

Special Issue

Cutting-Edge Technology in Agricultural Robotics: Sensing and Actuation

Message from the Guest Editor

This Special Issue aims to gather the latest research and innovations at the intersection of robotics, automation, and agriculture, focusing on the core areas of sensing and actuation. We invite submissions that explore the following topics: Vision-Based Sensing and Perception: crop and weed detection, disease monitoring, and environmental perception; Precision Actuation: innovations in robotic arms, cutting tools, and other actuators specifically designed for agricultural tasks; Hand-Eye Coordination Control: algorithms and systems that enhance the hand-eye coordination of robots in dynamic and unstructured environments; Design and Control of Novel End-Effectors, such as soft robotics and biomimetic designs, that can handle delicate agricultural products with care and precision; Multi-Arm Coordination: innovations in the design and control of multi-arm robotic systems for agriculture; Sensing and Reconstruction: 3D mapping, sensor fusion, and data-driven modeling approaches; Motion Planning: cutting-edge research in motion planning for agricultural robots, addressing challenges such as path optimization, obstacle avoidance, and safe navigation in dynamic farm environments.

Guest Editor

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Message from the Editor-in-Chief

Agriculture (ISSN 2077-0472) is an international, crossdisciplinary and scholarly open access journal on the science and technology of crop and animal production, and management of the natural resource base for agricultural production. *Agriculture* is published in an open access format – research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the public have unlimited and free access to the content as soon as it is published.

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