

PREFACE

Robotics is an exciting field in engineering and natural sciences. Robotics has already made important widespread contributions and impact in industrial robots for tasks such as assembly, welding, painting, and material handling. In parallel, we have also witnessed the emergence of special robots, which perform valuable tasks, in non-industrial environments such as in search and rescue, de-mining, surveillance, exploration, and security missions. Furthermore, research and development works are currently in progress in the robotics technology for use in the domestic and professional service sector. The emergence of mobile machines, such as climbing and walking robots, for these missions in un-structured environments, has significantly broadened challenges that must be considered by robotics research. This includes not only the technological and engineering aspects including standardisation, but also socio-economic and ethical aspects.

CLAWAR 2007 is the tenth in a series of international conferences organised annually since 1998 with the aim to report on latest research and development findings and to provide a forum for scientific discussion and debate within the mobile service robotics community. The series has grown in its popularity significantly over the years and has attracted researchers and developers from across the globe. The CLAWAR 2007 proceeding reports on the latest scientific and developmental achievements, future challenges and exciting applications of mobile machines in general, in particular climbing and walking robots. Eighty-five technical presentations by authors from 22 countries covering five continents were presented at the CLAWAR 2007 conference, held in Singapore between 16-18 July 2007. The text of the proceedings is organized into five parts: Plenary Introduction, Advances in Climbing Robots, Advances in Walking Robots, Advances in Humanoid Soccer Playing Robots, and Supporting Technologies.

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thank the authors for their quick response to comments and suggestions of the reviewers. It is hoped that this edition of the CLAWAR conference proceedings will form a valuable addition to the scientific and developmental knowledge in mobile robotics.

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