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Nota di contenuto	Study on Polymer-made 3DOF Spatial Parallel Manipulator, by M. Horie -- Miniaturization of check valves, by M. Pendzialek, J. Schneider, K. Höhe, L. Zentner -- A Biologically Inspired Sensor Mechanism for Amplification of Tactile Signals Based on Parametric Resonance, by T. Volkova, I. Zeidis, and K. Zimmermann -- Towards the Development of Tactile Sensors for Determination of Static Friction Coefficient to Surfaces, by M. Scharff, M. Darnieder, J. Steigenberger, and C. Behn -- Development and Investigation of Photoelastic Sensor for Torque Measurement, by A. Bojtos, N. Szakály, and A. Huba -- Flexural body for a wireless force/displacement sensor, by J. Hricko and S. Havlik -- Capsule Micromechanism Driven by Impulse – Wireless Implementation,

by T. Ito and S. Murakami -- Development of peristaltically propelled active catheter used in radial artery, by Y. Nakazato, K. Kawanaka, K. Takita, and M. Higuchi -- Locomotion Principles for Microrobots based on Vibrations, by F. Becker, V. Lysenko, V. T. Minchenya, O. Kunze, and K. Zimmermann -- Exploration of Carbon-filled Carbon Nanotube Vascular Stents, by D. J. Skousen, K. N. Jones, T. Kowalski, A. E. Bowden<sup>3</sup>, and B. D. Jensen -- A Novel Gripper Based on a Compliant Multistable Tensegrity Mechanism, by S. Sumi, V. Böhm, F. Schale, R. Roeder, A. Karguth, and K. Zimmermann -- Selection of the Optimal Rigid-Body Counterpart Mechanism in the Compliant Mechanism Synthesis Procedure, by N. T. Pavlovi, N.D. Pavlovi, M. Milošević -- Design and Experimental Characterization of a Flexure Hinge-Based Parallel Four-Bar Mechanism for Precision Guides, by P. Gräser, S. Linß, L. Zentner, and R. Theska -- Dynamic model of a compliant 3PRS parallel mechanism for micromilling, by A. Ruiz, F.J. Campa, C. Roldán-Paraponiaris, and O. Altuzarra -- Dynamic Analysis of a Fatigue Test Bench for High Precision Flexure Hinges, by D. Schoenen, M. Hüsing, and C. Corves -- Self-setting locks for petal type deployable space reflector, by V. I. Bujakas, A. A. Kamensky -- Monolithic and Statically Balanced Rotational Power Transmission Coupling for Parallel Axes, by D. Farhadi Machekposhti, N. Tolou, and J. L. Herder -- Investigation of the novelty brackets "Gold-S", by F. Pollok, C. von Mandach, S. Griebel, V. Böhm, and L. Zentner -- Dynamic behavior of active lightweight compliant mechanisms with integrated piezoceramic actuators by under- and overcritical periodic excitation, by N. Modler, A. Winkler, A. Filippatos, E.-C. Lovasz, and D.-T. Mrgineanu -- Synthesis of compliant mechanisms with defined kinematics, by A. Hasse, M. Franz, and K. Mauser -- A Concept of Adaptive Two Finger Gripper with Embedded Actuators, by A. Milojević, N. D. Pavlovi, S. Linß, M. Tomi, N. T. Pavlovi, and H. Handroos -- Implementation of Self Contact in Path Generating Compliant Mechanisms, by P. Kumar, A. Saxena, and R. A. Sauer. .

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#### Sommario/riassunto

This book brings together investigations which combine theoretical and experimental results related to such systems as capsule micromechanisms, active micro catheters, nanotube vascular stents, mechanisms for micromilling, different compliant mechanisms including grippers and compliant systems with actuators and sensors, microrobots based on vibrations, tactile sensors, tooth brackets, compliant valves, and space reflectors. This volume contains twenty-two contributions from researchers from ten countries, represented at the 4th Conference on Microactuators and Micromechanisms, which was held in 2016 in Ilmenau, Germany. The aim of the conference was to provide a special opportunity for a know-how exchange and collaboration in various disciplines concerning systems pertaining to micro-technology. This Conference was organized under the patronage of IFToMM (International Federation for the Promotion of Mechanism and Machine Science). .

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