





an Open Access Journal by MDPI

# Distributed Control and Energy Management for Microgrids with High Shares of Renewables and Power Electronics

Guest Editors:

## Prof. Dr. Quan Zhou

College of Electrical and Information Engineering, Hunan University, Changsha, China

#### Dr. Yelun Peng

College of Electrical and Information Engineering, Hunan University, Changsha, China

Deadline for manuscript submissions:

closed (31 August 2022)

# **Message from the Guest Editors**

Dear Colleagues,

The Guest Editor is inviting submissions to a Special Issue of Energies on the subject area of "Distributed Control and Energy Management for Microgrids with High Shares of Renewables and Power Electronics". The high penetration of renewables and power electronic apparatus in microgrids not only introduces great potential for enhancing system efficiency, sustainability, and resilience but also raises critical operational challenges, calling for advanced optimization, control, communication, and information technologies. The objective of this Special Issue is to identify promising potentials in microgrids with high shares of renewables and power electronics and support the development of innovative distributed control and energy management strategies, working toward efficient, reliable, sustainable, and resilient microgrids. Topics of interest include but are not limited to:

- Distributed optimization;
- Distributed control;
- Distributed energy resource;
- Converters;
- Energy storage systems;
- Energy management systems;
- Applications of IoT and machine learning techniques;
- Cyberattack and countermeasures.



**Special**sue







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**