

2025 International Future Energy Electronics Conference (IFEEC 2025)

**Bali, Indonesia
19-21 November 2025**



**IEEE Catalog Number: CFP25IFE-POD
ISBN: 979-8-3315-4948-0**

**Copyright © 2025 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP25IFE-POD
ISBN (Print-On-Demand):	979-8-3315-4948-0
ISBN (Online):	979-8-3315-4947-3

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

Contents

Committee	II
Contents	VI
Welcome Speech.....	VII
IFEEC 2025 in Numbers	VIII
Keynote Speakers	XI
Conference Schedule	XII
Venue Maps	XVI
Parallel Presentation Schedule	XVIII
Author Index	XXXVI
Technical Paper	XLII

Technical Paper

Paper ID #	Title	Authors	Page #
1571151776	Analysis of Grid-Connected Dual T-Type Five-Level Inverter with Talkative Power Conversions	Rajender, Challa; A, Kirubakaran	1
1571154505	Bayesian Optimized LSTM-MFPC Controller for Microgrid Frequency Regulation	Hong, Ying-Yi; Alano, Francisco I.; Lee, Yih-Der; JhengLun, Jiang	7
1571157832	Grid-Tied Solar Energy Systems Enhanced by High-Gain Boost Converter Architectures	Sahito, Tauseeqe Ahmed; Lin, Chang-Hua; Liu, Hwa-Dong; Lu, Shiue-Der; Huang, Liang-Yin	13
1571161208	Output Power Feedback Control for DC-DC Converter Utilizing Singular Auxiliary Chopper Circuit	Hamdan, Nour A.K.; Hagiwara, Makoto	17
1571161408	Phase-Based High-Sensitivity Metal Object Detection for Electric Vehicle Wireless Charging	Chen, Hao; Zhang, Zhecheng; Chen, Yuanpeng; Hui, Yue; Wu, Jiande; He, Xiangning	23
1571162110	Modulation Signal Optimized Synchronous PWM for Even Pulse Numbers	Kondo, Shota; Kojima, Tetsuya	29
1571163136	Optimized Neural Network Model for State Estimation of Lithium-Ion Batteries	Luo, Yi-Feng; Ko, Sheng-Chien; Chang, Chih-hsun; Ho, Kun-Che; Yang, Zong-Zhen	35
1571163547	Multi-Rate Sampling-Based Direct Digital Control with Minimal Closed-Loop Pole Drift for PMSMs	Chen, Woei-Luen; Lin, Chia-Hsi; Liu, Tian-Hua	41
1571164758	A Study on Silicon Carbide (SiC) MOSFET Model Behavior Analysis and Influence of Parasitic Capacitance on Switching Characteristics	Tripathi, Ravi Nath; Omura, Ichiro	47
1571164851	Graphical Approach for Sub-Optimal Unity Power Factor Control of Interior Permanent Magnet Synchronous Motor Drives	Chang, Chi-Yang; Lin, Jun-Hong; Tsai, Mi-Ching	53
1571164875	A Study on Circuit Technologies for Improving the Efficiency of Active Cell Balancing	Na, Seok-Jin; Park, Kang-moon; Cho, In-Ho	59
1571164935	Research on Optimization of LLC-SRC Resonant Converter with Valley Switching Control Method	Yi-Feng, Lin; Yu, Hsiang-Jen; LI, YEN-TE	65

Paper ID #	Title	Authors	Page #
1571164947	A Grid-Forming Inverter with Virtual Damper Winding	Lee, Chen-Kai; Hung, Jian-Je; Hsu, Che-Wei; Chen, Jiann-Fuh	71
1571164951	Implementation of Bidirectional T-Type AC/DC Converter for Electric Vehicle Charging	Chen, Yi-Hung; Lin, Hong Zhang; Hsu, Che-Wei; Chen, Jiann-Fuh	77
1571164978	Optimized Inductor Design for MHz CrM Totem-Pole PFC to Minimize Inductor Losses	Huang, YongYi; Lai, Yen-Shin; Lai, Siyu	83
1571165188	On-State Resistance Measurement Circuit Under Galvanic Isolation Constraints	Shin, Junho; Shin, Jong-Won; Eo, Suwoong; Sung, Dae-Un; Jung, Hyun-Woo; Moon, Sanghyun	89
1571165386	Evaluation of Gate Driver Losses in Boost Converters with Wide-Bandgap Semiconductors	Hua, Wei-Tse; Liao, Jia-Zheng; Ho, Kun-Che	93
1571165495	A Hybrid Modulation Strategy for Asymmetric Half-Bridge Flyback Converters with Wide-Output Voltage Range	Ou, Sheng-Yuan; Ho, Jhe-Jyun; Tsai, Ming-Wei; Tang, Cheng-Yu	99
1571165528	A Primary-Side Signal-Based Coil Misalignment Detection Method for Wireless Power Transfer Applications	Hu, Jhih-Cheng; Chen, Yi-Min; Yang, Cheng-Wei; Lin, Chun-Wei; Huang, MingShi	104
1571165530	Control and Experimental Verification of Unidirectional 3-Phase AC/DC Power Converter Using Single-Delta Bridge-Cell Converter	Suzuki, Atsuya; Hagiwara, Makoto	109
1571165657	Experimental Evaluation of a Regenerative Test System for Power Devices Under Soft-Switching Conditions	Nishibori, Yusuke; Ota, Ryosuke; Wada, Keiji; Takimoto, Kazuyasu; Hirano, Makiko; Koyama, Yushi	115
1571165724	A ZVS-PWM Three-Phase DC/AC Converter	Wang, Chien-Ming; Wang, I-Hsiang; Lee, Yu-Zhe; Lan, Tzu-Yuan	120
1571165755	On-Site Electric Motor Health Monitoring: from Condition Assessment to Predictive Maintenance	Yi, Chen-Pei; Tsai, I-Haur; Yang, Shih-Chin	125
1571165791	A Comparative Study of Fixed-Slope Carrier Modulation Methods for Direct Matrix Converter	Solemanifard, Sahel; Lak, Mohammadreza	130

Paper ID #	Title	Authors	Page #
1571165802	Energy-Saving Operation Method for High-Speed Railway Vehicle Improving the Traction Circuit Efficiency	Takeda, Yoshiaki; Kondo, Keiichiro; Saito, Tatsuhito; Ogawa, Tomoyuki	136
1571165811	Design of Long Range, High Power, High Efficiency Miniature Coils for MHz Band WPT	Sugiura, Natsuki; Akatsu, Kan	142
1571165830	Seamless Mode Transition Method Considering Voltage-Second Balance of Magnetic Component Between Transition to Reduce the Voltage Stress for Wide Output Voltage Range of Full Bridge Resonant Converter	Chen, Chien-Yu; Lai, Yen-Shin	148
1571165839	Space Vector PWM-Based Field-Oriented Control for PMSM Regenerative Braking Systems	Sabilillah, Muhammad Rifqi Nur; Pratama, Hideo; Hsieh, Yao-Ching; Hasanah, Rini Nur; Aziz Muslim, Muhammad	154
1571165846	Comparative Analysis of Carrier-Based Modulation Methods for Dual-Parallel Three-Level T-Type Inverters	Lak, Mohammadreza; Solemanifard, Sahel	160
1571165948	Improving Transient Response of LLC Converters via Frequency-Domain Pole-Canceling Compensation	Lee, Dohong; Cho, Younghoon; Kim, BongGook	166
1571165954	Design and Simulation of a Multilevel Boost Converter	Liao, Chun-Yu; Pai, Kai-Jun	172
1571165958	Continuous Sequencing for Suppressing Rapid Current Increase over Ground Coil Seams in Dynamic Wireless Power Transfer Systems	Kasai, Hiroshi; Ota, Ryosuke; Kondo, Keiichiro	178
1571165986	Implementation of Nonlinear Flux Linkage Model for PMSM in Electric Motor Emulator	Liu, Hung Jiun; Chen, Yaow-Ming	184
1571166034	Simulation-Driven Design of a Fully Enclosed Secondary-Winding Transformer for High-Current PSFB Converters with Enhanced Coupling and Low AC Loss	Liu, Yu-Chen; Hsiao, Tzu-Yang; Wu, Shang-Syun; Hsu, Tzu-Chieh; Li, Pin-Hsien	190
1571166748	Seamless Transition Switching Control Technique Between DCM and CCM for Four-Switch Buck-Boost DC-DC Converters	Lai, Yen-Shin; Su, Yu-Hao; Lai, Siyu	196
1571167039	New Matrix Transformer for High Efficiency and Slim Form-Factor Power Converters	Lin, An; Chang, Hao-Yung; Lai, Yen-Shin	202

Paper ID #	Title	Authors	Page #
1571167143	Design Criteria for a Wide Input/Output Range LLC Converter Using Topological Reconfigurations	Ohno, Takashi; Lefevre, Guillaume; Regnat, Guillaume; Barlini, Davide; Watanabe, Hiroki; Itoh, Jun-ichi	208
1571168069	Output Quality Quantification for the Cascaded H-Bridge Converter Based STATCOM	Su, Yu-Chen; Hu, Zhi-Wei; Du, Xin-Rui	214
1571172229	Optimized Active-Clamping Control Strategies for Bidirectional Full-Bridge DC-DC Converters	Tang, Cheng-Yu; Zheng, Bing-Xuan	220
1571173100	A Fast-Transient Current-Mode Buck Converter with Transient Assistance Circuit	Ding, Shao-Jin; Liu, Pang-Jung; Chien, Lin-Hao; Wang, Jian-Min; Chuang, Ching-Chun	226
1571173819	Utilization of a Modified PWM Scheme to Realize a Hard-Switched T-Type Converter Using Silicon Superjunction MOSFETs	Gick, Sebastian; Hammer, Johannes; Pfeifer, Markus; Nielebock, Sebastian; Bakran, Mark	231
1571174052	High-Efficiency Constant Power Point Tracking for Photovoltaic Generation Systems	Wu, Han-Cheng; Chen, Yu-Chuan; Teng, Jen-Hao; Cheng, Chun-Wei; Leou, Rong-Ceng	237
1571174074	A Multi-Input High-Gain DC-DC Converter with Hybrid Fuel Cell/Battery Generation for DC-MGs	Lai, Ching-Ming; Pan, Ming-Ho; Chen, Meng-Zong; Dong, Guiyi; Omori, Hideki	243
1571175170	A Current Sensing Method with Enhanced Immunity to Reference Ground Disturbance	Kang, En-Chi; Chen, Yaow-Ming	248
1571176349	Coil Misalignment Analysis and Conversion Efficiency Enhancement for Bidirectional Wireless Power Transfer Systems	Chen, Yu-Wei; Cheng, Chun-Wei; Chou, Zhi-Xuan; Wu, Han-Cheng; Teng, Jen-Hao	254
1571177683	Non-Isolated Three-Port DC-DC Converter Based on SEPIC	Hsu, Chih-Chia; Huang, Zhen-jie; Hsu, Che-Wei; Chen, Jiann-Fuh	260
1571178220	Current-Sensorless Interleaved Totem-Pole PFC Converter with Coupled Inductor	Lo, Kuo-Yuan; Huang, Hsuan-Yi	266
1571178317	Desaturation Function Blanking Time Design Considering Parasitic Circuit Parameters	Tsai, Sheng-Tsung; Chen, Yaow-Ming	272

Paper ID #	Title	Authors	Page #
1571178455	Dead-Time Compensation Strategy for Three-Phase Four Wire Grid Connected Inverter	Fadlika, Irham; Li, Wen-Yen; Chen, Yaow-Ming	278
1571178473	FPGA-Based Feedback Deadbeat Speed Control for PMSM Drives Considering Mechanical Resonance	Morita, Ryosuke; Maekawa, Sari; Shibayama, Takeshi; Aizawa, Toshimitsu	284
1571178782	Delay Effect of Switch-Level Current Limitation in Islanded-Mode dVOC Inverter	Lin, Hung-Chih; Chen, Yaow-Ming	290
1571178840	Active Power Decoupling in Single- and Three- Phase Compatible T-Type AC-DC Converter Using a Built-in Leg	Higashide, Ryohei; Watanabe, Hiroki; Itoh, Jun-ichi	295
1571178944	Hybrid Converter with a 3-Level Buck Converter and a Switched-Capacitor Converter for Fast Charging Application	Lai, Jun-Hao; Ching-Jan, Chen; Huang, Yi-Rong L	301
1571179085	A New Current Feedforward Method to Improve Voltage-Sharing Performance of Series-Connected MOSFETs Based on Active Gate Drive	Umamo, Kyogo; Hideaki, Fujita; Itogawa, Yuki	306
1571179086	Variation-Aware Circuit Simulation of Parallel-Connected SiC MOSFETs Based on Individual Device Modeling	Matsumoto, Kazuki; Nishioka, Taiki; Takayama, Hajime; Furuta, Jun; Kobayashi, Kazutoshi; Shintani, Michihiro	312
1571179113	Study of Level Switching Method in Inverters for EV	Satake, Shuta; Maekawa, Sari; Sato, Kota; Yano, Shinya; Emori, Kenta	318
1571179144	Power Compensation Through Circulating Current Control for Parallel AC/DC Converters Under Unbalanced Grid Conditions	Huerta, Guillermo; Roes, Maurice; Papafotiou, Georgios	324
1571179159	Study of SiC and Cascoded GaN Power Switches Adopted in Boost and Full-Bridge Resonant Converters	Chu, Wen-Cheng; Liang, Tsorng-Juu; Chen, Kai-Hui; Chien, Ching-Ya; Li, Pei-Wen	330
1571179163	Implementation of Software-Based Resolver Emulator with FFSOGI-PLL on DSP for Automotive PHIL Validation	Chen, Min-Hong; Chen, Yaow-Ming	336

Paper ID #	Title	Authors	Page #
1571179233	Experimental Verification of a Multi-Output LED Driver Using Frequency Shift Keying	Dong, Junhao; Ota, Ryosuke; Wada, Keiji; Komatsu, Naoki; Kumada, Kazuhiro	342
1571179284	Verification of Frequency Multiplying Inverter by Cascaded H-Bridge for Wireless Power Transfer	Kobayashi, Seiya; Maekawa, Sari	347
1571179297	Design and Implementation of Four-Phase Trans-Inductor Voltage Regulator with Constant on-Time Control	Chen, Kai-Hui; Le, Xuan-Thang; Liang, Tsorng-Juu; Chien, Ching-Ya; Li, Pei-Wen	353
1571179303	Extensics Theory-Based Speed Controller Design for a Brushless DC Motor Drive System	Chao, Kuei-Hsiang; Lin, Zheng-Nan	359
1571179305	Primary-Side Current Based SR Control for High Voltage and High Frequency Cascoded Dual Half-Bridge Resonant Converter	Huang, Pin-Hao; Liang, Tsorng-Juu; Chen, Kai-Hui; Chien, Ching-Ya; Li, Pei-Wen	365
1571179329	A Novel Three-Port DC-DC Converter with Active Clamp	Zhang, Xie-Wen; Wu, Sihchen; Hsu, Che-Wei; Chen, Jiann-Fuh	371
1571179350	Design of Subsystems in a Bidirectional Power Conversion Architecture	Hsiao, Chun-Yu; Sun, Zong Kun; Wu, Sen-Tung	377
1571179409	Spectroscopic and Morphological Characterization of Dust Deposition Effects on Bifacial PV String Performance After Two-Year Field Exposure in Tropical Climate	Lak, Mohammadreza; Imamul Islam, Md; Solemanifard, Sahel; Jadin, Mohd Shawal; Mansur, Dr. Ahmed Al	382
1571179420	Advanced Machine Learning and Neural Network Approaches for Battery State of Charge (SOC) Estimation	Bhuiyan, Mohaiminul Islam; Lak, Mohammadreza; Kamarudin, Nur Shazwani; Solemanifard, Sahel	388
1571179423	Gate-Voltage-Dependent Input Capacitance Partitioning for Accurate Modeling of Trench-Gate SiC MOSFETs	Nishioka, Taiki; Matsumoto, Kazuki; Takayama, Hajime; Furuta, Jun; Kobayashi, Kazutoshi; Shintani, Michihiro	394
1571179444	A Three-Port Bidirectional DC/DC Converter with DC-Bus/ESS Power Control in DC Microgrids	Lai, Ching-Ming; Chou, Chao-Tang; Chen, Yong-Zheng; Liu, Shi-Qiang; Mishima, Tomokazu	400

Paper ID #	Title	Authors	Page #
1571179468	Independent Power Control of Three-Level Inverter for Dual DC Sources with Common Negative Bus	Lothong, Pawin; Suwankawin, Surapong; Sangwongwanich, Somboon	405
1571179469	Machine Learning-Based Health Index Prediction for Medium Voltage Induction Motors in Power Plants	Mukminin, Hadi Saiful; Tumiran, Tumiran; Widiastuti, Avrin Nur	410
1571179526	State Machine Implementation for Safe Shutdown Strategies of Dual Active Bridge Converters	Datta, Bonaventura Riko Kumara; Sidik, Yohan Fajar	416
1571179533	Resonant Active Gate Drive Circuit for Reducing Gate Drive Loss and Switching Loss	Fukunaga, Hiroki; Yano, Hiroki; Hata, Katsuhiro; Ide, Michihiro; Sukita, Yohei; Takamori, Taro; Liang, Yaogan; Kondo, Hiroki; Watanabe, Kenichi; Nagayoshi, Kenichi; Takamiya, Makoto	422
1571179539	Comparison of Conventional and Planar Transformers in Server Power Supply Application	Yi-Feng, Lin; Fan, Chang- Kang; Chan, Kuang Hsu	428
1571179570	Research on Heat Transfer of Rotor Oil Jet Impingement Cooling of Permanent Magnet Synchronous Motor for Electric Vehicles	Li, Bowei; Akatsu, Kan	434
1571180284	Power Flow Analysis of Hybrid Solar-Grid Shore Power Systems for Emission Reduction	Wijaya, Fransisco Danang; Santosa, Wahyu Ardi; Sidik, Yohan Fajar	438
1571182473	Sensorless Control of IPMSM Using Sliding Observer Based on Model for Realizing MTPA Control	Yoshida, Hiroto; Yamamori, Yuto; Tomita, Mutuwo; Matsumoto, Atsushi; Hasegawa, Masaru; Doki, Shinji	444
1571182491	D-Axis Inductance Measurement Considering Cross-Coupling Interference Using Low-Speed Sensorless Control of SynRM	Yamamori, Yuto; Yoshida, Hiroto; Tomita, Mutuwo; Hasegawa, Masaru; Doki, Shinji	450
1571184041	Multi-Source Multilevel Inverter with Minimum Number of Power Semiconductor Switches	Samman, Faizal Arya; Piegari, Luigi; Mekhilef, Saad; Janwar, Sul; Funaki, Tsuyoshi	456

Paper ID #	Title	Authors	Page #
1571185119	Measurement of the Iron Loss in a DAB Converter for the Transformer with Non-Unity Turns Ratio	Su, Yu-Chen; Wada, Keiji	462
1571187831	Enhanced MRCT Strategy for Synchronous Reluctance Motor Without Offline Inductance Preparation	Chen, Shih-Gang; Lee, Sin-Ruei	467
1571188069	A Basic Study on Feedback Control of Conducted EMI in a Three-Phase Inverter Using Digital Active Gate Drive	Shigetomi, Shimon; Hata, Katsuhiro; Obara, Hidemine	472
1571189122	Applying Phase-Shift to Isolated DC-DC Converter Using Multiple Cascaded Chopper Cells	Morales, Lucas Pablo; Hagiwara, Makoto	476
1571190575	Wireless Power Transfer Receiver Side Charging Regulator with Synchronous Buck Converter for Smart Farming Robot	Geovan, Gervasius; Tampubolon, Marojahan; Sudhartio, Aryadharma; Muharom, Ahmad	482
1571190576	Realization of All-Device ZVS at Light Load Operations in DAB Converters Using SPS-Based Partial Power Canceling Modulation	Suzuki, Yota; Huang, Cheng; Isobe, Takanori	488
1571190844	Finite Element and Power Electronics Co-Design of a 12 V Permanent Magnet Motor for Electric Power Steering Applications	Adiyasa, I Wayan Wayan; Wahyudi, Kurniawan Sigit; Muzaffarul Zaman, Fajrin Sidiq; Widyianto, Agus; Kurniadi, Ninda; Peeie, Mohamad Heerwan	494
1571191716	Expansion of Light-Load Operating Range for DAB-Type Converter Based on Mode Switching	Yang, Puchun; Jianjun, Ma; Zhu, Miao	500
1571191965	Implementation of a Three-Phase LLC Resonant Converter with Phase-Shedding Control	Tung, Yao-Chun; Chiou, Gwo-Jen; Wong, Yuk-Hang; Chen, Jeng-Yue; Juang, Fuh-Shyang	506
1571192928	Adaptive-Parameter Enhanced VSG Control of MMC for MVDC Collection of Renewable Energy	Hu, Hao; He, Yuying; Hu, Jingxin	512
1571192930	Push-Pull Resonant Converter with Wide ZVS Range	Chen, Nianci; Hsieh, Min-Fu	517
1571192980	Efficiency Improvement of a Half-Bridge Dual-Active-Bridge Converter Under Light-Load Conditions	Kao, Tzu-Chiang; Chang-Chien, Le-Ren; Wu, Chung-Chia	523

Paper ID #	Title	Authors	Page #
1571193152	Optimizing Elevator Energy Efficiency: Fuzzy Logic-Controlled Bidirectional DC-DC Converter with Supercapacitor Energy Storage	Azhar, Nur Addinni Mohamad; Rahman, Masfiqur; Mohamad Nordin, Norjulia; Md Rasid, Madihah; Ayob, Shahrin Md	528
1571193198	Thermal and Electromagnetic Analysis of a Dual-Mode ACG Motor for Start-Stop and Torque Assist Functions	Adiyasa, I Wayan; Wijaya, Fransisco Danang; Firmansyah, Eka	534
1571193323	Design of a Double-Layer Octagonal Planar PCB Coil for Wireless Power Transfer in Portable Devices	Wang, Mei-Fang; Lan, An- Jie; Chang, Wei; Lin, Yen- Rung; Lee, Tzung-Lin	540
1571193340	Development of a GaN-Based Multiphase Synchronous Rectification Buck Converter	Wang, Mei-Fang; Chang, Wei; Lin, Yen-Rung; Weng, Cheng-Hao; Lee, Tzung-Lin	545
1571193343	The Study of Grid-Forming Dispatchable Virtual Oscillator Control in a 50 kW Three-Phase Inverter	Wang, Mei-Fang; Jasmine, Senit Araminta; Lee, Tzung-Lin	551
1571193355	Integrated Design of a Penta-Phase-Shift Controlled Triple-Active-Bridge Converter and a Cascade-Connected Inverter	Xu, Weize; Yao, Chun-Jen; Sun, Hao-Yu; Chang, Yu- Chen; Nguyen, Phuc Dinh; Chiu, Huang-Jen	557
1571193361	Implementation of Adaptive DC-Link Voltage to Enhance Efficiency in Electric Motor Emulator	Chiang, Chih Chun; Chen, Yaow-Ming	563
1571193528	A Multi-Stage Current Dimming Method for Enhanced Luminous Efficacy in LED Drivers	Yu, Li-Cheng; Yang, Zong- Zhen; Chen, Jia-Ming; He, Sheng-Zhe; Liu, Yi-Hua	569
1571193560	A New Non-Isolated Common-Ground High Step-Up Converter Adopts Cascaded and Voltage Stacked Techniques	Chiu, Cheng-Hsuan; Yang, Sung-Pei; Kang, Wen-Hao	575
1571193563	Multi-Frame Current Control for Offset and Imbalance Compensation in High-Speed PMSM Drives	Sano, Atsuya; Akatsu, Kan; Okajima, Yudai	581
1571193598	Design and Implementation of Electric Motor Emulator for Six-Phase Permanent Magnet Synchronous Motor	Lai, Ying-Ren; Shen, Peng Xin; Chen, Yaow-Ming	587

Paper ID #	Title	Authors	Page #
1571193601	Advanced Small-Signal Modeling and Dynamic Control of a Grid-Connected T-Type Power Factor Correction (PFC) Converter	Chaudhry, Hassan Habib; Ghaderloo, Reza Asrar; Shani, Benjamin; Ajiboye, Ayooluwa; Gamwari, Ayodhya Somiruwani; Khaligh, Alireza	593
1571193616	Design and Implementation of a Totem-Pole Power Factor Corrector	Wu, Xian-Kai; Yang, Zong-Zhen; Huang, Yu-Chih; Chi, Ming-Zhe; Liu, Yi-Hua	599
1571193655	Design of Leakage Inductance in Toroidal Transformers Using Magnetic-Material Filament	Zhou, Jinxing; Orikawa, Koji	605
1571193693	Techno-Economic Evaluation and Optimal Sizing of an Islanded Hybrid Microgrid Using Various Dispatch Strategies: A Case Study on Sebira Island	Pratama, Ricky Ardian; Wijaya, Fransisco Danang; Sidik, Yohan Fajar	610
1571193696	Miller Plateau Voltage Sensor Circuit Integrated into Gate Driver IC for Physics-Based Load Current Estimation	Takamori, Taro; Huang, Yen-Yun; Liang, Yaogan; Ide, Michihiro; Chen, Po-Hung; Takamiya, Makoto	616
1571193742	Power Loss Forecasting in Distribution Systems Using A3T-GCN	Putra, Muhammad Hadi; Alfarozi, Syukron Abu Ishaq; Widiastuti, Avrin Nur	622
1571193784	Predicting Corrosive Sulfur Value in Transformer Oil Using Long-Short-Term Memory (LSTM)-Based Time-Series Classification Approach	Fitriadi, Rahmat; Tumiran, Tumiran; Alfarozi, Syukron Abu Ishaq	628
1571193831	Inductor Design Optimization Framework Using Machine Learning	Chiu, Yung-CHI; Wu, Yu-Hsin; Chen, Chen; Liu, Yu-Chen	634
1571193852	LED Lifetime Prediction Under Weather Condition for Enhanced Semiconductor Reliability Using XGBoost Algorithm	Ma'ady, Mochamad Nizar Palefi; Hariyawan, Mohammad Yanuar; Oktarina, Eka Sari; Hariyanto, Muhammad Dwi; Zakariya, Naufal	640
1571193877	An Investigation into Load-Pulling Effect of Active EMI Filter on Power-Electronic Converters	Narksook, Thattam; Kaitkansiri, Achirawat; Suwankawin, Surapong	646

Paper ID #	Title	Authors	Page #
1571193900	DC-Link Capacitor-Less Inter-Line DC Power Flow Controller Enabled by Current-Source Dual Active Bridge and Novel CLC Resonant Circuit	Zhang, Hongyi; Zhu, Miao; Lin, Pengfeng	652
1571193920	Design and Implementation of Paralleled Three-Phase Three-Level Inverters Using Virtual Resistance Droop Control	Pamungkas, Laskar; Chang, Yu-Chen; Chen, Chieh-Fu; Chiu, Huang-Jen; Lin, Jing-Yuan; Huang, Peter	658
1571194249	A CPT System Using Load-Independent Class-E ZVS Parallel Resonant Inverter and Voltage-Driven Class-D Rectifier with Double-Sided PCB Capacitive Coupler	Sakashita, Haruka; Zhu, Wenqi; Uzu, Eizou; Koizumi, Hiroataka	664
1571194575	Evaluation of Voltage-Offset Resistive Control for Photovoltaic Panels in Solar Electric Vehicles	JU, Jian-Yu; Kim, Katherine A.	670
1571197001	Battery Energy Storage System for Regenerative Energy Utilization in Urban DC Metro Systems	Rukmana, Maman; Rachmildha, Tri Desmana	676
1571197562	Optimal Placement of Remote Control Switch for Improving Reliability Indices	Pangestu, Kandung Dwi Ridho; Bambang Setyonegoro, Mokhammad Isnaeni; Ali, Husni Rois	681
1571197724	Designing Frequency Ancillary Service in Lombok Island: Study Cases and Quantification	Haryani, Indri; Fatah Mochamad, Rian; Alkayyis, Muhammad Rifqi; Cahyo, Andrew; Aditya, Indra Ardhanayudha; Syamsuddin, Agussalim; Erza, Valensi; Sarjiya, Sarjiya	687
1571198278	Voltage Stability of Multi-Infeed VSC HVDC System - a Review	Wati, Siti Rahmah; Irnawan, Roni; Bambang Setyonegoro, Mokhammad Isnaeni	693
1571198403	Techno-Economic Analysis of a Hybrid Renewable Energy System on Lemukutan Island	Manurung, Julian Maruli Torang; Hadi, Sasongko; Wijoyo, Yusuf	699