Advances in Intelligent Systems and Computing 1268

Álvaro Herrero · Carlos Cambra · Daniel Urda · Javier Sedano · Héctor Quintián · Emilio Corchado *Editors*

15th International Conference on Soft Computing Models in Industrial and Environmental Applications (SOCO 2020)

Springer

Advances in Intelligent Systems and Computing

Volume 1268

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ISSN 2194-5357 ISSN 2194-5365 (electronic)
Advances in Intelligent Systems and Computing
ISBN 978-3-030-57801-5 ISBN 978-3-030-57802-2 (eBook)
https://doi.org/10.1007/978-3-030-57802-2

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The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

This volume of Advances in Intelligent and Soft Computing contains accepted papers presented at SOCO 2020 conference held in the beautiful and historic city of Burgos (Spain), in September 2020.

Soft computing represents a collection or set of computational techniques in machine learning, computer science, and some engineering disciplines, which investigate, simulate, and analyze very complex issues and phenomena.

After a through peer-review process, the SOCO 2020 International Program Committee selected 83 papers which are published in these conference proceedings and represents an acceptance rate of 35%. Due to the COVID-19 outbreak, the SOCO 2020 edition was blended, combining on-site and on-line participation. In this relevant edition, a special emphasis was put on the organization of special sessions. Eleven special sessions were organized related to relevant topics such as: soft computing applications in precision agriculture, manufacturing and management systems, management of industrial and environmental enterprises, logistics and transportation systems, robotics and autonomous vehicles, computer vision, laser-based sensing and measurement and other topics such as forecasting industrial time series, IoT, big data and cyberphysical systems, nonlinear dynamical systems and fluid dynamics, modeling and control systems.

The selection of papers was extremely rigorous in order to maintain the high quality of SOCO conference editions and we would like to thank the members of the Program Committees for their hard work in the reviewing process. This is a crucial process to the creation of a high standard conference and the SOCO conference would not exist without their help.

SOCO 2020 has teamed up with "Neurocomputing" (Elsevier) "Logic Journal of the IGPL" (Oxford University Press) and "Cybernetics and Systems: An International Journal" (Taylor and Francis) for a suite of special issues including selected papers from SOCO 2020.

Particular thanks go as well to the conference main sponsors Startup Ole and the IEEE Systems, Man, and Cybernetics Society-Spanish, Portuguese, French, and Italian Chapters, who jointly contributed in an active and constructive manner to the success of this initiative.

We would like to thank all the special session organizers, contributing authors, as well as the members of the Program Committees and the Local Organizing Committee for their hard and highly valuable work. Their work has helped to contribute to the success of the SOCO 2020 event.

September 2020

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