

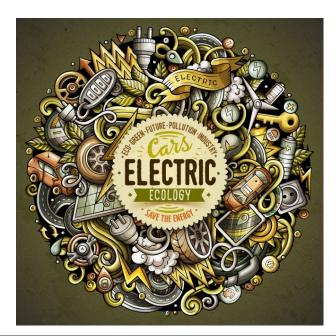
# Products Newsletter



June 2024 | Issue 47

# **New Topic for Transactions on Power Electronics**

The editorial team of *IEEE Transactions on Power Electronics* (TPEL) presents a new topic added to their topic list: Transportation Electrification. This makes 13 topics for the publication. For more information on submitting a manuscript to TPEL, please **email** the TPEL Administrator.



# **Publications Education: Reference Assistant**

IEEE has announced an improved Reference Preparation Assistant. The upgraded tool can help an author to improve their reference list before submitting the article to IEEE for peer review. This self-service tool allows the author to submit a list of references that are returned formatted in the IEEE style. This tool now can help identify references in a list that have been retracted or are from journals classified as predatory by Cabells. The results can be downloaded as a zip file or emailed to the author and other recipients. For more information, please visit **https://refassist.ieee.org/**.

## **IEEE Power Electronics Magazine**



The IEEE Power Electronics Society's five-year strategic plan includes enhancing career support and development programs. This focus on career development was clearly seen at IEEE Energy Conversion Congress & Expo (ECCE) 2023 with its Women in Engineering (WIE) events program covering aspects from early career to senior leadership. This event, a panel discussion on career development ceiling-breaking through and guidance, is fully covered in the WIE column of the March 2024 issue of *IEEE Power Electronics Magazine*. The title of the column is "**Developing a Leadership Career Path at ECCE 2023**." It is written by the magazine's Deputy Editor-in-Chief, Stephanie Watts Butler.

#### Free for All

For more editorial from the March 2024 issue of *IEEE Power Electronics Magazine*, visit the **website**. You will discover a variety of Open Access columns, along with Society News stories. Stay tuned for the September 2024 issue, which will be dedicated to the magazine's tenth anniversary.

### **IEEE Transactions on Power Electronics**

**Call for New TPEL Special Section Proposals (Deadline: August 31, 2024)** The TPEL editorial team is now accepting special section proposals for manuscripts to be published in 2025. To find out the requirements for a proposal, click **here**.

The TPEL editors have selected a few papers to highlight from the **June 2024** issue.

"An Analytical Switching Loss Model for SiC MOSFET Considering Temperature-Dependent Reverse Recovery Over an Extremely Wide High-Temperature Range" by Mengyu Zhu, Yunqing Pei, Fengtao Yang, Zizhen Cheng, Dingkun Ma, and Laili Wang. This study proposes an analytical switching loss model for SiC mosfets over an extremely wide temperature range of 25 °C to 475 °C.

"A Dual-Level Optimal Control Strategy for Offshore Microgrid Considering Efficiency and Operation Cost in Wide Load Range" by Xiangchen Zhu, Yanbo Wang, Chen Liu, Nie Hou, Yunwei Li, and Zhe Chen. This article proposes a dual-level optimal control framework to improve overall operation performance of offshore microgrid with paralleled converters within a wide load range.

## **IEEE Power Electronics Letters**

#### Call for Letters Special Section Proposals ( Deadline June 30, 2024)

TPEL Letters is seeking proposals for special sections to be published in 2025. The special sections aim for new concepts and fast publications in the form of short letters. If you would like to submit a proposal, please contact the **TPEL Administrator**.

#### Highlighted Letters from TPEL June 2024

The **June 2024** issue presents 13 Letters on the recent advancements in power electronics, including wireless power transfer, energy harvesting, gate drivers for series SiC devices, characterization of magnetic components, grid-forming inverters, and power distribution network for microprocessors. Two intriguing letters from this issue are highlighted below.

**"A Method to Reduce PDN Impedance Based on Multicapacitor Loop Coupling**" by Jiarui Wang, Xu Yang, Xingwei Huang, Qingzheng Li, Jiwen Wei, Wenjie Chen, and Kangping Wang. This work analyzes and reduces the loop inductance in the power delivery network for microprocessors. This is a timely and important topic. Experimental results confirm the effectiveness of the presented method.

"**High-Resolution Inductor Current Estimation Algorithm for Digital Controlled Buck Converter**" by Lingyun Li, Shen Xu, Haiqing Zhang, Haoran Cui, and Weifeng Sun. This work presents a digital filtering approach to estimating the inductor current based on voltage samples. The scheme features high resolution for both steady state and step transient operations. Experimental results based on the implementation by Xilinx FPGA and a multiphase buck system verify the accuracy of the method.

#### TTE Announces the Recipients of the 2024 Prize Paper Awards

#### First Prize Paper Award

"Auxiliary Model Compensated RESO-Based Proportional Resonant Thrust Ripple Suppression for PMLSM Drives," *IEEE Transactions on Transportation Electrification*, Vol. 9, No. 2, June 2023.

**Authors**: Guoqiang Zhang, Heng Zhang, Binxing Li, Qiwei Wang, Dawei Ding, Gaolin Wang, and Dianguo Xu

#### Second Prize Paper Awards

• "Paralleled Inverters to Drive Double Dual-Three-Phase Induction Motors with Common-Mode Voltage Mitigation for Traction Application," *IEEE Transactions on Transportation Electrification*, Vol. 9, No. 2, June 2023. Authors: Shaolong Xu, Yafei Ma, Pengye Wang, Zicheng Liu, Dong Jiang, Zhenjun Lin, and Chunyang Chen

• "Multilevel Data-Driven Battery Management: From Internal Sensing to Big Data Utilization," *IEEE Transactions on Transportation Electrification*, Vol. 9, No. 4, Dec. 2023.

Authors: Zhongbao Wei, Kailong Liu, Xinghua Liu, Yang Li, Liang Du, and Fei Gao

• "Application of Deep Neural Networks for Lithium-Ion Battery Surface Temperature Estimation Under Driving and Fast Charge Conditions," *IEEE Transactions on Transportation Electrification*, Vol. 9, No. 1, Mar. 2023. Authors: Mina Naguib, Phillip Kollmeyer, and Ali Emadi

• "A Novel Modular, Reconfigurable Battery Energy Storage System: Design, Control, and Experimentation," *IEEE Transactions on Transportation Electrification*, Vol. 9, No. 2, June 2023.

Authors: Amir Farakhor, Di Wu, Yebin Wang, and Huazhen Fang

#### TTE Recognizes its Outstanding Associate Editors

- Mohammad Sedigh Toulabi, University of Windsor, Canada
- Stefano Nuzzo, University of Modena and Reggio Emilia, Italy
- Zhixue Zheng, University of Lorraine, France
- Deepak Ronanki, Indian Institute of Technology Madras, India
- Kui Jiao, Tianjin University, China

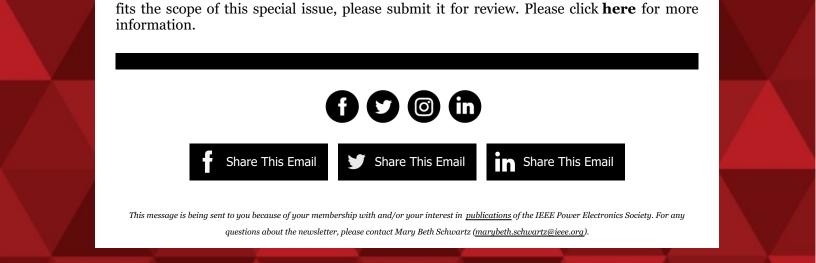
# **IEEE Open Journal of Power Electronics (OJPEL)**

The editorial board of OJPEL announces a*Special Compendium on the 2024 IEEE 6th International Conference on DC Microgrids* (ICDCM2024). This compendium will include papers that show the latest advancements in dc grid technologies and applications. The scope encompasses aspects of power electronics, system architectures, controls, protection, intelligent system management, energy storage, and ac grid interfaces that are unique to dc microgrids. For more information, consult the **link**.

Deadline for Manuscript Submissions: Nov. 1, 2024 (August 2025 publication)

# IEEE Journal of Emerging and Selected Topics in Power Electronics (JESTPE)

The deadline for submissions for the *Special Issue on High Frequency Wireless Power Transfer Technology* has been extended to **July 31, 2024**. If you have a paper that you feel



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