This special section of Advanced Science Letters includes manuscripts of the presentations at the 2016 International Conference on Computational Science and Engineering (ICCSE2016) which was held on 29–30 November 2016. This event was successfully organized by the Centre of Excellence in Semantic Agent (COESA), Universiti Malaysia Sabah (UMS) and supported by Borneo Conservation Trust (BCT) and Valiant at Sutera Harbour Magellan Resort, Kota Kinabalu, Sabah, Malaysia.

Computational Science and Engineering (CSE) is a relatively new paradigm for scientific research and engineering design in which large-scale simulation, data analysis, and high performance computing play a central role. In fact, the applications of CSE can be seen in almost all disciplines.

The 2016 International Conference on Computational Science and Engineering 2016 provides a unique forum to exchange innovative research ideas, recent results, and share experiences among researchers and practitioners in a broad-range of topics related to High performance computing, Modeling and simulation, Algorithms, Big Data Analysis and visualization, Data Science, CSE Education, Advanced Networking and Applications and Intelligent and Bio-Inspired Computing.

For ICCSE2016, we have received more than 250 draft papers from countries all over the world (e.g., that includes Brunei, Singapore, India, Pakistan, Taiwan, China, Korea, Japan, Philippines, Indonesia, Thailand, Nigeria, etc.). After the review process, 145 papers were selected for oral presentation. Thanks to this response, all important fields of CSE techniques, technology and exploitation are covered by the contributions.

Prior to ICCSE2016 there was a workshop conducted on Machine Learning using R for Data Analysis. The conference itself started with the plenary session on Tuesday, where keynote speeches are given by distinguished experts.

The keynote speeches were presented by Professor Jooyoung Lee (Professor of Computational Science) from School of Computational Sciences, Korea Institute for Advanced Study, Korea, Professor Hiroyuki Iida from School of Information Science, Japan Advanced Institute of Science and Technology (JAIST), Professor Ali Selamat from Department of Software Engineering, Faculty of Computer Science and Information Systems, Universiti Teknologi Malaysia (UTM) and finally Professor Yong-Jin Park from Faculty of Computing and Informatics, Universiti Malaysia Sabah.

Throughout the two conference days the four parallel oral sessions were held in separate halls. The parallel sessions have been arranged such that overlap of related research areas was kept to a minimum.

I would like to express my thanks to all authors for their outstanding contributions and in particular the members of the program board for their competent evaluation of the large number of submissions. Likewise I would also like to express my appreciation to the program and awards committee, as well as to the invited session chairs for their acceptance to chair the parallel sessions. I sincerely hope that ICCSE2016 has provided a venue for knowledge sharing and establishing more research collaborations among us. Last but not least, at the end of this preface, I would like to announce that the committee selected Kuala Lumpur as the next ICCSE2017 host and the venue for the year 2017. I hope old participants and new comers join with us in 2017.