

IEEE Transactions on Power Electronics (TPEL) Prize Letter Awards

Letters

“Matrix-Based Inductor Structure for MV Applications” by Anup Anurag, Rudy Wang, and Peter Barbosa. (Volume 40, Issue 8, pp. 10361-10365.)

“A Novel Active EMI Filter Based on Transferring Common-Mode Noise to Differential-Mode Noise” by Hongpeng Wang, Wenjie Chen, Wenxia Chen, Rui Cheng, Yongqi Huo, Wenjie Du, and Xu Yang. (Volume 40, Issue 7, pp. 8950-8955.)

“An Accurate Power Loop Stray Inductance Extraction Method for SiC MOSFETs Based on Forced Resonance With Decoupling Capacitor” by Da Zhou, Zhiqiang Wang, Guoqing Xin, Xiaojie Shi, and Yong Kang. (Volume 40, Issue 2, pp. 2702-2707.)

IEEE Transactions on Power Electronics (TPEL) Prize Paper Awards

First Place

“Data-Driven Component-Level Design of Switching Power Converters Using Predictive Modeling” by Skye Reese, Bailey Sauter, and Dragan Maksimovic. (Volume 40, Issue 8, pp. 11126-11142.)

“Single-Phase and Evaporating Two-Phase Flow Microchannel Cooling of Power Modules for Temporary Overcurrent Operation” by Nikolaos Iosifidis, Haiyong Wan, Xu Zhang, Ali Saeibehrouzi, Michael Smailes, Petr Denissenko, Philip A. Mawby, and Li Ran. (Volume 40, Issue 10, pp. 15381-15398.)

“Mitigation of Motor Reflected Overvoltage Fed by SiC Drives—A New Solution based on Smart Coils” by Majid T. Fard, JiangBiao He, Lulu Wei, Reza Ilka, Behrooz Mirafzal, Fariba Fateh. (Volume 40, Issue 3, pp. 4335-4344.)

IEEE Transactions on Power Electronics (TPEL) Prize Paper Awards

First Place

“Methodology for Parasitic Elements Extraction of SiC Power Module Based on N-Port Measurement”
by Gregory Almeida, Sebastien Serpaud, Victor Dos Santos, Bernardo Cougo, and Fabio Coccetti.
(Volume 40, Issue 10, pp. 14962-14973.)

“A Stable and Ultrafast Control for Multiparallel Grid-Tied SiC Inverters With LVRT Capability
Considering Cable Impedance” by Xuli Quan, Xiaofeng Dong, and Hui Li. (Volume 40, Issue 9, pp.
13919-13930.)

IEEE Transactions on Power Electronics (TPEL) Prize Paper Awards

Second Place

“A Small-Signal Charge Model for Active Balancing of Flying Capacitor Multilevel Converters” by Rahul K. Iyer, Giovanni Bonanno, Simone Buso, Paolo Mattavelli, and Robert C. N. Pilawa-Podgurski. (Volume 40, Issue 12, pp. 18070-18082.)

“Design of a Megawatt-Scale IGCT-Based Medium-Voltage Direct Current Transformer” by Rui Wang, Nikolina Djekanovic, and Drazen Dujic. (Volume 40, Issue 8, pp. 11616-11627.)

“Wide Voltage Range Reconfigurable DAB Converter Realized by Monolithic Bidirectional GaN/Discrete SiC-FETs, and Planar Transformer” by Reza Barzegarkhoo, Fabian Groon, Arkadeb Sengupta, and Marco Liserre. (Volume 40, Issue 11, pp. 17366-17383.)

“Large-Spacing Segmented Transmitter Track for Dynamic Wireless Power Transfer With Low Output Fluctuation” by Hai Xu, Jingyu Wang, and Zhicong Huang. (Volume 40, Issue 9, pp. 14134-14145.)

IEEE Transactions on Power Electronics (TPEL) Prize Paper Awards

Second Place

“Influence of Switching Loss Magnitude on Lifetime During a Switch-Mode Power Cycling Test of SiC MOSFETs” by James Abuogo, Jörg Franke, Josef Lutz, and Thomas Basler. (Volume 40, Issue 8, pp. 10555-10566.)

“Stability Improvement of GaN Power HEMT by a Multifunctional Monolithic Protection Circuit” by Qihao Song, Xin Yang, Bixuan Wang, Everest Litchford, Yi Sun, Pengju Kong, Qiang Li, and Yuhao Zhang. (Volume 40, Issue 4, pp. 5212-5222.)

“Power Management of Hybrid Flywheel-Battery Energy Storage Systems Considering the State of Charge and Power Ramp Rate” by Seyede Masoome Maroufi, Shahab Karrari, Karthik Rajashekaraiah, and Giovanni De Carne. (Volume 40, Issue 7, pp. 9944-9956.)

IEEE Transactions on Power Electronics (TPEL) Prize Paper Awards

Second Place

“Small-Signal Modeling and Loop Analysis of Ultrafast Series Capacitor Trans-Inductor Voltage Regulator With Constant On-Time Control” by Chenxi Li, Liang Wang, Guangce Zheng, Minfan Fu, and Haoyu Wang. (Volume 40, Issue 2, pp. 3262-3274.)

“Modeling and Decoupled Control of the Three-Level Interleaved DC-DC Converter with Coupled Inductors” by Ivan Z. Petrić. (Volume 40, Issue 9, pp. 13529-13542.)

“Highly Integrated Hybrid Inductive and Capacitive Power Transfer System With Asymmetrical Printed-Circuit-Board-Based Self-Resonator” by Yao Wang, Junxiang Yang, Kaiyuan Wang, Yun Yang. (Volume 40, Issue 7, pp. 10254-10264.)