

Special Issue

Artificial Intelligence and Unmanned Aerial Vehicle (UAV) Applications in Horticultural Crop Production

Message from the Guest Editors

In recent years, the integration of artificial intelligence (AI) and unmanned aerial vehicle (UAV) technologies has brought unprecedented transformations to horticultural crop production, including fruit trees and vegetables. With the advancement of technology, combined with deep learning, computer vision, and intelligent decision-making algorithms such as large language models (LLMs) and reinforcement learning, these systems enable precise disease and pest detection and tracking, growth monitoring, yield estimation, and targeted spraying, while also playing a vital role in irrigation management, nutrient health diagnosis, and smart farming practices.

This Special Issue will provide a scholarly exchange platform focusing on the innovative applications of AI and UAV technologies in horticultural crop production. We welcome contributions presenting cutting-edge research findings, advanced methodologies, application cases, and experimental validations, particularly emphasizing their role in improving crop yield and quality, optimizing agricultural resource allocation, and fostering sustainable horticultural development.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Horticultural plants and their products provide sustenance, health, and beauty. A confluence of factors is putting increasing pressure on horticultural production to evolve, and innovative research is addressing these challenges. *Horticulturae* provides a venue to communicate research results in a rapid manner with open access, allowing everyone the opportunity to stay abreast of leading research addressing horticulture. I invite you to consider publishing the results of your research in this high quality, peer-reviewed journal.

Editor-in-Chief

Prof. Dr. Luigi De Bellis
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Technologies (DiSTeBA), Salento University, Lecce, Italy

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