The European Conference on Mechanism Science (EUCOMES 2010 Conference) is the third event of a series that has been started in 2006. EUCOMES has been started as a conference initiative to be a forum mainly for the European community working in Machine and Mechanism Science in order to facilitate aggregation and sharing interests and results for a better collaboration and activity visibility. The previous EUCOMES conferences were successfully held in Innsbruck, Austria (2006) and Cassino, Italy (2008). EUCOMES 2010 is taking place in Cluj-Napoca, Romania from 14 to 18 September 2010. EUCOMES 2010 is organized by the Center for Industrial Robots Simulation and Testing (CESTER) at the Faculty of Machine Building, Technical University of Cluj-Napoca under the patronage of IFToMM, the International Federation for the Promotion of Mechanism and Machine Science.

The aim of the conference is to bring together researchers, industry professionals and students from the broad ranges of disciplines referring to Mechanism Science, in an intimate, collegial and stimulating environment. The EUCOMES 2010 Conference aims to provide a special opportunity for the scientists to exchange their scientific achievements and build up national and international collaboration in the mechanism science field and its applications. This book presents the most recent research results in the mechanism science, intended to improve a variety of applications in daily life and industry. The book is published in the Springer series “Machine and Mechanism Science”. The issues addressed are: Computational Kinematics, Micro-mechanisms, Mechanism Design, Mechanical Transmissions, Linkages and Manipulators, Mechanisms for Biomechanics, Experimental Mechanics, Mechanics of Robots, Dynamics, Control Issues of Mechanical Systems, Novel Designs, Applications and Teaching Methods.

EUCOMES 2010 received 100 papers and after careful review with at least two reviews for each paper, 79 papers have been accepted for publication and presentation at the conference.

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