Special Issue

IoT-Enabled UAV Networks for Secure Communication

Message from the Guest Editors

The rapid advancement of Internet of Things (IoT) technologies is significantly transforming unmanned aerial vehicles (UAVs), which are crucial for applications like surveillance, delivery, environmental monitoring, and search and rescue. By integrating IoT, UAVs form interconnected networks that facilitate real-time communication with devices and sensors, boosting operational efficiency, scalability, and automation. However, this reliance on IoT-enabled UAVs introduces serious security and privacy challenges. Operating in dynamic environments, UAVs are susceptible to cybersecurity threats such as data interception and unauthorized access. Therefore, secure communication is vital for maintaining data integrity and ensuring safe operations. This Special Issue aims to highlight developments in secure communication for IoT-enabled UAV networks, welcoming submissions on topics such as secure protocols, intrusion detection systems, privacy protection, blockchain applications, resilient communication networks, real-time security management, and the application of AI in enhancing UAV network security.

Guest Editors

Prof. Dr. Bing Chen

Prof. Dr. Changyan Yi

Prof. Dr. Kun Zhu

Dr. Yutao Jiao

Dr. Zhivi Tian

Deadline for manuscript submissions

6 November 2025



Drones

an Open Access Journal by MDPI

Impact Factor 4.4 CiteScore 5.6



mdpi.com/si/233457

Drones MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34

mdpi.com/journal/drones

drones@mdpi.com





Drones

an Open Access Journal by MDPI

Impact Factor 4.4 CiteScore 5.6





About the Journal

Message from the Editor-in-Chief

Drones is the only international open-access journal about the science, policy and technology of drones and its applications. Nowadays, the proliferation of drones is a reality for local policy makers, regulatory bodies, mapping authorities, startups and consolidated companies. There are many uses and benefits of drones: from the emergence of new sensors and the evolution of new platforms; to the development of specific software and the emergence of new applications. Drones publishes reviews, regular research papers, communications and short notes, without restriction on the length of papers. Drones seeks to provide a central forum for scholars engaged in drones' research and applications.

There is a need for high quality papers in this area and the *Drones* Editorial Board are widely recognized international leaders. *Drones* journal guarantees a serious peer review and a rapid publication across the whole discipline of drones.

Editor-in-Chief

Prof. Dr. Diego González-Aguilera

Cartographic and Land Engineering Department, Higher Polytechnic School of Avila, University of Salamanca, Hornos Caleros, 50 05003 Avila, Spain

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), Inspec, Ei Compendex and other databases.

Journal Rank:

JCR - Q1 (Remote Sensing) / CiteScore - Q1 (Aerospace Engineering)