



High Power Density Power Electronics

Guest Editors:

Dr. Hongchang Li

School of Electrical Engineering,
Xi'an Jiaotong University, Xi'an
710049, China

Prof. Dr. Jingyang Fang

School of Control Science and
Engineering, Shandong
University, Jinan 250061, China

Deadline for manuscript
submissions:

closed (15 September 2024)

Message from the Guest Editors

With the application of wide bandgap semiconductors, the switching frequency and power density of power electronic converters are expected to be greatly improved. However, at the same time, the influence of parasitic parameters in the circuit is more significant, and the optimization of the switching process becomes more complicated; the magnetic components such as inductors and transformers in the circuit become the bottleneck to improving the efficiency and power density of the converter, and new designs are required to meet the requirements. Higher power density also requires higher conversion efficiency and heat dissipation capability, so high-frequency soft switching technology and advanced thermal management technology are particularly important.

In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Integration technology of wide bandgap devices;
- Integrated current sensing, protection, and control;
- High frequency soft switching techniques;
- High power density magnetic devices;
- Advanced thermal management;
- New topologies and applications.





an Open Access Journal by MDPI

Editors-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and
Telecommunications,
Politecnico di Torino, 10129
Torino, Italy

Prof. Dr. Sergio Busquets- Monge

Electronic Engineering
Department, Universitat
Politécnica de Catalunya, 08028
Barcelona, Spain

Message from the Editorial Board

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), CAPus / SciFinder, Inspec, Ei Compendex and other databases.

Journal Rank: JCR - Q2 (Engineering, Electrical and Electronic) / CiteScore - Q1 (Signal Processing)

Contact Us

Electronics Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/electronics
electronics@mdpi.com
[X@electronicsMDPI](https://twitter.com/electronicsMDPI)