

# Preface

Welcome to the proceedings of BICS 2016 – the 8th International Conference on Brain Inspired Cognitive Systems. BICS has now become a well-established conference series on brain-inspired cognitive systems around the world, with growing popularity and increasing quality. BICS 2016 followed on from BICS 2004 (Stirling, Scotland, UK), BICS 2006 (Island of Lesbos, Greece), BICS 2008 (Sao Luis, Brazil), BICS 2010 (Madrid, Spain), BICS 2012 (Shenyang, China), BICS 2013 (Beijing, China), and BICS 2015 (Hefei, China). Beijing, as the capital of the People's Republic of China, is the nation's political, economic, and cultural center as well as China's most important center for international trade and communications.

This volume of *Lecture Notes in Artificial Intelligence* constitutes the proceedings of BICS 2016. In this context, BICS 2016 aimed to provide an open academic forum for researchers, engineers, and students to discuss the emerging areas and challenges, to present the state of the art of brain-inspired cognitive systems research and applications in diverse fields, and to exchange their fantastic ideas. The conference featured plenary lectures given by world-renowned scholars, regular sessions with broad coverage, and some special sessions focusing on popular and timely topics.

The conference received 43 submissions from more than 129 authors in 19 countries and regions across four continents. Based on a rigorous review process carried out by the Program Committee members and reviewers, 32 high-quality papers were selected for publication in the conference proceedings. These papers cover many topics of brain-inspired cognitive systems – related research including biologically inspired systems, cognitive neuroscience, models of consciousness, and neural computation.

Many organizations and volunteers made great contributions toward the success of this event. We are grateful to the Institute of Automation of the Chinese Academy of Sciences for their financial support and the Institute of Electrical and Electronic Engineers (IEEE) for their technical support. We would also like to sincerely thank all the committee members for their great efforts and time in organizing the event. Special thanks go to the Program Committee members and reviewers whose insightful reviews and timely feedback ensured the high quality of the accepted papers and the smooth flow of the symposium. We would also like to thank the publisher, Springer, for their cooperation in publishing the proceedings in the prestigious series of *Lecture Notes in Artificial Intelligence*. Finally, we would like to thank all the speakers, authors, and participants for their support.

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