Juan Carlos Figueroa-García
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Germán Hernández-Pérez (Eds.)

Communications in Computer and Information Science 1685

Applied Computer Sciences in Engineering

9th Workshop on Engineering Applications, WEA 2022
Bogotá, Colombia, November 30 – December 2, 2022
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ISSN 1865-0929 ISSN 1865-0937 (electronic)
Communications in Computer and Information Science
ISBN 978-3-031-20610-8 ISBN 978-3-031-20611-5 (eBook)
https://doi.org/10.1007/978-3-031-20611-5

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

The ninth edition of the Workshop on Engineering Applications (WEA 2022) was focused on applications in computer science, computational intelligence, IoT, bioengineering, optimization and simulation. WEA 2022 was one of the flagship events of the Faculty of Engineering of the Universidad Distrital Francisco José de Caldas, the School of Engineering, Science and Technology of Universidad del Rosario and the Faculty of Engineering of the National University of Colombia.

WEA 2022 was held from November 30 to December 02 in hybrid mode due to the post-COVID-19 pandemic economic and travel restrictions. In total, 143 submissions were received from authors in 12 countries on topics like computer science, artificial intelligence, operations research/optimization, simulation systems and their applications. The peer review process for all submissions was rigorous where every paper was reviewed by one Program Committee member who assigned at least 3 external reviewers in a single blind manner, so as a result a total of 39 papers were accepted for oral presentation at WEA 2022. The Program Committee organized all the accepted papers into four different sections for clarity of presentation and to increase the impact of this volume published by Springer's Communications in Computer and Information Sciences (CCIS) series.

The Faculty of Engineering of the Universidad Distrital Francisco José de Caldas, the School of Engineering, Science and Technology of Universidad del Rosario and the Faculty of Engineering of the National University of Colombia made significant efforts to guarantee the success of the conference considering post-COVID-19 global economic effects.

We would like to thank all members of the Program Committee for their commitment to help in the review process and for spreading WEA 2022 call for papers and the team at Springer for their helpful advice, guidance and continuous support in publicizing the proceedings. Also, we would also like to thank all the authors for supporting WEA 2022 as without all their high-quality submissions the conference would not be possible. Finally, we are especially grateful to the IEEE Universidad Distrital Francisco José de Caldas Student branch, the Laboratory for Automation and Computational Intelligence (LAMIC) and GITUD research groups of the Universidad Distrital Francisco José de Caldas, the Algorithms and Combinatorics (ALGOS) research group of the Universidad Nacional de Colombia, the AVARC and CALPOSSALLE research groups of the Universidad de La Salle and the faculty staff of the School of Engineering, Science and Technology of Universidad del Rosario.

November 2022

Juan Carlos Figueroa-García
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