

Special Issue

Control and Optimization of Electrical Power and Energy Systems to Integrate More Renewable and Sustainable Energy Resources

Message from the Guest Editors

The global move towards decarbonization is encouraging growth in the sustainable energy sector. The making of great advances towards more sustainable, renewable, and distributed power generation comes with many new opportunities, as well as new challenges. Furthermore, many new technologies are now commercially available, such as programmable smart loads, electric vehicles, smart meters, and smart inverters. Energy storage systems, such as battery energy storage, compressed air storage, power storage bricks, and fuel cells, have come to the fore. To optimally involve all these new components and utilize renewable energy resources more effectively, the operation, control, and management methods employed must be updated. This Special Issue aims to present and disseminate the most recent advances in the control and optimization of electrical power and energy systems to integrate more renewable and sustainable energy resources. The areas focused on include control, theory, modeling, optimization methods, renewable energy integration, demand management, energy trading, behaviour prediction, integrated energy systems, and applications.

Guest Editors

Dr. Muhammad Numan

Dr. Arshad Nawaz

Dr. Alireza Zakariazadeh

Deadline for manuscript submissions

5 September 2025



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/201788

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)