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Artificial Intelligence Algorithms and Applications

11th International Symposium, ISICA 2019
Guangzhou, China, November 16–17, 2019
Revised Selected Papers

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Preface

CCIS 1205 comprises the post proceedings of the 11th International Symposium on Intelligence Computation and Applications (ISICA 2019) held in Guangzhou, China, November 16–17, 2019. This volume features the most up-to-date research in evolutionary algorithms, parallel and quantum computing, evolutionary multi-objective and dynamic optimization, intelligent multimedia systems, virtualization and AI applications, smart scheduling, intelligent control, big data and cloud computing, deep learning, and hybrid machine learning systems.

CCIS 1205 is dedicated in memory of Lishan Kang on the 10th anniversary of his death. Prof. Kang was the founder of ISICA, who organized the first ISICA in 2005. Besides his research book on evolutionary computation, *Non-Numerical Algorithms: (II) Genetic Algorithms* published by China Science Press in 1995, Prof. Kang gave hundreds of public talks and lectures on both domain decomposition methods and evolutionary computation at many universities in China starting in the 1980s. In the late 1980s, Prof. Kang foresaw that evolutionary computation was the foundation of computational intelligence while computational intelligence was the future of computational science. Nowadays thousands of students and researchers in China are following in his footsteps. Evolutionary computation will bring us to creative evolution beyond deep learning from the available big data and powerful hardware.

On behalf of the Organizing Committee, we would like to warmly thank the sponsors: South China Agricultural University, Jiangxi University of Science and Technology, Intelligent Simulation Optimization and Scheduling Committee of China Simulation Federation, and Computing Intelligence of Guangdong Computer Academy, 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 2019. 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 from the Organizing Committee, including Lixia Zhang, Lei Yang, Yan Chen, Hui Wang, Zhiping Tan, Ying Feng, Dunmin Chen, Yaohua Liu, Wenbiao Chen, Xiangzheng Fu, Qiong Liu, Daisy Kansal, Jalil Hassan, and Nwokedi Kingsley Obumneme, 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 personally for their help in making ISICA 2019 a success.

March 2020

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Contents

Virtualization and AI Applications

Smart Scheduling

Intelligent Control

Big Data and Cloud Computing