Special Issue

Robotics for Agricultural Production

Message from the Guest Editors

The transformation of agriculture is being driven by the critical need to enhance operational efficiency, radically optimise resource utilisation, and mitigate the severe impact of rising labour shortages. These pressing global challenges have catalysed the sector's evolution, moving on from basic automation toward the integration of complex and autonomous robotic systems. This Special Issue aims to significantly advance cutting-edge research on smart farming through the application of agricultural robotics. We solicit high-quality contributions addressing the practical implementation and validation of agricultural robotics in the form of original research papers and comprehensive reviews covering the design, modelling, control, deployment, and validation of both ground-based and aerial robotic systems. Key areas of interest include predictive plant health monitoring, ultra-targeted spot spraying, autonomous mechanical weeding, and fully automated harvesting and transport, thereby providing solutions that cover the complete crop cycle, from planting to post-harvest.

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Message from the Editor-in-Chief

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