Special Issue

Artificial Intelligence-Based Remote Sensing for Crop Information Extraction and Status Monitoring

Message from the Guest Editor

Accurate and timely monitoring of crop conditions is essential to ensure food security, optimize resource use, and enhance productivity. Artificial Intelligence (AI), combined with remote sensing technologies, has revolutionized how we extract and analyse crop information, offering innovative solutions for yield monitoring and precision agriculture. AI-based techniques provide advanced capabilities to interpret large-scale, multi-source remote sensing data with high accuracy and efficiency. These approaches enable automated extraction of critical crop information, including crop classification, phenology tracking, yield estimation, and early detection of stress factors such as drought, pests, and diseases. The integration of AI with satellite and proximal sensing data opens new possibilities for real-time monitoring, predictive modelling, and decision-making in agricultural systems.

- crop growth and vigour monitoring
- crop phenology
- crop diseases and pests
- drought stress
- machine learning
- artificial intelligence
- image processing
- crop classification
- yield prediction

Guest Editor

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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.

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