



## Machine Vision Systems in Digital Agriculture

Guest Editors:

### **Dr. Zhanyou Xu**

Plant Science Research Unit,  
USDA Agricultural Research  
Service (USDA-ARS), University of  
Minnesota, Washington, DC, USA

### **Dr. Reka Howard**

Department of Statistics,  
University of Nebraska–Lincoln,  
Lincoln, NE 68583-0963, USA

### **Prof. Dr. Lizhi Wang**

Industrial and Manufacturing  
Systems Engineering (IMSE) of  
Iowa State University,  
Washington, DC, USA

Deadline for manuscript  
submissions:

**closed (1 March 2023)**

### **Message from the Guest Editors**

#### **Cutting-edge research:**

- Robotic systems for agronomic data collection in the greenhouse and field.
- 3D vision technologies for robotic-optimized harvesting automation system.
- Multispectral and hyperspectral sensors for early abiotic and biotic stress early detection and recommendation system.
- Machine vision monitors greenhouse gas emissions and CO<sub>2</sub> and/or methane sequestration for climate and sustainable agriculture.
- More efficient machine vision-enabled targeted monitoring, precise fertilization, pesticide application, farmland irrigation, and sustainable cultivation.
- Satellite monitoring for disease control and yield prediction.

#### **What kind of papers we are soliciting:**

Application of machine vision, digital agriculture for precision farming





an Open Access Journal by MDPI

## **Editor-in-Chief**

### **Prof. Dr. Peter Langridge**

School of Agriculture, Food and  
Wine, University of Adelaide,  
Urrbrae, SA 5064, Australia

## **Message from the Editor-in-Chief**

*Agronomy* draws together researchers from diverse areas of agricultural research with a common aim of enhancing agricultural productivity globally. The journal provides unlimited free access to all those interested in advancing agricultural science from both the research and general community. Papers are released immediately after acceptance through the internet. *Agronomy* is supported by our authors and their institutes through low article processing charges (APC) for accepted papers. We hope you will support the journal by becoming one of our authors.

## **Author Benefits**

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), PubAg, AGRIS, and other databases.

**Journal Rank:** JCR - Q1 (*Agronomy*) / CiteScore - Q1 (*Agronomy and Crop Science*)

## **Contact Us**

---

*Agronomy* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/agronomy](http://mdpi.com/journal/agronomy)  
[agronomy@mdpi.com](mailto:agronomy@mdpi.com)  
[X@Agronomy\\_Mdpi](https://twitter.com/Agronomy_Mdpi)