

Special Issue

AI for Real-Time Industrial Automation and Control Systems

Message from the Guest Editor

We are pleased to invite you to contribute to this Special Issue on “AI for Real-Time Industrial Automation and Control Systems”. The integration of AI, edge computing, and IIoT is transforming industrial automation, enabling adaptive control, fault detection, and predictive decision-making. This Special Issue focuses on AI-driven real-time control strategies to enhance performance, flexibility, and resilience in industrial settings – a key challenge and opportunity for the fourth and fifth industrial revolutions. Both original research and review articles are welcome. The goal is to compile at least ten high-quality contributions. Potential topics include, but are not limited to:

- AI-based control and optimization algorithms
- Machine learning for predictive maintenance
- Edge AI for real-time control
- Digital twins and model-based reinforcement learning
- AI in PLCs and SCADA systems
- Human-machine collaboration and adaptive control
- Real-time data analytics in manufacturing
- Cyber-physical systems and Industry 5.0
- Fault detection and anomaly prediction using AI
- AI in process automation, robotics, and smart factories

We look forward to receiving your valuable contributions.

Guest Editor

Prof. Dr. Nuno Miguel Fonseca Ferreira

Department of Electrical Engineering, Polytechnic Institute of Coimbra,
P-3004 516 Coimbra, Portugal

Deadline for manuscript submissions

15 June 2026



Electronics

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 6.1



mdpi.com/si/261920

Electronics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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 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).