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Applied Computing to Support Industry

Innovation and Technology

First International Conference, ACRIT 2019
Ramadi, Iraq, September 15–16, 2019
Revised Selected Papers

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Preface

The First International Conference on Applied Computing Research to Support Industry: Innovation and Technology (ACRIT 2019), was hosted and organized by the Al-Maarif University College, Ramadi, Iraq, during September 15–16, 2019. ACRIT is an international conference focused on the latest topics related to Computer Science, Computer Networks and Security, Data Science, Artificial Intelligence (AI), and Machine Learning.

Recent years have witnessed a dramatic increase in applied computing for solving real-world problems due to the significant improvement and advancements in information technologies. A variety of applications, such as AI systems, robotics, sensors technology, communication networks, and the Internet of Things (IoT), have helped industry to solve a number of real-world problems. There is a large number of applications proved the practical potential of several domains as significant, and their popularity is rising. For most of the scientists and engineers introducing applied computing into practice looking at the growing number of new approaches, and understanding their theoretical principles and potential for value creation has become an increasingly difficult task.

The main aims of this conference is to gather state-of-art solutions to provide a robust system with the ability to operate in dynamic and changing environments, including methods for industry and real-world problems. All of the submitted manuscripts addressed either a theoretical or practical perspective that related to an aspect of the conference, as well as contributions presenting relevant applications. However, the theme for this conference was “Applied Computing Research to Support Industry.” Papers focusing on this theme were solicited, addressing applications in science and technology.

ACRIT 2019 received 159 submission from 21 countries around the world. All manuscripts underwent through a rigorous peer-review process and each paper received a minimum of three peer reviewers. Based on the review reports, the Program Committee decided to select and accept only 39 papers among 159 long and short papers, which were arranged into 4 tracks, resulting in a strong program with an acceptance rate of less than 25%, to be included in this volume of proceedings published by Springer: Communications in Computer and Information Science (CCIS). The selected papers were distributed into main tracks including: Theory, Method and Tools; Computer Security and Cryptography; Computer Network and Communication; and Application Fields in Information Science and Technology.

We would like to thank the Program Committee, locally and internationally, and the reviewers for their collective time and effort in reviewing and soliciting the papers. Special thanks go to Alfred Hofmann, Vice-President Publishing, Amin Mobasheri and Alla Serikova, Computer Science Editor, Saravanan Gnanaprakasam, Project Manager,

for their continuous support in publishing the proceedings. Finally, we also owe a great debt to all the researchers who submitted high-quality papers to our conference: ACRIT 2019.

December 2019

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