Special Issue

3D Reconstruction and Mobile Mapping in Urban Environments Using Remote Sensing (Second Edition)

Message from the Guest Editors

This Special Issue focuses on the techniques for 3D reconstruction and mobile mapping in urban environments, especially for new instruments for data acquisitions in complex urban environments, scale-illumination invariant algorithms for robust feature matching, efficient image retrieval for image or LiDAR-based localization, SfM-based solutions for image orientation, SLAM-based solutions for image or LiDAR processing, and deep-learning-based network for feature detection and matching, etc. In this topic, the involved data sources are limited to the remote sensing field, including images from high-altitude satellites, aerial planes, UAVs, and MMS vehicles, and point clouds from airborne and ground scanners.

- New instruments for data acquisition in complex urban environments:
- Scale-illumination invariant algorithms for robust feature matching;
- Deep learning for feature detection and matching;
- Efficient image retrieval for image or LiDAR-based localization;
- SfM-based solutions for image orientation;
- SLAM-based solutions for image or LiDAR processing;
- Neural Radiance Field for 3D reconstruction;
- High-resolution satellite images for urban building 3D modeling.

Guest Editors

Dr. San Jiang

Dr. Duojie Weng

Dr. Jianchen Liu

Prof. Dr. Wanshou Jiang

Deadline for manuscript submissions

closed (31 January 2025)



an Open Access Journal by MDPI

Impact Factor 4.1 CiteScore 8.6



mdpi.com/si/213384

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)

