

# **Products Newsletter**



**October 2025 | Issue 63** 

#### **Pubs Education**

# PELS Publications Demonstrate Leadership in Paper Management and Transparent Peer Review

Over the past two years, the *IEEE Open Journal of Power Electronics* (OJPEL) has been running a pilot program of the Transparent Peer Review (TPR). OJPEL was the first IEEE publication to take part in this Web of Science program. Transparent Peer Review (TPR) increases the transparency of the peer review process and allows readers to see the exchange between authors and reviewers throughout the review process by publishing reviews and authors' responses to the reviewers' comments as supporting information to the actual article. This content is only published if both the authors and reviewers opt in to this program. We are excited to share that we have such papers that have gone through production and are live in *Xplore*. For those who are curious, we would like to share one of the papers from the program: "Impact of Encapsulation on the Core Loss of Ferrites in Inductive Power Transfer." The Peer Review can be viewed here.

We would like to share a recent interview with OJPEL's Editor-in-Chief Prof. Alan Mantooth, which was featured in the September 2025 *Editors@IEEE Newsletter*. In "Embracing Transparent Peer Review: An Interview with EIC Alan Mantooth," the EIC shares his thoughts about OJPEL's transparent peer review model. Please click **here** for the full interview.

## **Call for Papers: PELS Publications**

#### **JESTPE**

**Special Issue**: Integrated Machine Drives

Deadline for Submission of Manuscript: October 30, 2025.

Guest Editors: Barrie Mecrow, Thomas Jahns, Joseph Olorunfemi Ojo

**Special Issue**: Power Electronics for Distributed Generation Systems. Post-conference version of papers presented at the IEEE International Symposium on Power Electronics for Distributed Generation Systems (PEDG 2025) are welcome.

Deadline for Submission of Manuscript: November 15, 2025. Guest Editors: Samir Kouro, Pedro Rodriguez, Xinbo Ruan

Special Issue proposals within scope of the journal are welcome, guidelines available online at PELS <u>website</u> and IAS <u>website</u>. For further information, <u>email</u> JESTPE DEiC Sudip Mazumder.

#### **JWPT**

*IEEE Journal on Wireless Power Technologies* (JWPT) announces a <u>Call for Papers</u> for the Special Issue of IEEE Wireless Power Transfer Conference and Expo 2025 (WPTCE 2025). Authors of papers accepted for presentation at WPTCE 2025 are invited to

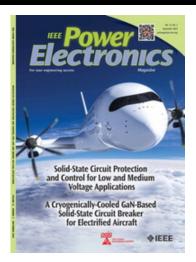
submit an expanded version of their conference papers to the Special Issue. Publication Date: March 2026. Submission Deadline: November 8, 2025.

#### **OJPEL**

The editors from OJPEL would like to announce a Special Compendium on the 2025 IEEE 7th International Conference on DC Microgrids (ICDCM 2025). Papers that show the latest advancements in dc grid technologies and applications are welcome for this special compendium. 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. We will accept selected full journal article versions of already accepted papers at ICDCM 2025. A paper submission is still expected to include a literature review to establish its relationship to prior work, and present sufficient results to prove the validity and viability of proposed concepts. The deadline for manuscript submission is November 1, 2025. The scheduled publication time is August 2026. For more information, please consult the **Call**.

## **IEEE Power Electronics Magazine**



The **September 2025 issue** of *IEEE Power Electronics* Magazine is now live on Xplore. Readers will find such features as the following.

- "Solid-State Circuit Protection and Control for Low and Medium Voltage Applications"
- "A Cryogenically-Cooled GaN-Based Solid-State Circuit Breaker for Electrified Aircraft"
- "Electronic Waste, Power Electronics, and Environmental Sustainability"
- "Controller Design for Sensorless Brushless DC Motors Through a Nonlinear Model Predictive Tracker and Augmented Extended Kalman Filter"
- "IEEE Std 2988-2024 and the Recommended Practice for Use and Functions of Virtual Synchronous Machines"
- "A Guide to Improving Thermal Simulations With Refined

Foster and Cauer Models"

• "Empowering IBRs for Frequency Support: The Role of Incentive Mechanisms"

Don't miss our latest column, Power Rocks!, by Brian Zahnstecher. "It is truly a major privilege and honor to be given the humbling opportunity to share thoughts and experiences with the power electronics community in a regular feature like this. I look forward to delivering a new flavor of power insights to you each quarter!"

#### **Get Access to Previous Issues**

For editorial from back issues of the magazine, visit our website. You will discover Open Access columns, Society News, Industry News, and much more.

#### **IEEE Transactions on Power Electronics (TPEL)**



#### **Call for Associate Editors**

TPEL is accepting applications and nominations for Associate Editors. Please visit the website for the application requirements.

TPEL editors have selected the following papers to highlight from the **October 2025** issue.

"A Waveform-Informed Fault Diagnosis Algorithm for Combined Inverters Under Variable Input Voltage Disturbances Based on VMSS" by Zhanjun Huang, Jun Xie, Qiang Yang, and Maning Zhang. This article proposes a waveform-informed diagnostic algorithm based on the variable mass sinusoidal-wave structure (VMSS). First, the concept of VMSS of the inverter output signal is proposed to calculate the equivalent quality of the signal sequence. On this basis, variables such as quality factor and quality deviation factor are introduced to extract the peak-to-valley and half-period characteristics

of the fault waveform to realize fault detection and primary classification. After that, four types of adjacent invariant sampling counting variables are designed to reflect the differences of level signals under fault conditions by utilizing the level characteristics of internal signals under different faults. Finally, the results of the classification algorithm are combined to realize the localization of all single-switch and multi-switch faults in the inverter. The effectiveness of the algorithm is verified by experiment and comparison.

"Design and Analysis of a Hybrid Inverting Buck Converter With 5 μs Response Time and 92.9% Efficiency for Micro-LED Displays" by Xingfa Yan, Gang Liu, Chen Hu, Kaisong Zhu, Zhaojun Liu, Xun Liu, and Junmin Jiang. The paper presents a hybrid inverting buck (HIB) dc–dc converter with adjustable negative output voltage for micro-LED display applications. The proposed HIB converter enables smaller passive components and simplified compensation control with only one pair of complex poles. The advantages include continuous output current capability, fast load transient response, and low output voltage ripple.

## **IEEE Power Electronics Letters**

Here are a few highlighted Letters from the October 2025 issue of TPEL.

"<u>Unified and Flexible Frequency-Domain Stability Assessment Framework for Power-Electronic-Based Power Systems</u>" by Feifan Chen, Sei Zhen Khong, Xiongfei Wang, and Lennart Harnefors. This paper introduces a new frequency-domain approach for assessing the stability of power-electronic-based systems. The framework brings together different existing methods into a single unified theory. By using frequency-dependent approaches, it also allows for more flexible and less conservative stability criteria. Tests on both stable and unstable systems show that the method can reliably certify stability and identify where instability is likely to occur.

"Optically Isolated Rogowski Coil: Non-Invasive Current Measurement With High d/d Immunity for WBG Device" by Jiakun Gong, Yulei Wang, Yuxi Liang, Mingrui Zou, Liang Wang, Peng Sun, and Zheng Zeng. Rogowski coil (RC) has been extensively employed for current measurement of power devices owning to its non-invasiveness, flexibility, and accuracy. However, the increasing blocking voltage and accelerated switching speed of wide-bandgap devices impose significant challenges on RC-based measurement systems, primarily manifested as more severe electric field interference. In this letter, a novel optically isolated Rogowski coil (Opt-RC) is proposed to address the electric field interference issues.

## **IEEE Journal on Wireless Power Technologies (JWPT)**

#### **Meet the Associate Editors**

We are proud to introduce the distinguished Associate Editors of the *IEEE Journal on Wireless Power Technologies* (JWPT). Their expertise and dedication will help shape the journal and ensure the highest quality of published research.

Wenquan Che – South China University of Technology, China Alireza Safaee – Apple Inc., USA
Naoki Shinohara – Kyoto University, Japan
Grant Covic – University of Auckland, New Zealand

With their diverse backgrounds spanning academia and industry, they bring invaluable knowledge to support JWPT's mission of advancing innovation in wireless power technologies with a strong emphasis on hardware implementation.

We are delighted to have them on board and look forward to their contributions in guiding the journal's success.

For more information on JWPT, clickhere.

## IEEE Transactions on Transportation Electrification (TTE)

The editors of *IEEE Transactions on Transportation Electrification* (TTE) would like to recognize their Outstanding Reviewers for peer reviews completed for TTE papers in 2024.

Giorgio Pietrini (McMaster University Canada)

Filipe Pinarello Scalcon (University of Calgary, Canada)

Ya Li (Anhui University, China)

Lei Zhang (Beijing Institute of Technology, China)

Guanghui Du (Xi'an University of Science and Technology, China)

Guodong Feng (Sun Yat-Sen University, China)

**Zhuoyi Chen** (NingboTech University, China)

Zaixin Song (The Hong Kong Polytechnic University, Hong Kong)

Rui Xie (The Chinese University of Hong Kong, Hong Kong)

Saptarshi Basak (IIT Delhi, India)

Harish Karneddi (Indian Institute of Technology Madras, India)

Gholamreza Davarpanah (Amirkabir University of Technology, Iran

The Islamic Republic of)

Giuseppe Graber (University of Salerno, Italy)

Vincenzo Cirimele (Alma Mater Studiorum University of Bologna, Italy)

Yiming Shen (Nanyang Technological University, Singapore)

**Liangcai Xu** (National University of Singapore, Singapore)

**Utkal Ranjan Muduli** (Khalifa University, United Arab Emirates)

**Huimiao Chen** (Yale University, United States)

Milad Behnamfar (Florida International University, United States)

Zahra Saadatizadeh (Mississippi State University, United States)

For papers from the October 2025 issue, please visit us online.

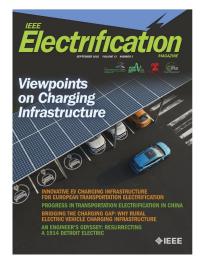
## **IEEE Open Journal of Power Electronics (OJPEL)**

The *IEEE Open Journal of Power Electronics* (OJPEL) covers the development and application of power electronic systems and technologies, which encompass the effective use of electronic components, the application of circuit theory and design techniques, and the development of analytical methods and tools toward efficient electronic conversion, control, and conditioning of electric power to enable the sustainable use of energy. To discover papers from the current volume, please click **here**.

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

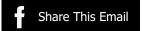
Fernando Briz, JESTPE EIC, is pleased to introduce, on behalf of the editorial board, the new Editor and Associate Editors who have joined the journal in 2025. The Call for Associate Editors was announced in the PELS and IAS Newsletters, as well as through the TCs of both Societies. More than 250 qualified candidates applied, of which less than 10% could be selected. Technical qualification, suitability to JESTPE needs, and geographical and gender diversity were considered for the selection process. At present, the editorial body of JESTPE consists of 18 editors and 82 Associate Editors spread worldwide. The workload involved in carrying out editorial activities for a high-quality journal such as JESTPE is highly demanding and must be undertaken without neglecting many other obligations to their institutions. The JESTPE Editors and Associate Editors are, undoubtedly, the backbone of the journal. To access the October 2025 issue with the latest editorial board, please visit **online**.

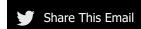
## **IEEE Electrification Magazine**

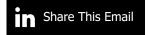


The September 2025 issue of *IEEE Electrification Magazine* focuses on critical enabling technologies and infrastructure for modern multi-modal electrified transportation systems. If you are interested in submitting an article to the magazine, please **email** the editorial team. For detailed submission guidelines, please visit the magazine **website**.









This message is being sent to you because of your membership with and/or your interest in <u>publications</u> of the IEEE Power Electronics Society. For any questions about the newsletter, please contact Mary Beth Schwartz (<u>marybeth.schwartz@ieee.org</u>).

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