Special Issue

Urban Land Use Mapping Using Deep Learning

Message from the Guest Editors

Urban Land Use Mapping (ULUM) plays a pivotal role in reconciling cities' dual identities as engines of economic growth and focal points of socio-environmental challenges. However, conventional remote sensing approaches face inherent limitations in ULUM due to spectral ambiguities (e.g., same-object-different-spectra phenomena in mixed-use areas) and resolution constraints.

Advancements in deep learning (DL), particularly foundation models like SAM (universal image segmentation), GPT (cross-modal reasoning), and Deepseek (multi-task optimization), are revolutionizing ULUM by enabling robust urban object recognition and multi-source heterogeneous data fusion (e.g., SAR–optical–social alignment).

This Special Issue aims to advance ULUM by leveraging deep learning to address critical challenges in spectral ambiguity, multi-scale dynamics, and human activity integration. This Special Issue invites submissions that synergize multi-modal data, advanced algorithms, and urban-specific applications.

Guest Editors

Prof. Dr. Chang Li

Prof. Dr. Rongjun Qin

Prof. Dr. Ruisheng Wang

Deadline for manuscript submissions

31 March 2026

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)