Special Issue

The Use of Remote Sensing Data in Water Resources Management: Current Challenges and Future Opportunities

Message from the Guest Editors

Water resources (e.g., surface water and groundwater) are vulnerable to both natural and man-made variabilities. Monitoring the responses of water resources to these variabilities is more challenging than ever before. The field data that are required for monitoring programs are spatially limited, expensive, and time-consuming. Remote sensing data (visible, thermal, and radar) complement and/or can provide an alternative to field data given their global coverage, public availability (for the most part), and spatial and temporal consistency. However, there are challenges and limitations in the use of remote sensing data in monitoring water resources on both local and global scales. This Special Issue covers data analysis techniques, applications, and limitations of remote sensing data in monitoring water resources and their response to natural and anthropogenic forces. We encourage submissions of high-impact research in the form of new research articles, methodology articles, and review articles that addresses current challenges and future opportunities in the use of remote sensing data in monitoring water resources across local and global scales.

Guest Editors

Dr. Mohamed Ahmed

Department of Geology, Suez Canal University, Ismailia 41522, Egypt

Dr. Esayas Gebremichael

Department of Geological Sciences, Texas Christian University, Fort Worth, TX, USA

Deadline for manuscript submissions

14 January 2026



an Open Access Journal by MDPI

Impact Factor 4.1 CiteScore 8.6



mdpi.com/si/158117

Remote Sensing Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 remotesensing@mdpi.com

mdpi.com/journal/ remotesensing





an Open Access Journal by MDPI

Impact Factor 4.1 CiteScore 8.6



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 peerreview 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

Dr. Prasad S. Thenkabail

Senior Scientist (ST), U. S. Geological Survey (USGS), USGS Western Geographic Science Center (WGSC), 2255, N. Gemini Dr., Flagstaff, AZ 86001, USA

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, PubAg, GeoRef, Astrophysics Data System, Inspec, dblp, and other databases.

Journal Rank:

JCR - Q1 (Geosciences, Multidisciplinary) / CiteScore - Q1 (General Earth and Planetary Sciences)

