Special Issue

Intelligent Wireless Sensor Networks: Advancing Efficiency and Autonomy with Machine Learning

Message from the Guest Editor

The rapid advancements in Wireless Sensor Networks (WSNs) have enabled a wide range of applications, from environmental monitoring and smart cities to industrial automation and healthcare. However, the dynamic and resource-constrained nature of WSNs presents significant challenges in areas such as energy efficiency, data reliability, network optimization, and security. To address these challenges, the integration of Machine Learning (ML) techniques has emerged as a transformative solution, enabling intelligent decision-making, anomaly detection, adaptive resource management, and predictive analytics. This Special Issue aims to explore cutting-edge research and innovative applications that leverage ML to enhance the performance, scalability, and resilience of WSNs, paving the way for next-generation intelligent sensor networks. For detailed information, please visit here.

Guest Editor

Dr. Elias Dritsas

Department of Informatics and Computer Engineering, University of West Attica, Egaleo Park Campus, 12243 Athens, Greece

Deadline for manuscript submissions

15 April 2026

Sensors

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed

mdpi.com/si/234950

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

mdpi.com/journal/sensors

Sensors

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed

mdpi.com/journal/sensors

MDPI

About the Journal

Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro
Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Ei Compendex, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Instrumentation)