

UNIVERSITI TEKNOLOGI MARA

**COST BENEFIT ANALYSIS OF
LIGHTING RETROFIT OF LED
BULB AT BANGUNAN ILMUAN
UITM CAMPUS BUKIT BESI**

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Dissertation submitted in partial fulfillment
of the requirements for the degree of
Diploma
(Mechanical Engineering)

College of Engineering

March 2022

ACKNOWLEDGEMENT

Firstly, I wish to thank God for giving me the opportunity to embark on my diploma and for completing this long and challenging journey successfully. My gratitude and thanks go to my supervisor, Mr. Muhammad Faiz Bin Mohd Mazelan

Finally, this dissertation is dedicated to my father and mother for the vision and determination to educate me. This piece of victory is dedicated to both of you. Alhamdulillah.

ABSTRACT

This study presents potential energy savings, life cycle cost analysis and payback period for lighting systems in Bangunan Ilmuan UiTM Bukit Besi. According to the results of a questionnaire survey, almost 90% of the lighting systems on the Bangunan Ilmuan UiTM Bukit Besi are made up of fluorescent lights. From the perspective of potential energy savings, cost-benefit analysis, life cycle cost analysis and payback period were conducted to convert to a more efficient lighting system. Therefore, lighting systems must be designed to be suitable to achieve the desired level of lighting while using minimal power. Lighting accounts for up to a third of power consumption in office buildings. The rational use of electricity in buildings is a very important and relevant topic, especially if excessive use, where energy is increasingly expensive, can cause climate change through high emissions of greenhouse gases.

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