First published 2016

Copyright © 2016 by Centre for Advanced Research on Energy (CARe)

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, electronic, mechanical photocopying, recording or otherwise, without the prior permission of the Publisher.

ISBN: 978-967-0257-70-9 (online)

Published and Printed in Malaysia by:

Centre for Advanced Research on Energy,
Faculty of Mechanical Engineering, Universiti Teknikal Malaysia Melaka,
Hang Tuah Jaya, 76100 Durian Tunggal, Melaka, MALAYSIA.
Tel: +606 234 6891 | Fax: +606 234 6884 | E-mail: care@utem.edu.my

www.utem.edu.my/care

FOREWORD BY THE EDITORS-IN-CHIEF

This Open Access e-Proceeding contains a compilation of 105 selected papers from the Mechanical Engineering Research Day 2016 (MERD'16) event, which is held in Kampus Teknologi, Universiti Teknikal Malaysia Melaka (UTeM) - Melaka, Malaysia, on 31 March 2016. The theme chosen for this event is 'IDEA. INSPIRE. INNOVATE'.

It was gratifying to all of us when the response for MERD'16 is overwhelming as the technical committees received more than 200 submissions from various areas of mechanical engineering. After a peer-review process, the editors have accepted 105 papers for the e-proceeding that cover 7 main themes. This open access e-Proceeding can be viewed or downloaded at www3.utem.edu.my/care/proceedings. We hope that these proceeding will serve as a valuable reference for researchers.

With the large number of submissions from the researchers in other faculties, the event has achieved its main objective which is to bring together educators, researchers and practitioners to share their findings and perhaps sustaining the research culture in the university. The topics of MERD'16 are based on a combination of fundamental researches, advanced research methodologies and application technologies.

As the editor-in-chief, we would like to express our gratitude to the editorial board and fellow review members for their tireless effort in compiling and reviewing the selected papers for this proceeding. We would also like to extend our great appreciation to the members of the Publication Committee and Secretariat for their excellent cooperation in preparing the proceeding of MERD'16.

Thank you

Mohd Fadzli Bin Abdollah Mohd Azli Bin Salim 7ee Boon Tuan