Special Issue

Modeling, Control, and Optimization of Power Electronics

Message from the Guest Editors

The main aim of this Special Issue is to seek high-quality submissions that highlight emerging applications of high-density power converters, address recent fundamental breakthroughs in topological development as well as control of power electronics, multi-objective constrained design optimization of power converters, and reliable and cyber-resilient power electronics technologies. The topics of interest include, but are not limited to:

- Multi-objective design optimization (based on machine learning/statistical learning/artificial intelligence) of power converter systems
- EMI noise modeling and high-density filter design methodologies
- Non-linear/optimal control schemes for transient performance improvement of power converters
- WBG device characterization for high-frequency power electronics
- High-temperature (>200oC) power electronics
- Power electronics for transportation electrification and data centers

Welcome to contribute!

Guest Editors

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Deadline for manuscript submissions

closed (30 June 2022)

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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 guestedited 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).

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