

Preface

The International Conference on Intelligent Robotics and Applications (ICIRA 2017) was held at Huazhong University of Science and Technology (HUST), Wuhan, China, during August 16–18, 2017. ICIRA 2017 was the 10th event of the conference series, which focuses on: (a) fundamental robotics research, including a wide spectrum ranging from the first industrial manipulator to Mars rovers, and from surgery robotics to cognitive robotics, etc.; and (b) industrial and real-world applications of robotics, which are the force driving the research further.

This volume of *Lecture Notes in Computer Science* contains the papers that were presented at ICIRA 2017. The regular papers in this volume were selected from more than 350 submissions covering various topics on scientific methods and industrial applications for intelligent robotics, such as soft and liquid-metal robotics, rehabilitation robotics, robotic dynamics and control, robot vision and application, robotic structure design and mechanism, robot learning, bio-inspired robotics, human–machine interaction, space robotics, mobile robotics, intelligent manufacturing and metrology, benchmarking and measuring service robots, real-world applications, and so on. Papers describing original works on abstractions, algorithms, theories, methodologies, and case studies are also included in this volume. Each submission was reviewed by at least two Program Committee members, with the assistance of external referees. The authors of the papers and the plenary and invited speakers come from the following countries and areas: Australia, Austria, China, Cyprus, Germany, Hong Kong, Japan, Korea, Singapore, Spain, Switzerland, UK, and USA.

We wish to thank all who made this conference possible: the authors of the submissions, the external referees (listed in the proceedings) for their scrupulous work, the six invited speakers for their excellent talks, the Advisory Committee for their guidance and advice, and the Program Committee and the Organizing Committee members for their rigorous and efficient work. Sincere thanks also go to the editors of the *Lecture Notes in Computer Science* series and Springer for their help in publishing this volume in a timely manner.

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