

Special Issue

Advancing UAV-Based Remote Sensing: Innovations, Techniques and Applications

Message from the Guest Editors

Unmanned Aerial Vehicles (UAVs) have revolutionized remote sensing, offering unprecedented opportunities for high-resolution, flexible, and cost-effective data collection. With advancements in UAV technology, sensors, and data processing algorithms, these systems are now integral to various environmental, agricultural, and urban applications. From efficient flight path planning to innovative image enhancement techniques, UAV-based remote sensing continues to expand the boundaries of research and practical applications. This Special Issue aims to showcase cutting-edge research and practical developments in the field of UAV-based remote sensing. We welcome studies addressing the full spectrum of UAV operations, including flight planning optimization, data acquisition, advanced image processing, and diverse applications in environmental monitoring, disaster response, and precision agriculture. Contributions exploring the integration of multispectral, hyperspectral, and thermal imaging, as well as innovative uses of machine learning and artificial intelligence for UAV applications, are highly encouraged.

Guest Editors

Dr. Rui Li

Dr. Yinxia Cao

Dr. Haoyang Yang

Dr. Dongyu Li

Deadline for manuscript submissions

15 November 2025



Remote Sensing

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 8.6



mdpi.com/si/224210

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

[mdpi.com/journal/
remotesensing](https://mdpi.com/journal/remotesensing)





Remote Sensing

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 8.6



[mdpi.com/journal/
remotesensing](https://mdpi.com/journal/remotesensing)



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.

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)