Special Issue

Harnessing Sensing, Artificial Intelligence, and Robotics for Digital Agriculture

Message from the Guest Editors

The integration of sensing, artificial intelligence (AI), and robotics into agriculture marks a transformative era in farming practices. Over the past two decades, advancements in these technologies have revolutionized traditional agricultural methods, thus enhancing productivity, sustainability, and efficiency. This journey began with the adoption of basic sensors for soil and crop monitoring, evolving into sophisticated AI-driven systems that are capable of predictive analytics and autonomous decision-making. Robotics has furthered this evolution, introducing automation in planting, harvesting, and maintenance tasks. This Special Issue aims to explore the latest innovations in and applications of sensing, AI, and robotics in digital agriculture. We seek to provide a comprehensive platform for researchers, practitioners, and policymakers to share insights, challenges, and breakthroughs. The scope of this Special Issue encompasses a wide range of topics, including, but not limited to, precision agriculture, smart farming systems, autonomous machinery, and data-driven agricultural management.

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