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Computational Intelligence and Intelligent Systems

10th International Symposium, ISICA 2018
Jiujiang, China, October 13–14, 2018
Revised Selected Papers

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Preface

The current volume of CCIS comprises the proceedings of the 10th International Symposium on Intelligence Computation and Applications (ISICA 2018) held in Jiujiang, China, during October 13–14, 2018. ISICA 2018 successfully attracted over 80 submissions. After rigorous reviews and plagiarism checking, 32 high-quality papers were selected for inclusion in CCIS 986. 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 past ISICA proceedings including six volumes of CCIS and four volumes of LNCS have been indexed in DBLP, Google Scholar, EI-Compindex, Mathematical Reviews, SCImago, and Scopus.

ISICA 2018 featured the most up-to-date research in the analysis and theory of evolutionary computation, neural network architectures and learning, neuro-dynamics and neuro-engineering, fuzzy logic and control, collective intelligence and hybrid systems, deep learning, knowledge discovery, and reasoning. ISICA 2018 provided a venue to foster technical exchanges, renew everlasting friendships, and establish new connections. Prof. Yuanxiang Li, one of the pioneers in parallel and evolutionary computation at Wuhan University, wrote a beautiful poem in Chinese for the ISICA 2018 event. It is our pleasure to translate his poem with the title of “ISICA2018 in Jiujiang”:

Purple mist is rising on the top of Lu Mountain;
Clear stream is lying in Lianxi;
We are coming to the Xunyang river bank;
Surrounded by the three rivers of Xiangjiang, Yangtze, and Ganjiang;
For the meeting of intelligence applications.
Both young talent and old friends;
Gather at the ancient Zhu Xi’s School;
Admire how Zhu Xi advanced Confucianism, Buddhism and Taoism;
Watch the stone in the stream where Zhu Xi had a nap;
Look for creative inspiration for evolutionary computation.

Prof. Li’s poem points out one of ISICA’s missions of pursuing the truth that a complex system inherits the simple mechanism of evolution, while simple models may lead to the evolution of complex morphologies. Following the success of the past nine ISICA events, ISICA 2018 continued to explore the new problems emerging in the fields of computational intelligence.

On behalf of the Organizing Committee, we would like to thank warmly the sponsors, Jiujiang University and Wuhan University, 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 2018. We also wish to acknowledge the dedication and commitment of both the staff at the Springer Beijing Office and 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 of the Organizing Committee, including Xiaogang Dong, Hui Wang, Xinyu Zhou, Peng Hu, Feipeng Wang, Juan Zhu, Yan Zhang, Yan Liu, Haiyan Huang, Xiaojing Wang, Youxue Zhou, and Jianqiang Chen, in setting up and maintaining the online submission systems by EasyChair, assigning the papers to the reviewers, and preparing the camera-ready version of the proceedings is highly appreciated. We would like to thank them for helping to make ISICA 2018 a success.

November 2018

Hu Peng
Changshou Deng
Zhijian Wu
Yong Liu

Organization

ISICA 2018 was organized by Jiujiang University and sponsored by Wuhan University.

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