

Special Issue

Sensing and Communication for Unmanned Aerial Vehicles Networks

Message from the Guest Editors

Unmanned aerial vehicle (UAV) networks are fast becoming critical infrastructure for emergency response, environmental monitoring, smart agriculture, logistics, and beyond. Integrated sensing and communication (ISAC) on aerial platforms offer a compelling path to higher spectrum/energy efficiency and resilience by sharing hardware, spectrum, and control loops. However, due to the size, weight, and power constraints of UAVs, their controllable mobility, and the line-of-sight air-ground channels, ISAC-enabled UAV networks introduce new opportunities and challenges. This Special Issue seeks contributions that harness the duality of sensing-assisted UAV communication and communication-assisted sensing to deliver measurable gains in reliability, latency, coverage, and efficiency. We seek high-quality original research papers on relevant topics related to ISAC-enabled UAV networks including, but not limited to, the following: resource allocation/ waveform design for ISAC-enabled UAV networks, deployment/trajectory design for ISAC-enabled UAV networks, and AI strategies for UAV-enabled ISAC, sensing-assisted UAV communication, etc.

Guest Editors

Prof. Dr. Zheng Chang

School of Computer Science and Engineering, University of Electronic Science and Technology of China, Chengdu 610056, China

Dr. Mingan Luan

School of Computer Science and Engineering, University of Electronic Science and Technology of China, Chengdu 610056, China

Deadline for manuscript submissions

closed (15 May 2026)



Sensors

an Open Access Journal
by MDPI

Impact Factor 4.0
CiteScore 9.4
Indexed in PubMed



mdpi.com/si/257778

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

[mdpi.com/journal/
sensors](https://mdpi.com/journal/sensors)





Sensors

an Open Access Journal
by MDPI

Impact Factor 4.0
CiteScore 9.4
Indexed in PubMed



[mdpi.com/journal/
sensors](https://mdpi.com/journal/sensors)



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
Department of Electrical and Information Engineering, Politecnico di Bari, Via Orabona 4, 70126 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)