

**CENTRE OF STUDIES FOR QUANTITY SURVEYING  
FACULTY OF ARCHITECTURE, PLANNING & SURVEYING  
UNIVERSITI TEKNOLOGI MARA  
SERI ISKANDAR**

**EMERGING TECHNOLOGY IN CONSTRUCTION  
INDUSTRY: CONTRACTORS' PERSPECTIVE**

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

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### **DECLARATION**

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

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Date : 24 JUNE 2024

## **ABSTRACT**

Technologies are important devices or equipment that effectively address practical issues in the actual world, making them highly significant in all sectors, including the construction industry. Technology plays an important role in certain regions, as it enhances and optimises daily activities, particularly in terms of time and budget allocation. Nevertheless, many companies still need to implement technology in their construction projects. The aim of this study is to enhance the implementation of Emerging Technology (ET) in the construction industry, focusing on the viewpoint of contractors. The objectives are to identify the types of ET applied, determine their advantages and disadvantages, and analyse the barriers to their implementation. The research utilises a quantitative methodology to collect primary data by conducting a structured questionnaire survey among G7 contractors in Selangor. This survey captures contractors' views on various ET, their advantages and disadvantages, and the barriers faced during their implementation. The complete overview is supported by secondary data obtained from the appropriate sources. The study indicates that contractors have identified the top three factors of the implementing emerging technology which is speed up the process of construction process, identifying the potential hazard and efficiency and productivity. Nevertheless, there are major barriers that hinder the widespread use of these technologies that faced by consultants, contractors and client such as difficulty in selecting the appropriate technology, lack of skilled labour and cost constraint. By encouraging collaboration and the exchange of knowledge among stakeholders in the industry, an environment conducive to innovation and ongoing enhancement will be created. The results offer insightful information about incorporating new technologies into the construction industry, emphasising the necessity of training programmes and calculated investments to get past current barriers and take full use of these developments in technology.

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