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Technologies and Applications of UAV Channel Models in Communications and Spectrum Awareness

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Deadline for manuscript submissions:
closed (26 March 2025)

Message from the Guest Editors

Dear Colleagues,

This Special Issue aims to highlight the recent advancements in UAV channel techniques and their applications across diverse disciplines, especially communication and spectrum awareness. Furthermore, this issue is dedicated to promoting a multidisciplinary dialogue among researchers and policymakers, shedding light on future directions in UAV technologies and applications. The focus is on enhancing UAV capabilities for communication and spectrum awareness.

This Special Issue will cover, but is not limited to, the following topics:

- Channel sounding technologies and system for A2G scenarios
- UAV channel models for mmWave and sub-Terahertz bands.
- AI-driven channel modelling technologies.
- AI-driven UAV control technologies.
- UAV-integrated sensing and communication (ISAC) systems.
- UAV-aided spectrum sensing and awareness.
- UAV mmWave communications technologies.
- UAV trajectory planning and optimization.
- Other applications of UAV channel model and communication.

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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.

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