Special Issue

Smart Sensing and Control for Autonomous Intelligent Unmanned Systems

Message from the Guest Editors

Autonomous intelligent unmanned systems, such as unmanned (aerial) vehicles, autonomous underwater vehicles, service robots, space robots, marine robots, smart factories, and smart grids, have become a research hotspot in both academia and industry. Currently, methods of smart sensing and control are becoming increasingly important for such systems. Smart sensing supported by intelligent sensors combined with sensor integration and microprocessors can collect, process, and exchange data or information. Intelligent sensors, for example, machine vision sensors, have the virtue of low-cost and high-precision information collection and processing. This Special Issue focuses on the methodology and technology of smart sensing and intelligent control for autonomous intelligent unmanned systems, as introduced above. It ultimately aims to encourage the development and application of unmanned systems in artificial intelligence. Original research and review papers in this scope are encouraged.

- smart sampling
- machine vision
- machine learning
- distributed filtering
- intelligent detection
- autonomous decision making
- optimal control
- smart fault tolerant

Guest Editors

Dr. Yabin Gao

Dr. Yanxu Su

Dr. Xiuyu He

Prof. Dr. Bo Xu

Deadline for manuscript submissions

20 November 2025

Sensors

an Open Access Journal by MDPI

Impact Factor 3.5
CiteScore 8.2
Indexed in PubMed

mdpi.com/si/133806

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)