



## Intelligent Cyberphysical Systems for Agricultural Applications

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### Message from the Guest Editors

Dear Colleagues,

Agriculture is facing tremendous challenges from a rapidly growing global population, severe climate change, unsustainable agricultural practices, and shortfall in usable natural resources, such as arable land and water. Cyberphysical systems (CPS) consisting of computational and physical elements provide the foundation of crucial infrastructure and smart services that support precision agriculture. Ongoing advances in sensing, computer vision, robotics, internet of things (IoT), wireless communication, edge/cloud computing, and artificial intelligence (e.g., deep learning) improve capability, adaptability, scalability, resiliency, safety, security, and usability of CPS for challenging agricultural applications. In particular, recent developments in high throughput plant phenotyping, automated animal behavior and health monitoring, and smart agriculture provide automation and data-driven decision-making for both agricultural production and research, paving the way for the next agricultural revolution.

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