

Preface The 3rd ICMER2015

The 3rd ICMER2015 is the continuity of the NCMER2010. The year 2010 represents a significant milestone in the history for Faculty of Mechanical Engineering, Universiti Malaysia Pahang (UMP) Malaysia with the organization of the first and second national level conferences (1st and 2nd NCMER) at UMP on May 26-27 and Dec 3-4 2010. The Faculty then has changed the name from National Conference on Mechanical Engineering Research (NCMER) to International Conference on Mechanical Engineering Research (ICMER) in 2011 and this year, 2015 is our 3rd ICMER.

These proceedings contain the selected scientific manuscripts submitted to the conference. It is with great pleasure to welcome you to the "International Conference on Mechanical Engineering Research ICMER2015" that is held at Zenith Hotel, Kuantan, Malaysia. The call for papers attracted submissions of over two hundred abstracts from twelve different countries such as Japan, Iran, China, Kuwait, Indonesia, Norway, Philippines, Morocco, Germany, UAE and many more.

The scientific papers published in these proceedings have been revised and approved by the technical committee of the 3rd ICMER2015. All of the papers exhibit clear, concise, and precise expositions that appeal to a broad international readership interested in mechanical engineering, combustion, metallurgy, materials science as well as in manufacturing and biomechanics. The reports present original ideas or results of general significance supported by clear reasoning and compelling evidence, and employ methods, theories and practices relevant to the research. The authors state clearly the questions and the significance of their research to theory and practice, describe how the research contributes to new knowledge, and provide tables and figures that meaningfully add to the narrative.

In this edition of ICMER representatives coming are from academia, industry, governmental and private sectors. The plenary and invited speakers present, discuss, promote and disseminate research in all fields of mechanical engineering in a constructive manner. Numerous social events that provide opportunities to the participants to renew old contacts and establish new ones were scheduled to accompany and follow the scientific activities. They also aim to acquaint the participants with the capital of state Pahang, Kuantan. In addition, booths were also prepared for the industries to showcase their state-of-the-art products. The organizing committee of the conference thanks all the participants for their fruitful work and personal contribution to the development of these conference proceedings.

Professor Dr. Rizalman Mamat

The Chairman of ICMER2015