Products Newsletter

July 2024 | Issue 48

Calls for PELS Pubs Editors

IEEE Power Electronics Magazine (MPEL) is now accepting applications and nominations for the opening of Editor-in-Chief, starting from January 2025. The deadline for applications is August 1, 2024. For more information, please click **here**.

IEEE Journal of Emerging and Selected Topics in Power Electronics (JESTPE) is accepting applications and nominations for the opening of Deputy Editor-in-Chief. The term will be for 3 years from January 1, 2025 to December 31, 2027. The application deadline is August 1, 2024. For more information, please click **here**.

Journals Impact Factors Announced

PELS Vice President of Products, Dr. Ryan Li, University of Alberta, is pleased to convey the most recent impact factors of our journals from IEEE PELS this year. “Our journals have maintained strong influence, made possible by our editorial team’s collaborative management and committed effort, and more importantly, by the steadfast support from our authors, reviewers, and readers. TPEL (*Transaction on Power Electronics*) continues to exert significant influence with an impact factor of 6.6. TTE (*Transactions on Transportation Electrification*) attained a new record with a substantial impact factor of 7.2, reflecting its robust growth. Likewise, OJPEL (*Open Journal of Power Electronics*) and JESTPE (*Journal of Emerging and Selected Topics in Power Electronics*) both remained influential with impact factors of 5 and 4.6, respectively.” For more information on PELS publications, please visit **online**.

Updated Scope for TPEL

TPEL's updated scope was recently approved at the IEEE Technical Activities Board Meeting Series. The scope now reads as follows.

The *IEEE Transactions on Power Electronics* (TPEL) covers all issues in the field of power electronics, including conversion, control, applications, conceptual issues, and system integration of electric power using semiconductors and switching devices. The focus of this journal encompasses power converters including components and system integration for their applications. This journal publishes works involving techniques and methodologies on modeling and simulation, analysis, design, fabrication, testing and characterization, evaluation and validation, and applications of power-electronic components, converters, converter systems, and system integrations. Review, tutorial, and survey articles with a viewpoint on the state-of-the-art and future technological advances are also welcome.

Papers that are not within the scope of the journal may/will be summarily rejected and the authors may be suggested to submit their work to a more suitable journal. Examples include but are not limited to manuscripts focused solely on physics, theory, materials, design and/or characterization of components, systems, and applications without sufficient and demonstrated content in power electronics.

For more information on TPEL, please visit **Xplore**.

TPEL New EIC for 2025

Dr. Xiongfei Wang will begin a new term as TPEL EIC starting in January of 2025. He is currently Professor at KTH Royal Institute of Technology, Stockholm, Sweden. He will be stepping down from his current role as Executive Editor of Letters at the end of 2024. Dr. Wang has served on the editorial board of several IEEE publications and is very active in PELS Technical Committees.

Pubs Education: Self-Citations

We recently engaged in some discussions within IEEE PELS regarding self-citation in conferences and journals. For authors and paper reviewers, how familiar are you with the concept of self-citations? As a reviewer, do you pay close attention to the reference section?

Excessive self-citation is generally deemed inappropriate. Concerns over self-citation can lead to exclusion from the Web of Science database for conference proceedings or journals.

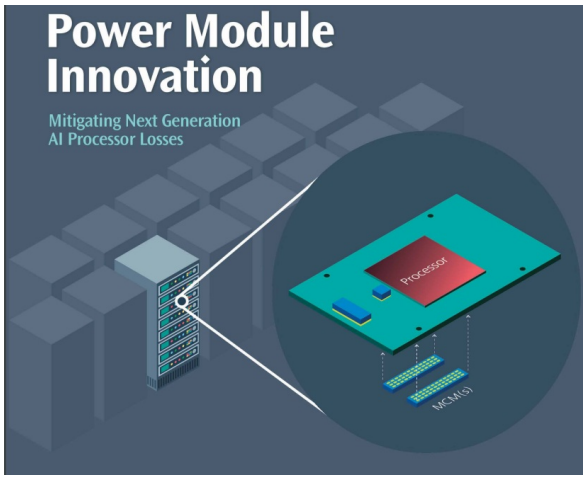
Self-citation occurs when authors excessively reference their own papers in their work. It can also arise when an author repeatedly cites the work of another author, which is known as redundant citation or repeated authors in the reference section.

Although there are exceptions, particularly in niche research areas, most instances of self-citation stem from inadequate literature reviews. Authors may end up citing their own work, or that of others, more frequently than necessary.

PELS conferences and journals are beginning to implement measures to scrutinize the reference sections of manuscripts. Papers with high rates of self-citation may be returned to authors for improvements in the literature review.

Currently, implement a 30% self-citation threshold, beyond which the Technical Program Committee or Editor would request an explanation from the authors.

IEEE Power Electronics Magazine



Today, modern datacenters and cloud infrastructure are consuming stunning amount of energy to power and cool next generation artificial intelligence (AI) processors. As this trend gathers momentum, it is presenting a daunting and pressing power consumption challenge because AI processors, with billions of transistors on-chip, are demanding nearly 2000 A at voltages below 1 V. Powering these new generation processors requires power supplies in innovative power modules that can be placed as close as possible to the processor to minimize parasitics while capable of delivering very high efficiency with high power density. In the June 2024 issue of *IEEE Power Electronics Magazine*, the first cover

feature article "**High Current Density Power Modules Mitigate the Environmental Impact of Power-Intensive GenAI**," the author Maury Wood shows how advanced high current density power modules combined with vertical power delivery methods can realize a significant improvement in processing performance, while reducing power losses, and saving terawatts of energy annually at the global scale. In this article, the author reveals an innovative power module packaging technology like the three dimensional interconnect (3Di) that can meet the requisite current density of these processors with high performance.

Free for All
For more editorial from the June 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 (TPEL)

The TPEL editorial team would like to share the following announcements.

● Call for New TPEL Special Section Proposals(Deadline: August 31, 2024)
TPEL 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**July 2024** issue.
"**Three-Phase Transformerless PV Inverter With Reconfigurable LCL Filter and Reactive Power Capability**" by Jalal Dadkhah, Carl Ngai Man Ho, and Ken King-Man Siu. The proposed topology offers several advantages with one solution, including injecting high-quality grid current, magnetic component reduction, leakage current reduction, compatibility with add-on installations, and reactive power support.

"**ηmax-Charging Strategy for Lithium-Ion Batteries: Theory, Design, and Validation**" by Nicola Blasuttigh, Hamzeh Beiranvand, Thiago Pereira, Simone Castellan, Alessandro Massi Pavan, and Marco Liserre. This article introduces a charging strategy for maximizing the instantaneous efficiency (ηmax) of the lithium-ion (Li-ion) battery and the interfacing power converter.

IEEE Power Electronics Letters

The **July 2024** issue of TPEL presents five Letters covering the topics on wireless power transfer, SiC power electronics packaging, dual-active-bridge converters, and converter topology derivation method. One intriguing letter from this issue is highlighted below.

"**A Novel Topology Derivation Method Revealed From Classical Cuk, Sepic, and Zeta Converters**," by Liping Mo, Yibo Wang, Chaoqiang Jiang, Xiaosheng Wang, and Ben Zhang. This work investigates the relationships between classic Cuk, Sepic, and Zeta converters by taking the capacitor out of three converter circuits. The equivalent circuit analysis provides a new perspective on the synthesis of converter topologies with comparable performance characteristics. Experimental results verify the findings.

IEEE Transactions on Transportation Electrification (TTE)

The editorial team of TTE invites you to read the**June 2024** issue. Authors are encouraged to submit their manuscripts for publication in TTE. All manuscripts can be submitted through **ScholarOne**. For author guidelines, please visit TTE**online**.

IEEE Open Journal of Power Electronics (OJPEL)

The editorial team of OJPEL announces a new compendium: Special Compendium on the 2024 IEEE 6th International Conference on DC Microgrids (ICDCM2024). The deadline for manuscript submissions is November 1, 2024. The scheduled publication issue is August 2025. For more information, please click **here**.

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

The editorial team of JESTPE announces that the deadline for the Special Issue on Power Electronics Role in Future Renewables and Power-to-X Systems has been extended to July 31, 2024. For more information on this special issue, please click**here**.

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