Special Issue

Physical-Layer Security in Drone Communications

Message from the Guest Editors

Drone communications face increased vulnerability to impersonation and eavesdropping. Physical-layer security (PLS) offers high security and low complexity. This Special Issue explores PLS solutions for drone communications, including:

- Physical-layer wireless key generations in drone communications;
- Radio frequency fingerprinting of drones and legacy authentication;
- Wireless channel feature-based legacy authentication in drone communications;
- 3D beamforming-based secrecy enhancements in drone communications;
- Imperfect knowledge from eavesdropper-related issues;
- Drone jitter and its impacts on PLS;
- Security and beneficial trajectory design of drones;
- Relay and jamming-assisted PLS drone communications;
- Experimental methodology and designs in PLS drone communications;
- Field tests related to PLS of drone communications.

Guest Editors

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Deadline for manuscript submissions

closed (20 March 2025)



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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

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