Special Issue

Artificial Intelligence in Hyperspectral Remote Sensing Data Analysis

Message from the Guest Editors

Hyperspectral remote sensing, which captures hundreds of contiguous narrow spectral bands across the electromagnetic spectrum, has emerged as a cornerstone technology for analyzing the surface with unparalleled spectral fidelity. By integrating artificial intelligence (AI), this field has undergone a paradigm shift, enabling the extraction of actionable insights from high-dimensional datasets that were previously intractable using conventional methods. AI techniques, particularly deep learning and machine learning, address the intrinsic challenges of hyperspectral data, such as the curse of dimensionality, spectral mixing, and noise, while unlocking novel capabilities for feature extraction, classification, and predictive modeling. This Special Issue will include studies covering artificial intelligence in hyperspectral remote sensing data analysis, including both the optimization and enhancement of hyperspectral interpretation algorithms and application case studies based on deep learning for hyperspectral data analysis.

Guest Editors

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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.

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