

Preface

This book is part of the Proceedings of the Seventh International Conference on Intelligent Systems and Knowledge Engineering (ISKE2012) and the First International Conference on Cognitive Systems and Information Processing (CSIP2012) held in Beijing, China, during December 15–17, 2012. ISKE is a prestigious annual conference on Intelligent Systems and Knowledge Engineering with the past events held in Shanghai (2006, 2011), Chengdu (2007), Xiamen (2008), Hasselt, Belgium (2009), and Hangzhou (2010). Over the past few years, ISKE has matured into a well-established series of International Conferences on Intelligent Systems and Knowledge Engineering and related fields over the world. CSIP2012 is the first conference sponsored by Tsinghua University and Science China Press, and technically sponsored by IEEE Computational Intelligence Society, Chinese Association for Artificial Intelligence. The aim of this conference is to bring together experts from different expertise areas to discuss the state-of-the-art in cognitive systems and advanced information processing, and to present new research results and perspectives on future development. Both ISKE2012 and CSIP2012 provide academic forums for the participants to disseminate their new research findings and discuss emerging areas of research. It also creates a stimulating environment for the participants to interact and exchange information on future challenges and opportunities of intelligent and cognitive science research and applications.

ISKE2012 and CSIP2012 received 406 submissions in total from about 20 countries (United States of America, Singapore, Russian Federation, Saudi Arabia, Spain, Sudan, Sweden, Tunisia, United Kingdom, Portugal, Norway, Korea, Japan, Germany, Finland, France, China, Argentina, Australia, and Belgium). Based on rigorous reviews by the Program Committee members and reviewers, among 186 papers contributed to CSIP2012, high-quality papers were selected for publication in the proceedings with the acceptance rate of 40.9 %. The papers were organized in 25 cohesive sections covering all major topics of intelligent and cognitive science and applications. In addition to the contributed papers, the technical program includes four plenary speeches by Jennie Si (Arizona State University, USA), Wei Li (California State University, USA), Chin-Teng Lin (National Chiao Tung University, Taiwan, China), and Guoqing Chen (Tsinghua University, China).

As organizers of both conferences, we are grateful to Tsinghua University, Science in China Press, Chinese Academy of Sciences for their sponsorship, grateful to IEEE Computational Intelligence Society, Chinese Association for Artificial Intelligence, State Key Laboratory on Complex Electronic System Simulation, Science and Technology on Integrated Information System Laboratory, Southwest Jiaotong University, University of Technology, Sydney, for their technical co-sponsorship.

We would also like to thank the members of the Advisory Committee for their guidance, the members of the International Program Committee and additional reviewers for reviewing the papers, and members of the Publications Committee for checking the accepted papers in a short period of time. Particularly, we are grateful to thank the publisher, Springer, for publishing the proceedings in the prestigious series of Advances in Intelligent Systems and Computing. Meanwhile, we wish to express our heartfelt appreciation to the plenary speakers, special session organizers, session chairs, and student volunteers. In addition, there are still many colleagues, associates, and friends who helped us in immeasurable ways. We are also grateful to them all. Last but not the least, we are thankful to all authors and participants for their great contributions that made ISKE2012 and CSIP2012 successful.

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Fuchun Sun
Dewen Hu
Huaping Liu

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