

Special Issue

Next-Generation Agricultural Remote Sensing: Fusing Earth Observation, AI and Edge Systems Across Open and Greenhouse Environments

Message from the Guest Editor

This Special Issue focuses on the central role of multi-scale remote sensing, advanced geospatial data processing, and multi-source data fusion in driving the transition toward intelligent, data-driven agriculture. As modern agronomic workflows evolve, remote sensing acts as the foundational observation layer across both open-field operations and highly controlled, protected cropping systems. To address current challenges in data acquisition, resolution, and operational deployment, this Special Issue highlights novel remote sensing techniques—ranging from satellite Earth observation and high-resolution Unmanned Aerial Vehicle (UAV) imagery to proximal sensing networks and edge-based optical sensors. We seek contributions that push the boundaries of satellite, airborne, and ground-based data fusion, optical/non-optical imagery analytics, and AI-driven spatial predictive modelling. A key focus of this Issue is exploring how remote sensing methodologies can be harmoniously integrated with autonomous field systems and closed-environment control platforms.

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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