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Neural Information Processing

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Preface

This book and its companion volumes constitute the Proceedings of the 13th International Conference on Neural Information Processing (ICONIP 2006) held in Hong Kong during October 3–6, 2006. ICONIP is the annual flagship conference of the Asia Pacific Neural Network Assembly (APNNA) with the past events held in Seoul (1994), Beijing (1995), Hong Kong (1996), Dunedin (1997), Kitakyushu (1998), Perth (1999), Taejon (2000), Shanghai (2001), Singapore (2002), Istanbul (2003), Calcutta (2004), and Taipei (2005). Over the years, ICONIP has matured into a well-established series of international conference on neural information processing and related fields in the Asia and Pacific regions. Following the tradition, ICONIP 2006 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 neural network research.

ICONIP 2006 received 1,175 submissions from about 2,000 authors in 42 countries and regions (Argentina, Australia, Austria, Bangladesh, Belgium, Brazil, Canada, China, Hong Kong, Macao, Taiwan, Colombia, Costa Rica, Croatia, Egypt, Finland, France, Germany, Greece, India, Iran, Ireland, Israel, Italy, Japan, South Korea, Malaysia, Mexico, New Zealand, Poland, Portugal, Qatar, Romania, Russian Federation, Singapore, South Africa, Spain, Sweden, Thailand, Turkey, UK, and USA) across six continents (Asia, Europe, North America, South America, Africa, and Oceania). Based on rigorous reviews by the Program Committee members and reviewers, 386 high-quality papers were selected for publication in the proceedings with the acceptance rate being less than 33%. The papers are organized in 22 cohesive sections covering all major topics of neural network research and development. In addition to the contributed papers, the ICONIP 2006 technical program included two plenary speeches by Shun-ichi Amari and Russell Eberhart. In addition, the ICONIP 2006 program included invited talks by the leaders of technical co-sponsors such as Wlodzislaw Duch (President of the European Neural Network Society), Vincenzo Piuri (President of the IEEE Computational Intelligence Society), and Shiro Usui (President of the Japanese Neural Network Society), DeLiang Wang (President of the International Neural Network Society), and Shoujue Wang (President of the China Neural Networks Council). In addition, ICONIP 2006 launched the APNNA Presidential Lecture Series with invited talks by past APNNA Presidents and the K.C. Wong Distinguished Lecture Series with invited talks by eminent Chinese scholars. Furthermore, the program also included six excellent tutorials, open to all conference delegates to attend, by Amir Atiya, Russell Eberhart, Mahesan Niranjan, Alex Smola, Koji Tsuda, and Xuegong Zhang. Besides the regular sessions, ICONIP 2006 also featured ten special sessions focusing on some emerging topics.

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ICONIP 2006 would not have achieved its success without the generous contributions of many volunteers and organizations. ICONIP 2006 organizers would like to express sincere thanks to APNNA for the sponsorship, to the China Neural Networks Council, European Neural Network Society, IEEE Computational Intelligence Society, IEEE Hong Kong Section, International Neural Network Society, and Japanese Neural Network Society for their technical co-sponsorship, to the Chinese University of Hong Kong for its financial and logistic supports, and to the K.C. Wong Education Foundation of Hong Kong for its financial support. The organizers 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, the organizers would like to thank the proceedings publisher, Springer, for publishing the proceedings in the prestigious series of Lecture Notes in Computer Science. Special mention must be made of a group of dedicated students and associates, Haixuan Yang, Zhenjiang Lin, Zenglin Xu, Xiang Peng, Po Shan Cheng, and Terence Wong, who worked tirelessly and relentlessly behind the scene to make the mission possible. There are still many more colleagues, associates, friends, and supporters who helped us in immeasurable ways; we express our sincere thanks to them all. Last but not the least, the organizers would like to thank all the speakers and authors for their active participation at ICONIP 2006, which made it a great success.

October 2006

Irwin King Jun Wang Laiwan Chan DeLiang Wang

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