Special Issue

Novel Applications of Optical Sensors and Machine Learning in Agricultural Monitoring

Message from the Guest Editors

Advances in optical images and machine learning have attracted widespread attention, but we call for more highly flexible solutions for various agriculture study applications. We believe that sensors, artificial intelligence, and machine learning are not simply scientific experiments, but opportunities to make our agricultural production management more efficient and cost-effective, further contributing to the healthy development of natural-human systems. This Topic seeks to compile the latest research on optical sensors and machine learning in agricultural monitoring. The following provides a general (but not exhaustive) overview of topics that might be relevant to this Research Topic:

- Machine learning approaches for crop health, growth, and yield monitoring.
- Combined multisource/multi-sensor data to improve the crop parameters mapping.
- Crop-related growth models, artificial intelligence models, algorithms, and precision management.
- Farmland environmental monitoring and management.
- Ground, air, and space platforms application in precision agriculture.
- Development and application of field robotics.
- High-throughput field information survey.
- Phenological monitoring.

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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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