Preface

After the successful conferences—MAMM-2010 in Aachen, Germany; MAMM-2012 in Durgapur, India; and MAMM-2014 in Timisoara, Romania—the 4th conference on Microactuators and Micromechanisms was held 2016 in Ilmenau, Germany. This conference was organized by the Mechanism Technology Group, Department of Mechanical Engineering at Technische Universität Ilmenau and under the patronage of IFToMM (International Federation for the Promotion of Mechanism and Machine Science), in particular the Technical Committees of Micromachines and of Linkages and Mechanical Controls.

The aim of the conference is to bring together scientists, industry experts, and students and to provide a special opportunity for know-how exchange and collaboration in various disciplines referring to microsystems technology. This event has presented following topics: microactuators and microassembly, microsensors involving movable solids, micro-opto-mechanical devices, mechanical tools for cell and tissue studies, micromanipulation and microstages, microscale flight and swimming, microrobotics and surgical tools, micron-scale power generation, miniature manufacturing machines, micromechatronics and micromechanisms, biomechanics micro and nano scales, control issues in microsystems and compliant mechanisms, and actuators. In addition to focusing on general topics of interest, the last named topic was introduced new in this conference and found a great resonance. This book has 22 peer-reviewed papers. The conference has exhibited high international participation: the participants were from Germany, Hungary, India, Japan, The Netherlands, Romania, Russia, Serbia, Slovakia, and Spain.

We want to express our special thanks to all authors for the interesting contributions, which had covered the most of the given topics.

The editors would like to express many thanks to IFToMM for support of the conference and for providing assistance to young scientists and engineers through the Young Delegates Program (YDP). In the framework of the conference, three young scientists from three different countries received assistance from the YDP.

Particular thank goes to the International Scientific Committee for their support and cooperation: Burkhard Corves (Germany), Amitabha Ghosh (India), Antoni Gronowicz (Poland), Just L. Herder (Netherlands), Antal Huba (Ungarn), Brian
Jensen (USA), Andrés Kecskeméthy (Germany), Erwin-Christian Lovasz (Romania), Karl-Heinz Modler (Germany), Nenad D. Pavlovic (Serbia), Victor Petuya (Spain), Srikar Vengalattore (Canada), Yao Yan-An (P.R. China), and Lena Zentner (Germany).

We would like to thank the Local Organising Committee of Technische Universität Ilmenau for hosting the scientific event and for the support of all associated activities: Stefan Griebel, Heidi Kirsten, Sebastian Linß, Andrea Schneider, Dirk Wetzlich.

The staff at Springer Publishing, namely Johanna F.A. Pot and Nathalie Jacobs, provided excellent technical and editorial support, for which we thank you.

Ilmenau, Germany
Aachen, Germany
Provo, USA
Timișoara, Romania
October 2016

Lena Zentner
Burkhard Corves
Brian Jensen
Erwin-Christian Lovasz