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**THE IMPLEMENTATION OF BUILDING
INFORMATION MODELLING (BIM) FOR
HERITAGE BUILDING**

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

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SEMESTER: MARCH 2022 - AUGUST 2022

ABSTRACT

Historic Building Information Modeling, often known as HBIM, has gained widespread acceptance and is increasingly being used in countries all over the world. However, the adoption of HBIM within the Malaysian construction industry is relatively low and slow because it requires new skill sets such as expertise in 3D modelling, awareness of the approach, a significant amount of collaboration, and it forces industry players to relate to each other in a different way. Although it is not always a simple transition, the setting is incredibly provided benefits to the construction industry. Due to the limited number of buildings that comprise our cultural history, it is important that we preserve what we have. Lack of expertise, loss of information, insufficient documentation, poor maintenance, lack of technological adaption, and the accuracy of reports are among the common challenges that the construction industry is currently dealing with. In this study, there will be a review to the characteristics of Heritage Building Information Modelling, HBIM based on previous research, and focus on its benefits, methods, tools, and problems and the strategies in implementing this software. Based on the findings of this research, HBIM demonstrates major characteristics that have the potential to contribute to providing a better knowledge in the management of historical structures, in addition to allowing for increased communication and documentation.

ACKNOWLEDGEMENT

Bismillahirrahmanirrahim,

First and foremost, I would like to mention the support system and consideration of my parents who have always been there in my life. Words cannot express my gratitude to my supervisor for guiding me until the end, also to my friends for their valuable guidance that have helped me through the journey in completing this research. Thank you for your understanding me throughout the completion of this research.

This project would not have been successful without the participation and assistance of numerous people, some of whose names that may not be listed here. Without them, I could never had completed this task. Only Allah can repay your kindness, may He bless all of you.

Thanks a lot.

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CHAPTER 1: INTRODUCTION TO RESEARCH STUDY

1.1 INTRODUCTION / BACKGROUND OF RESEARCH

Building Information Modelling (BIM) links people, technology, and processes to improve outcomes in building and construction. It is the latest evolution of the building industry. It refers to designing, building, and operating a building collaboratively using a single coherent system of 3D models rather than separate design drawings. In heritage buildings, historical features are central aspects of cultural heritage that provide an identity we associate with (Mohd Azizi et al., 2016). It is a building possessing architectural, aesthetic, historic or cultural values declared as a heritage building by the Planning Authority, Heritage Conservation Committee, or any other Competent Authority. In the current conditions of commercialization, the problems of reconstruction and restoration of historic buildings have become especially important. Parts of historic monuments have been disappearing due to real estate developers who are eagerly destroying the existing building and building a new one, because it is usually faster and cheaper than reconstructing the old ones (Pavlovkis et al., 2019). Cultural heritage is a valuable cultural asset that has been passed down over the years by the state and its people. The state's history is related to the richness and uniqueness of its heritage. What is inherited both materially and spiritually is referred to as heritage. Regarding material culture, cultural heritage refers to archaeological sites and their surroundings that have survived since civilization. Historic Building Information Modeling (HBIM) or heritage building information modelling (HBIM) is the use of BIM technology to reconstruct and restore existing historic buildings. The use of BIM technology in historical, and cultural heritage, and the restoration of old restored buildings is similar in general, with the only difference being the degree of availability. According to Pavlovic M. et. al, (2019), the study of built heritage requires