

Preface

The goal of the CORES series of conferences is the development of theories, algorithms, and applications of pattern recognition methods. These conferences have always served as a very useful forum where researchers, practitioners, and students working in different areas of pattern recognition can come together and help each other keeping up with this active field of research.

This book is collection of 79 carefully selected works, which have been carefully reviewed by the experts from the domain and accepted for presentation during the 9th International Conference on Computer Recognition Systems CORES 2015.

We hope that the book can become the valuable source of information on contemporary research trends and the most popular areas of application.

The chapters are grouped into seven parts on the basis of the main topics they dealt with:

1. *Features, Learning, and Classifiers* consists of the works concerning new classification and machine learning methods;
2. *Biometrics* presents innovative theories, methodologies, and applications in the biometry;
3. *Data Stream Classification and Big Data Analytics* section concentrates on both data stream classification and massive data analytics issues;
4. *Image Processing and Computer Vision* is devoted to the problems of image processing and analysis;
5. *Medical Applications* presents chosen applications of intelligent methods into medical decision support software;
6. *Applications* describes several applications of the computer pattern recognition systems in the real decision problems;
7. *RGB-D Perception: Recent Developments and Applications* presents pattern recognition and image processing algorithms aimed specifically at applications in robotics.

Editors would like to express their deep thanks to authors for their valuable submissions and all reviewers for their hard work. Especially we would like to

thank Dr. Tomasz Kornuta, Prof. Włodzimierz Kasprzak, Warsaw University of Technology, and Prof. Piotr Skrzypczyński, Poznań University of Technology, who organized a special session entitled “RGB-D Perception: Recent Developments and Applications.” We would like to also thank Prof. Jerzy Stefanowski from Poznań University of Technology who helped Prof. Michał Woźniak and Bartosz Krawczyk, Wrocław University of Technology to organize a special session on data stream classification and big data analytics.

We believe that this book could be a reference tool for scientists who deal with the problems of designing computer pattern recognition systems.

CORES 2015 enjoyed outstanding keynote speeches by distinguished guest speakers:

- Prof. Nitesh Chawla—University of Notre Dame, USA,
- Prof. Krzysztof J. Cios—Virginia Commonwealth University, USA,
- Prof. João Gama—University of Porto, Portugal,
- Prof. Francisco Herrera—University of Granada, Spain.

Last but not least, we would like to give special thanks to local organizing team (Robert Burduk, Konrad Jackowski, Dariusz Jankowski, Bartosz Krawczyk, Maciej Krysmann, Jose Antonio Saez, Alex Savio, Paweł Trajdos, Marcin Zmysłony, and Andrzej Żołnerek) who did a great job.

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We believe that this book could be a great reference tool for scientists who deal with the problems of designing computer pattern recognition systems.

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