Special Issue

Power Converters: Modeling, Control, and Applications in Power Electronics—2nd Edition

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 modeling 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

Guest Editors

Prof. Dr. Telles Brunelli Lazzarin

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

Prof. Dr. Jéssika Melo De Andrade

Mobility Engineering Department, Federal University of Santa Catarina, Joinville 89219-600, Brazil

Deadline for manuscript submissions

closed (31 December 2024)



Energies

an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 7.3



mdpi.com/si/193008

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

mdpi.com/journal/ energies





Energies

an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 7.3



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)

