UAS Navigation and Orientation

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Message from the Guest Editors

Accurate and ubiquitous UAS navigation and orientation are challenging tasks towards fully-automated and autonomous operations. Currently, no single technology allows the accurate and reliable determination of the position of a UAS at all times. The navigation and orientation of UAS provide position, velocity and attitude of the flying platform and its payload sensors within a reference system. These are critical aspects in determining accurately the dynamic state of the platform, its trajectory, and in mapping the environment from data captured by the onboard mapping sensors.

This Special Issue focuses on novel and innovative methods of UAS Navigation and Orientation, including but not limited to topics:

- Direct, indirect and integrated sensor/platform positioning and orientation including vision and IMU-based approaches;
- Autonomous navigation using machine learning and deep learning;
- Beyond visual line of sight (BVLOS) navigation, path planning, and obstacle detection and avoidance;
- Computational aspects, incremental approaches, advanced techniques for motion sensor data fusion and Simultaneous Localization and Mapping (SLAM).
Message from the Editor-in-Chief

Drone 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. Drone publishes reviews, regular research papers, communications and short notes, without restriction on the length of papers. Drone 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 Drone Editorial Board are widely recognized international leaders. Drone journal guarantees a serious peer review and a rapid publication across the whole discipline of drones.

Author Benefits

Open Access: free for readers, free publication for well-prepared manuscripts submitted before 1 July 2019.

Rapid Publication: manuscripts are peer-reviewed and a first decision provided to authors approximately 17.5 days after submission; acceptance to publication is undertaken in 4.1 days (median values for papers published in this journal in the second half of 2018).

Recognition of reviewers: reviewers who provide timely, thorough peer-review reports receive vouchers entitling them to a discount on the APC of their next publication in any MDPI journal, in appreciation of the work done.

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