

## Special Issue

# AI-Based Object Detection and Tracking in UAVs: Challenges and Research Directions

### Message from the Guest Editors

Combining autonomous unmanned aerial vehicles (UAVs) and AI-based object detection and tracking could significantly improve efficiency, reduce cost, and lower risks for various applications. With fast developments in UAV platform design, cameras, micro-computers, and image-processing algorithms, autonomous UAVs have become a promising sensing platform for various applications such as environment monitoring and infrastructure inspection. The key aim of this Special Issue is to bring together innovative research that uses off-the-shelf or custom-made platforms to extend autonomous aerial sensing capabilities. Contributions from all fields related to UAVs and aerial-image processing techniques are of interest, particularly including, but not limited to, the following topics:

- Unmanned aerial vehicle (UAV) system;
- Machine learning;
- AI-based data processing;
- Object detection;
- Object tracking;
- Localization and mapping;
- Path planning;
- Obstacle avoidance;
- Multi-agent collaboration.

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### Guest Editors

Dr. Boyang Li

School of Engineering, The University of Newcastle, Callaghan, NSW 2308, Australia

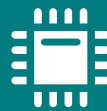
Prof. Dr. Chihyung Wen

Department of Aeronautical and Aviation Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong

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### Deadline for manuscript submissions

closed (30 November 2024)



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Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[sensors@mdpi.com](mailto:sensors@mdpi.com)

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### Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro

Department of Electrical and Information Engineering, Politecnico di Bari, Via Orabona 4, 70126 Bari, Italy

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