





an Open Access Journal by MDPI

Novel Applications of Power Converters for Energy Storage and Grid Integration

Guest Editors:

Dr. Marino Coppola

Department of Electrical Engineering and Information Technologies, University of Napoli Federico II, 80125 Napoli, Italy

Prof. Dr. Adolfo Dannier

Department of Electrical Engineering and Information Technologies, University of Napoli Federico II, 80125 Napoli, Italy

Dr. Emanuele Fedele

Department of Electrical Engineering and Information Technologies, University of Napoli Federico II, 80125 Napoli, Italy

Deadline for manuscript submissions:

20 October 2024

Message from the Guest Editors

Dear Colleagues,

This Special Issue seeks to address the challenges and potential solutions related to novel applications of power converters in modern power systems with a high level of penetration of energy storage, renewables, and full-electric road 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-converterdominated microgrids;
- The grid integration of electric vehicles.



Specialsue







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