



# PROCEEDINGS OF

# IIAIRD '22

**INTERNATIONAL INNOVATIVE RESEARCH AND INDUSTRIAL DIALOGUE**

*Bridging University And Industries Through Research*



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**Editors-in-Chief**

Shajahan Maidin  
Mohd Sanusi Abdul Aziz

**Editors**

Mohd Edeerozey Abd Manaf  
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## EDITORIAL PREFACE

This proceedings contains a compilation of 43 selected papers from the International Innovative Research & Industrial Dialogue 2022 (iIRID) 2022 held at the Faculty of Manufacturing Engineering, Universiti Teknikal Malaysia Melaka (UTeM). iIRID is a research event hosted by the Faculty of Manufacturing Engineering and Advanced Manufacturing Centre of UTeM.

With the theme “Bridging University and Industries through Research”, iIRID offers academicians, postgraduate students, researchers and engineers from industry, especially in the field of engineering and technology, to present their research findings, and establish a mutual knowledge transfer and sharing to the community. Through this event, ideas and solutions to the local industry’s problems and needs can be shared, thus bridging the gap between university and industry in Malaysia. This is in line with the increasing demand for innovative research ideas for solving real engineering problems, which advocate the provision of rigorous study among distinct communities.

iIRID incorporates researchers from universities and industries, and it is hoped that it will pave the way for many more productive and exciting events in the future. We hope that this proceeding will serve as a valuable reference for researchers.

As the editors-in-chief, we wish to formally thank the organizing committee for ensuring the success of iIRID. Finally, we would like to express our deepest gratitude to the University, Faculty of Manufacturing Engineering, and Advanced Manufacturing Centre and sponsors for their continuous support during this event.

Thank you.

*Shajahan Maidin*

*Mohd Sanusi Abdul Aziz*

Editors-in-Chief

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