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UAV and Sensors Applications for Navigation and Positioning

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Message from the Guest Editors

Unmanned aerial vehicles (UAV) are widely used, from military to civilian and commercial, such as military reconnaissance, power inspection, security inspection and other special tasks. However, the prerequisite for UAV to complete the task is to achieve high-precision navigation and positioning, that is, the UAV should know where it is in real time.

Benefiting from the development of microelectro mechanical systems (MEMS), a variety of sensors can be carried on UAVs, and the navigation and positioning technology based on the fusion of multi-sensor data has become a research hotspot. The vigorous development of cluster technology, machine learning, simultaneous localization and mapping (SLAM) brings more possibilities for UAV navigation and positioning methods.

Topics covered in the Special Issue include but are not limited to:

- Navigation and positioning method in GNSS-denied environment
- Multi-sensor data fusion method for UAV navigation and positioning
- Cooperative navigation and positioning method for multi-UAV
- SLAM
- Vision-based navigation and positioning method
- Applications of machine learning in UAV navigation and positioning



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Special Issue



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Message from the Editor-in-Chief

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