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Interactive Collaborative Robotics

Third International Conference, ICR 2018
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Proceedings

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Preface

The Third International Conference on Interactive Collaborative Robotics (ICR) was organized as a satellite event of the jubilee 20th 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), Technical University of Munich (TUM, Munich, Germany), and Tomsk State University of Control Systems and Radioelectronics (TUSUR, Tomsk, Russia).

Challenges of human–robot interaction, robot control, and behavior in social robotics and collaborative robotics as well as applied robotic and cyberphysical systems are mainly discussed during the conference.

ICR 2018 was hosted by the Leipzig University of Telecommunications (HfT Leipzig) in cooperation with SPIIRAS, TUM, and TUSUR. The conference was held during September 18–22, 2018, at HfT Leipzig, a private university of applied sciences funded by Deutsche Telekom and located in the middle of a popular student and nightlife district in the south of Leipzig, Germany.

During the conference, an invited talk on “Robot Learning Through Physical Interaction and Human Guidance” was given by Prof. Dongheui Lee (Technical University of Munich and Human-Centered Assistive Robotics Group at the German Aerospace Center, DLR, Germany).

This volume contains a collection of 30 accepted papers presented at the conference, which were thoroughly reviewed by members of the Program Committee consisting of more than 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 then brought together specialists in limited problem areas with the aim of exchanging knowledge and skills resulting from research projects of all kinds.

Last but not least, 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. We hope that all attendees benefitted from the event and also enjoyed the social program prepared by the members of the Organizing Committee.

September 2018

Andrey Ronzhin
Gerhard Rigoll
Roman Meshcheryakov

Organization

The conference ICR 2018 was organized by the Leipzig University of Telecommunications, in cooperation with St. Petersburg Institute for Informatics and Automation of the Russian Academy of Science (SPIIRAS, St. Petersburg, Russia), Technical University of Munich (TUM, Munich, Germany), and Tomsk State University of Control Systems and Radioelectronics (TUSUR, Tomsk, Russia). The conference website is located at: <http://specom.nw.ru/icr2018/>.

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