Special Issue

Advanced Fault and Error Detection Techniques Using Machine Learning and Artificial Intelligence

Message from the Guest Editors

This Special Issue aims to explore the most recent advances in the area of fault, error, and defect detection with Machine Learning/Artificial Intelligence models and algorithms. We call the interested research groups to submit high-quality, original studies in the relevant areas. The Special Issue will also host comprehensive review articles on the involved research fields. Indicative topics of interest include, but are not limited to, the following:

- Fault, error, and defect detection Al/ML models in a wide variety of application areas such as industrial robotics, rotating machinery, oil & gas industry, healthcare equipment, Heating/Ventilation/Air Conditioning (HVAC) Systems, fabrics industry, telecommunications networks, computer software, and others.
- Predictive Maintenance in Manufacturing
- Energy Grid & Power Systems Monitoring
- Automotive Diagnostics
- Aircraft Health Monitoring
- Smart Buildings
- Data mining and data augmentation techniques in fault detection systems
- Anomaly detection in fault detection systems.

Guest Editors

Dr. Leonidas Akritidis

Department of Science and Technology, International Hellenic University, 57001 Thessaloniki, Greece

Prof. Dr. Panayiotis Bozanis

Department of Science and Technology, International Hellenic University, 57001 Thessaloniki, Greece

Deadline for manuscript submissions

31 May 2026



Electronics

an Open Access Journal by MDPI

Impact Factor 2.6 CiteScore 6.1



mdpi.com/si/252589

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



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 guestedited 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).

