

## Special Issue

# Drone-Enabled Smart Sensing: Challenges and Opportunities

### Message from the Guest Editors

This focus aligns with the mission of the journal *Drones* by advancing the research in UAV technologies and their transformative impact across industries. The suggested themes for this Special Issue include (but are not limited to) the following: DSS applications in industry:

- Smart sensing and digital twin approaches applied in industry applications with drones;
- Policy-based challenges and opportunities related to advancing industry applications with drones;

DSS algorithms:

- Digital twin modeling approaches, analysis, and control with drones with an emphasis towards smart sensing;
- Autonomous drone navigation and path planning with drones using real-time sensing feedback;
- Optimal sensor placement and coverage control with drones for parameter estimation;
- Machine learning-enhanced modeling and control with drones for efficient prediction and computation of the physical system.

DSS architectures and hardware:

- Real-time data processing and edge computing hardware (e.g. IoT, FPGA, GPA);
- Mobile sensor network communication strategies;
- Performance and evaluation, including benchmarking and security/robustness considerations.

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### Guest Editors

Dr. Derek Hollenbeck

Dr. Calvin Coopmans

Dr. Shicheng Yan

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### Deadline for manuscript submissions

5 December 2025



## Drones

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## 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.

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### Editor-in-Chief

Prof. Dr. Diego González-Aguilera

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