

Special Issue

Novel Applications of Power Converters for Energy Storage and Grid Integration: Second Edition

Message from the Guest Editors

The second edition of the Special Issue aims to address the upcoming challenges and opportunities tied to the novel applications of power converters in modern power systems, searching for possible solutions to the growing penetration of renewables in the electrical grid and energy storage, as well as the widespread adoption of electric vehicles. The topics of interest for publication include, but are not limited to, the following:

- The modeling, design, control, stability analysis, and reliability of power electronic converters;
- Energy storage systems (batteries, fuel cells, supercap, etc.);
- Novel power converter topologies for grid integration with renewables and storage systems;
- The control and modulation of conventional and multilevel power converter topologies for renewable energy production and flexible transmission systems;
- Advanced control techniques and grid-supporting functionalities of power converters;
- The control and stability of power-converter-dominated microgrids;
- The grid integration of electric vehicles.

Guest Editors

Dr. Marino Coppola

Prof. Dr. Adolfo Danner

Dr. Pasquale Franzese

Deadline for manuscript submissions

15 October 2025



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/237847

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)