

## Special Issue

# Power System Dynamics, Operation, and Control including Renewable Energy Systems and Smart Grid: Technology and Applications

### Message from the Guest Editors

The increasing trend of renewable energy use and energy storage technologies has led to the emergence of new practices in modern power systems. These new practices necessitate the strengthening of conventional energy systems to be dynamic smart networks that can communicate, store data, and make decisions to allow today's energy industry to switch to modern smart networks while expanding the use of clean renewables along with conventional resources. Accordingly, efficient procedures are needed to address these issues effectively at the academic and industrial levels. Further, new solutions must be sought to enable networks to deal with these developments to achieve flexible energy networks that can host high renewable energy penetration while maintaining acceptable levels of reliability and energy quality in a cost-effective manner. Hence, in this Special Issue, we are calling for original contributions that cover emerging challenges in power system dynamics, operation, and control, including renewable energy systems and smart grid technology and applications in modern power systems.

### Guest Editors

Dr. Hany M. Hasanien

Dr. Shady H. E. Abdel Aleem

Dr. Calasan Martin

### Deadline for manuscript submissions

closed (31 October 2022)



## Electronics

an Open Access Journal  
by MDPI

Impact Factor 2.6  
CiteScore 6.1



[mdpi.com/si/101832](https://mdpi.com/si/101832)

*Electronics*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[electronics@mdpi.com](mailto:electronics@mdpi.com)

[mdpi.com/journal/  
electronics](https://mdpi.com/journal/electronics)





# Electronics

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.6  
CiteScore 6.1



[mdpi.com/journal/  
electronics](https://mdpi.com/journal/electronics)



## About the Journal

### 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.

---

### Editor-in-Chief

Prof. Dr. Flavio Canavero

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

---

### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), CAPus /  
SciFinder, Inspec, Ei Compendex and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Electrical and Electronic) /  
CiteScore - Q1 (Electrical and Electronic Engineering)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is  
provided to authors approximately 16.8 days after  
submission; acceptance to publication is undertaken in 2.4  
days (median values for papers published in this journal in  
the first half of 2025).