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Preface

This volume contains the papers presented at MIKE 2014: The Second International Conference on Mining Intelligence and Knowledge Exploration held during December 10–12, 2014, at University College Cork, National University of Ireland, Cork, Ireland (`http://www.mike.org.in/2014/`). There were 69 submissions from 35 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 22 papers for oral presentation (acceptance rate: 31.88%) and 12 papers for short presentation at the conference. We also had eight presentations in the doctoral consortium.

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. The primary goal was to present state-of-art scientific results, to disseminate modern technologies, and to promote collaborative research in mining intelligence and knowledge exploration. At MIKE 2014, specific focus was placed on the "Business Intelligence" theme.

Human intelligence has evolved steadily over several generations, and today human expertise is excelling in multiple domains and in knowledge-acquiring artifacts. MIKE's primary objective is to focus on the frontiers of human intelligence mining toward building a body of knowledge in this key domain.

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, feature selection, classification, clustering, image procesing, network security, speech processing, machine learning, recommender systems, natural language processing, language, cognition and computation, and business intelligence. Researchers presented their work and had ample 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/poster 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 2014 a great success. We express our sincere thanks to University College Cork for allowing us to host MIKE 2014.

We were pleased to have Prof. Ramon Lopaz de Mantaras, Artificial Intelligence Research Institute, Spain, Prof. Mandar Mitra, Indian Statistical Institute (ISI), Kolkata, India, Prof. Pinar Ozturk, Norwegian University of Science

and Technology, Norway, Prof. Anupam Basu, Indian Institute of Technology, Kharagpur, India, and Dr. Santiago Ontanon, Drexel University, USA, serving as advisory chairs for MIKE 2014.

Several eminent scholars, including Prof. Sudeshna Sarkar, Indian Institute of Technology, Kharagpur, India, Prof. Paolo Rosso, Universitat Politècnica de València, Spain, and Prof. Nirmalie Wiratunga, Robert Gordon University, Aberdeen, Scotland, delivered invited talks on learning and knowledge exploration tasks in various interdisciplinary areas of intelligence mining. Dr. Donagh Buckley, Head of EMC^2 Research Europe, delivered a keynote address on the leading-edge R&D being undertaken in his organization at present. Dr. Amitava Das, University of North Texas, USA, and Prof. Erik Cambria served as the co-organizers of a workshop focusing on the "Automatic Understanding of Creativity in Language (Creative-Lingo)," which was sponsored by Science Foundation Ireland. Leading practitioners from top-tier technology organizations participated in this very successful workshop.

We are very grateful to all our sponsors, especially EMC research Europe, Ireland, Scientific Foundation Ireland (SFI), SAS, the School of Business and Law, University College Cork, Ireland, Cork Convention Bureau for their generous support of MIKE 2014. We would especially like to thank the local organizing team for their efforts in making MIKE 2014 such a success.

We thank the Program Committee and all reviewers for their timely and thorough participation in the reviewing process. We also thank Mr. Muthuvijayaraja of VHNSN College for his great support. We appreciate the time and effort put in by the local organizers at Business Information Systems, especially the support from the members of the Financial Services Innovation Center (FSIC), who dedicated their time to MIKE 2014. 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 Abier El-Saeidi for their faith and support in publishing the proceedings of MIKE 2014.

October 2014

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