# Special Issue

# Computational Fluid Dynamics for Next-Generation Unmanned Aerial Vehicles

## Message from the Guest Editors

This Special Issue welcomes studies that explore innovative Computational Fluid Dynamics (CFD) approaches for wind forecasting in Urban Air Mobility applications. We encourage submissions that propose novel methods for mitigating the impact of turbulence and wind gusts on UAV flight. While the issue is primarily focused on CFD-based forecasting techniques—such as traditional Finite Volume Solvers, Physics-Informed Neural Networks (PINNs), and real-time strategies like Reduced Order Models—other relevant studies, including turbulence assessments and validation efforts, are also welcomed. Topics of interest include, but are not limited to the following:

- AI-based wind forecasting
- Urban CFD-based wind prediction systems
- 3D modelling tailored for CFD simulations
- Wind turbulence assessments and CFD model validation
- Reduced Order Modelling and real-time wind forecasting
- Aerodynamic charaterization of Unmanned Aerial Vehicles

## Guest Editors

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## Deadline for manuscript submissions

31 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.

### Editor-in-Chief

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