

Special Issue

Control of Robots Physically Interacting with Humans and Environment

Message from the Guest Editors

Manipulation and physical interaction with an unstructured environment are key challenges in current robotics. Robots are intelligent machines that are able to physically interact with the environment, objects and humans. When a robot is endowed with suitable perception and control systems, its intelligence is embodied as the robot quickly reacts to external stimuli coming from sensors, e.g., force, proximity and visual data. Manipulation is a very special interaction modality that includes grasping and the in-hand manipulation of objects. If a safe and firm grasp is a difficult task in an unstructured environment, in-hand manipulation is a true challenge. This Special Issue invites papers on modern robot control, e.g., force/tactile control, friction modeling, object detection, obstacle avoidance, machine learning, performance measures, human–robot safe interaction, and grasping of fragile or deformable objects. The Special Issue will cover the scientific and technological advancements in this field. We look forward to receiving your submissions for this Special Issue.

Guest Editors

Prof. Dr. Ciro Natale

Dipartimento di Ingegneria, Università degli Studi della Campania Luigi Vanvitelli, Aversa, Italy

Dr. Marco Costanzo

Dipartimento di Ingegneria, Università degli Studi della Campania Luigi Vanvitelli, Via Roma, 29, 81031 Aversa, Italy

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Robotics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
robotics@mdpi.com

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About the Journal

Message from the Editor-in-Chief

It is my great pleasure to welcome you to our open access journal, *Robotics*, which is dedicated to both the foundations of artificial intelligence, bio-mechanics and mechatronics, and the real-world applications of robotic perception, cognition and actions. The 21st century is the robotics century and intelligent robots will change our lifestyle forever. Let us work together toward the realization of intelligent robots step by step. It is great fun to create intelligent robots and imagine their practical applications. *Robotics* is now ready to serve you in the long journey towards such a goal.

Editor-in-Chief

Prof. Dr. Marco Ceccarelli

LARM2: Laboratory of Robot Mechatronics, Department of Industrial Engineering, University of Rome Tor Vergata, Via del Politecnico 1, 00133 Roma, Italy

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