

Special Issue

Electrical Power Converter Modeling, Simulation, Control and Realization with Energy Storage and Optimization

Message from the Guest Editors

New topologies with advanced control algorithms have been actively developed for power converters, and are being applied in various industries, such as transportation, mobile phones, electric vehicles, railway and high-speed trains, home appliances, induction heating systems, plasma generators, renewable energies, energy storage systems, robots, drones, and so on. The main requirements of modern power converters are high efficiency, high power density, fast transient response, and ability to operate in special applications such as fault-tolerant configurations. The idea to develop efficient and robust topologies with superior control features is the focal point of this Special Issue. Articles are invited which fall within the following domains (not an exhaustive list):

- Power Converter Modeling and Simulation
- Power Electronic Converter Control
- Power Converter for Electric Transportation
- Design, Optimization and Simulation Tools
- Stability of Power Electronics Systems
- Fault-Tolerant Power Converter Topologies
- Energy Storage Technology
- Renewable Energy Applications of Power Converters
- Education and Innovation

Guest Editors

Dr. Shafiq Ahmad

Dr. Adil Sarwar

Dr. Mohd Tariq

Deadline for manuscript submissions

closed (10 December 2022)



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/115257

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 3.2
CiteScore 7.3



[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)