
Preface

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Biographical notes: Marco Ceccarelli received PhD in 1987 at the University La Sapienza of Rome. He is Director of LARM, the Laboratory of Robotics and Mechatronics at the University of Cassino and South Latium. He is Scientific Editor of Springer Book Series on History of MMS and on Mechanism and Machine Science, and Associate Editor of several Journals. He wrote the book 'Fundamentals of Mechanics of Robotic Manipulation' in 2004. In 2008, he co-authored a book on Mechanism Design in Spanish. He received Degree of Doctor Honoris Causa from foreigner Universities and ASME Historian Award. He is ASME fellow. He was elected Secretary General of IFToMM in 2004–2007 and IFToMM President in 2008–2011 and 2016–2019. His research interests cover aspects of Mechanism Design, Mechanics and Design of Robots, and History of Mechanical Engineering. He is author/co-author of several books and papers, which are published in conference proceedings and international journals.

Shaoping Bai received PhD in Robotics, Nanyang Technology University (NTU), Singapore, 2001. He is currently an Associate Professor at the Department of Mechanical and Manufacturing Engineering, Aalborg University, Denmark. His research areas include mechanism theory and novel mechanisms, medical and assistive robots, parallel manipulators, with special interest in kinematics, dynamics, linkage and manipulator analysis and synthesis, human-robot interaction modelling and control. Dr. Bai leads and participates in a number of national and international projects in robotics and machines. He is the Coordinator of EU project AXO-SUIT on assistive exoskeletons. He has served as Editor of a number of books, conference proceedings and an Associate Editor of ASME Journal of Mechanisms and Robotics.

MEDER 2015, IFToMM International Symposium on Mechanism Design for Robotics, has been the third event of a series that has been started in 2010 as a specific conference activity on mechanisms for robots. The first event was held at Universidad Panamericana de Ciudad de Mexico, Mexico, in September 2010; the second was held in 2012 at

Beihang University in Beijing, China, and the third one at Aalborg University in Denmark.

The aim of the MEDER Symposium is to bring researchers, industry professionals and students together from the broad ranges of disciplines dealing with mechanism for robots, in an intimate, collegial and stimulating environment. Again, in the 2015 MEDER event, we have received a significant attention to the initiative, as can be seen by the fact that the Proceedings contain contributions by authors from all around the world.

The Proceedings of MEDER 2015 Symposium have been published within the Springer book series on MMS as volume 33 and the book contains 42 papers that have been selected after review for oral presentation. These papers cover several aspects of the wide field of robotics dealing with mechanism aspects in theory, design, numerical evaluations, and applications.

This special journal issue has been obtained as a result of a second review process and selection, but all the papers that have been accepted for MEDER 2015 are of good quality with interesting contents suitable for journal publication and it has been hard to decide for the selection.

The members of the International Scientific Committee for MEDER Symposium are thankfully acknowledged for cooperating enthusiastically for the success of the MEDER 2015 event and this special issue:

Marco Ceccarelli (Univ. Cassino, Italy, (Chair)

Juan Carretero (Univ. New Brunswick, Canada)

Lu Zhen (Beihang Univ., China)

Pierre Larochelle (Florida Inst.Tech.,USA)

Ding Xilun (Beihang Univ., China)

Grigore Gogu (Fr. Inst. Adv. Mech, France)

I-Ming Chen (Nanyang Tech. Univ., Singapore),

Mario Acevedo (Univ. Panamericana, Mexico)

Teresa Zielinska (Warsaw Univ. of Tech, Poland)

Joseph Rooney (Open Univ., UK)

Atsuo Takanishi (Waseda Univ., Japan)

Alfonso Hernandez (Univ. of Bask Countries, Spain)

We thank the authors who have contributed with very interesting papers in several subjects, covering many fields of Mechanism Design for Robotics and additionally for their cooperation in revising papers in time in agreement with reviewers' comments. We are grateful to the reviewers for the time and efforts they spent in evaluating the papers with a very tighten schedule that has permitted the publication of this special issue.

We thank the Aalborg University, Aalborg, Denmark, for having hosted the MEDER 2015 event and the organising work from the local organising committee. We would like to thank our colleagues for their help at the LARM Laboratory of Robotics and Mechatronics of University of Cassino and at the Department of Mechanical and Manufacturing Engineering of the Aalborg University. We like also to thank the auspices

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We would like to thank the publisher and editorial staff of this journal and particularly Professor Dan Zhan, Editor-in-Chief, for accepting and helping the publication of this special issue, since the early steps in 2013.

We are grateful to our families since without their patience and comprehension, it would not have been possible for us to organise MEDER 2015, IFToMM International Symposium on Mechanism Design for Robotics and this Journal special issue.