

Special Issue

Advanced Optimization Strategies for UAV Mission Planning and Operation

Message from the Guest Editors

The rapid expansion of UAV applications (logistics, disaster response, environmental monitoring) demands advanced optimization methods for mission planning under dynamic, resource-constrained environments. Key challenges include multi-objective optimization (task scheduling, trajectory planning, energy efficiency) and real-time decision-making. This Special Issue highlights cutting-edge techniques— heuristic/metaheuristic algorithms, hybrid frameworks, and adaptive strategies—to enhance UAV operational efficiency, scalability, and robustness. We seek theoretical models, computational tools, and case studies integrating control theory, operations research, and autonomous systems. Focus areas: multi-UAV coordination, energy-aware missions, and real-time adaptive architectures. Submissions on novel algorithms and practical implementations are invited.

Guest Editors

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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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Prof. Dr. Diego González-Aguilera

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