

# Special Issue

## Satellite Image Processing and Object Recognition for Agriculture and Food Security Applications

### Message from the Guest Editors

Plant agriculture is facing immense challenges due to climate change. Also, there is an increasing demand for sustainable agriculture. Therefore, it is important to find new ways to increase productivity. In this Special Issue, we would like researchers to propose new approaches to process remote sensing satellite images with object detection, machine learning, and artificial intelligence methods in order to provide opportunities for the use of sustainable plant agriculture and food security applications. We welcome researchers to use novel methods on real-life use cases and conduct experiments on specific test scenarios. The topics include, but are not limited to, the following:

- The identification of agricultural infrastructures;
- The mapping of crop plantation and distribution;
- The monitoring of crop growth;
- The monitoring of crop diseases and insect pests;
- The inversion of farmland soil moisture and other key parameters;
- The models and methods for predicting crop yield;
- The protection and monitoring of farmland biodiversity;
- Food security and sustainable agriculture;
- The novel image processing methods for agricultural and food security applications.

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### Guest Editors

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### Deadline for manuscript submissions

closed (30 May 2025)



## Remote Sensing

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### Message from the Editorial Board

*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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