

**DEPARTMENT OF BUILT ENVIRONMENT STUDIES AND
TECHNOLOGY, COLLEGE BUILT ENVIRONMENT STUDIES
UNIVERSITI TEKNOLOGI MARA (UiTM) PERAK BRANCH**

**ASSESSING THE IMPACT OF ARTIFICIAL INTELLIGENCE
(AI) IN CONSTRUCTION PROJECT IN MALAYSIAN
CONSTRUCTION INDUSTRY**

Dissertation submitted in partial fulfilment
of the requirement for the award of
Bachelor of Quantity Surveying (Honours)

PREPARED BY: IMAN FAHMI BIN YUSOF (2022884072)

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DECLARATION

"I declare that this dissertation is the result of my research and that all sources are
acknowledged in the references."

Student's signature :

Student's name : IMAN FAHMI BIN YUSOF

Date : 24th June 2024

ABSTRACT

A developed country needs the latest technology to keep moving forward. The use of technology such as Artificial Intelligence is highly encouraged for the progress of a nation. However, many problems exist, such as a need for a skilled workforce, high initial cost, and resistance to change. Thus, this research aims to enhance the implementation of artificial intelligence (AI) in construction projects in the Malaysian construction industry. Hence, simple random sampling has been used to determine the sample size. The data for this study was obtained from G7 contractor firms in Selangor registered with the Construction Industry Development Board (CIDB). A total of 152 respondents had participated in this study. The data obtained was analysed by using SPSS software. The findings of this study emphasise that the main benefits of implementing artificial intelligence (AI) towards the construction industry, especially in the Malaysian construction industry, are artificial intelligence-based risk analysis and mitigation strategies. The study suggests various AI directions for Malaysian construction. First, AI applications must go beyond risk analysis to project planning, cost prediction, and quality control. Specialised programs are needed to train construction workers in AI. Government incentives should be increased to decrease financial burdens and stimulate adoption, especially for SMEs. AI can also be combined with BIM and IoT to boost project efficiency. Long-term AI effects like cost reductions and sustainability will justify investment. Finally, an industry-wide regulatory framework is needed to ensure ethical and successful AI applications and maximise its benefits. There is a recommendation for the government to provide more initiatives, incentives, and training programs to construction practitioners regarding introducing new technologies such as artificial intelligence.

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