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Applied Computer Sciences in Engineering

4th Workshop on Engineering Applications, WEA 2017
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Preface

The 4th Workshop on Engineering Applications (WEA 2017) focused on computer science, simulation, and its applications, while previous events aimed to be a forum for all practitioners of all kinds of scientific theories in engineering coming from academia and industry. WEA 2017 is now one of the flagship conferences of the Faculty of Engineering of the Universidad Distrital Francisco José de Caldas, in Bogotá, Colombia.

This year WEA 2017 was held at the Universidad Tecnológica de Bolívar in Cartagena, Colombia, and we received submissions on computer science topics such as software engineering, computer informatics, computational intelligence, intelligent computing, simulation systems, systems dynamics, systems modeling, IoT, and operations research. WEA 2017 concentrated on computer sciences and simulation systems, with miscellaneous applications in IoT and operations research. Therefore, the main topic of our conference was *Applied Computer Sciences in Engineering*.

WEA 2017 received 156 submissions from 14 countries. All submissions were rigorously peer-reviewed and 66 papers and 6 posters were accepted for presentation at WEA 2017. The Program Committee finally selected 59 high-quality papers to be included in this volume of Communications in Computer and Information Sciences (CCIS) proceedings published by SpringerNature.

The Faculty of Engineering of the Universidad Distrital Francisco José de Caldas, the Universidad Tecnológica de Bolívar, the Corporación Unificada Nacional (CUN), the Faculty of Engineering of the National University of Colombia, and the Universidad Libre in Colombia made a significant effort to guarantee the success of the conference. We would like to thank all members of the Program Committee and the referees for their commitment to help in the review process and for spreading our call for papers. We would like to thank Alfred Hofmann and Jorge Nakahara from SpringerNature for their helpful advice, guidance, and their continuous support in publishing the proceedings. Moreover, we would like to thank all the authors for supporting WEA 2017; without all their high-quality submissions the conference would not have been possible. Finally, we are especially grateful to the IEEE Universidad Distrital Francisco José de Caldas and Universidad Tecnológica de Bolívar student branches, the Institute of Industrial and Systems Engineers Chapter 985 (IISE) of the Universidad Distrital Francisco José de Caldas, the Laboratory for Automation and Computational Intelligence (LAMIC), the Expert Systems and Simulation (SES), the Laboratory for Development and Research in Networks and

Electronics (LIDER) research groups of the Universidad Distrital Francisco José de Caldas, and the Algorithms and Combinatory (ALGOS) research group of the National University of Colombia.

September 2017

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