

Preface

Soft computing became a formal computer science area of study in the early 1990s. Earlier computational approaches could model and precisely analyze only relatively simple systems. More complex systems arising often remained intractable to conventional mathematical and analytical methods. Soft computing refers to a consortium of computational techniques in computer science (like fuzzy systems, neural networks, etc.) that deals with imprecision, uncertainty, partial truth, and approximation to achieve tractability, robustness and low solution cost. Soft computing tools, individually or in integrated manner, are turning out to be strong candidates for performing tasks in the area of data mining, decision support systems, supply chain management, medicine, business, financial systems, automotive systems and manufacturing, image processing and data compression, etc.

Data mining is a process that involves using a database along with any required selection, preprocessing, subsampling and transformations of it; applying data mining methods to enumerate patterns from it; and evaluating the products of data mining to identify the subset of the enumerated patterns deemed knowledge.

The SCDM 2016 is very significant in a sense that it starts a host of activity in which Faculty of Computer Science & Information Technology, Universiti Tun Hussein Onn Malaysia, Soft Computing & Data Mining research group, and Faculty of Industrial Engineering at Telkom University Indonesia collaborated. After the success of our four previous workshop events in 2010 until 2013 and our first SCDM edition in 2014, we hope to continuously move in this journey of success through this Second International Conference. Indeed, we are honored to host this event and the fact that we are getting more papers, commitments, contributions and partnerships indicate a continuous support from researchers throughout the globe. We are much honored to be an integral part of this conference with the theme “Navigating the Future with Precise Knowledge”.

The SCDM-2016 was held in Bandung, Indonesia during August 18–20, 2016. We received 122 regular papers submissions from 11 countries around the world. The conference also approved two special sessions—Ensemble Methods and Their Applications (EMTA) which accepted 12 manuscripts and Web Mining, Services and Security (WMSS) which accepted 10 manuscripts. Each paper in regular

submission was screened by the proceedings' chairs and carefully peer reviewed by two experts from the Program Committee. Meanwhile for workshop submissions, the paper has been peer reviewed by two experts from the Program Committee. Finally, only 42 papers (for regular-giving an acceptance rate of 34%) and 22 papers (for workshops) with the highest quality and merit were accepted for oral presentation and publication in this proceedings volume.

The papers in these proceedings are grouped into two sections and two in conjunction workshops:

- Soft Computing
- Data Mining
- Workshop on Ensemble Methods and Their Applications
- Workshop on Web Mining, Services and Security

On behalf of SCDM-2016, we would like to express our highest gratitude to Soft Computing & Data Mining research group, Universiti Tun Hussein Onn Malaysia, Telkom University, Steering Committee, General Chairs, Program Committee Chairs, Organizing Chairs, Workshop Chairs, all Program and Reviewer Committee members for their valuable efforts in the review process that helped us to guarantee the highest quality of the selected papers for the conference.

We also would like to express our thanks to the three keynote speakers, Prof. Dr Jemal H. Abawajy from Deakin University, Australia; Prof. Mochamad Ashari, from Telkom University, Bandung, Indonesia; and Dr. Aida Mustapha from Universiti Tun Hussein Onn Malaysia.

Our special thanks are due also to Mr. Suresh Rettagunta and Dr. Thomas Ditzinger for publishing the proceedings in *Advances in Intelligent Systems and Computing* of Springer. We wish to thank the members of the Organizing and Student Committees for their substantial work, especially those who played essential roles.

We cordially thank all the authors for their valuable contributions and other participants of this conference. The conference would not have been possible without them.

Editors
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