Special Issue

Automated Mapping and Monitoring of Soil Key Components and Functions Using Satellite Imagery and Artificial Intelligence Learning

Message from the Guest Editors

Soil is the basis of terrestrial ecosystem functions, important for various ecological aspects and global services. Climate change and human activities threaten soil functions, food security and ecosystem resilience. Traditional soil research has limitations in complex environments.AI technologies combined with remote sensing data are useful for soil analysis. This Special Issue focuses on AI driven soil analysis and management, aiming to upgrade soil science and address related issues in the context of the SDGs.

The aim of this Special Issue is to showcase the latest state-of-the-art findings in this field. Topics include, but are not limited to, the following:

1. Prediction and impact analysis of soil carbon, nitrogen, and microbial abundance using multi-source remote sensing and AI.
2. Soil moisture monitoring and inversion with multi-source remote sensing and AI.
3. Optimization of soil management practices under climate change to sustain and enhance soil functions.

Guest Editors

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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.

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