

# Green Architecture in Built Environment

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# **GREEN ARCHITECTURE IN BUILT ENVIRONMENT**

Edited By

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# **THE ACCEPTABILITY OF FOUR DIMENSION (4D) VIRTUAL CONSTRUCTION IN MALAYSIA**

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## **ABSTRACT**

The problem of delay in construction industry is a global phenomenon and the construction industry in Malaysia is no exception. In the current day context, despite significant benefits in terms of time and cost savings gained through the systematic use of 4D technologies on construction projects, Malaysia construction industry has yet to embrace this 4D CAD technology. The objective of the study find out the acceptability of 4D planning tool as a tool to mitigate delays during project control is explores among construction practitioners focusing on the construction phase of project life cycle. Surveys and semi-structured interviews were accomplished on 169 respondents comprising of the clients, local authorities or regulatory bodies, contractors and consultants. The responses obtained indicates that 96.3% acknowledges the application of this new 4D technology as a useful tool with good potential to mitigate delays in relation to visualization, analysis and communication. Based on the outcome of the study, it is recommended that financial and technical support be made available before its actual implementation can be realized.

**Keywords:** Malaysian Construction Industry, 4D, Visualization, Communication, Mitigate Delay

## **1.0 INTRODUCTION**

Currently in Malaysian construction industry clients' requirements are still being presented in terms of paper-based working drawings i.e. the 2D drawings and a project schedule that links different construction activities on the basis of these working drawings (Chau, K.W. et al. (2005)). In current practice, site progress is being monitored as and when on a day-to-day basis according to these 2D drawings and the intended project schedule, where physical activities are being controlled and decided upon during periodic site meetings and ad-hoc sessions. At norm, design is bound to be altered as the work progresses on site (due to change in decision by the end-users or unforeseen site constraints); following which