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Nota di contenuto	Preface -- Effect of Non-Passive Operator on Enhanced Wave-Based Teleoperator for Robotic-Assisted, by J. Guo, C. Liu, P. Poignet -- Singularity Analysis of a Novel Minimally-Invasive-Surgery Hybrid Robot using Geometric Algebra, by T. Tanev -- ISO 13482:2014 and Its Confusing Categories. Building a Bridge between Law and Robotics, by E. Fosch Villaronga -- Variable stiffness for leaf springs mechanism, by L. Esteveny , L. Barbe, B. Bayle -- Application of Nonlinear Dynamics to Human Knee Movement on Plane Inclined Treadmill, by D. Tarnita, D.N. Tarnita -- Training of robot to assigned geometric and force trajectories, by A. Leskov, V. Golovin, M. Arkhipov, L. Kocherevskaya -- Kinematic Analysis of an Innovative Medical Parallel Robot using Study

parameters, by C. Vaida, D. Pisla, J. Schadlbauer, M. Husty and N. Plitea -- Visuo-Vestibular Contributions to Vertical Selfmotion Perception in Healthy Adults, by I. Giannopulu P. Leboucher, G. Ratureau, I. Israël, and R. Jouvent -- Series elasticactuation for assistive orthotic devices, by A. Ortlieb, J. Oliver, M. Bouri, H. Bleuler -- Sensory-motor Anticipation and Local Information Fusion for Reliable Humanoid Approach, by H. F. Chame and C. Chevallereau -- On the Design of the Exoskeleton Arm with Decoupled Dynamics, by V. Arakelyan, Y. Aoustin, C. Chevallereau -- Tactile and visual feedback for control of forces in laparoscopy, by T. Howard, J. Szewczyk -- A Dual-user Teleoperation System with Adaptive Authority Adjustment for Haptic Training, by F. Liu, A. Lelevé, D. Eberard and T. Redarce -- Strategy to lock the knee of exoskeleton stance leg: study in the framework of ballistic walking model, by A. Formalsky and Y. Aoustin -- Framework design for a Robotic Driven Handheld Laparoscopic Instrument for Non-Invasive Intraoperative Detection of Small Endoluminal Digestive Tumors, by B. Mocan, V.V. Bintintan, S. Brad, C. Ciuce, M. Mocan, M. Murar -- Modeling and dynamic identification of medical devices: theory, issues and example,by A. Jubien and M. Gautier -- A legged robotic system for remote monitoring, by F. Tedeschi, G. Carbone -- Development of home human-centered social robot for aged people care, by A. Rodi, M. Jovanovi, M. Vujovi, I. Stevanovi -- Morphological optimization of prosthesis' finger for precision grasping of little objects, by J. L. Ramirez, A. Rubiano, N. Jouandeau, L. Gallimard, O. Polit -- Correction method for spine flexion tracking with markers, by S. Butnariu, C. Antonya -- Anthropomorphic underactuated hand with 15 joints, by E. Matheson, Y. Aoustin, E. Le Carpentier, A. Leon and J. Perrin -- Effects of the rolling mechanism of the rolling mechanism of the stance foot on generalized inverted pendulum definition, by S. Devie and S. Sakka. .

Sommario/riassunto

Medical and service robotics integrates several disciplines and technologies such as mechanisms, mechatronics, biomechanics, humanoid robotics, exoskeletons, and anthropomorphic hands. This book presents the most recent advances in medical and service robotics, with a stress on human aspects. It collects the selected peer-reviewed papers of the Fourth International Workshop on Medical and Service Robots, held in Nantes, France in 2015, covering topics on: exoskeletons, anthropomorphic hands, therapeutic robots and rehabilitation, cognitive robots, humanoid and service robots, assistive robots and elderly assistance, surgical robots, human-robot interfaces, BMI and BCI, haptic devices and design for medical and assistive robotics. This book offers a valuable addition to existing literature.