

## Special Issue

# Advanced Hyperspectral Imaging and AI for Geological Applications

### Message from the Guest Editors

Hyperspectral imaging (HSI) has emerged as a transformative tool for geological studies, enabling the detailed identification of mineral compositions, surface alterations, and environmental changes. Coupled with artificial intelligence (AI), HSI has unprecedented capabilities for automating and enhancing the interpretation of complex geological features. This Special Issue seeks to highlight cutting-edge research and applications of HSI and AI in geology, fostering advancements in resource exploration, hazard monitoring, and sustainable land management. We welcome contributions that address innovative methodologies, algorithms, and case studies leveraging HSI and AI for geological purposes. Topics of interest include, but are not limited to, the following:

- Mineral and resource exploration: The AI-driven detection of ore deposits, alteration zones, and critical minerals.
- Geohazard monitoring: The identification of landslides, debris flow, subsidence, and earthquake precursors using HSI.
- Machine learning/deep learning: Novel algorithms for feature extraction, classification, and anomaly detection in HSI data.

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### Guest Editors

Prof. Dr. Lizhe Wang

Dr. Yingjun Zhao

Dr. Fuping Gan

Dr. Ruyi Feng

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### Deadline for manuscript submissions

31 August 2026



## Remote Sensing

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*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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### Editors-in-Chief

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