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Kang Li
George William Irwin (Eds.)

Computational Intelligence and Bioinformatics

International Conference on
Intelligent Computing, ICIC 2006
Kunming, China, August 2006
Proceedings, Part III



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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 2006 held in Kunming, Yunnan, China, August 16-19, 2006, was the second International Conference on Intelligent Computing, built upon the success of ICIC 2005 held in Hefei, China, 2005.

This year, the conference concentrated mainly on the theories and methodologies as well as the emerging applications of intelligent computing. It intended to unify the contemporary intelligent computing techniques within an integral framework that highlights the trends in advanced computational intelligence and bridges theoretical research with applications. In particular, bio-inspired computing emerged as having a key role in pursuing for novel technology in recent years. The resulting techniques vitalize life science engineering and daily life applications. In light of this trend, the theme for this conference was **“Emerging Intelligent Computing Technology and Applications”**. Papers related to this theme were especially solicited, including theories, methodologies, and applications in science and technology.

ICIC 2006 received over 3000 submissions from 36 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 703 high-quality papers for presentation at ICIC 2006. These papers cover 29 topics and 16 special sessions, and are included in five volumes of proceedings published by Springer, including one volume of *Lecture Notes in Computer Science* (LNCS), one volume of *Lecture Notes in Artificial Intelligence* (LNAI), one volume of *Lecture Notes in Bioinformatics* (LNBI), and two volumes of *Lecture Notes in Control and Information Sciences* (LNCIS).

This volume of *Lecture Notes in Bioinformatics* (LNBI) includes 85 papers covering 10 relevant topics and 2 special session topics.

The organizers of ICIC 2006, including Yunan University, the Institute of Intelligent Machines of the Chinese Academy of Science, and Queen's University Belfast, have made enormous effort to ensure the success of ICIC 2006. We hereby would like to thank the members of the ICIC 2006 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, and the members of the Publication Committee for their significant editorial work. 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 the Lecture Notes series. 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 the their sponsorship.

June 2006

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