

Special Issue

Key Technology Research and Applications of Agricultural Inspection Robots Based on Machine Vision and Artificial Intelligence

Message from the Guest Editors

In the rapidly evolving realm of modern agriculture, machine vision (MV) and artificial intelligence (AI) have emerged as pivotal technologies, revolutionizing multiple agricultural sectors. The integration of MV and AI in agriculture promotes intelligent automation, reduces costs, enhances productivity, and reveals significant potential for the development of smart farming.

We are delighted to announce a new Special Issue focused on the cutting-edge research and applications of MV and AI in agriculture. Our research scope covers diverse topics, such as optimizing the visual systems of agricultural inspection robots for precise plant phenotyping and early pest detection in the planting industry; utilizing robotic MV and AI for livestock behavior analysis and health management; and deploying inspection robots integrated with MV and AI gas sensors to improve safety in agricultural research laboratories. We sincerely invite original research papers and comprehensive reviews to further explore and innovate in this vibrant field.

Guest Editors

Dr. Xiuguo Zou

Dr. Yan Qian

Dr. Yuhua Li

Dr. Yong Wang

Dr. Wentian Zhang

Deadline for manuscript submissions

25 May 2026



Agriculture

an Open Access Journal
by MDPI

Impact Factor 3.6
CiteScore 6.3



mdpi.com/si/242367

Agriculture
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
agriculture@mdpi.com

[mdpi.com/journal/
agriculture](https://mdpi.com/journal/agriculture)





Agriculture

an Open Access Journal
by MDPI

Impact Factor 3.6
CiteScore 6.3



[mdpi.com/journal/
agriculture](https://mdpi.com/journal/agriculture)



About the Journal

Message from the Editor-in-Chief

Agriculture (ISSN 2077-0472) is an international, scholarly and scientific open access journal publishing peer-reviewed research papers, review articles, communications and short notes that reflect the breadth and interdisciplinarity of agriculture.

Editor-in-Chief

Prof. Dr. Les Copeland
Sydney Institute of Agriculture, School of Life and Environmental
Sciences, The University of Sydney, Sydney, NSW 2006, Australia

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, RePEc, and other databases.

Journal Rank:

JCR - Q1 (Agronomy) / CiteScore - Q1 (Plant Science)