



## Advanced Management and Control Strategies for Power Generation Systems and Microgrids

Guest Editors:

**Dr. Azeddine Houari**

**Prof. Dr. Saad Mekhilef**

**Prof. Dr. Mohamed  
MACHMOUM**

Deadline for manuscript  
submissions:  
**closed (30 July 2021)**

### Message from the Guest Editors

The design of advanced control and energy management methodologies is important to promote the development of sustainable power generation systems with increased integration of renewable energy and storage systems. The objective of this issue is to address challenges related to power quality and stability in power generation systems and microgrids considering both stationary and e-mobility applications. These issues can be worsened due to reduced inertia and limited power capacity of power-electronics dominated systems, RES production intermittency, and load uncertainties. It requires the development of robust control techniques and multiobjective energy management strategies.

Topics of interest include, but are not limited to:

- Modeling, stability analysis, and control of renewable energy and storage systems
- Assessment and mitigation of power quality problems in power generation units and microgrids
- Advanced control solutions for power-electronics dominated systems
- Fault-tolerant control for power generation units and microgrids
- Hybrid energy systems: sizing optimisation and energy management
- Hierarchical control techniques for distributed generation systems





# energies



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

---

*Energies* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/energies](http://mdpi.com/journal/energies)  
[energies@mdpi.com](mailto:energies@mdpi.com)  
[X@energies\\_mdpi](https://twitter.com/energies_mdpi)