

Special Issue

Research Status, Progress, and Applications of Agricultural Robot and Agriculture 4.0 Technologies in Field Operation

Message from the Guest Editors

Agriculture is now developing towards automated/robotic field operations. Agricultural field operations are complex and are subject to environmental factors in addition to the dynamic biological nature of both fields and crops. With the technological advancements in GPS, smart sensors, UAVs (unmanned aerial vehicles), GIS, machine vision, etc., the use of automated/robotic operations in agriculture is becoming reality. The focus of this issue is to collect outstanding articles focusing (but not limited to) on robot solutions for various field operations (e.g. planting, irrigation, path planning and navigation, fertilization, spraying, canopy management, pollination, thinning, pruning, weed removal, harvesting, postharvest transportation, and storage) for both field and specialty crops; precision agriculture applications; advanced in-field sensing and decision support systems; machine vision, artificial intelligence, deep learning, machine learning, big data, cybernetics, nanotechnology, digital agriculture, UAVs, mechatronics, swarm robotics, and nanorobotics applications in agriculture.

Guest Editors

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

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Editor-in-Chief

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