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Titolo	Progress in Automation, Robotics and Measuring Techniques : Volume 2 Robotics // edited by Roman Szewczyk, Cezary Zieliski, Magorzata Kaliczyska
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Collana	Advances in Intelligent Systems and Computing, , 2194-5357 ; ; 351
Disciplina	629.8
Soggetti	Computational intelligence Robotics Automation Artificial intelligence Physical measurements Measurement Computational Intelligence Robotics and Automation Artificial Intelligence Measurement Science and Instrumentation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Forming of Operational Characteristics of an Orthotic Robot by Influencing Parameters of its Drive Systems -- Lightweight RGB-D SLAM System for Search and Rescue Robots -- Affordable Multi-Legged Robots for Research and STEM Education: A Case Study of Design and Technological Aspects -- Falcon: A Compact Multirotor Flying Platform with High Load Capability -- TAPAS: A Robotic Platform for Navigation in Outdoor Environments -- NAO-mark vs QR-code Recognition by Nao Robot Vision -- Hive Collective Intelligence for Cloud Robotics. A Hybrid Distributed Robotic Controller Design for Learning and Adaptation -- The Autonomous Return Control System for Mobile Platform, Used in CBRN Hazards -- Navigation Module for Mobile Robot -- An Efficient PSO-based Method for an Identification of a Quadrotor

Model Parameters -- User Needs and Requirements for the Mobility Assistance and Activity Monitoring Scenario within the RAPP Project -- Safety Module Based on Gyroscopic in the System for Verticalization and Aiding Motion of the Disabled -- Gait Trajectory Planning for CIE Exoskeleton -- Specification of Abstract Robot Skills in Terms of Control System Behaviours -- Construction and Signal Filtering in Quadrotor -- Adaptive Optical Inspection System with Use of Reconfigurable Manipulator -- Simulation-Based Evaluation of Robot-Assisted Wireless Sensors Positioning -- Small Remotely Operated Screw-propelled Vehicle -- HMI with Vision System to Control Manipulator by Operator Hand Movement -- A Comparison of Control Strategies for 4DoF Model of Unmanned Bicycle Robot Stabilised by Inertial Wheel -- Integration of Qualitative and Quantitative Spatial Data within a Semantic Map for Service Robots -- Social Inclusion with Robots: a RAPP case study using NAO for technology illiterate elderly at Ormylia Foundation -- On the Application of QR Codes for Robust Self-Localization of Mobile Robots in Various Application Scenarios -- Reconfigurable Agent Architecture for Robots Utilising Cloud Computing -- Kinematic interactions between orthotic robot and a human -- CIE-Hand Towards Prosthetic Limb -- Merging Robotics and AAL ontologies: The RAPP methodology -- In-Motion Balance Recovery of a Humanoid Robot under Severe External Disturbances -- Exploring Open Street Map Publicly Available Information for Autonomous Robot Navigation -- Two Mode Impedance Control of Velma Service Robot Redundant Arm -- The Social Construction of Creativity in Educational Robotics.

Sommario/riassunto

This book presents recent progresses in control, automation, robotics, and measuring techniques. It includes contributions of top experts in the fields, focused on both theory and industrial practice. The particular chapters present a deep analysis of a specific technical problem which is in general followed by a numerical analysis and simulation, and results of an implementation for the solution of a real world problem. The presented theoretical results, practical solutions and guidelines will be useful for both researchers working in the area of engineering sciences and for practitioners solving industrial problems.
