Special Issue

GeoAI, Climate Data Harmonization, and Multi-Source Remote Sensing for Smart Agriculture

Message from the Guest Editors

This Special Issue will collect high-quality methodological contributions that explore novel geospatial frameworks, algorithms, and validation methodologies supporting climate-resilient agricultural systems and precision farming applications. Suggested topics include, but are not limited to, the following:

- Benchmarking and bias adjustment of gridded climate datasets;
- Scale-aware modeling in crop monitoring;
- Multi-source data integration (satellite, UAV, SAR, and climate grids);
- Deep learning approaches for NDVI/GAI forecasting and vegetation stress detection;
- GeoAI-based digital twins;
- Uncertainty quantification in geospatial agricultural models;
- Near-real-time crop monitoring;
- Satellite-based phenotyping;
- SAR-based soil moisture retrieval;
- Scalable geospatial workflows in cloud-computing environments.

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Message from the Editor-in-Chief

Geomatics is the modern adaptation of traditional surveying, mapping, and their related skills. In geomatics, Information and Communication Technology (ICT) and digitization play a focal role. Geomatics is the discipline that integrates the tasks of gathering, storing, processing, modeling, analyzing, and delivering georeferenced information. Geomatics produces, validates, and represents georeferenced data that helps to provide services that meet the needs of society.

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