Special Issue

Leveraging Machine Learning for Enhanced Indoor Positioning Accuracy and Reliability

Message from the Guest Editors

Indoor localization has gained significant importance for various applications, including navigation, asset tracking, and location-based services in complex environments such as shopping malls, airports, hospitals, and industrial settings. Unlike GPS signals, indoor localization faces challenges like signal interference, multipath propagation, and environmental complexities that can degrade accuracy. Machine learning (ML) techniques, with their ability to model complex patterns and adapt to changing environments, offer promising solutions to enhance the performance of indoor positioning systems. This Special Issue aims to gather the latest advances in research and developments at the intersection of machine learning and indoor localization. Topics of interest for this Special Issue include, but are not limited to, the following:

- Machine learning for indoor positioning;
- Explainable AI (XAI) in indoor positioning systems;
- Real-time applications;
- Prototype development;
- Sensor fusion;
- Device-based/passive systems;
- Collaborative positioning with ML;
- Energy-efficient ML algorithms for indoor positioning;
- Hybrid models combining ML with traditional methods
-

Guest Editors

Dr. Wenda Li

Dr. Yue Tian

Dr. Shelly Vishwakarma

Deadline for manuscript submissions

15 December 2025

Sensors

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed

mdpi.com/si/214268

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)