Preface

Nowadays, computer and automation engineering has played a more and more important role in people’s modern life. And it has been changing all aspects of our lives in such diverse areas and makes our lives easier. In light of the fast-paced advancements in computer and automation engineering taking place all over the world, it is of interest to keep an eye on the state-of-the-art research and development and to facilitate collaboration in multidisciplinary research areas. With this end in view, 2016 8th International Conference on Computer and Automation Engineering was held once again this year in Melbourne, Australia during March 3-4, 2016.

The aim of the conference was to address and deliberate on the latest technical status and recent trends in the research and applications of computer and automation engineering. This conference has been so designed with the view to provide an opportunity for the scientists, engineers, industrialists, students and other professionals from all over the world to interact and exchange their new ideas and research outcomes for future collaboration. The conference was also aimed at motivating the next generation of researchers to promote their interests in computer and automation engineering and their applications.

The proceedings of ICCAE 2016 contain 63 selected papers from the conference which are presented orally at the conference or via poster sessions, and provide up-to-date, comprehensive and worldwide state-of-the art knowledge in this field. Each contributed paper was rigorously peer-reviewed by international reviewers who were drawn from the organizing and advisory committee members as well as other experts in the field from all over the world. The proceedings are divided into 8 chapters based on the different topics of the papers, namely, Computer and information technology; Image processing and Application; Signal analysis and processing technology; Bioinformatics; Modern communication technology and application; Control theory and Engineering; Machine vision and robot; Electronic technology and power engineering.

We’d like to express our genuine gratitude to everyone who has contributed to ICCAE 2016. Especially the keynote speakers, Prof. Saman Halgamuge, the program chairs, Asst. Prof. Abbas Amini and Dr. Lihong Zheng as well as invited speakers, Scientific Editor, Dr. Mohd Ariffanan Bin Mohd Basri, Dr. Azman Bujang Mas, Dr. Abbas Amin, Dr. Mayukha Pal and all the technical committee members. Let’s wish ICCAE the same success for next year.

Assoc. Prof. Manolya Kavakli,
Macquarie University, Faculty of Science Department of Computing, Australia
Conference Co-Chairs
Assoc. Prof. Manolya Kavakli, Macquarie University, Faculty of Science Department of Computing, Australia

Program Co-Chairs
Asst. Prof. Abbas Amini, University of Western Sydney, Australia
Dr. Lihong Zheng, Charles Sturt University, Australia

Technical Committee
Prof. Gang Su, Huazhong University of Science and Technology, China
Prof. Gee-Sern (Jison) Hsu, National Taiwan University of Science and Technology, Taiwan
Prof. Nahrul Khair bin Alang Md Rashid, International Islamic University Malaysia
Prof. Momoh -Jimoh Eyiomika Salami, International Islamic University Malaysia
Prof. Michael Kraft, University of Liege, Belgium
Prof. Chyi-Yeu Lin, National Taiwan University of Science and Technology, Taiwan
Asst. Prof. Sungho Kim, Yeungnam University, The Republic of Korea
Prof. Dr. Zurni B Omar, Northern University, Malaysia
Dr. Fatimah Sham Ismail, Universiti Teknologi Malaysia, Malaysia
Dr. Rosemizi Abd. Rahim, Universiti Malaysia Perlis, Malaysia
Ms. Noor Hazlini bt Hj Borhan, Universiti Malaysia Sarawak, Malaysia
Dr. Mohd Ariffanan Bin Mohd Basri, Universiti Teknologi Malaysia, Malaysia
Dr. Azman Bujang Masli, Universiti Malaysia Sarawak, Malaysia
Hessam Jahani Fariman, Macquarie University, Australia
Hasan alyamani, Macquarie University, Australia
Mr. Majed Abdullah Alrowaily, Macquarie University, Australia
Dr. Stephanie Chua Hui Li, Universiti Malaysia Sarawak, Malaysia
Dr. Iwan Kelaiah, The University of New South Wales, Australia