

Special Issue

AI UAV-Based Systems for Agricultural Monitoring

Message from the Guest Editors

This Special Issue will focus on the integration of AI and UAV sensor technologies for all aspects of agricultural monitoring, from data acquisition and pre-processing to estimation, prediction, decision support, and actionable farm management insights.

Topics of interest for this Special Issue include (but are not limited to) the following:

- AI-based preprocessing and feature extraction from UAV-borne multispectral, hyperspectral, and thermal data;
- Deep learning for crop disease, stress, and phenotyping analysis;
- Sensor fusion, data integration, and spatiotemporal modeling;
- Autonomous UAV systems, path planning, and in-flight decision making;
- Precision irrigation and nutrient management support using predictive models;
- Case studies of real-world deployment in diverse crop systems;
- Explainability and uncertainty estimation in AI for agricultural monitoring;
- Challenges, ethics, and regulatory aspects of UAV-AI integration.

Guest Editors

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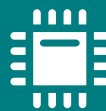
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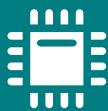


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Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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