Special Issue

Application of Machine Learning in Power Electronics

Message from the Guest Editors

The objective of this Special Issue, "Application of Machine Learning in Power Electronics", is to investigate the integration of modern machine learning (ML) methods in the area of power electronics. Machine learning offers effective methods to analyze the complex, non-linear, and dynamic behaviors that are characteristic in power electronic systems. This issue encourages papers that focus on the efficient use of machine learning techniques to improve the design, functioning, and reliability of power electronics applications, such renewable energy systems, electric vehicles, smart grids, power converters, and motor drives. Submissions demonstrating novel methods, modeling, or real applications in industries are especially appreciated. Topics of interest :

- Design and optimization
- Control strategies
- Fault detection and diagnosis
- Energy management
- Predictive maintenance
- Advanced ML techniques
- Simulation and modeling
- Case studies and applications.

Guest Editors

Prof. Dr. Manuela Panoiu

Electrical Engineering and Industrial Informatics department, University Polytechnica Timisoara, 300006 Timișoara, Romania

Prof. Dr. Caius Pănoiu

Electrical Engineering and Industrial Informatics Department ,University Polytechnica Timisoara, Hunedoara, Romania

Deadline for manuscript submissions

15 November 2025

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 6.1

mdpi.com/si/218212

Electronics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

mdpi.com/journal/electronics

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 6.1

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).