

Preface

The International Conference on Wearable Sensors and Robots (ICWSR 2015) held during October 16–18, 2015 in Hangzhou, China. ICWSR 2015 was sponsored by Zhejiang University, and co-sponsored by the National Natural Science Fund of China (NSFC), and International Organisation for Standardisation's working group on personal care robot safety (ISO/TC184/SC2/WG7).

With rapid progress in mechatronics and robotics, wearable sensing and robotic technologies have been widely studied for various applications including exoskeleton robots for rehabilitation, exoskeleton robots for supporting the daily lives of elderly people, wearable medical devices for monitoring vital signs, etc. However, some key technology challenges need to be addressed for achieving better research results, more effective application demonstrators and realistic commercialization. The conference brought together academics, researchers, engineers, and students worldwide to focus on and discuss the state of the art of the technology and to present the latest results on the various aspects of wearable sensors and robots.

The conference received 61 papers from experts and researchers in China and all over the world. 46 papers were reviewed and accepted, including 20 invited papers and 26 general papers. Meanwhile, the conference received 11 keynote speech abstracts from international professors and researchers. The proceedings consist of detailed papers on wearable sensors, design of sensors and actuators, advanced control systems, wearable robots, visual recognition applications, clinical applications, rehabilitation robotics, biological signal based robotics, intelligent manufacturing and industry robots, and research progress from keynote speakers. In addition, readers will obtain the latest information on medical device regulation and international standardization, wearable robots for training and support of human gait, design of exoskeleton for elderly persons, ergonomics design considerations driving innovation in assistive robotics, and analysis of human-machine interaction.

It is our desire that the proceedings of the International Conference on Wearable Sensors and Robots (ICWSR 2015) will provide an opportunity to share the perspectives of academic researchers and practical engineers on wearable sensors and robot research and development.

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