Special Issue

Artificial Intelligence for Coastal Remote Sensing: Dataset and Application

Message from the Guest Editors

Coastal zones are vital yet vulnerable ecosystems facing unprecedented pressure from climate change and human activities. Leveraging the power of AI alongside remote sensing presents a revolutionary opportunity to enhance the precision, efficiency, and scalability of coastal monitoring and management. This Special Issue seeks high-quality research advancing the application of AI techniques to interpret remote sensing data for understanding and safeguarding coastal environments. We invite original contributions focusing on AI-driven extraction, mapping, and change detection of key coastal elements (such as salt marshes, mangroves, aquaculture ponds, tidal flats, shorelines, river deltas, and coastal wetlands) and emerging infrastructure (like offshore wind turbines and coastal photovoltaics), as well as those assessing coastal responses to global climate change and sea level rise. We particularly encourage research on novel AI algorithms optimized for coastal challenges in remote sensing, the creation of benchmark datasets for training and validation, robust time-series analysis of coastal dynamics, and solutions enhancing the scalability and automation of coastal intelligence.

Guest Editors

Dr. Chunpeng Chen

Dr. Panpan Xu

Dr. Pengfei Tang

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Message from the Editorial Board

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.

Editors-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

Prof. Dr. Dongdong Wang
Institute of Remote Sensing and Geographic Information Systems, Peking University, Beijing, China

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