Special Issue

Advances in UAV-Based Remote Sensing for Climate-Smart Agriculture

Message from the Guest Editors

This Special Issue aims to gather cutting-edge advances of UAV research and development to directly support CSA. The scope of this Special Issue includes, but is not limited to, the following areas:

- Crop breeding and phenotyping:

Advanced approaches that leverage UAV data (e.g., hyperspectral, multispectral and LiDAR sensors) for real-time monitoring of phenotypic traits (e.g., leaf chlorophyll/nitrogen content, plant height, phenology and biomass) in breeding trails, accelerating the development of climate-resilient crop varieties.

- Precision agricultural managements:

Investigations into the use of UAVs for site-specific managements and early detection of climate-induced stress (e.g., drought, flooding, pests, and lodging). This includes enabling variable-rate applications of seeding, fertilizer and water, and adaptations strategies of cover cropping and tillage, reducing cost and waste while maintaining/maximizing yield.

- Emissions and environment impact assessments:

Applications that integrate UAV with radiative transfer models, process-based models, and AI for mapping soil carbon, monitoring methane emissions, and quantifying carbon sequestration.

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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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