

## Special Issue

# Remote Sensing for Environmental Monitoring in Cold and Arid Regions: Advances and Perspectives

### Message from the Guest Editors

Cold and arid regions, spanning high-latitude and high-altitude zones, are experiencing accelerated environmental changes driven by global warming, including glacier retreat, permafrost degradation, desertification, and ecosystem shifts. These transformations pose significant threats to water security, biodiversity, and human livelihoods. Remote sensing technologies—ranging from satellite imagery to AI-driven data analytics—have emerged as pivotal tools for monitoring these vast, inaccessible landscapes.

This Special Issue aims to consolidate cutting-edge research on remote sensing applications in cold and arid environments. We seek contributions that address methodological advances, empirical discoveries, and future-oriented perspectives to enhance the precision, scalability, and societal relevance of environmental monitoring. Articles may address, but are not limited, to the following topics:

- Advanced sensing technologies;
- AI and data fusion;
- Environmental process monitoring;
- Cross-scale modeling;
- Human–environment interactions;
- New datasets and validation.

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### Guest Editors

Dr. Lihui Luo

Dr. Jie Xue

Dr. Miao Zhang

Dr. Mingyang Lv

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### Deadline for manuscript submissions

30 January 2026



## Remote Sensing

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CiteScore 8.6



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## 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.

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### Editor-in-Chief

Dr. Prasad S. Thenkabail

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