

Call for OJPEL Editor-in-Chief

The IEEE Power Electronics Society is accepting applications and nominations for Editor-in-Chief (EiC) for the *IEEE Open Journal of Power Electronics* (OJPEL). The term will be 3 years from January 1, 2026 to Dec 31, 2028, with the possibility of renewal for another 3 year-term.

OJPEL was established in 2020 as a GOLD open journal. Since its inception it has established itself as one of the fastest submission-to-first decision journals in all of IEEE (approximately 4 weeks). The journal operates with three co-EiCs, approximately 50 AEs, and a huge cache of highly responsive reviewers. Its current impact factor stands at 5.0.

OJPEL covers the development and application of power electronic systems and technologies. Some topics include the use of electronic components, the application of circuit theory and design techniques, and the development of analytical methods and tools for efficient electronic conversion, control, and conditioning of electric power to enable the sustainable use of energy. The aim is to publish novel developments as well as tutorial and survey articles, including those of value to the practicing professional, research, and development segments of the field. The deadline for receipt of all materials is May 1, 2025.

For more information, please read the [Call](#).

Pubs Education



All IEEE Power Electronics Society publications have made the transition to the IEEE Author Portal. All authors now submit their manuscripts through the Author Portal instead of ScholarOne. The review process remains in ScholarOne.

What are the benefits of the Author Portal?

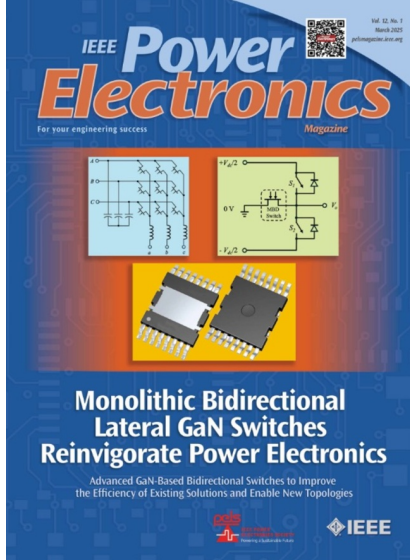
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For more information on the IEEE Author Portal, please visit the [IEEE Author Center](#).

IEEE Power Electronics Magazine

Devices based on wide-bandgap semiconductors, such as gallium nitride (GaN) and silicon carbide (SiC), are at the heart of a lot of the disruptive change facing the industry. The cover topic in the **March 2025 issue** directly addresses this evolution as it applies to power electronic switches, along with a variety of other interesting articles, columns, and Society News.

We recently passed our 10th year in production, which coincides nicely with the 40th anniversary of the IEEE Applied Power Electronics Conference and Exposition



(APEC). In addition to the celebratory activities for APEC's anniversary, the magazine will also have a celebration at the event where we will recognize and award the many people and organizations that made the *IEEE Power Electronics Magazine* the market-leading professional journal it is today.

Get Access to Previous Issues

For editorial from previous issues of the magazine, you can visit the [website](#). You will discover a variety of Open Access columns, along with Society News stories. Stay tuned for the June 2025 issue!

IEEE Transactions on Power Electronics (TPEL)



IEEE Transactions on Power Electronics (TPEL) announces a **Special Section Call for Visionary Papers** to be published in the December 2025 issue. This special call for visionary papers seeks groundbreaking ideas, emerging paradigms, and forward-looking research that push the boundaries of current technological and theoretical frameworks. We encourage contributions that challenge conventional methodologies, propose disruptive innovations, and address the long-term challenges in power conversion, energy storage, and high-efficiency power systems. The deadline for manuscript submissions is June 30, 2025.

The editorial team of TPEL is pleased to announce three new Special Sections for publication in 2025.

1. Special Section on Advanced Wide Bandgap Single-Stage Grid-Connected Power Interface
2. Special Section on Drives and Controls of Electric Machines in Electric and Hybrid Aircraft Applications
3. Special Section on Very High Frequency Resonant Converters for Efficient and Miniaturized Power Conversion

The submission deadline for these is March 31, 2025. For more info, please click [here](#).

TPEL editors have selected a few papers to highlight from the **March 2025** issue.

"A Fast 3-D Numerical Impedance Calculation for Litz Wire and Air-Core Coils" by Tianming Luo, Mohamad Ghaffarian Niasar, and Peter Vaessen. This paper presents a numerical impedance calculation for Litz-wire air-core windings based on cylindrical elements. The method considers the longitudinal field and the impact of eddy current in the transverse field. The proposed technique has good accuracy and fast computational speed. The effectiveness of the method for the air-core coil has been validated by experimental measurements. The proposed method is a powerful tool for coil optimization.

"A Fault Tolerant Modulation Scheme for a Hybrid Multilevel Inverter in the Event of Open-Switch Fault" by Richa Goel, Dheeraj Etta, Ravi Varma Chavali, and Anubrata Dey. This paper presents a novel open switch fault detection method for grid-connected multilevel inverters. The method does not require additional sensors and is demonstrated experimentally on a T-type based hybrid seven-level inverter.

"Direct Capture of Switching Mechanical Wave on IGBT Bare Dies" by Libing Bai, Jiahao Wang, Cong Chen, Quan Zhou, Jie Zhang, Lulu Tian, Gen Qiu, and Yuhua Cheng. In

this paper, the authors present a method for capturing Acoustic Emission (AE) signals directly from a die in a power module. Based on this method, the relationship between the switching parameters of IGBT and switching mechanical wave is studied.

“Modeling and Control of Current Sensorless PFC Three-Phase Vienna Rectifier With Balanced and Unbalanced DC-Link Voltage” by Yi-Hung Liao, Bing-Rong Xie, and Jia-Sheng Liu. This manuscript proposes a novel current-sensorless control strategy for the Vienna rectifier, reducing circuit volume and cost while enhancing performance. By integrating steady-state prediction, error tracking compensation, and zero-sequence compensation, it improves voltage transient response, mitigates input current zero-crossing distortion, and compensates for non-ideal semiconductor characteristics. Experimental results demonstrate that the feedforward control and parameter compensation overcome the limitations of traditional single voltage loop control, offering a robust and efficient solution with strong industrial application potential.

IEEE Power Electronics Letters

The editors of TPEL Letters present three new Special Sections for publication in 2025.

1. Special Section on Highly Robust Power Electronics in the Era DC Grid
2. Special Section on Fabrication and Design of High-Power-Density and High-Frequency Passive Components
3. Special Section on AI-Enhanced Power Electronic Systems: Design, Control, and Maintenance

For specific deadlines on these sections, please click [here](#).

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The **March 2025** issue features six Letters covering a diverse range of advancements in power electronics and related technologies. Here is one highlighted paper from this issue.

“Modified Gyrator–Capacitor Model for Circuit Simulation” by Sam Ben-Yaakov and Yivgeni Semidotskih. A modification to the gyrator–capacitor (GC) magnetic model is proposed to correct possible errors when simulating magnetic structures using the GC model on electronic circuit simulators. The proposed method introduces a conduction path for the dc component of the magnetic flux caused by a dc bias current—a path missing from the original model. This modification ensures the correct distribution of magnetomotive forces (MMFs) across the capacitors. The conduction path is achieved by placing resistors in parallel with the capacitors, ensuring the proper distribution of the dc component of the MMFs. Theoretical analysis, supported by circuit simulations, validates the effectiveness of this approach.

IEEE Transactions on Transportation Electrification (TTE)

Authors are encouraged to submit their manuscripts for publication in TTE. All manuscripts can be submitted through the IEEE Author Portal. For more information, please click [here](#).

To read the February 2025 issue of TTE, visit [Xplore](#).

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

The JESTPE editorial team is seeking authors to submit manuscripts on emerging technologies. For more information on the publication, please visit the [website](#).





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