

Preface

The First CISM-IFTToMM Symposium on Theory and Practice of Robots and Manipulators was held during September 5–8, 1973, in Udine, Italy, not long after IFTToMM had been founded in 1969. The first ROMANSY, or Ro.Man.Sy., as the Symposium used to be referred to, marks the beginning of a long-lasting partnership between two international institutions, CISM, the Centre International des Sciences Mécaniques and IFTToMM, the International Federation for the Promotion of Mechanism and Machine Science.

As the 21st CISM-IFTToMM Symposium returns to Udine, RoManSy2016 will continue to preserve this tradition, by encouraging papers that are of a broad interest to the participants, providing an environment, and setting for meaningful technical and personal interactions among the delegates. In particular, the conference solicits papers providing a vision of the evolution of the robotics disciplines and signaling new directions in which these disciplines are foreseen to develop.

The paper topics of the 21st Symposium include, but not limited to, the following:

- Kinematics and Dynamics for Robotics
- Control and Perception of Robots
- Novel Robot Design
- Humanoid Robots
- Medical Devices
- Innovations and Applications

The 21st Symposium takes place during June 20–23, 2016 in Udine, Italy and will be enriched by two keynote papers presented by I-Ming Chen from Singapore and Oussama Khatib from Stanford, USA. These papers deal with innovations in infrastructure service robots and highlight the success of the ongoing ROMANSY symposia series.

For the steering of future ROMANSY symposia an advisory board has been established chaired by one CISM representative and one IFTToMM representative. In particular, the advisory board will encourage and review proposals for

forthcoming ROMANSY symposia. The Advisory Board 2016 is composed of the following members:

- Vincenzo Parenti-Castelli, Italy (CISM Representative)
- I-Ming Chen, Singapore (IFoMM Representative)
- Philippe Bidaud, France
- Marco Ceccarelli, Italy
- Oussama Khatib, USA
- Werner Schiehlen, Germany
- Atsuo Takanishi, Japan
- Teresa Zielinska, Poland

The International Scientific Committee (ISC) is responsible as in the past for the promotion and the review of the submitted papers in cooperation with the Programme Committee Co-Chairs. The following scientists have been serving on the ISC 2016:

- Vigen Arakelyan, France
- Giuseppe Carbone, Italy
- Greg Chirikjian, USA
- Victor Glazunov, Russia
- Clément Gosselin, Canada
- Qiang Huang, China
- Yan Jin, UK
- Andres Kecskemethy, Germany
- Yukio Takeda, Japan
- Marek Wojtyra, Poland

The ISC reviewed 54 papers and accepted 47 of them. In this volume the two keynote lectures and the contributed papers after a final revision are published.

The Programme Committee Co-Chairs are thankful for the great service provided by the CISM staff. In particular, Mrs. Paola Agnola, Mrs. Marika Minisini, and Prof. Paolo Serafini did an excellent job even when the changes in the CISM printing office required a special attention.

Italy
Germany

Vincenzo Parenti-Castelli
Werner Schiehlen

ROMANSY 21 - Robot Design, Dynamics and Control
Proceedings of the 21st CISM-IFTOMM Symposium, June
20-23, Udine, Italy
Parenti-Castelli, V.; Schiehlen, W. (Eds.)
2016, XII, 448 p. 233 illus., 173 illus. in color.,
Hardcover
ISBN: 978-3-319-33713-5