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)

Drones

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Impact Factor 4.8
CiteScore 7.4

mdpi.com/si/203255

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About the Journal

Message from the Editor-in-Chief

Drones is an international open access journal focusing on advancing research in drone science, policy, technology, and applications. Today, drones have become indispensable for policymakers, regulatory authorities, mapping agencies, start-ups, and established firms. Their expanding societal and economic relevance is reflected in the rapid development of new sensors, upgraded platforms, specialized software, and novel applications. The journal provides a central forum for scholars in drone research and applications to exchange findings and innovations. With growing demand for high-quality research, our Editorial Board comprises international leaders and experts across relevant scientific areas. We offer rigorous peer review and rapid publication of papers from across all areas of drone science. We welcome you to submit your next paper to *Drones* and to contribute to the continued advancement of and innovations in the field of drones.

Editor-in-Chief

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