman Panjeta (PES University); Viswanath N M (PES University); Sangeeta Modi (PES University)
1715 to 1730	192	A Communication-less Constant Power Bidirectional Double-sided LCC Inductive Wireless Power Transfer Battery Charger with Triple-Phase-Shift Optimal Efficiency Control	YAN JIABO (Universiti Teknologi Malaysia)*; Nik Rumzi Nik Idris (Universiti Teknologi Malaysia); Mohd Junaidi Bin Abdul Aziz (Universiti Teknologi Malaysia)
1730 to 1745	512	Double Pancake Spiral Coil based Wireless Power Transfer System for EV Charging	Akash Vishwakarma (Indian Institute of Technology Guwahati)*; Sahil Gaurav (Indian Institute of Technology Guwahati); Chandan Kumar (Indian Institute of Technology Guwahati)

Session Number	**:**	**S-5.3**	**Session Name :**	**Control of Electric Drives - 3**	
Session Chair	**:**	**To Be Announced**	**Session Date**	**:**	**14th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Studio 3**
Session Link (if any)	**:**	**Zoom Link – Studio 3**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	516	Mechanical Parameters Identification of Servo Drive Using Periodic Velocity Profile	dongyeob Han (Hanyang university)*; sungmin Kim (Hanyang university)
1645 to 1700	549	A Novel Dual Armature with Dual Halbach Array Based Tubular Linear Vernier Generator for Wave Energy Conversion	Neel Shrivastava (IIT Goa`)*; Sashidhar Sampathirao (IIT Goa); Bidyadhar Subudhi (IIT Goa)
1700 to 1715	550	Performance Comparison of Scalar and Direct Vector Control For Five-Phase Induction Motor Drive	Abhishek Ranjan (Indian Institute of Technology Patna)*; Bheemiah Chinkondra (Rajiv Gandhi Institute of Petroleum Technology); Ranjan Kumar Behera (Indian Institute of Technology Patna)
1715 to 1730	554	About the control of a voltage source inverter using space vector modulation to drive an induction motor	Ileana-Diana Nicolae (University of Craiova); Adrian Hurezeanu (CESI Automation); Petre-Marian Nicolae (University of Craiova, Romania)*; Marian-Stefan Nicolae (University of Craiova)
1730 to 1745	561	Modular Multilevel Converter Based Medium Voltage Doubly Fed Induction Motor Drive	Vishnu Vardhan Reddy (Indian Institute of Technology Kharagpur)*
1745 to 1800	325	Modulated Model Predictive Torque Control of Induction Motor Without Weighting Factors	Emrah Zerdali (Ege University); Marco Rivera (University of Nottingham)*; Patrick Wheeler (Nottingham University)

Session Number	**:**	**S-5.4**	**Session Name**	**:**	**Traction Inverter**
Session Chair	**:**	**Sudharshan Kaarthik**	**Session Date**	**:**	**14th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Studio 4**
Session Link (if any)	**:**	**Zoom Link – Studio 4**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	168	A Feedforward-based Control Methodology for Back-to-Back Testing of Traction Inverter	Uppal Das (Indian Institute of Science)*; Surjakanta Mazumder (Indian Institute of Science, Bengaluru); Shailesh Ghotgalkar (Texas Instruments); Kaushik Basu (IISc-Bangalore)
1645 to 1700	387	Single phase AC-AC Modular Traction Power Conditioner and Control Strategy for High-Speed Co-phasal Railway Systems	Ananya Nayak (Indian Institute of Technology Kharagpur)*
1700 to 1715	440	Operating with Variable DC-link Voltage Under Dynamic Operating Conditions for HEV Traction Drives	Akshay Yennam (FEV India Pvt Ltd)*; Srikanthan Sridharan (Indian Institute of Technology Madras)
1715 to 1730	368	Capacitor Ripple and CM Noise Mitigation Oriented Design of 800 V Dual Traction Inverters	Rajat Sankhla (IIT Bombay)*; Shiladri Chakraborty (IIT Bombay)
1730 to 1745	593	A Single phase Single stage Integrated Onboard Charger for EV utilising Traction Motor drives and GaN Bi-directional Device	Naresh Rana (Indian Institute of Science, Bengaluru)*; Keisuke Ushida (AISIN Corporation); Keisuke Nakamura (AISIN Corporation); Yutaka Hotta (AISIN Corporation); Subrata Saha (AISIN Corporation); Kaushik Basu (Indian Institute of Science, Bengaluru)
1745 to 1800	444	Experimental Investigation of Flow and Thermal Characteristics of Traction Inverter cold plate	Vidyasagar Ravindra (Jaguar Land Rover Technology And Business Services India Private Limited)*; Priyanth Elango (IIT Bombay); Praveen Prasad (Jaguar Land Rover Technology And Business Services India Private Limited)

Session Number	**:**	**S-5.5**	**Session Name:**	**DC-DC Converter Topology - 3**	
Session Chair	**:**	**To be Announced**	**Session Date**	**:**	**14th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Studio 5**
Session Link (if any)	**:**	**Zoom Link – Studio 5**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	533	A Scalable Zero-Voltage-Switching Multilevel Converter Topology for High-Efficiency and High-Voltage Applications	Javad Ebrahimi (Queen's University)*
1645 to 1700	575	A Non-Isolated Hybrid Switched-Capacitor Network Based High-Gain Quadratic DC-DC Boost Converter	SOHAM CHAKRABORTY (IIT Kharagpur)*; PRASUN MISHRA (IIT Kharagpur)
1700 to 1715	602	Soft Switched Interleaved Buck Converter for High Power applications	Renuka P C (IIT Dharwad)*; Abhijit Kshirsagar (IIT Dharwad)
1715 to 1730	506	A NOVEL THREE PORT MULTI-INPUT SINGLE INDUCTOR DC-DC BIDIRECTIONAL BOOST CONVERTER	SHAIK Mastan Vali (Vel Tech Rangarajan Dr. Sagunthala R and D Institute of Science and Technology)*; S Sivakumar (Vel Tech Rangarajan Dr. Sagunthala R and D Institute of Science and Technology)
1730 to 1745	99	Electrical Variable Capacitor of Resonance type for RF Plasma System with Enhanced Power Density Using GaN Device	Heewon Choi (Jeonbuk National University)*; Yongsug Suh (Jeonbuk National University); Cheon-Yong Lim (Jeonbuk National University); Hongmin Kim (Jeonbuk National University); Cheonghyeon Hwang (Jeonbuk National University)
1745 to 1800	422	A Design Methodology for a Partial Power PSFB DC-DC Converter for Battery Charging	Aabid Ahmad Dar (Indian Institute of Science, Bengaluru, India)*; Vishnu Mahadeva Iyer (Indian Institute of Science, Bengaluru, India)

Session Number	**:**	**S-5.6**	**Session Name**	**:**	**EV Control**
Session Chair	**:**	**Arman Oshnoei**	**Session Date**	**:**	**14th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Studio 6**
Session Link (if any)	**:**	**Zoom Link – Studio 6**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	133	Smart Charge Scheduling of EVs Utilizing Machine Learning-Predicted User Behaviour	Aakash Lilhore (IIT bombay); Utkarsha Bulkunde (IIT Bombay)*; Vivek Agarwal ("Indian Institute of Technology,Bombay")
1645 to 1700	296	A Robust Cascade Controller Based Phase Shifted Full Bridge Converter for Electric Vehicle Applications	Sumukh Surya (Bosch)*; V S R Varaprasad Oruganti (Ontario Tech University); Sheldon Williamson (Ontario Tech Canada)
1700 to 1715	379	Powertrain Architecture and Control System Design for Overhead Line and Battery Powered Railway Tower Car	PRAVIN KUMAR (Indian Institute of Technology Kanpur)*; Vinod Kumar Yadav (Indian Institute of Technology Kanpur); RAJBALA PURNIMA PRIYA (Indian Institute of Technology Kanpur); AMARENDRA EDPUGANTI (Indian Institute of Technology Kanpur); Prabodh Bajpai (Indian Institute of Technology Kanpur)
1715 to 1730	418	A single-stage admittance control network based misalignment tolerant inductive power transfer system for EV application	Adarsh Dubey (Indian Institute of Technology, Roorkee); Apurv Kumar Yadav (Indian Institute of Technology, Roorkee)*
1730 to 1745	552	Elimination of Second Order Harmonic Oscillation on DC Bus of High Power Propulsion Converter using Adaptive State Observer	Shubham Sharma (IIT DELHI)*; Dev Manhar (IIT DELHI); Avanish Tripathi (IIT DELHI)
1745 to 1800	581	A Novel Circulating Current Control Technique in Onboard Integrated Charger	Mandvi Singh (IIT Kanpur)*; Suvendu Samanta (IIT Kanpur); Shayama Prasad das (IIT Kanpur)

Session Number	**:**	**S-5.7**	**Session Name :**	**SRM Control and Design**	
Session Chair	**:**	**Sudharshan Kaarthik**	**Session Date**	**:**	**14th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Studio 7**
Session Link (if any)	**:**	**Zoom Link – Studio 7**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	116	Modelling and Analysis of a Multipole Permanent Magnet assisted Synchronous Reluctance Machine for Electric Vehicles	Kunal Layek (IIT Madras)*; Veena P (IIT Madras); Devjyoti Roy (IIT Madras); Kamalesh Hatua (IIT MADRAS)
1645 to 1700	119	Physics-Informed Neural Network Model for Predicting Flux Linkage Surface in Switched Reluctance Motor	Galina Demidova (Moscow Power Engineering Institute)*; Alecksey Anuchin (Moscow Power Engineering Institute); Zhu Xirong (ITMO University)
1700 to 1715	226	Real Time Implementation of Field Oriented Control of SynRM Drive in FPGA	ABHISHEK SHAW (IIEST Shibpur)*
1715 to 1730	287	Design Optimization of Synchronous Reluctance Motor for Electric Two Wheeler Application	Anurag Sharma (IIT Delhi)*; Durgesh Kumar Banchhor (IIT Delhi); Amit Jain (Indian Institute of Technology Delhi)
1730 to 1745	408	Analytical model for Diagnosis of Stator Inter-Turn Fault in Self-Excited Synchronous Reluctance Generators for Renewable Energy Applications	SIVA RAMA KRISHNA MERUGU (INDIAN INSTITUTE OF TECHNOLOGY , ROORKEE)*; JEEVANAND SESHADRINATH (INDIAN INSTITUTE OF TECHNOLOGY , ROORKEE)
1745 to 1800	573	Impact of Mutual Flux on Rotor Position Estimation Using the Reluctance Equivalent Back-EMF Model for Synchronous Reluctance Motors	Sonalika Singh (Visvesvaraya National Institute of Technology, Nagpur); Ritesh Keshri (Visvesvaraya National Institute of Technology, Nagpur)*; Vijay B Borghate (Visvesvaraya National Institute of Technology, Nagpur); Chandan Chakraborty (Indian Institute of Technology, Kharagpur)

Session Number	**:**	**S-5.8**	**Session Name: Reliability of Power Converters - 2**		
Session Chair	**:**	**Abhijit Kshirsagar**	**Session Date**	**:**	**14th May 2025**
Session Time	**:**	**1630 to 1745**	**Session Room**	**:**	**Converge 1**
Session Link (if any)	**:**	**Zoom Link – Converge 1**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	551	A New Strategy to Detect and Localize Interturn Short-Circuit Fault in Medium-frequency-Transformer of Dual-Active-Bridge Converter	Tushar Nistane (IIT ROPAR)*; Saifullah Payami (IIT Ropar); Jayaraman Kalaiselvi (IIT Ropar)
1645 to 1700	556	Inter-Turn short circuit fault detection in Brushless DC motor drives.	annima gupta (IIT ROPAR)*; KALAISELVI JAYARAMN (IIT ROPAR); amit kumar (iit ropar); shubham faujdar (iit ropar); anurag patel (iit ropar)
1700 to 1715	205	Multi-Port Dual-Active-Bridge DC-DC Converter for DC Microgrid Application to Integrate Renewable Energy Sources	Ravi Ranjan (Indian Institute of Technology Bhubaneswar)*; Pragya Nand Singh (Indian Institute of Technology Bhubaneswar); Srinivas Karanki (IIT Bhubaneswar)
1715 to 1730	44	Predictive Current Control of a Three-Level Multi-Modular NPC Converter With Mutual Error Compensation and Fault Tolerance	Nestor Perez (Facultad de Ingeniería, Universidad Nacional de Asunción); Fabian Palacios (Facultad de Ingeniería, Universidad Nacional de Asunción); Sergio Toledo (Facultad de Ingeniería, Universidad Nacional de Asunción); Edgar Maqueda (Facultad de Ingeniería, Universidad Nacional de Asunción); David Caballero (Facultad de Ingeniería, Universidad Nacional de Asunción); Jorge Rodas (Facultad de Ingeniería, Universidad Nacional de Asunción); Raul Gregor (Facultad de Ingeniería, Universidad Nacional de Asunción); Marco Rivera (University of Nottingham)*

Session Number	**:**	**S-5.9**	**Session Name :**	**EMI/ EMC and Gate Drive of Power Converters**	
Session Chair	**:**	**To Be Announced**	**Session Date**	**:**	**14th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Converge 2**
Session Link (if any)	**:**	**Zoom Link – Converge 2**			

Time	P: ID	Paper Title	Authors
1630 to 1645	59	Comprehensive EMI Analysis for Three-Phase DAB Converter in Electric Vehicle Applications	Shubham Dhiman (North Carolina State University)*; Sagar Rastogi (John Deere); Brij Singh (John Deere); Subhashish Bhattacharya (North Carolina State University)
1645 to 1700	70	Conductive Noise Modeling using GA Parameter Fitting and Effective Validation of Noise Reduction Filters	Katsuma Kubo (Nagoya Institute of Technology)*; Hyuga Yanagisawa (Nagoya Institute of Technology); Wataru Kitagawa (Nagoya Institute of Technology)
1700 to 1715	124	Nosie Attenuation Performance Improvement of Active EMI Filter based on Impedance Mismatch	YONGXING ZHOU (Wenzhou university)*; Yingmin You (Wenzhou university); Mei Ye (C-lin electrical Co.Ltd); Yanan Huang (Yandangshan Institute of Electrical Technology); Shangcong Zhang (Wenzhou university); Liang Shu (Wenzhou university); Ziran Wu (Wenzhou university); Yigang Lin (Wenzhou。university); Wei Chen (Wenzhou university); Xiao Han (China Academy of Information and Communications Technology)
1715 to 1730	228	Failure Detection in De-energized GaN-HEMT Switching Cells using Gate Driver-Induced Residual Voltage	Arkadeb Sengupta (KIel University)*; Thiago Antonio Pereira (Kiel University); Marco Liserre (Kiel University)
1730 to 1745	457	A Planar Transformer Winding Configuration for High Frequency DAB Converter with Common-Mode EMI Mitigation	SHASHANK MISHRA (IIT Roorkee); Anubrata Dey (INDIAN INSTITUTE OF TECHNOLOGY (IIT), ROORKEE)*
1745 to 1800	494	Design and Implementation of an Active Gate Drive Circuit using General-Purpose ICs for Three-Phase Inverters in Continuous Operation	Yusuke Sato (Yokohama National University)*; Koya Tsutsumi (Yokohama National University); Daichi Kawamoto (Yokohama National University); Daisuke Saito (Yokohama National University); Yutaro Tawara (Yokohama National University); Hidemine Obara (Yokohama National University)

Session Number : **S-5.10** **Session Name :** **AC and DC Microgrids - 2**

Session Chair : **Sarasij Das** **Session Date** : **14th May 2025**

Session Time : **1630 to 1800** **Session Room** : **Converge 3**

Session Link (if any) : **Zoom Link – Converge 3**

Time	Paper ID	Paper Title	Authors
1615 to 1630	166	Dynamic Power Tracking for Grid-Connected Microinverter PV Systems	Derick Mathew (POSTECH)*; Prasanth Ram Jothikumar (POSTECH); Young Jin Kim (POSTECH)
1630 to 1645	364	Resilient Voltage Restoration Scheme for AC Microgrids Under Cyber Attack	Manas Ranjan Mishra (Indian Institute of Technology Delhi); Sukumar Mishra (Indian Institute of Technology Delhi); Priyatosh Mahish (Indian Institute of Technology Mandi)*
1645 to 1700	463	Maiden Application of 2DOFPID Controller for IPMSG based Wind Energy Conversion System Integrated with Islanded Microgrid	Aribam Deleena Devi (National Institute of Technology Silchar)*
1700 to 1715	383	Allocating battery energy storage system in droop controlled islanded microgrid considering uncertainties	Nayanita Sikder (IIT Kharagpur)*
1715 to 1730	63	Cyber-Attack Analysis and Investigation on PMSM Drive System in Battery Electrical Vehicles	Nikhil Sardar (MIT AOE Alandi pune)*; Prashant Surana (IIT Roorkee); Gaurav Choudhary (University of Southern Denmark); Amit Kumar (University of Cagliari); Gianluca Gatto (University of Cagliari)
1730 to 1745	153	Development and Evaluation of Secure Data Transmission in Microgrid Secondary Controller	smitha pinto (Maharaja Institute of Technology Mysore)*
1745 to 1800	416	Stability Assessment of a Weak Island System Connected to Two Infeed HVDC Links	Rian Fatah Mochamad (UGM)*; Sanjay Chaudhary (Aalborg University); Roni Irnawan (Universitas Gadjah Mada)

Session Number	**:**	**S-5.11**	**Session Name :**	**Energy Storage Systems - 2**	
Session Chair	**:**	**Ashiq Muhammed**	**Session Date**	**:**	**14th May 2025**
Session Time	**:**	**1630 to 1800**	**Session Room**	**:**	**Innovate 1**
Session Link (if any)	**:**	**Zoom Link – Innovate 1**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	555	Develop a Versatile ECM Framework Capable of Accurately Representing Multiple Cell Types	Sarbani Mandal (Indian Institute of Technology Guwahati)*; Bikash Sah (Fraunhofer Institute for Energy Economics and Energy System Technology IEE); Praveen Kumar (Oak Ridge National Laboratory Oak Ridge, Tennessee, USA)
1645 to 1700	286	Design and Deployment of a Remaining Useful Life Estimation Algorithm of Power Switches in a Cloud Computing Environment	Akshath Chowdhary (IIT Bhubaneswar)*; Aritra Ghosh (Vidyutva Technology Private Limited); Mosaddique Hussain (IIT Bhubaneswar)
1700 to 1715	306	Design of a Solid-State Circuit Beaker (SSCB) Integrated DC Fast Charger with Flexible Power Processing Capability	Rahman, Muhammad Foyazur*; Pang, Tiancan; Vaddiraj, Alekhya; Manjrekar, Madhav
1715 to 1730	389	A Novel Bidirectional Multiport DC-DC Converter for Hybrid Energy System	Vineet Bharadwaj (Indian Institute of Technology (BHU) Varanasi)*
1730 to 1745	78	A Performance Comparison of Chiller Models for Energy Optimization in Commercial Buildings	Ramanand Radhakrishnan (National University of Singapore)*; Amjath khan Ahamed Kabeer (National University of Singapore); Mrutyunjaya Sahani (NUS); Sanjib Panda (National University of Singapore)
1745 to 1800	83	Harvesting Energy From Subclavian Artery Motion For Self-Powered Implantable Medical Devices	Ravindu Wijekoon (The University of Auckland)*; Dulsha Kularatna-Abeywardana (The University of Auckland)

Session Number	**:**	**S-5.12**	**Session Name**	**:**	**EV System Design - 3**
Session Chair	**:**	**Srinivas Bhaskar Karanki**	**Session Date**	**:**	**14th May 2025**
Session Time	**:**	**1630 to 1730**	**Session Room**	**:**	**Innovate 2**
Session Link (if any)	**:**	**Zoom Link – Innovate 2**			

Time	Paper ID	Paper Title	Authors
1630 to 1645	101	Mitigation of Low Frequency Common Mode Voltage in a Non-Isolated EV Charger	Konstantinos Theodosiou (TU Graz)*; Michael Hartmann (TU Graz); Andraz Rihar (University of Ljubljana)
1645 to 1700	378	An Ultra Flexible Quad-port Converter for Hybrid Energy Storage System (HESS) in Fuel Cell Electric Vehicle (FCEV) Powertrains	PRATIM BHATTACHARYYA (CSIR-CMERI)*; Siddheswar Sen (CSIR-CMERI); Santu Kumar Giri (CSIR-CMERI)
1700 to 1715	270	Implications for Supercapacitor-Inductor and Core Selection in HESS incorporated with 3-Phase BLDC Drive	Neel Kamal Parmar (IIT Mandi)*; Venkata Ratnam Vakacharla (IIT Mandi)
1715 to 1730	588	Real Time Capacity Estimation for Lithium-Ion Battery Using Deep Transfer Learning	Sk Bittu (Indian Institute of Technology (Indian School of Mines) Dhanbad, Jharkhand)*; Sukanta Halder (Indian Institute of Technology (Indian School of Mines) Dhanbad, Jharkhand); Nilanjan Das (Indian Institute of Technology (Indian School of Mines) Dhanbad, Jharkhand); Malay Jana (N/A)