

## Foreword by the Editors-in-Chief

This open access e-proceedings contains a compilation of 134 selected papers from the 8<sup>th</sup> Mechanical Engineering Research Day (MERD'22) that was held at Kampus Teknologi UTeM, Melaka, Malaysia, on 13 July 2022. The event was jointly organized by the Faculty of Mechanical Engineering and Centre for Advanced Research on Energy, Universiti Teknikal Malaysia Melaka. This year, MERD is also co-organized by Graduate School of Engineering, Nagoya University, Japan & Department of Chemistry, Pertamina University, Indonesia.

It was gratifying to all of us when the response for MERD'22 is overwhelming as the technical committees received 160 submissions from various areas of mechanical engineering and related fields to facilitate the mutual understanding of fundamentals, theory and applications including Automotive, Additive Manufacturing, Advanced Materials and Processes, Computer Modeling and Simulation, Energy Engineering and Management, Engineering Education, Engineering Technology Management, Mechanical Design and Optimization, Structural and Mechanical Testing, Surface Engineering and Tribology, Thermal and Fluids. All submitted papers are then peer-reviewed, revised according to the reviewers' comments and ultimately 133 papers were accepted for publication in this proceeding. This open access e-proceedings can be viewed or downloaded via [www3.utm.edu.my/care/proceedings](http://www3.utm.edu.my/care/proceedings). We hope that this proceeding will serve as a valuable reference for researchers.

With the large number of submissions, 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 and industry.

As the editors-in-chief, we would like to express our gratitude to the fellow review members for their tireless effort in reviewing the submitted papers for this proceeding. We also would like to say special thanks to all the authors for promptly revising their papers according to the proceeding requirements. Special thanks are extended to the organizer of the MERD'22.

Thank you

*Amrik Singh Phuman Singh*

*Mohd Fadzli Bin Abdollah*

*Hilmi Amiruddin*

*Mastura Mohammad Taha*

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