

## Special Issue

# Unmanned Aerial Vehicle Path Planning: Challenges, Solutions, and Future Directions

### Message from the Guest Editors

UAV applications and safe path planning capabilities are essential for their autonomous control systems.

Autonomous UAVs must be able to compute feasible, computationally efficient, and collision-free safe paths in real time. Developing cost-effective and robust path planning solutions for UAVs can be challenging due to various technical, communication, infrastructure, and environmental factors. Topics of interest for this Special Issue include, but are not limited to:

- UAV path planning and route optimization
- Energy-efficient algorithms for UAV path planning
- Collaborative path planning and task scheduling for UAV swarm
- UAV path planning in long-distance flights
- Challenges in dynamic obstacle avoidance in UAV flight
- Localization challenges in UAV flight
- UAV flight in “5G and beyond” environment
- Small-scale UAVs

Prof.

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### Guest Editors

Dr. Anwar Haque

Dr. Ahmed Refaey Hussein

Prof. Dr. Amr Mohamed

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### Deadline for manuscript submissions

closed (15 December 2023)



## 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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