

Special Issue

Control and Optimization of Power Converters—2nd Edition

Message from the Guest Editors

Power converters play a crucial role in modern electrical systems and are widely applied in renewable energy-based microgrids, industrial automation, electric vehicles, and aerospace applications. The Special Issue will feature cutting-edge research on both theoretical advancements and practical implementations of control and optimization techniques in power converters. Detailed topics include, but are not limited to, the following:

- Advanced control strategies for power converters;
- Optimization techniques in power converters for topology design, efficiency improvement, component sizing, and parameter tuning;
- Applications of power converters in renewable energy-based microgrids and grid integration;
- High-efficiency power conversion based on wide-bandgap semiconductor devices and high-frequency magnetics and passive component optimization;
- Condition monitoring and diagnostics, fault detection, protection, and EMI/EMC mitigation techniques for power converters;
- Power converters for electric vehicles (EVs), hybrid electric vehicles (HEVs), wireless power transfer (WPT), and wireless charging systems;
- Power converters for data center power supply optimization.

Guest Editors

Prof. Dr. Fei Deng

Prof. Dr. Xiangke Li

Dr. Ziheng Xiao

Dr. Zhigang Yao

Dr. Lei Zhang

Deadline for manuscript submissions

25 September 2026



Energies

an Open Access Journal
by MDPI

Impact Factor 3.9
CiteScore 8.3



mdpi.com/si/276338

Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

[mdpi.com/journal/
energies](https://mdpi.com/journal/energies)





Energies

an Open Access Journal
by MDPI

Impact Factor 3.9
CiteScore 8.3



[mdpi.com/journal/
energies](https://mdpi.com/journal/energies)



About the Journal

Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Industrial Engineering, University
Niccolò Cusano, 00166 Roma, Italy

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), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)