1. Record Nr. UNINA9910704381603321

Autore	Hepp A. F.
Titolo	Novel materials, processing, and device technologies for space exploration with potential dual-use applications / / A.F. Hepp [and fourteen others]
Pubbl/distr/stampa	Cleveland, Ohio : , : National Aeronautics and Space Administration, Glenn Research Center, , December 2015
Descrizione fisica	1 online resource (21 pages) : color illustrations
Collana	NASA/TM ; ; 2015-218866
Soggetti	Photovoltaic cells Solar cells Solar electric propulsion Photoelectrochemical devices Solar arrays
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from title screen (viewed on March 15, 2016). "December 2015." "Prepared for Propulsion and Energy Forum 2014 sponsored by the American Institute of Aeronautics and Astronautics, Cleveland, Ohio, July 28-30, 2014."
Nota di bibliografia	Includes bibliographical references (pages 18-21).

2. Record Nr. UNINA9910254212603321

Titolo	New Trends in Medical and Service Robots : Assistive, Surgical and Educational Robotics / / edited by Hannes Bleuler, Mohamed Bouri, Francesco Mondada, Doina Pisla, Aleksandar Rodi, Patrick Helmer
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-23832-9
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (249 p.)
Collana	Mechanisms and Machine Science, , 2211-0992 ; ; 38
Disciplina	629.892
Soggetti	Control engineering Robotics Automation Biomedical engineering User interfaces (Computer systems) Human-computer interaction Endoscopic surgery Control, Robotics, Automation Biomedical Engineering and Bioengineering User Interfaces and Human Computer Interaction Minimally Invasive Surgery
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 at the end of each chapters and index.
Nota di contenuto	Preface -- Part I Assistive and Rehabilitation Devices -- Study and choice of actuation of a walking assist device, by Y. Aoustin, C. Chevallereau and V. Arakalian -- Hybrid Adaptive Low Cost Support Device For FES Stroke Rehabilitation, by G. Cannella, D. S. Laila and C. T. Freeman -- Motion Control Algorithm of Walking Assist Machine Using Crutches to Achieve Variable Gait Style and Step Length, by D. Matsuura, R. Inose and Y. Takeda -- On developing lightweight robot-arm of anthropomorphic characteristics, by A. Rodi, B. Miloradovi, S. Popi and D: Urukalo -- Towards a natural interface for the control of a whole arm prosthesis, by G. Gini, P. Belluco and F. Mutti -- Design &

Simulation of an Orthotic Device for Patients with Osteoarthritis, by D. Tarnita, M. Catana, N. Dumitru and D.N. Tarnita -- Kinematic and Dynamic Study Contributions on Human Jaw System, by N. Dumitru, C. Copilusi and M. Ciortan -- A Robotic Platform for Lower Limb Optical Motion Tracking in Open Space, by A. Ortlieb, J. Olivier, M. Bouri and H. Bleuler -- Part II Surgical Robotics -- Virtual Planning of Needle Guidance for a Parallel Robot used in Brachytherapy, by B. Gherman, T. Girbacia, D. Cocorean, C.Vaida, S. Butnariu, N. Plitea, D. Talaba and D Pisla -- Sensory subtraction via cutaneous feedback in robot-assisted surgery, by L. Meli, C. Pacchierotti and D. Prattichizzo -- Active Bending Electric Endoscope Using Shape Memory Alloy Wires, by T. Kobayashi, T. Matsunaga and Y. Haga -- Kinematic Analysis of Instruments for Minimally Invasive Robotic Surgery: Generalization of the Reference Task, by B. Deutschmann, R. Konietschke, C. Ott -- Third Arm Manipulation for Surgical Applica-tions: An Experimental Study, by E. Abdi, M. Bouri, S. Himidan, E. Burdet and H. Bleuler -- Robotic Surgical Approach in Limited Access Anatomical Areas, by N. Crisan, Iulia Pop and I. Coman -- Part III Educational and Service Robotics -- Ranger, an Example of Integration of Robotics into the Home Ecosystem, by F. Mondada, J. Fink, S. Lemaignan, D. Mansolino, Florian Wille and Karmen Franinovic -- Design and control of humanoid robot MARKO: an assistant in therapy for children, by B. Borovac, M. Rakovi, S. Savi, and M. Nikoli -- Give Children Toys Robots to Educate and/or NeuroReeducate: the exemple of PEKOPPA, by I. Giannopulu and T. Watanabe -- Automatic segmentation of therapeutic exercises motion data based on a predictive event approach, by S. Spasojevic and R. Ventura -- Arm motions of a humanoid inspired by human motion, by M. Tomic, C. Vassallo, C. Chevallereau, A. Rodic and V. Potkonjak -- Development of a Virtual Testing Platform within an Instructor Operation Station, by A. Pisla, D. Cocorean, C. Vaida and D. Pisla.

Sommario/riassunto

Medical and Service Robotics integrate the most recent achievements in mechanics, mechatronics, computer science, haptic and teleoperation devices together with adaptive control algorithms. The book includes topics such as surgery robotics, assist devices, rehabilitation technology, surgical instrumentation and Brain-Machine Interface (BMI) as examples for medical robotics. Autonomous cleaning, tending, logistics, surveying and rescue robots, and elderly and healthcare robots are typical examples of topics from service robotics. This is the Proceedings of the Third International Workshop on Medical and Service Robots, held in Lausanne, Switzerland in 2014. It presents an overview of current research directions and fields of interest. It is divided into three sections, namely 1) assistive and rehabilitation devices; 2) surgical robotics; and 3) educational and service robotics. Most contributions are strongly anchored on collaborations between technical and medical actors, engineers, surgeons and clinicians. Biomedical robotics and the rapidly growing service automation fields have clearly overtaken the “classical” industrial robotics and automatic control centered activity familiar to the older generation of roboticists.