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Preface

This volume comprises the proceedings of the 6th International Symposium on Intelligence Computation and Applications (ISICA 2012) held in Wuhan, China, October 27–28, 2012. ISICA 2012 successfully attracted over 277 submissions. Through rigorous reviews, 72 high-quality papers are included in this volume, CCIS 316. The ISICA conferences are one of the first series of international conferences on computational intelligence that combine elements of learning, adaptation, evolution and fuzzy logic to create programs as alternative solutions to artificial intelligence. The last six ISICA proceedings including two volumes of CCIS have been accepted in both the Index to Scientific and Technical Proceedings (ISTP) and Engineering Information (EI).

Following the success of the past five ISICA events, ISICA 2012 persisted in exploring the new fields of computational intelligence by exploiting the intelligence of ancient Chinese mathematics. The ancient mathematician Hui Liu calculated the ratio of a circle's area to the square of its radius π to 3.1416 more than a thousand years ago. The methodology used in calculating π actually shares a similar principle with computational intelligence concerning the evolution of solutions, and inspires the new concepts in computational intelligence. One of ISICA's missions is to pursue the truth that the complex system inherits the simple mechanism of evolution, while the simple models could produce the evolution of complex morphologies.

CCIS 316 featured the most up-to-date research in analysis and theory of evolutionary algorithms, neural network architectures and learning, fuzzy logic and control, predictive modeling for robust classification, swarm intelligence, evolutionary system design, evolutionary image analysis and signal processing, and computational intelligence in engineer design. ISICA 2012 provided a venue to foster technical exchanges, renew everlasting friendships, and establish new connections.

On behalf of the Organizing Committee, we would like to thank warmly the sponsor, China University of Geosciences, who helped in one way or another to achieve our goals for the conference. We wish to express our appreciation to Springer for publishing the proceedings of ISICA 2012. We also wish to acknowledge the dedication and commitment of the CCIS editorial staff. We would like to thank the authors for submitting their work, as well as the Program Committee members and reviewers for their enthusiasm, time, and expertise. The invaluable help of active members from the Organizing Committee, including Hengjian Tong, Yinwen Gong, Changhe Li, Xiaoyue Wang, Wenbin Fan, and

Lingling Wang in setting up and maintaining the online submission systems, assigning the papers to the reviewers, and preparing the camera-ready version of the proceedings is highly appreciated. We would like to thank them personally for helping to make ISICA 2012 a success.

October 2012

Zhenhua Li
Xiang Li
Yong Liu
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