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# Advances in Swarm Intelligence

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Proceedings, Part I

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# Preface

This book and its companion volume, LNCS vols. 6145 and 6146, constitute the proceedings of the International Conference on Swarm Intelligence (ICSI 2010) held in Beijing, the capital of China, during June 12-15, 2010. ICSI 2010 was the first gathering in the world for researchers working on all aspects of swarm intelligence, and provided an academic forum for the participants to disseminate their new research findings and discuss emerging areas of research. It also created a stimulating environment for the participants to interact and exchange information on future challenges and opportunities of swarm intelligence research.

ICSI 2010 received 394 submissions from about 1241 authors in 22 countries and regions (Australia, Belgium, Brazil, Canada, China, Cyprus, Hong Kong, Hungary, India, Islamic Republic of Iran, Japan, Jordan, Republic of Korea, Malaysia, Mexico, Norway, Pakistan, South Africa, Chinese Taiwan, UK, USA, Vietnam) across six continents (Asia, Europe, North America, South America, Africa, and Oceania). Each submission was reviewed by at least three reviewers. Based on rigorous reviews by the Program Committee members and reviewers, 185 high-quality papers were selected for publication in the proceedings with the acceptance rate of 46.9%. The papers are organized in 25 cohesive sections covering all major topics of swarm intelligence research and development.

In addition to the contributed papers, the ICSI 2010 technical program included four plenary speeches by Russell C. Eberhart (Indiana University Purdue University Indianapolis, IUPUI, USA), Gary G. Yen (President of IEEE Computational Intelligence Society, CIS, Oklahoma State University, USA), Erol Gelenbe (London Imperial College, UK), Nikola Kasabov (President of International Neural Network Society, INNS, Auckland University of Technology, New Zealand). Besides the regular parallel oral sessions, ICSI 2010 also had several poster sessions focusing on wide areas.

As organizers of ICSI 2010, we would like to express sincere thanks to Peking University and Xi'an Jiaotong-Liverpool University for their sponsorship, to the IEEE Beijing Section, International Neural Network Society, World Federation on Soft Computing, Chinese Association for Artificial Intelligence, and National Natural Science Foundation of China for their technical co-sponsorship. We appreciate the National Natural Science Foundation of China and K.C. Wong Education Foundation, Hong Kong, for their financial and logistic supports.

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 the proceedings publisher, Springer, for publishing the proceedings in the prestigious series of *Lecture Notes in Computer Science*. Moreover, we wish to express our heartfelt appreciation to the plenary speakers, session chairs, and

student helpers. In addition, there are still many more colleagues, associates, friends, and supporters who helped us in immeasurable ways; we express our sincere gratitude to them all. Last but not the least, we would like to thank all the speakers, authors and participants for their great contributions that made ICSI 2010 successful and all the hard work worthwhile.

June 2010

Ying Tan  
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Tan Kay Chen

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