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With Aspects of Theoretical and Methodological Issues

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Preface

The International Conference on Intelligent Computing (ICIC) was formed to provide an annual forum dedicated to the emerging and challenging topics in artificial intelligence, machine learning, bioinformatics, and computational biology, etc. It aims to bring together researchers and practitioners from both academia and industry to share ideas, problems and solutions related to the multifaceted aspects of intelligent computing.

ICIC 2007, held in Qingdao, China, August 21–24, 2007, constituted the Third International Conference on Intelligent Computing. It built upon the success of ICIC 2006 and ICIC 2005 held in Kunming and Hefei, China, 2006 and 2005, respectively.

This year, the conference concentrated mainly on the theories and methodologies as well as the emerging applications of intelligent computing. Its aim was to unify the picture of contemporary intelligent computing techniques as an integral concept that highlights the trends in advanced computational intelligence and bridges theoretical research with applications. Therefore, the theme for this conference was "**Advanced Intelligent Computing Technology and Applications**". Papers focusing on this theme were solicited, addressing theories, methodologies, and applications in science and technology.

ICIC 2007 received 2875 submissions from 39 countries and regions. All papers went through a rigorous peer review procedure and each paper received at least three review reports. Based on the review reports, the Program Committee finally selected 496 high-quality papers for presentation at ICIC 2007, of which 430 papers have been included in three volumes of proceedings published by Springer: one volume of Lecture Notes in Computer Science (LNCS), one volume of Lecture Notes in Artificial Intelligence (LNAI), and one volume of Communications in Computer and Information Science (CCIS). The other 66 papers will be included in four international journals.

This volume of *Lecture Notes in Computer Science* (LNCS) includes 139 papers.

The organizers of ICIC 2007, including the Ocean University of China and the Institute of Intelligent Machines of the Chinese Academy of Science, made an enormous effort to ensure the success of ICIC 2007. We hereby would like to thank the members of the ICIC 2007 Advisory Committee for their guidance and advice, the members of the Program Committee and the referees for their collective effort in reviewing and soliciting the papers. We would like to thank Alfred Hofmann, executive editor from Springer, for his frank and helpful advice and guidance throughout and for his support in publishing the proceedings. In particular, we would like to thank all the authors for contributing their papers. Without the high-quality submissions from the authors, the success of the conference would not have been possible. Finally, we are especially grateful to the IEEE Computational Intelligence Society, the International Neural Network Society and the National Science Foundation of China for their sponsorship.

June 2007

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