Special Issue

Advances and Innovations in Drone Technology for Mining and Construction Applications

Message from the Guest Editors

We invite submissions for this Special Issue exploring the latest advancements in and practical applications of drones (UAVs) to address critical challenges in these dynamic sectors, including the following:

- Terrain modeling, stockpile volumetrics, and real-time progress monitoring.
- Remote inspections of hazardous sites (e.g., unstable slopes, highwalls) to reduce human risk.
- Autonomous flight, predictive analytics, and automated defect detection using aerial data.
- The monitoring of rehabilitation, erosion, and biodiversity impacts.
- Coordination with the IoT, robotics, and digital twins for workflow optimization.

This Special Issue invites researchers and industry professionals to share their insights, case studies, and innovations, fostering a deeper understanding of how drone technology is shaping the future of mining and construction. We welcome original research, reviews, and technical reports that highlight both challenges and breakthroughs in this rapidly advancing field.

Guest Editors

Dr. Yewuhalashet Fissha

Dr. Hajime Ikeda

Dr. Natsuo Okada

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Deadline for manuscript submissions

19 December 2025



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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

Prof. Dr. Diego González-Aguilera

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