

Lecture Notes in Artificial Intelligence

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RoboCup 2010: Robot Soccer World Cup XIV

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Preface

On June 25, 2010 Singapore Polytechnic in the city-state of Singapore played host to the 14th annual RoboCup International Symposium. This year the symposium took place the day after the RoboCup competition was concluded. Participating leagues in the RoboCup include Simulation, Soccer, Rescue, @home and Junior. This year the symposium was organized in two scientific tracks that were complemented by an additional industrial track and a special track focusing on robotics and education.

Through the 14 years a number of research topics have been stable focal points of scientific research while new areas have evolved only more recently. We used these ideas to structure the scientific tracks into four sessions entitled “Simulation and Rescue Robots,” “Robot Perception and Localization,” “Robot Motion and Humanoid Robots” and “Human Robot Interaction and Semantic Scene Analysis.”

The symposium began with a keynote address given by Eric Grimson, who heads the Computer Vision Group of MIT’s Computer Science and Artificial Intelligence Laboratory and is also Chair of the Computer Science Department at MIT. Dr. Grimson’s address was entitled “Computer Vision for Surgery and Disease Analysis” and focused on his groundbreaking work in using computer vision to guide and aid surgery. Our second keynote, entitled “The Three Laws of Robotics and the Coexistence of Human and Robot in Harmony,” was presented by Chong Tow Chong, the founding Provost of the Singapore University of Technology and Design.

This year the symposium had 78 submissions in a double-blind review process, out of which 20 were accepted as full papers, i.e., a 26% acceptance rate, with another 16 accepted as short papers for an overall acceptance rate of 46%. Thanks to the support of the Program Committee we had at least three reviewers per paper, with the symposium Co-chairs making the final decisions in case of conflicting evaluations. The authors Andreas Seekircher, Thomas Röfer and Tim Laue received the best paper award for their contribution on “Entropy-Based Active Vision for a Humanoid Soccer Robot.”

We want to thank the RoboCup Organizing Committee for making the local arrangements, which worked out effectively and smoothly. In particular we want to thank Lau Lee Yee, the Local Chair for the Symposium, and Zhou Changjiu the General Chair for RoboCup 2010. Further, we would like to thank all of the Program Committee members for their hard work and the truly

marvelous job of refereeing they did. Last but not least we want to thank all of the authors for their contributions. The next RoboCup competition will run from July 5 to 11 in Istanbul with the conjoint symposium taking place on July 11.

October 2010

Javier Ruiz-del-Solar

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