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EDITORIAL

Special issue: field and service robotics

We are delighted to present the special issue dedicated to the recent advancements in Field and Service Robotics. This issue brings together a collection of papers showcasing innovative designs, novel developments in real-world applications. Several of these are peer-reviewed, enhanced versions of selected contributions to AIR2023. Interesting concepts with thorough design strategies have been included – exploring bio-inspired robotic design strategies through replica of bee pollination for greenhouse applications, presenting 3-D motion of a snake robot for uncertain underwater environments and feature-extraction strategies for industrial cluttered environment. The advancements in deep-learning methodologies, vision sensing challenges and control algorithms have been covered through their implementation for developed robotic systems. Innovative mechanical designs have also been showcased for agricultural field, through a mechanical gripping device with a telescopic link for a fruit harvesting robot and an omnidirectional mecanum wheel. These papers demonstrate the significant progress being made in field and service robotics, with applications in agriculture, navigation, industry and beyond.

We would like to thank the authors for their contributions to this special issue and the reviewers for their diligent efforts in evaluating the manuscripts. We hope that this special issue inspires readers for contributing in the novel designs and development works that will drive the continued advancement of field and service robotics.

Sandipan Bandyopadhyay
Department of Engineering Design, Indian Institute of Technology Madras, Chennai, India

Santhakumar Mohan
Mechanical Engineering, Indian Institute of Technology Palakkad, Palakkad, India

Ekta Singla
IIT Ropar, Punjab, India

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