Special Issue

Advanced Image Processing Algorithms for Object Detection and Tracking in Aerial and Satellite Imagery

Message from the Guest Editors

The availability of aerial and satellite imagery has revolutionized numerous fields, including environmental monitoring, urban planning, and disaster management. Central to harnessing the full potential of this imagery are advanced image processing algorithms that facilitate accurate object detection and tracking. These algorithms enable the precise identification and analysis of features of geospatial objects within diverse and complex landscapes. This Special Issue aims to collate cutting-edge research and developments in image processing techniques focusing on object detection and tracking for aerial and satellite imagery. We invite contributions that address the unique challenges posed by these data sources, including varying resolutions, perspectives, and environmental conditions. Our goal is to showcase innovative methodologies that enhance the accuracy, efficiency, and applicability of object detection and tracking in remote sensing.

- Deep Learning-based Object Detection in Aerial and Satellite Imagery;
- Advanced Algorithms and Techniques for Object Tracking in Hyperspectral Videos;
- Cross-modal Remote Sensing Object Detection and Tracking;
- The

Guest Editors

Prof. Dr. Jun Zhou

Prof. Dr. Libao Zhang

Dr. Junpeng Zhang

Dr. Jue Zhang

Deadline for manuscript submissions

29 August 2025

About the Journal

Message from the Editor-in-Chief

Remote Sensing is now a prominent international journal of repute in the world of remote sensing and spatial sciences, as a pioneer and pathfinder in open access format. It has highly accomplished global remote sensing scientists on the editorial board and a dedicated team of associate editors. The journal emphasizes quality and novelty and has a rigorous peer-review process. It is now one of the top remote sensing journals with a significant Impact Factor, and a goal to become the best journal in remote sensing in the coming years. I strongly recommend *Remote Sensing* for your best research publications for a fast dissemination of your research.

Editor-in-Chief

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