

Preface

MeTrApp 2015 is already the third edition of a conference that started in 2011 as a workshop organized by the University of Timisoara in Romania. The second edition was organized as a conference in Bilbao, Spain, by the University of the Basque Country. Now this book is already the third of its kind presenting the collection of scientific papers that were presented on the occasion of the Third Conference on Mechanisms, Transmissions and Applications organized by RWTH Aachen University in Aachen, Germany.

The driving force behind this now well-established conference series is the International Federation for the Promotion of Mechanism and Machine Science namely its two Technical Committees “Linkages and Mechanical Controls” and “Gearing and Transmissions”.

The aim of this Third Conference on Mechanisms, Transmissions and Applications is to offer a stage for original research presentations for researchers, scientists, industry experts, and students in the fields of mechanisms and transmissions with special emphasis on industrial applications in order to stimulate the exchange of new and innovative ideas. By collecting the peer-reviewed papers that were funnelled through a rigorous two-stage review process, within the Springer Mechanism and Machine Science Series, we take the chance to present and share the outcome of this conference with interested professionals and scientists who are at the front line of mechanism and machine theory. Thus, the content of this book is subdivided into different sections that cover the topics Mechanism and Machine Design, Mechanical Transmissions, Industrial Applications, VDI-Guidelines, Biomechanics and Medical Engineering, Robotics, Mechatronics, and Dynamics of Mechanisms and Machines.

In total, we received 41 papers, which were carefully reviewed by three reviewers per paper in a double-review process. Finally, 35 papers were accepted for presentation during the conference and for publication in this book. Thus, we want to express our thanks to the reviewers who contributed to this process with their experience and scientific background. Only through their effort was it possible to organize a thorough yet speedy review process.

Many thanks also go to the authors for their enthusiasm about this conference and to all who helped in organizing this publication as well as the conference itself. We thank the German Research Foundation for awarding a grant in order to host this conference, as well as RWTH Aachen University for supporting this conference. We also thank the staff at Springer for their support through all stages of preparing this book.

We very much hope that this book also inspires those who could not attend the conference to contribute or attend one of the next issues of MeTrApp.

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