Special Issue

Applied Robotics and AI in Agriculture: Sensing and Autonomy for Deployment and Adoption

Message from the Guest Editors

The agricultural sector is entering a new era where integrating robotics and artificial intelligence (AI) is no longer a distant possibility but an emerging necessity. To accelerate this transition, this Special Issue seeks contributions that move beyond theoretical models and laboratory prototypes toward solutions that can be deployed on farms within the next five years. Our aim is to create a platform where researchers, industry leaders, and practitioners converge to present advances that directly address the pressing challenges of agricultural productivity, sustainability, and labor. Topics of interest include, but are not limited to, autonomous systems (both ground and aerial), robotic planting and harvesting, AI-driven crop and livestock management, edge computing for real-time decisions, and frameworks for adoption and workforce training. By focusing on applied and industry-relevant outcomes, this Special Issue will provide readers with actionable knowledge and insights that can shape agricultural practice in the near term. We welcome submissions from academia, startups, agribusinesses, and practitioners who are building the future of agriculture today.

Guest Editors

Dr. Santosh Pitla

Advanced Machinery Systems, Department of Biological Systems Engineering, Institute of Agriculture and Natural Resources, College of Engineering, University of Nebraska–Lincoln, 207 L. W. Chase Hall, Lincoln, NE 68583-0726, USA

Dr. Luan Pereira De Oliveira

Department of Horticulture, University of Georgia, Tifton, GA 31793, USA

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Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro
Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

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