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الجامعة الإسلامية العالمية ماليزيا  
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA  
يُونِيسَيتِي اِسْلَامُ اِنْتَارَا اِبَحْسَا مِلِيسِيَا

Garden of Knowledge and Virtue

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

# MECHATRONICS ENGINEERING FINAL YEAR PROJECT BOOK SERIES

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Vol. 2

2025

Editors:

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Nor Hidayati Diyana Nordin

Nur Liyana Azmi



MECHATRONICS ENGINEERING FINAL YEAR PROJECT BOOK SERIES

Department of Mechatronics Engineering,

Kulliyyah of Engineering

IIUM

# Preface

It is with great pleasure that we present Volume 2 of the Final Year Project (FYP) Book Series, an initiative by the Department of Mechatronics Engineering, IIUM, to highlight the creativity, technical capability, and research skills of our students.

This FYP Book series serves as a showcase of student projects that reflect the diverse areas of research and expertise within the department. The works featured here illustrate how our students apply engineering principles, innovation, and problem-solving skills to address specific challenges. While not an extensive compilation, this collection offers a glimpse into the department's active research directions across various domains of Mechatronics Engineering.

Through this compilation, we aim to inspire future students to explore new ideas and pursue excellence in their final year projects. It also provides industry partners and academic collaborators with a window into the department's areas of interest and capability, hopefully to foster greater engagement and potential collaboration.

We would like to express our sincere appreciation to all students, and staff who contributed to the realization of this book. We hope to continue this initiative for many volumes to come, as a lasting platform to celebrate our students' achievements and the department's growing expertise.

Azni Nabela Wahid  
Nor Hidayati Diyana Nordin  
Nur Liyana Azmi

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e ISBN 978-967-25875-6-9

