Special Issue

Smart Sensor-Based Systems for Crop Monitoring

Message from the Guest Editor

Precision agriculture systems and technologies are being integrated into applications that support sustainable crop production, primarily through smart sensor-based systems that can assess crop status. This Special Issue invites original research articles, reviews, and perspectives that provide valuable insights into the applications of crop physiology monitoring technologies in precision agriculture, focusing on systems that utilize direct plant feedback for crop growth optimization and health condition assessment. The topics of interest include, but are not limited to: Plant physiology status sensors for real-time crop monitoring and automated control;

- Sensor-driven irrigation and nutrient management based on plant physiological status;
- Plant stress detection and early warning systems that use crop physiology monitoring;
- Microcontroller-based systems for crop condition monitoring;
- Machine learning algorithms for plant physiological status data interpretation;
- Decision support systems for comprehensive crop growth status assessment;
- Edge computing solutions for real-time plant physiology status processing and control.

Guest Editor

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Message from the Editor-in-Chief

Agriculture (ISSN 2077-0472) is an international, cross-disciplinary and scholarly journal on the science and technology of crop and animal production, and management of the natural resource base for agricultural production. We invite submissions from authors according to the aims and scope of the journal described in more detail on this page. *Agriculture* is published in an open access format – articles are published on the journal's website immediately after acceptance, giving the scientific community and the public unlimited and free access to the content.

Editor-in-Chief

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