

## Special Issue

# Application of Machine Learning in Addressing Power Quality Issues in Power Electronic Converters

### Message from the Guest Editors

Power electronic converters are playing an important role in the integration of renewable energy sources to the grid. The presence of power electronic converters leads to power quality problems such as harmonics, transients, as well as voltage swell/dips. Machine learning can play an important role in addressing these power quality issues by detecting and eliminating them. This Special Issue will focus on publishing high-quality research work in the field of power electronics, power quality, and the applications of machine learning in addressing these problems. The specific topics of interest include but are not limited to:

- Development in power electronic converters;
- Power quality problems associated with converters;
- Modern power electronic converters and their potential of addressing power quality concerns;
- Condition monitoring of power electronic converters utilizing machine learning techniques;
- Intelligent systems for addressing power quality concerns;
- Challenges associated with renewable integration;
- Propagation of harmonics through power electronic converters;
- Interaction of harmonics with converter control systems;

### Guest Editors

Dr. Arshad Arshad

Electrical Power Engineering, School of Computing, Engineering and Built Environment, Glasgow Caledonian University, Glasgow G1 1XQ, UK

Dr. Mohd Tariq

Department of Electrical Engineering, Zakir Husain College of Engineering and Technology, Aligarh Muslim University, Aligarh 202002, India

### Deadline for manuscript submissions

closed (31 August 2023)



## Electronics

an Open Access Journal  
by MDPI

Impact Factor 2.6  
CiteScore 6.1



[mdpi.com/si/147779](https://mdpi.com/si/147779)

*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), CAPlus /  
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).