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 ISACenabled UAV networks, and AI strategies for UAVenabled ISAC, sensing-assisted UAV communication, etc.

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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

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