



## Recent Advancements in Renewable Energy and Electrical Power Engineering Technology

Guest Editors:

**Dr. Andreas Theocharis**

Department of Engineering and  
Physics, Karlstad University, 651  
88 Karlstad, Sweden

**Dr. Panos Kotsampopoulos**

School of Electrical and  
Computer Engineering, National  
Technical University of Athens,  
15780 Zografou, Greece

Deadline for manuscript  
submissions:

**closed (30 November 2023)**

### Message from the Guest Editors

The integration of renewable energy resources in energy systems has become an apparent necessity for the minimization of environmental risks as well as for national development and security improvements. To this end, challenging tasks have appeared, ranging from fundamental research to novel energy systems design and operability advancements. The proposed Special Issue aims to collect articles that highlight the challenges, advancements and novel solutions in electrical power technology for sustainable renewable energy systems:

-Advancements in renewable energy and storage technologies such solar cells, wind turbines, batteries, hydrogen, heat pumps and others;

Advancements in power electronics for integrating distributed energy resources;

-Control, operation, optimization and planning of renewable-energy-based electrical systems;

-Artificial intelligence for large-scale integration of renewables in smart electricity grids;

-Systems digitalization and data analytics in smart electricity grids;

-Multicarrier energy systems comprising renewable energy;

-Economics and business models for sustainability and lifecycle assessment in renewable energy based build environment and systems.





an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Marc A. Rosen**

Faculty of Engineering and  
Applied Science, University of  
Ontario Institute of Technology,  
Oshawa, ON L1G 0C5, Canada

## Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

## Author Benefits

**Open Access:** free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**High Visibility:** indexed within [Scopus](#), [SCIE](#) and [SSCI \(Web of Science\)](#), [GEOBASE](#), [GeoRef](#), [Inspec](#), [AGRIS](#), [RePEc](#), [CAPlus / SciFinder](#), and [other databases](#).

**Journal Rank:** JCR - Q2 (*Environmental Studies*) / CiteScore - Q1 (*Geography, Planning and Development*)

## Contact Us

*Sustainability* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

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

[mdpi.com/journal/sustainability](http://mdpi.com/journal/sustainability)  
[sustainability@mdpi.com](mailto:sustainability@mdpi.com)  
[X@Sus\\_MDPI](#)