Special Issue

Remote Sensing Application in the Carbon Flux Modelling

Message from the Guest Editors

Climate changes and global warming have been threatening the Earth's sustainable environment and attracting considerable attention from international agencies and scientists. Facing such challenges, we must reduce the emissions of GHGs from human activities and/or enhance carbon sequestration using engineering and ecological approaches. Measuring/guantifying carbon emissions and sequestration is a crucial step in understanding the trajectories of carbon cycling and estimating the content of atmospheric CO2 in the future. Remote sensing can be used to retrieve essential datasets required to explore carbon flux dynamics at various scales based on advanced geospatial models. This Special Issue will especially focus on novel studies on remote sensing technology and geospatial models that account for and model carbon emissions from households and industrial practices, as well as carbon sequestration (through vegetation photosynthesis) in ecosystems. We also aim to assess the impact on carbon cycling in the future by controlling emissions from human activities and improving carbon sequestration via optimized ecosystem management.

Guest Editors

Prof. Dr. Zongyao Sha International School of Software, Wuhan University, Wuhan, China

Prof. Dr. Yichun Xie Institute for Geospatial Research and Education, Eastern Michigan University, Ypsilanti, MI 48197, USA

Deadline for manuscript submissions

30 October 2025



an Open Access Journal by MDPI

Impact Factor 4.1 CiteScore 8.6



mdpi.com/si/180536

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



MDPI

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)