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ICR 2020 Preface

The 5th International Conference on Interactive Collaborative Robotics (ICR 2020) was organized as a satellite event of the 22nd International Conference on Speech and Computer (SPECOM 2020) by the St. Petersburg Institute for Informatics and Automation of the Russian Academy of Sciences (SPIIRAS, St. Petersburg, Russia) and the Technical University of Munich (TUM, Munich, Germany). In July 2020, SPIIRAS incorporated five other research institutions, but has now been transformed into the St. Petersburg Federal Research Center of the Russian Academy of Sciences (SPC RAS).

ICR 2020 was organized as a virtual conference in the online format during October 7–9, 2020. Challenges of human-robot interaction, robot control and behavior in social robotics and collaborative robotics, as well as applied robotic and cyber-physical systems were mainly discussed at the conference.

During the conference an invited talk "A Concept for a Human-Robot Collaboration Workspace using Proximity Sensors" was given by Prof. Ilshat Mamaev (Karlsruhe Institute of Technology, Germany).

Due to the COVID-19 global pandemic, for the first time, ICR 2020 was organized as a fully virtual conference. The virtual conference, in the online format by Zoom had a number of advantages including: an increased number of participants because listeners could take part without any fees, essentially reduced registration fees for authors of the presented papers, no costs for travel and accommodation, a paperless green conference with only electronic proceedings, free access to video presentations after the conference, comfortable home conditions, etc.

This volume contains a collection of 31 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 you benefitted from the event and that you also enjoyed the social program prepared by the members of the Organizing Committee.

October 2020

Andrey Ronzhin
Gerhard Rigoll
Roman Meshcheryakov

Organization

The ICR 2020 conference was organized by the St. Petersburg Institute for Informatics and Automation of the Russian Academy of Sciences (SPIIRAS, St. Petersburg, Russia) in cooperation with the Technical University of Munich (TUM, Munich, Germany). The conference website is located at: http://www.specom.nw.ru/icr2020/.

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