Special Issue

Advanced Sensing Technologies and Cybersecurity for UAV Systems

Message from the Guest Editors

Recent years have seen an exponential increase in the use of Unmanned Aerial Vehicles (UAVs), including surveillance, remote sensing, and environmental monitoring, where UAV-based sensors offer accurate sensing and rapid deployment due to their mobility, light weight, and high-quality sensing capabilities. These technological advancements have established UAVs as critical mobile sensing platforms, capable of acquiring timely, cost-effective, and incredibly rich data in scenarios where traditional methods fall short. Nonetheless, the expansion of this operational field—particularly with the rise in autonomous systems—introduces significant and pressing security challenges, as UAVs become increasingly vulnerable to a wide range of cyber threats targeting drones, ground control stations, data streams, and communication links. Malicious actors can exploit the vulnerabilities to launch various attacks, such as DoS/DDoS, spoofing, and injection attacks. Hence, cybersecurity has become increasingly important for UAVs. This Special Issue aims to address challenges and present innovative methods in the field. Both original research papers and reviews are welcome.

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Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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