Special Issue

Power Converters in Power Electronics: New Insights and Trends

Message from the Guest Editor

Electric power converters are ubiquitous in numerous fields such as power systems, distributed energy resources (DERs), electric vehicles (EVs), solar photovoltaic (PV), wind turbines, and energy storage. Unprecedented demand for clean energy combined with challenging net-zero emissions targets is transforming the generation, transmission, distribution, and consumption of electrical energy. This Special Issue focuses on new insight and trends that will transform how electric power is made, delivered, and consumed. Topics of interest for this Special Issue include (but are not limited to) the following topics:

- Power converter topologies, modulation, and control;
- Bidirectional power converters;
- Power converters in smart grids;
- Current source converters;
- Bidirectional battery chargers;
- Uninterrupted power supplies;
- Integration of distributed energy resources;
- Wireless power transfer;
- Wide band gap (WBG) semiconductors for power converters;
- Power quality conditioners;
- Modulation and control methods;
- Active and hybrid filters;
- Performance analysis and loss models.

We look forward to receiving your contributions.

Guest Editor

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Deadline for manuscript submissions

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About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).

