

Preface

This volume contains the papers presented at MIKE 2015: The Third International Conference on Mining Intelligence and Knowledge Exploration held during December 09–11, 2015, at the International Institute of Information Technology, Hyderabad, India (<http://www.mike.org.in/2015/>). There were 185 submissions from 20 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 48 full papers for oral presentation and eight papers for short presentation at the conference. We also had four presentations in the doctoral consortium. The overall acceptance rate is 32.43 %.

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 towards building a body of knowledge in this key domain. The focus was also to present state-of-the-art scientific results, to disseminate modern technologies, and to promote collaborative research in mining intelligence and knowledge exploration. At MIKE 2015, specific focus was placed on the human cognition and speech processing theme.

The accepted papers were chosen on the basis of their research excellence, providing 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 distinguished professors, well-known scholars, industry leaders, and young researchers participated in making MIKE 2015 a great success. We express our sincere thanks to the International Institute of Information Technology, Hyderabad, for allowing us to host MIKE 2015. We were pleased to have Prof. Ramon Lopez de Mantaras (Artificial Intelligence Research Institute, Spain), Prof. Mandar Mitra (Indian Statistical Institute, Kolkata, India), Prof. Pinar Ozturk and Prof. Bjorn Gambäck (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 Gordon University, Scotland, UK), Prof. Paolo Rosso (Universitat Politècnica de

València, Spain), Prof. Chaman L. Sabharwal (Missouri University of Science and Technology, USA), and Dr. Rajarshi Pal (IRDBT, Hyderabad) serving as advisory members for MIKE 2015.

Several eminent scholars — including Prof. B. Yegnanarayana, International Institute of Information Technology, Hyderabad, India; Prof. Agnar Aamodt, Norwegian University of Science and Technology (NTNU), Trondheim, Norway; Prof. Tapio Saramäki, Tampere University of Technology, Tampere, Finland; Prof. Anupam Basu, Indian Institute of Technology, Kharagpur, India; and Prof. N. Subba Reddy, Gyeongsang National University, Jinju, Korea — delivered invited talks on learning and knowledge exploration tasks in various interdisciplinary areas of artificial intelligence and machine learning.

This year, we organized the SAIL 2015 workshop that specifically focused on “Sentiment Analysis of Indian Language Tweets.” In all, 22 teams participated in the shared task from 16 countries and submitted their official run. We selected 7 submissions from the official runs and the acceptance rate of this shared task was 31.82 %. Prof. Vasudeva Verma delivered an invited talk at SAIL 2015. Dr. Amitava Das, Indian Institute of Information Technology, Sri City, Andra Pradesh, India, Dr. Dipankar Das, Jadavpur University, India, Dr. Manish Shrivastava, IIIT Hyderabad, India, and Dr. Rajendra Prasath, Norwegian University of Science and Technology, Norway, served as the co-organizers of the shared task on “Sentiment Analysis of Indian Languages (SAIL) Tweets.” Leading practitioners from top-tier technology organizations participated in this very successful workshop.

Dr. Manoj Chinnakotla from Microsoft (Bing), Dr. Amitava Das of IIIT, Sricity, Andra Pradesh, India, Dr. Rajendra Prasath (NTNU, Norway), and Dr. Maunendra Sankar Desarkar (IIT, Hyderabad) jointly organized a workshop on the recent advances in IR and the leading-edge R&D being undertaken in their organizations at present.

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. P.J. Narayanan, Director (IIIT Hyderabad), for allowing us to organize MIKE 2015 on the campus. We also thank Prof. Vasudeva Varma (Dean Research and Development) and Prof. Jayanthi Sivaswamy (Dean Academics) of IIIT Hyderabad for their valuable inputs. We thank Prof. B. Yegnanarayana, Prof. Peri Bhaskararao and Prof. Dipti Misra Sharma of LTRC, IIIT Hyderabad, for their valuable support to MIKE 2015. We especially thank Dr. Suryakanth V. Gangashetty for helping MIKE 2015 as the local organizing chair. We appreciate the time and efforts put in by the members of the local organizing team at IIIT Hyderabad, especially the research scholars of the Speech and Vision Lab, volunteers, administrative staff, account section staff, outreach and hostel management staff of IIIT Hyderabad, who dedicated their time and efforts to MIKE 2015. We thank Prof. Rammurthy. G., of IIIT Hyderabad for helping us to invite Prof. Tapio Saramäki from Finland as an invited speaker. We especially thank Ms. K.K. Madhavi and Dr. Vijay of IIIT Hyderabad for helping us to get sponsorship. We thank Mr. Guruprasad for designing registration portal. We thank Mr. Sunil Kumar Vuppala, Infosys for his valuable suggestions and help. We extend our sincere thanks to Mr. Muthuvijayaraja of VHNSN College, Virudhunagar for his great support.

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