Special Issue

Remote Sensing Technologies for Soil Health Monitoring

Message from the Guest Editors

Maintaining soil health is essential amid climate change, land degradation, and food security challenges. Traditional assessments are labor-intensive and limited. However, combining remote sensing (RS) technologies with artificial intelligence (AI) enhances monitoring, making it more dynamic and scalable.

This Special Issue invites innovative contributions on RS applications for soil health assessment and supporting monitoring, reporting, and verification (MRV) frameworks to enable precision land management. We welcome studies utilizing various spaceborne and airborne RS platforms and sensors, along with methods that integrate multiple data sources to improve accuracy. Research addressing challenges like accessibility and resolution is encouraged.

Insights on how earth observation data can facilitate climate action—especially in greenhouse gas monitoring and land-use planning for a climate-neutral sector—are sought. Emphasis will be on AI-driven analysis, predictive modeling, and decision-support systems in soil monitoring. Contributions demonstrating the co-creation of RS tools to regenerate degraded soils and promote sustainable land systems are also invited.

Guest Editors

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

Environmental issues are quickly becoming central political, economic and academic topics of the twenty-first century. A large number of modern challenges are directly or indirectly caused by complex interactions between environmental issues. Such issues require interdisciplinary research, knowledge and insights to understand and, ultimately, for solutions to be found. Through the journal Environments, we strive to create a platform for meaningful discourse by accepting contributions from a wide range of fields. We sincerely hope you will consider publishing your distinguished work in this highly-accessible, peer-reviewed journal.

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