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Preface

This volume constitutes the refereed proceedings of the 5th International Conference on Advanced Intelligent Systems and Informatics (AISI 2019), which took place in Cairo, Egypt, during October 26–28, 2019, and is an international interdisciplinary conference covering research and development in the field of informatics and intelligent systems. In response to the call for papers for AISI 2019, 133 papers were submitted for the main conference, 70 for two workshops, and 32 for five special sessions, so the total is 235 papers submitted for presentation and inclusion in the proceedings of the conference. After a careful blind refereeing process, 103 papers were selected for inclusion in the conference proceedings. The papers were evaluated and ranked on the basis of their significance, novelty, and technical quality by at least two reviewers per paper. After a careful blind refereeing process, 104 papers were selected for inclusion in the conference proceedings. The papers cover current research in robot modeling and control systems, deep learning, smart grid, sustainable energy, sentiment analysis and Arabic text mining, cloud computing, data mining, visualization and E-learning, and intelligence swarms and optimization.

In addition to these papers, the program included one keynote talk by Professor Farid Meziane from the Salford University, UK, on ultrasound report standardization using rhetorical structure theory and domain ontology. We express our sincere thanks to the plenary speakers, workshop chairs, and International Program Committee members for helping us to formulate a rich technical program. We would like to extend our sincere appreciation for the outstanding work contributed over many months by the Organizing Committee: local organization chair and publicity chair. We also wish to express our appreciation to the SRGE members for their assistance. We would like to emphasize that the success of AISI 2019 would not have been possible without the support of many committed volunteers who generously contributed their time, expertise, and resources toward making the conference an unqualified success. Finally, thanks to Springer team for their support in all stages of the production of the proceedings. We hope that you will enjoy the conference program.

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Keynote Speaker

Farid Meziane obtained a PhD in computer science from the University of Salford on his work on producing formal specification from natural language requirements. He is currently holding Chair in data and knowledge engineering and is Director of the Informatics Research Centre at the University of Salford, UK. He has authored over 100 scientific papers and participated in many national and international research projects. He is Co-chair of the International Conference on Application of Natural Language of Information Systems and in the programme committee of over ten international conferences and in the editorial board of three international journals. He was awarded the Highly Commended Award from the Literati Club, 2001, for his paper on Intelligent Systems in Manufacturing: Current Development and Future Prospects. His research expertises include natural language processing, semantic computing, data mining and big data and knowledge engineering.

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