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TECHNICAL PAPERS

P01 Poster Session - 1

Chair: Min Chen | Zhejiang University

Time: 13:30 - 15:00 August 23, Saturday

Venue: Yuquan Campus, Zhejiang University

P01.1	Loss Modeling and Comparison for 2000-V Three-Level Photovoltaic Inverter	1
	Yuxiang Fan; Yenan Chen Zhejiang University	
P01.2	Preference-Based Multi-Objective Optimization of Laminated Coupler in Wireless Charging System	7
	Hao Liu; Henglin Chen Zhejiang University	
P01.3	Loss Characterization in Hybrid Switched-Capacitor Converters with Zero Current Switching	12
	Rui Xu; Yenan Chen Zhejiang University	
P01.4	Preference-Driven Multi-Objective Optimization for Novel Coil Architectures in Wireless Power Transfer Systems	18
	Dan Chen; Hao Liu; Henglin Chen Zhejiang University	
P01.5	Design of Dual-Frequency Dual-Channel Wireless Charging System	23
	Hongfa Li; Hao Liu; Henglin Chen Zhejiang University	
P01.6	Comparative Analysis of Boost Converters in 2000-V String PV Inverter	28
	Yuan Zhang; Yenan Chen Zhejiang University	
P01.7	Frequency Support of Photovoltaic Clusters Operating as Virtual Energy Storage	34
	Wei Liu; Kai Yin; Yongheng Yang Zhejiang University	
P01.8	A De-Skew Method for SiC MOSFET Gate-Source Voltage Waveforms	40
	Haoran Zhao ¹ ; Junze Li ¹ ; Yifan Wang ² ; Mingquan Zeng ² ; Qing Guo ¹ ; Kuang Sheng ¹ ¹ Zhejiang University; ² State Grid Zhejiang Electric Power Co., Ltd.	
P01.9	Modeling Switching Voltage Waveforms of IGBT Modules under Wide Current Range	44
	Yuxiang Liu; Zili Zhu; Junhao Chang; Henglin Chen Zhejiang University	

P01.10	Analysis and Evaluation of Suppression Methods for Different Resonant Frequencies in Dual-Inertia Systems	48
	Mengguang Zhang ¹ ; Qianru Lin ¹ ; Liang Cao ² ; Zhihao Song ² ; Wenxi Yao ¹ ¹ Zhejiang University; ² Leadrive Technology (Hangzhou) Co., Ltd.	
P01.11	Research on Narrow Pulse Clamping and Residual Compensation Method for Two-Level Inverter	54
	Qianru Lin ¹ ; Wenxi Yao ¹ ; Chen Jia ² ¹ Zhejiang University; ² State Grid Liaoning Electric Power Co., Ltd.	
P01.12	Equivalent Impedance Model of Modular Multilevel Converter Considering Internal Dynamics and Current Control	60
	Fan Yang; Jingyuan Wen; Hongyi Chen; Heya Yang; Xin Xiang; Wuhua Li Zhejiang University	
P01.13	Design of Three-Coil WPT System with Wide Range Misalignment Tolerance Based on Generalized Impedance Matrix	66
	Huang Tianhao ¹ ; Zhong Wenxing ² ¹ Zhejiang University; ² Ningbo University	
P01.14	A Calculation Method for the Open-Circuit Voltage and Short-Circuit Current of Photovoltaic Cells Based on Theoretical Model	71
	Fan Zhang ¹ ; Celiang Deng ¹ ; Jiawei Zang ² ; Jianyu Lan ² ; Min Chen ¹ ; Feng Jiang ¹ ¹ Zhejiang University; ² Shanghai Institute of Space Power-Sources	
P01.15	Active Power Distribution System for the Electric Vehicle Charging Station	75
	Haitao Wang; Min Chen; Jiahui Li; Yi Zhou; Haihong Long; Changsheng Hu; Dehong Xu Zhejiang University	
P01.16	Performance Evaluation of SiC Three-level Inverters	81
	Ziang Sun; Qingzheng Zhang; Cheng Peng; Haihong Long; Dehong Xu Zhejiang University	

P02 Poster Session - 2

Chair: Wenxi Yao | Zhejiang University

Chi-Sheng Lam | University of Macau

Time: 15:30 - 17:30 August 23, Saturday

Venue: 3F Grand Ballroom A

P02.1	Advanced Thermal Modelling of Fuse Based on TCC	87
	Mengqi Xu; Haiwen Ge; Wei Hua Zhejiang Lab	
P02.2	Comparison of Thermal Behavior of Press-Pack IGBT Devices under Fault Scenarios in VSC-HVDC and LCC-VSC Systems	92
	Huixian Shen; Jun Zhang; Zhihuan Wang; Yi Zheng Hohai University	

P02.3	Study on the Self-adjustable P+-emitter FSRD with Injections of Backside Hole	98
	Hongchao Zhang; Lin Liang; Kaijun Wen; Ke Wang Huazhong University of Science and Technology	
P02.4	Comparative Analysis on Two Five-Level LLC Resonant DC-DC Converter Topologies	104
	Haoran Jiang ¹ ; Longlong Zhang ¹ ; Cheng Cheng ¹ ; Wei Yu ² ; Jingcheng Zhao ¹ ; Shiyu Ji ¹ ; Haining Li ¹ ; Qinrong Zhang ¹ ¹ China University of Petroleum(East China); ² EAST Group Limited Co. Ltd.	
P02.5	Topology and Control Strategy of an ISOP-LLC Cascaded with Buck Converter for Seafloor Observation Network	109
	Bing Jiang; Jiaying Lei; Shuang Feng; Lei Huang; Yuyang Ji; Zirui Qin Southeast University	
P02.6	A Novel Non-Isolated Three-Port DC-DC Converter for Photovoltaic Applications	115
	Zheng Xu; Qingsong Wang Southeast University	
P02.7	Hybrid Current Limiting Control for MMC-HVDC Power Grid at DC Short-Circuit Fault	120
	Meiqin Mao ¹ ; Xun Jiang ¹ ; Chao Sun ¹ ; Liuchen Chang ² ; Xing Ge ¹ ; Yong Shi ¹ ¹ Hefei University of Technology; ² University of New Brunswick	
P02.8	Impedance Modeling and Stability Analysis of Three-Phase Four-Leg Grid-Connected Inverter Considering Frequency Coupling Under Unbalanced Grid	125
	Jiachen Sun; Zhao Liu Nanjing University of Science and Technology	
P02.9	An Adaptive Unbalanced Voltage Operation Control Strategy for HC-TLBC Topology	131
	Miaojie Chen ¹ ; Luyao Xie ¹ ; Bo Wang ¹ ; Yi Chen ³ ; Yuxin Tian ² ; Feiyu Fang ² ¹ Zhejiang University of Technology; ² HRV ELECTRIC; ³ Zhijiang College of Zhejiang University	
P02.10	Control-Function Implementation Options for the Non-Inverting Buck-Boost Y-Inverter	137
	Vanessa Yarazet Vera Placido; Yonghwa Lee; Alberto Castellazzi Kyoto University of Advanced Science	
P02.11	An AC-AC Converter Topology with Low Voltage Stress on Transistors	142
	Bingkun Li ¹ ; Jiaying Lei ¹ ; Shuang Feng ¹ ; Zhishuang Wang ² ; Bowen Guo ² ; Hao Xiao ³ ¹ Southeast University; ² State Grid Tianjin Electric Power Company; ³ Chinese Academy of Sciences	
P02.12	A Novel Command Current Feed-forward Compensation Control Strategy with DPTLs for Gradient Power Amplifier	147
	Long Chen; Tinglang Zou; Haiying Xu Ningbo Polytechnic University	
P02.13	Thyristor Branch-Assisted Modular Multilevel Converter for DC Short-Circuit Faults	153
	Dongwei Yu ¹ ; Tingshu Zhu ¹ ; Lei Li ¹ ; Gen Li ² ; Siyu Xiao ¹ ; Xiongfeng Fang ¹ ¹ Nanjing University of Science and Technology; ² North China Electric Power University	

P02.14	A Multi-Objective Improved Space Vector Modulation Method for Three-Level Inverter	159
	Jiakai Gan; Zhong Chen; Zixuan Liu; Yang Ma; Renyu Li Nanjing University of Aeronautics and Astronautics	
P02.15	Grid Voltage Estimation and Active Damping for Three-Phase Grid-Connected Inverter	165
	Chao Zhu; Zuohang Hu; Xiangyang Xing Shandong University	
P02.16	Research on Multi-Port Collaborative Network Based on High-Order Generalized Averaging Method	170
	Siyu Xiao ¹ ; Lei Li ¹ ; Cheng Wang ¹ ; Xiongfeng Fang ¹ ; Dongwei Yu ¹ ; Gen Li ² ¹ Nanjing University of Science and Technology; ² North China Electric Power University	
P02.17	Sequence Impedance Modeling-Based Stability Analysis of Grid-Connected Parallel VSGs with Centralized Control	176
	Qinqin Gu; Zhao Liu Nanjing University of Science and Technology	
P02.18	Low-Frequency Power Oscillation Study of VSG-Controlled Converter in Hybrid GFM/GFL Systems Based on [P Q]-[ω V] Model	182
	Guohua Liang; Xiaoqiang Li; Jinlong Wang; Ruiru Wang; Xiaojie Wu China University of Mining and Technology	
P02.19	On-Line Impedance Measurement Method of Three-Phase Power Network under Unbalanced Condition	188
	Jiajie Fu; Zhao Lu Nanjing University of Science and Technology	
P02.20	Design of Direct Power Control of Hybrid Grid-Connected Inverter for Renewable Energy Generation with Power Quality Conditioning	193
	Wai-Kit Sou; Qiannan Jiang; Rui P. Martins; Chi-Seng Lam University of Macau	
P02.21	Multi-Layer Control of Partial Power Interlinking Converters for DC Microgrid Clusters	198
	Chao Wang; Sucheng Liu; Kai Huang; Maomao Song; Qianjin Zhang; Xiaodong Liu Anhui University of Technology	
P02.22	Reactive Power Compensation Strategy Based on LADRC-SVG	204
	Chenxin Zheng; Damin Zhang; Hanchao Zeng; Jiongqiong Cao; Binbin Chen Xiamen University of Technology	
P02.23	PLL-based State Feedback Control for GFM connected to DR-HVDC with Improved Frequency Response Characteristic	209
	Xingyu Pei ¹ ; Yi Chen ² ; Hongyuan Wu ¹ ; Jianbiao Li ¹ ; Xu Cheng ¹ ; YueBin Zhou ³ ; YiLiang Xu ³ ; Huan Yang ² ¹ Zhuhai Power Supply Bureau Guangdong Power Grid Co., Ltd.; ² Zhejiang University; ³ CSG Electric Power Research Institute (CSG EPRI)	
P02.24	Vehicle-to-Grid with Secondary Frequency Regulation in Power Systems: A Review of Advances and Challenges	215
	Qiang Zhang; Guanguan Zhang; Alian Chen Shandong University	

P02.25	Research on Fault Location Algorithm for Distributed Power Sources Based on Wide-area Measurement Information	221
	Longlong Zhang ¹ ; Guochen Zhu ¹ ; Yansong Wang ¹ ; Shan Liu ² ; Lei Wu ³ ; Fengjie Yin ³	
	¹ China University of Petroleum (East China); ² State Grid Suzhou Electric Power Company;	
	³ New Energy Development Center of Sinopec Shengli Petroleum Administration Bureau Co., Ltd.	
P02.26	Research on the Impact of Power and Impedance Distribution in New Energy Stations on the Equivalent Accuracy of Multiplication Models	227
	Jianwu Wang ¹ ; Jinchuan Guo ¹ ; Yang Huang ¹ ; Weihao Hao ¹ ; Yiping Lu ² ; Zehao Wang ²	
	¹ China Energy Engineering Group Guangdong Electric Power Design Institute Co., Ltd.;	
	² State Key Laboratory of HVDC, Electric Power Research Institute	
P02.27	Modeling and Stability Analysis of DFIG-Based Wind Farm Using Harmonic State Space Theory	232
	Xinyu Ji ¹ ; Hailiang Xu ¹ ; Hankai Liu ¹ ; Xianglong Kong ¹	
	¹ China University of Petroleum (East China)	
P02.28	An Adaptive Carrier Phase-Shifted Balanced Modulation Method for Low Modulation Ratio Applications in Cascaded Energy Storage Systems	238
	Dexing Sun ¹ ; Jionghui Wei ¹ ; Bin Yi ² ; Jieming Huang ¹ ; Xiaorong Huang ¹ ; Xiaotian Qin ²	
	¹ Dongguan Power Supply Bureau of Guangdong Power Grid Corporation;	
	² National Institute of Guangdong Advanced Energy Storage	
P02.29	Study on Coupling Mechanisms and Electromagnetic Environment in Wireless Power Transfer Systems	244
	Feng Wen; Aonian Li; Xiangyi Zhao; Dewei Wang; Jiaqi Guo	
	Nanjing University of Science and Technology	
P02.30	Research on the Early Fault Identification of Transmission Lines Based on Partial Discharge	250
	Cheng Wu ¹ ; Yuhong Wu ² ; Jinwei Lin ¹ ; Mingjie Xu ¹ ; Tao Ji ¹	
	¹ Deqing Power Supply Company, State Grid Zhejiang Electric Power Co., Ltd.;	
	² Deqing Xindian Electric Power Construction Co., Ltd.	
P02.31	Parameter-Efficient Language Model for BOM Classification in Automated Power Electronics Design	256
	Jiahua Ying; Bowen Su; Ran Ou; Huan Chen; Kai Sun	
	Tsinghua University	
P02.32	A Back-to-Back Three-Phase Bridge-Based Operational Condition Simulation Method for Permanent Magnet Synchronous Motor Drives	261
	Haixiang Zhang ¹ ; Fei Wang ¹ ; Xiaokang Zhang ¹ ; Lintao Ren ²	
	¹ Shanghai University; ² Panxin Technology (Shanghai) Co., Ltd.	
P02.33	Research on Modeling of Low Temperature Preheating System of Power Battery Based on Electric Drive System	266
	Zhuo Chen; Jie Shen	
	Shanghai Dianji University	
P02.34	Application of CM Active EMI Filter Considering Insertion Loss and Power Consumption	271
	Yongxing Zhou ¹ ; Liang Shu ¹ ; Yigang Lin ¹ ; Yingmin You ¹ ;	
	Ziran Wu ¹ ; Wei Chen ¹ ; Xiao Han ² ; Ruru Zheng ³	
	¹ Wenzhou University; ² China Academy of Information and Communications Technology;	
	³ Yandangshan Institute of Electrical Technology	

T01 Grid-Forming & Microgrid – 1

Chair: Min Chen | Zhejiang University
Huimin Wang | Zhejiang Sci-Tech University

Time: 08:30-10:10 August 24, Sunday

Venue: 3F Harvest Room

T01.1	Active Power Quality Optimization Control for Grid-Forming Photovoltaic Inverters Based on Harmonic Impedance Reshaping	276
	Junfeng He ¹ ; Luyao Xie ¹ ; Kan Jiang ² ; Yi Chen ¹ ; Suchao Tong ² ; Chuanbao Liu ² ¹ Zhejiang University of Technology; ² HRV ELECTRIC.	
T01.2	Selecting Locations and Capacities for Grid-forming Converters to Enhance Stability and Performance of Grid-forming/Grid-following Hybrid Systems	282
	Feng Tan ¹ ; Ruohan Leng ¹ ; Quanmao Li ² ; Hangyu Chen ¹ ; Zhixian Hou ¹ ; Liangxiao Luo ¹ ; Huisheng Gao ¹ ; Huanhai Xin ¹ ¹ Zhejiang University; ² State Grid Gansu Electric Power Research Institute;	
T01.3	Transient Stability Analysis of dVOC-Based Grid-Forming Inverters Considering Reactive Power Compensation	288
	Zhida Shang; Cheng Cheng; Yang Liu; Mingyue Wang; Shaokun Niu; Alian Chen Shandong University	
T01.4	Novel Integrated Synchronization Schemes for Grid-following and Grid-forming Inverters	294
	Yuying He ¹ ; Wen Zou ¹ ; Hao Hu ² ; Huiling Zhang ¹ ; Li Zhang ¹ ; Jingxin Hu ² ¹ Hohai University; ² Nanjing University of Aeronautics and Astronautics	

T02 DC/AC - 1

Chair: Heya Yang | Zhejiang University
Yi Chen | Zhejiang University of Technology

Time: 08:30-10:10 August 24, Sunday

Venue: 4F Diplomat Boardroom

T02.1	A Neutral Point Voltage Balance Control for Three-level T-type Inverters with Carrier-based Discontinuous PWM	299
	Haoqing Cai; Min Chen; Dehong Xu Zhejiang University	
T02.2	Novel Hybrid Clamped Six-Level Inverter for Medium Voltage Applications: Topology and Operating Principle	305
	Yuying He ¹ ; Tao Wang ² ; Hao Hu ³ ; Jingxin Hu ³ ; Xuehua Wang ⁴ ; Wen Zou ¹ ¹ Hohai University; ² The Hong Kong University of Science and Technology (Guangzhou); ³ Nanjing University of Aeronautics and Astronautics; ⁴ Huazhong University of Science and Technology	
T02.3	A Type of Seven-Level Inverter with Extension Capability and Reduced Switch Count	310
	Qi Wu; Qingsong Wang Southeast University	

T02.4	An Improved Module Power Balance Modulation Method for 9-Level Cascaded Multilevel Inverters	316
	Zhong Chen; Yang Ma; Yunxi Chen; Jiakai Gan; Renyu Li Nanjing University of Aeronautics and Astronautics	

T03 DC/AC - 2

Chair: Hanjing Dong | Hangzhou Dianzi University

Bodong Li | Zhejiang University

Time: 08:30-10:10 August 24, Sunday

Venue: 2F Cinema Five

T03.1	High Power Density Current Fed DC/DC Converter and Voltage Spike Suppression	322
	Mingyu Liao ¹ ; Zhiguo Zhang ² ; Guang Deng ² ; Feng Cheng ² ; Wenjie You ³ ; Zhihong Fu ¹ ¹ Chongqing University; ² Chongqing University of Technology; ³ Guizhou Aerospace Linqun Motor Co., Ltd.	
T03.2	A Fast and Accurate Solution Method for Steady-State Switching Frequency of LCC Resonant Converters Based on Two-Point Method Across Full Load Range	327
	Qingwei Huang ¹ ; Jun Zhao ² ; Chuanguang Wu ¹ ; Jiele Rao ¹ ; Yonghong Xia ¹ ; Zhiqiang Wang ² ¹ Nanchang University; ² Huazhong University of Science and Technology	
T03.3	Design of a High-Efficiency, High-Frequency DC-DC Converter with Wide-Input-Range for Data Center Applications	333
	Chunyu Ye; Zhijian Fang China University of Geosciences	
T03.4	A Multi-Objective Optimization Control Method for Bidirectional Series Resonant Converter	339
	Zhong Chen; Renyu Li; Wei Liu; Jiakai Gan; Kunkun Liu Nanjing University of Aeronautics and Astronautics	

T04 Device & Module

Chair: Na Ren | Zhejiang University

Haidong Yan | Zhejiang University

Time: 08:30-10:10 August 24, Sunday

Venue: 2F Embassy Room

T04.1	Junction-Temperature-Orientated Safe Operating Area Test for Power Semiconductors under PWM Operation and Thermal Steady State	345
	Jingxuan Liu ¹ ; Ke Ma ¹ ; Guanyu Lu ¹ ; Yiming Wang ² ; Po Xu ² ; Jiaqi Cao ² ¹ Shanghai Jiao Tong University; ² Ginlong Technologies Co., Ltd.	
T04.2	Driving and Protection Circuit Design of SiC Module for General-Purpose Converter in Distribution Networks	350
	Zhiyuan Ma ¹ ; Zhong Xu ¹ ; Shuo Xu ¹ ; Mingyu Chen ² ; Rui Li ² ¹ Power Supply Bureau of Guangdong Power Grid Co., Ltd.; ² Shanghai Jiao Tong University	

T04.3	Experimental Study on Current Transfer of Hybrid DC Circuit Breaker Based on Reverse Blocking Diode Thyristor	355
	Zhiwen Li; Lin Liang; Zhengheng Qing; Tong Liu; Zhongqi Guo; Kaijun Wen Huazhong University of Science and Technology	
T04.4	A Health Monitoring Method for Bonding Wires in IGBT Modules with Auxiliary Terminals During Switching Process	361
	Haidi Zhang; Fei Wang; Xiaokang Zhang Shanghai University	

T05 Grid Forming & Microgrid - 2

Chair: Jing Lyu | Shanghai Jiao Tong University

Yuming Liao | Zhejiang University

Time: 10:30-12:10 August 24, Sunday

Venue: 3F Harvest Room

T05.1	Assessment of Safety Boundary Constraints of Grid-Forming Converters under Asymmetric Grid Faults	366
	Zhi Huang; Zou Xiao; Jingyuan Wen; Boxin Liu; Xin Xiang; Wuhua Li Zhejiang University	
T05.2	Coordinated SSCB and Impedance-Based Restoration Scheme for Islanded Microgrids	372
	Symeon Fountoukidis; Ioannis Kanimas; Nick Papanikolaou Democritus University of Thrace	
T05.3	Passivity-Based Coordinated Control of Interlinking Converters for Interconnected DC Microgrids	378
	Kai Huang; Sucheng Liu; Chao Wang; Zhiheng Cai; Qianjin Zhang; Xiaodong Liu Anhui University of Technology	
T05.4	An Improved Power Margin-Based Coordinated Control Strategy for Hybrid AC/DC Microgrids	384
	Maomao Song; Sucheng Liu; Zhiheng Cai; Chao Wang; Qianjin Zhang; Xiaodong Liu Anhui University of Technology	

T06 DC/AC - 2

Chair: Shuai Shao | Zhejiang University

Jinming Xu | Nanjing University of Aeronautics and Astronautics

Time: 10:30-12:10 August 24, Sunday

Venue: 4F Diplomat Boardroom

T06.1	From Boost-VSI to VSI-Boost: a Novel Approach for High Power-Density Cost-Competitive Inverter Systems with Improved Harmonic Signature	390
	Hiroataka Araki; Alberto Castellazzi Kyoto University of Advanced Science	

T06.2	Collaborative Control Method of Midpoint Voltage and Zero Sequence Current in Inverter System Based on Modulation Wave Decomposition or Offset	395
	Ruiyang Xie ¹ ; Min Chen ¹ ; Xiaotian Wu ² ; Yexiang Yu ² ¹ Zhejiang University; ² Dongfang Electric Wind Power Co., Ltd.	
T06.3	Analytical Model for Zero Voltage Switching of Full-Bridge Inverter under Discontinuous Conduction Mode	401
	Zhuobin Liu; Guipeng Chen; Ziheng Huang; Lantao Huang Xiamen University	
T06.4	Hybrid-Mode Modulation Strategy for Series-Resonant Dual Active Bridge Microinverter	406
	Jieming Chen; Liaoyuan Lin; Shaoxiong Zheng; Junfeng Yin Huaqiao University	

T07 DC/AC - 2

Chair: Changsheng Hu | Zhejiang University

Zhong Chen | Nanjing University of Aeronautics and Astronautics

Time: 10:30-12:10 August 24, Sunday

Venue: 2F Cinema Five

T07.1	Series-Stacked Modular Bidirectional Converter for Supercapacitor Integration in On-Board Microgrids	412
	Nick Rigogiannis ¹ ; Nick Papanikolaou ¹ ; Yongheng Yang ² ¹ Democritus University of Thrace; ² Zhejiang University	
T07.2	A Dual-Frequency Topology for Envelope Tracking Power Supply	418
	Chengguo Qian; Jicheng Huang; Zhihao Jin; Lijun Hang; Yuanbin He Hangzhou Dianzi University	
T07.3	Constant On-Time Control for Buck Converter: Analyzing, Simulation and Hardware-In-Loop Verification	422
	Man Liu; Yenan Chen Zhejiang University	
T07.4	An Analog Hysteresis Current Control Strategy for Photovoltaic Dual-Switch Flyback Converter	428
	Celiang Deng ¹ ; Fan Zhang ¹ ; Jianyu Lan ² ; Jiawei Zang ² ; Min Chen ¹ ; Feng Jiang ¹ ¹ Zhejiang University; ² Shanghai Institute of Space Power-Sources	

T08 Renewable Energy & Energy Storage

Chair: Jiatao Yang | Shanghai Jiao Tong University

Moude Luan | Zhejiang University

Time: 10:30-12:10 August 24, Sunday

Venue: 2F Embassy Room

T08.1	Inertia Cooperative Control Strategy for Interlink Converter in AC-DC Hybrid Microgrids Integrated with PV and Energy Storage Systems	432
	Shenkai Mei ¹ ; Luyao Xie ¹ ; Rizhen Jiang ² ; Yi Chen ³ ; Weihong Fu ² ; Qi Wang ² ¹ Zhejiang University of Technology; ² HRV ELECTRIC; ³ Zhijiang College of Zhejiang University of Technology	
T08.2	Transient Stability Study of Grid-Forming Energy Storage Converters Based on Mixed Potential Function	438
	Meng Sun; Qianjin Zhang; Chengqiang Yin; Lin Zhang; Yifan Zhang; Hongjie An Provincial Key Laboratory of Power Electronics & Motion Control, Anhui University of Technology	
T08.3	An Enhanced Matching Control Strategy for Wind Turbine Systems with Machine-side Power Reserve	444
	Yantao Xu ¹ ; Yongheng Yang ¹ ; Xiaotian Wu ² ; Xiyan Li ² ¹ Zhejiang University; ² Dongfang Electric Wind Power Co., Ltd.	
T08.4	Dynamic Multi-Path Routing Optimization Mechanism for Energy Efficiency Improvement in Energy Local Area Networks	450
	Zilong Wang; Alian Chen Shandong University	

T09 Grid Forming & Microgrid - 3

Chair: Qianjin Zhang | Anhui University of Technology

Yinxiao Zhu | Zhejiang University

Time: 13:30-15:10 August 24, Sunday

Venue: 3F Harvest Room

T09.1	A CAN-Based Carrier Synchronization Method for Parallel Inverter System	456
	Jingru Yang ¹ ; Min Chen ¹ ; Haoqing Cai ¹ ; Yan Zhang ¹ ; Qing Ding ² ; Changsheng Hu ¹ ¹ Zhejiang University; ² Power Electronics Hanotronics Co., Ltd.	
T09.2	A Seamless Grid-Connected/off-Grid Mode Transition Control Strategy for A Master-Slave Parallel System	462
	Yan Zhang ¹ ; Min Chen ¹ ; Yiran Chen ¹ ; Jingru Yang ¹ ; Qing Ding ² ¹ Zhejiang University; ² Power Electronics Hanotronics Co., Ltd.	
T09.3	Adaptability Analysis of Directional Elements under Grid-Forming Control Strategy	468
	Yu Jiang; Wei Dai; Qingsong Wang Southeast University	

T09.4	Impedance Circuit Model and Instability Mechanism Analysis of Grid-Forming MMCs with Virtual Admittance Control	474
	Mengyao Zhang ¹ ; Lei Gao ² ; Jing Lyu ² ; Xiaohu Zhang ¹ ; Feng Zhu ¹ ; Ling Xu ¹	
	¹ East Branch of State Grid Corporation of China; ² Shanghai Jiao Tong University	

T10 EV & Drive - 1

Chair: Wenxi Yao | Zhejiang University
 Shuangchun Xie | Zhejiang University Advanced
 Electrical Equipment Innovation Center

Time: 13:30-15:10 August 24, Sunday

Venue: 4F Diplomat Boardroom

T10.1	Electromagnetic Interference Modeling and Analysis of Motor Drive System Based on Analytical Method	480
	Junhao Chang; Feihuang Gong; Henglin Chen	
	Zhejiang University	
T10.2	A Novel Deadbeat-Direct Torque and Flux Control for Five-Phase Permanent Magnet Synchronous Motors	486
	Jichen Niu; Xuefeng Jiang; Wangyang Zhou; Tingyuan Zhang	
	Nanjing University of Science and Technology	
T10.3	Fault Diagnosis and Fault-Tolerant Control of Current Sensors in Motor Drive Inverter for Electric Vehicle	492
	Ziqian Hu ¹ ; Liang Cao ² ; Zhihao Song ² ; Wenxi Yao ¹	
	¹ Zhejiang University; ² Leadrive Technology (Hangzhou) Co., Ltd.	
T10.4	Research on Permanent Magnet Synchronous Motor Control Based on Sliding Mode Observer	498
	Long Yang; Xiaolu Ma; Yixian Wang; Sucheng Liu; Qianjin Zhang; Jie Huang	
	Anhui University of Technology	

T11 DC/DC - 3

Chair: Qingsong Wang | Southeast University
 Jinxu Yang | ZJU-HIC

Time: 13:30-15:10 August 24, Sunday

Venue: 2F Cinema Five

T11.1	Analysis of a Wide-Gain Bidirectional Buck-Boost Converter Based on Dual-Switch Buck-Boost and Switching LC	504
	Zhiqing Wang; Yuxuan Zhang; Hao Chen; Chao Zhang	
	Jiangsu University	
T11.2	Two-phase Interleaved High Step-Up DC/DC Converter with Low Input Current Riple Based on Coupled Inductor and Cascaded Switched Capacitor	510
	Cheng Cheng; Longlong Zhang; Haoran Jiang; Shiyu Ji; Kai Wang; Baoxin Li	
	China University of Petroleum (East China)	

T11.3	A Simplified Quadrilateral Current Modulation Strategy for Bidirectional Four-Switch Buck-Boost Converters	515
	Yueshi Guan; Xiaohan Yu; Yijie Wang; Dianguo Xu Harbin Institute of Technology	
T11.4	Optimization Method for GaN-Based 48-12V Buck Circuit Device and Frequency	521
	Xin Hao; Xinke Wu; Wending Zhao Zhejiang University	

T12 Wireless Power Transfer

Chair: Jiayang Wu | City University of Hong Kong

Wenqi Zhu | Tokyo University of Science

Time: 13:30-15:10 August 24, Sunday

Venue: 2F Embassy Room

T12.1	Comprehensive Study of Detuning Effects in SS-Compensated Wireless Power Transfer Systems	525
	Gangwei Zhu; Jiayang Wu; Siew Chong Tan; Shu Yuen Ron Hui City University of Hong Kong	
T12.2	Semi-Active Rectifier Based Maximum Efficiency Point Tracking Method for Wireless Power Transfer	531
	Shipeng Qin; Xiaoqiang Wang; Jianping Xu Southwest Jiaotong University	
T12.3	Simultaneous Wireless Power and Information Transfer Based on Semi-Bridgeless Active Rectifier	537
	Yiwen Liu; Wanying Weng; Keming Liu; Guoao Li; Jiande Wu; Xiangning He Zhejiang University	
T12.4	A Stepped Coil Design for An Implantable Deep Brain Stimulation	542
	An Zhou ¹ ; Wenxing Zhong ² ; Tianhao Huang ¹ ¹ Zhejiang University; ² Ningbo University	

T13 AC/DC

Chair: Chi-Seng Lam | University of Macau

Gangwei Zhu | City University of Hong Kong

Time: 15:30-17:10 August 24, Sunday

Venue: 3F Grand Ballroom B

T13.1	Single-Phase Quasi-Single-Stage Isolated ACDC Power Converter with Wide Voltage Gain Capability	547
	Wenyu Xiong ¹ ; Yuanbin He ¹ ; Lijun Hang ¹ ; Yaoyou Su ² ; Xiaoyong Li ² ; Jianming Chen ² ¹ Hangzhou Dianzi University; ² SolaX Power Network Technology	
T13.2	A Novel Isolated Totem-Pole Single-Stage AC-DC Converter and Its Modulation Strategy	552
	Lixun Zhou; Hanchao Zeng; Long Chen; Yanhui Qiu; Damin Zhang Xiamen University of Technology	

T13.3	Low-Voltage Stress Single-Phase AC-DC Active Power Decoupling Converter Based on Improved Boost Circuit	557
	Wenchao Zhu; Ziyang Huang; Tiansheng Wang; Chao Zhang Jiangsu University	
T13.4	Harmonic Injection Modulation Method of Single-Phase Single-Stage DAB-Based Bidirectional ACDC Converter	563
	Zhiheng Cai; Sucheng Liu; Maomao Song; Kai Huang; Qianjing Zhang; Xiaodong Liu Anhui University of Technology	

T14 EV & Drive -2

Chair: Wenxi Yao | Zhejiang University
Xiang Meng | Zhejiang University
Time: 15:30-17:10 August 24, Sunday
Venue: 3F Harvest Room

T14.1	Modeling and Compensation of Eccentricity Errors in Variable Reluctance Resolvers	569
	Zhiyang Cao ¹ ; Ziqian Hu ¹ ; Liang Cao ² ; Wenxi Yao ¹ ¹ Zhejiang University; ² Leadrive Technology (Hangzhou) Co., Ltd.	
T14.2	Discretization Methods for Full-Order Observers in Sensorless Control of IPMSM	575
	Lingquan Bao ¹ ; Qianru Lin ¹ ; Zhihao Song ² ; Liang Cao ² ; Wenxi Yao ¹ ¹ Zhejiang University; ² Leadrive Technology (Hangzhou) Co., Ltd.	
T14.3	Electromagnetic Interference Filter Design Based on Terminal Model of Motor Drive System	581
	Zhaocheng Zhong; Junhao Chang; Yuxiang Liu; Henglin Chen Zhejiang University	
T14.4	Four-Vector SMC for Dual Three-Phase PMLSMs	587
	Xi Rao; Jinsong Kang; Zongbo Hu; Liangrong Sun Tongji University	

T15 Passive Component

Chair: Sihui Hong | Zhejiang University
Yu Dou | Zhejiang University
Time: 15:30-17:10 August 24, Sunday
Venue: 4F Diplomat Boardroom

T15.1	A Hybrid Staggered-Array Circular Pin Fin Microchannel Liquid-cooled Heat Sink For Localized Hotspot Cooling	593
	Xinglan Hou; Yongheng Yang Zhejiang University	
T15.2	A Novel Thermal Time Constant-Based Health Monitoring Method for Power Inductors	599
	Zhihuan Wang; Jun Zhang; Huixian Shen; Haiyan Sun Hohai University	

T15.3	Leakage-Inductance-Optimized Winding Configuration for Center-Tapped Planar Transformers in Full-Wave Rectifier LLC Converters	604
	Tiantian Dong; Chunguang Ren; Ziqian Ren; Xinqi Li Taiyuan University of Technology	
T15.4	An Integrated Matrix Transformer Suitable for LLC Resonant Converter	609
	Jisinin Wang; Changsheng Hu Zhejiang University	

T16 AI for Power Electronics

Chair: Yongheng Yang | Zhejiang University

Lunbo Deng | Zhejiang University

Time: 15:30-17:10 August 24, Sunday

Venue: 2F Cinema Five

T16.1	Neural Network Based Steady-State Characteristic Analysis of LLC Converter	614
	Wen Cao; Sixin Lin; Guipeng Chen Xiamen University	
T16.2	A Swarm Intelligence Algorithm Applicable to State Identification of Transformerless Direct Hanging Battery Energy Storage Systems	619
	Cheng Peng ¹ ; Daming Wang ² ; Rui Li ¹ ¹ Shanghai Jiao Tong University; ² Electric Power Research Institute of China Southern Power Grid	
T16.3	Deep Reinforcing Learning for Effective Reference Tracking in Power Electronics Applications	624
	Anugula Rajamalliah ¹ ; Nishant Thakkar ¹ ; Hamidreza Arasteh ² ; Josep M. Guerrero ¹ ¹ Zhejiang University; ² Niroo Research Institute	
T16.4	Short-Term Load Forecasting with Integrated Dynamic Holiday Awareness and Multi-Scale Temporal Modeling	630
	Jing Yuan; Wanghan Yang; Ruixiang Cheng; Changshuo Li; Yehui Han Zhejiang University	