Special Issue

AI Technology for Enhanced Analysis of High-Resolution Earth Observation Imagery in Climate Change

Message from the Guest Editors

The increasing availability of high-resolution Earth observation (EO) imagery has significantly advanced our ability to monitor and understand climate change. Datasets of such images provide essential insights into environmental dynamics, such as land cover changes, extreme weather patterns, and ecosystem shifts. However, the sheer volume and complexity of EO data present challenges for traditional analytical methods. Artificial Intelligence (AI), particularly deep learning and machine learning, has emerged as a powerful tool for extracting meaningful information from EO imagery, enabling automated, scalable, and precise climate monitoring. Integrating AI into EO analysis enhances the accuracy and efficiency of climate assessments, facilitating improved decision-making in environmental management and policy. This Special Issue aims to explore cutting-edge AI techniques for the processing of high-resolution EO imagery to address climate change challenges. It aligns with the journal's focus on geospatial data analysis, remote sensing applications, and environmental informatics.

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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

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