Preface

This volume contains the papers presented at MIKE 2016: the 4th International Conference on Mining Intelligence and Knowledge Exploration held during November 13–19, 2016, at the Center for Computing Research (CIC) of the National Polytechnic Institute (IPN), Mexico City (http://www.mike.org.in/2016/). There were 56 submissions from 13 countries and each qualified submission was reviewed by a minimum of two Program Committee members using the criteria of relevance, originality, technical quality, and presentation. The committee accepted 17 full papers for oral presentation at the conference. The overall acceptance rate is 30.36%.

The International Conference on Mining Intelligence and Knowledge Exploration (MIKE) is an initiative focusing on research and applications on various topics of human intelligence mining and knowledge discovery. Human intelligence has evolved steadily over several generations, and today human expertise is excelling in multiple domains and in knowledge-acquiring artifacts. The primary goal was to focus on the frontiers of human intelligence mining toward building a body of knowledge in this key domain. The focus was also to present state-of-art scientific results, to disseminate modern technologies, and to promote collaborative research in mining intelligence and knowledge exploration. At MIKE 2016, specific focus was placed on the "learning to explore knowledge discovery" theme.

The accepted papers were chosen on the basis of their research excellence, which provides a body of literature for researchers involved in exploring, developing, and validating learning algorithms and knowledge-discovery techniques. Accepted papers were grouped into various subtopics including information retrieval, machine learning, pattern recognition, knowledge discovery, classification, clustering, image processing, network security, speech processing, natural language processing, language, cognition and computation, fuzzy sets, and business intelligence. Researchers presented their work and had an excellent opportunity to interact with eminent professors and scholars in their area of research. All participants benefitted from discussions that facilitated the emergence of new ideas and approaches. The authors of short papers presented their work during a special session and obtained feedback from thought leaders in the discipline.

A large number of eminent professors, well-known scholars, industry leaders, and young researchers participated in making MIKE 2016 a great success. We express our sincere thanks to the National Polytechnic Institute (IPN), Mexico City, Mexico, for allowing us to host MIKE 2016. We were pleased to have the following serving as advisory members for MIKE 2016: Prof. Ramon Lopaz de Mantaras, Artificial Intelligence Research Institute, Spain; Prof. Mandar Mitra, Indian Statistical Institute (ISI), Kolkata, India; Prof. Pinar Ozturk and Prof. Bjorn Gamback, Norwegian University of Science and Technology, Norway; Prof. Sudeshna Sarkar and Prof. Niloy Ganguly, Indian Institute of Technology, Kharagpur, India, Prof. Philip O'Reilly (University College Cork, Ireland); Prof. Nirmalie Wiratunga (Robert Gordan University, UK);

Prof. Paolo Rosso (Universitat Politecnica de Valencia, Spain); Prof. Chaman L. Sabharwal, Missouri University of Science and Technology, USA; and Dr. Rajarshi Pal (IRDBT, Hyderabad).

Several eminent scholars, including Prof. Ildar Batyrshin, National Polytechnic Institute, Mexico, Prof. Genoveva Vargas-Solar, CNRS, France, and Prof. Grigori Sidorov, Natural Language and Text Processing Laboratory, CIC - IPN, Mexico City, Mexico, delivered invited talks on learning and knowledge exploration topics in various interdisciplinary areas of artificial intelligence and machine learning.

We thank the Technical Program Committee members and all reviewers/subreviewers for their timely and thorough participation in the reviewing process.

We express our sincere gratitude to Prof. Marco Antonio Ramirez Salinas, Director of CIC-IPN, Mexico City, for his support in organizing MIKE 2016 in IPN, Mexico City. We also thank SMIA, the Mexican Society of Artificial Intelligence, for their support. We appreciate the time and effort put in by the members of the local organizing team at CIC-IPN, Mexico City. We are very grateful to all our sponsors, especially the Government of Mexico and many other local supporters, for their generous support to MIKE 2016.

Finally, we acknowledge the support of EasyChair in the submission, review, and proceedings creation processes. We are very pleased to express our sincere thanks to Springer, especially Alfred Hofmann, Anna Kramer, and the editorial staff, for their faith and support in publishing the proceedings of MIKE 2016.

November 2016   Rajendra Prasath
                                                        Alexander Gelbukh

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