



Power Converters: Modeling, Control, and Applications in Power Electronics

Guest Editors:

**Prof. Dr. Telles Brunelli
Lazzarin**

Electrical Engineering
Department, Federal University of
Santa Catarina, Florianópolis
88040-900, Brazil

Dr. Levy Ferreira Costa

Department of Electrical
Engineering, Eindhoven
University of Technology,
Eindhoven, North Brabant, The
Netherlands

**Prof. Dr. Carlos Henrique Illa
Font**

Campus Ponta Grossa,
Universidade Tecnológica
Federal do Paraná, Curitiba,
Brazil

Deadline for manuscript
submissions:

closed (27 June 2023)



Message from the Guest Editors

The current energy transition to a sustainable society has propelled the rapid development of novel technologies, such as electric vehicles, fast-charging stations, more efficient renewable energy systems, large-capacity storage energy systems, etc. All these technologies rely on power electronics converters, which have imposed new challenges in terms of topology, design, and control.

Topics of interest for this Special Issue include but are not limited to, those described in the keywords.

Keywords:

- high voltage ratio DC-DC power converters
- bidirectional power converters
- single- and three-phase inverters for off- and on-grid applications
- single- and three-phase rectifiers
- multi-level converters for low powers
- steady-state analysis oriented to the optimization of converters
- dynamic modelling oriented to the control of converters
- new control techniques for power electronics converters
- application of new semiconductors technologies
- emerging technologies in power electronics: electric vehicles, charging stations, energy storage system



energies



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and
Aerospace Engineering,
University of Roma Sapienza, Via
Eudossiana 18, 00184 Roma, Italy

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.

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)

Contact Us

Energies Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/energies
energies@mdpi.com
[X@energies_mdpi](https://twitter.com/energies_mdpi)