The First International Conference on Interactive Collaborative Robotics (ICR) was established as a satellite event of the 18th International Conference on Speech and Computer (SPECOM) by St. Petersburg Institute for Informatics and Automation of the Russian Academy of Science (SPIIRAS, St. Petersburg, Russia), Munich University of Technology (TUM, Munich, Germany), and Tomsk State University of Control Systems and Radioelectronics (TUSUR, Tomsk, Russia).

Challenges of human–robot interaction that are usually discussed during SPECOM have become so real and pressing that they encouraged organizers to start a new conference and invite researchers in the area of social robotics and collaborative robotics to share experiences in human–machine interaction research and development of robotic and cyberphysical systems.

ICR 2016 was hosted by the Budapest University of Technology and Economics (BME) and the Scientific Association for Infocommunications (HTE), in cooperation with SPIIRAS, TUM, and TUSUR. The conference was held during August 24–26, 2016, in the Aquincum Hotel Budapest located in a prime area alongside the river Danube, on the Buda side of this magnificent city and across the river from the serene Margaret Island, with its famous thermal waters.

This volume contains a collection of submitted papers presented at the conference, which were thoroughly reviewed by members of the Program Committee consisting of around 20 top specialists in the conference topic areas. Theoretical and more general contributions were presented in common (plenary) sessions. Problem-oriented sessions as well as panel discussions brought together specialists in limited problem areas with the aim of exchanging knowledge and skills resulting from research projects of all kinds.

We would like to express our gratitude to the authors for providing their papers on time, to the members of the conference reviewing team and Program Committee for their careful reviews and paper selection, and to the editors for their hard work preparing this volume. Special thanks are due to the members of the local Organizing Committee for their tireless effort and enthusiasm during the conference organization.

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