

# Preface

The MuSMe 2017, the International Symposium on Multibody Systems and Mechatronics, is the sixth event of a series that has been started in 2002 as joint activity of the FelbIM Commission for Mechatronics and IFToMM Technical Committees for Multibody Dynamics, and Robotics and Mechatronics. The MuSMe International Symposium is a conference initiative to bring together researchers from the broad ranges of disciplines referring to Multibody Systems and Mechatronics.

Modern systems can be considered as integrated systems that can be properly studied, designed, and operated by using Mechatronics viewpoints, but even considering the multibody architecture. In particular, the aim of the MuSMe Symposium is to be a forum to exchange views, opinions, experiences, and stimulating integration between Mechatronics and Multibody Systems disciplines, a forum for facilitating contacts among research people and students.

These proceedings contain 52 papers by authors from all around the world, which cover several aspects of the wide field of Mechatronics. The contributions address mainly to kinematics, static and dynamic analysis, control of mechatronic systems, mechatronic systems for assistive technology, modeling and simulation, prototypes and experimental validations, synthesis of mechanisms and robots, and vehicle dynamics.

These proceedings can be considered to be of interest to researchers, graduate students, and engineers specializing or addressing attention to Mechatronics. We believe that a reader will take advantage of the papers in these proceedings with further satisfaction and motivation for her or his work, both in teaching and researching on mechatronic systems.

We would like to express grateful thanks to the members of the International Scientific Committee of the Symposium for cooperating enthusiastically for the success of the MuSMe initiative, in particular Prof. Marco Ceccarelli, President of IFToMM, and the authors who have contributed with very interesting papers in several subjects, covering many fields of Mechatronics and Multibody Systems. We are grateful to the reviewers for the time and effort they spent evaluating the papers.

The Organizing Committee would like to thank the Federal University of Santa Catarina (UFSC), Brazil, for supporting the MuSMe 2017 and hosting the event. We would like also to thank the auspices of ABCM—The Brazilian Society of Engineering and Mechanical Sciences, IFToMM—The International Federation for the Promotion of Mechanisms and Machine Science, FeIbIM—The Iberoamerican Federation of Mechanical Engineering, Springer, and the support of CNPq, CAPES, FAPESC, UFSC, for their financial help, recognizing that without their partnership it would not be possible to organize this meeting.

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