



an Open Access Journal by MDPI

## Power System Simulation with Renewable Power: Protection, Optimization and Control

Guest Editors:

**Dr. Jesus C. Hernandez**

Electrical Engineering  
Department, University of Jaen,  
Campus Las Lagunillas, S/N,  
23071 Jaen, Spain

**Dr. Oscar Danilo Montoya**

Grupo de Compatibilidad e  
Interferencia Electromagnética  
(GCEM), Facultad de Ingeniería,  
Universidad Distrital Francisco  
José de Caldas, Bogotá 110231,  
Colombia

Deadline for manuscript  
submissions:

**closed (30 April 2022)**

### Message from the Guest Editors

Undoubtedly, renewable energy sources (RES) have changed traditional transmission grids and represent a significant electricity resource in modern power systems. This Special Issue will present the latest research developments and practical applications in the field of protection, control, and optimization in new scenarios for future power systems. These include, in particular but not exclusively:

- Modeling, design, analysis, and control of low-power and high-power converters for renewable energy conversion and their interconnections;
- Design and control of intelligent power plants for future power grids;
- Modelling, control, and simulation of battery-based energy storage systems integrated in renewable plants;
- Optimization algorithms for energy management and intelligent control of RES plants in distribution grid;
- Planning and operation of renewable power systems;
- Analysis and control of DC and hybrid AC/DC power networks;
- Diagnostics, maintenance, risks, reliability, vulnerability, and self-healing of grids;
- Big data analysis.



[mdpi.com/si/58823](https://mdpi.com/si/58823)

# Special Issue



an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Flavio Canavero**

Department of Electronics and  
Telecommunications,  
Politecnico di Torino, 10129  
Torino, Italy

## Message from the Editor-in-Chief

*Electronics* is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

## 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), CAPlus / SciFinder, Inspec, Ei Compendex and other databases.

**Journal Rank:** JCR - Q2 (*Physics, Applied*) / CiteScore - Q2 (*Control and Systems Engineering*)

## Contact Us

---

Electronics Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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

[mdpi.com/journal/electronics](http://mdpi.com/journal/electronics)  
[electronics@mdpi.com](mailto:electronics@mdpi.com)  
[X@electronicsMDPI](https://x.com/electronicsMDPI)