Special Issue

Machine Learning and Deep Learning Applied to Remote Sensing Image Analysis

Message from the Guest Editors

This Special Issue will focus on the latest developments in machine learning and deep learning for remote sensing image analysis, highlighting novel algorithms, innovative applications, and emerging trends in remote sensing interpretation and image generation. We welcome original research articles, methodological contributions, and application-driven studies across various remote sensing data types, including multispectral, hyperspectral, SAR, LiDAR, etc. Potential topics of interest include, but are not limited to:

- Supervised, unsupervised, and self-supervised learning for remote sensing images;
- Advanced deep learning architectures for scene classification, object detection, image segmentation, and change detection;
- Generative models (e.g., GANs, diffusion models, autoregressive models) for image quality improvement and data generation;
- Multimodal learning and cross-modal learning for remote sensing applications;
- Vision–language modeling for image caption, referring segmentation, visual grounding, and visual question-answering;
- Domain adaptation and transfer learning for cross-sensor and cross-region generalization;
- Real-time processing of remote sensing images.

Guest Editors

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Deadline for manuscript submissions

28 September 2025

Remote Sensing

an Open Access Journal by MDPI

Impact Factor 4.2
CiteScore 8.6

mdpi.com/si/235170

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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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