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Kangshun Li · Yong Liu · Wenxiang Wang (Eds.)

Exploration of Novel Intelligent Optimization Algorithms

12th International Symposium, ISICA 2021
Guangzhou, China, November 20–21, 2021
Revised Selected Papers

Springer

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ISSN 1865-0929 ISSN 1865-0937 (electronic)
Communications in Computer and Information Science
ISBN 978-981-19-4108-5 ISBN 978-981-19-4109-2 (eBook)
https://doi.org/10.1007/978-981-19-4109-2

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The registered company address is: 152 Beach Road, #21-01/04 Gateway East, Singapore 189721, Singapore

Preface

CCIS 1590 comprises the post proceedings of the 12th International Symposium on Intelligence Computation and Applications (ISICA 2021) held in Guangzhou, China, during November 20–21, 2021. Although ISICA was forced to be a hybrid meeting this time, most of audiences from mainland China enjoyed the event onsite thanks to the successful zero-COVID strategy at that time. 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 ISICA proceedings have been included in eight volumes of CCIS to date.

This volume features the most up-to-date research in the following five parts. Section 1 explores the new frontier of multiobjective evolutionary algorithms. Section 2 focuses on intelligent multimedia. Section 3 discusses date-driven models in real applications. Section 4 presents some novel intelligent optimization algorithms. Section 5 covers some new intelligent business and industry approaches. 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.

On behalf of the Organizing Committee, we would like to warmly thank the sponsors, the South China Agricultural University, Sun Yat-sen University, the Intelligent Simulation Optimization and Scheduling Committee of the China Simulation Federation, the Computing Intelligence of Guangdong Computer Academy, Guangdong Polytechnic Normal University, and Minnan Normal University, that 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 2021. We also wish to acknowledge the dedication and commitment of both the staff at Springer's 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, Wei Li, Hui Wang, Zhiping Tan, Jalil Hassan, Shumin Xie, Xiangzheng Fu, Jiancong Wang, Can Chen, Xunlin Huang, Weilin Chen, Weichi Zhou, Shaotao Li, and Jiayu Zhang in setting up and maintaining the online submission systems by Easy-Chair, 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 2021 a success.

March 2022

Kangshun Li
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