

**PROGRAM OF QUANTITY SURVEYING  
DEPARTMENT OF BUILT ENVIRONMENT STUDIES AND  
TECHNOLOGY  
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING  
UNIVERSITI TEKNOLOGI MARA  
PERAK BRANCH**

**BENEFITS OF THE INDUSTRIALISED BUILDING SYSTEM  
(IBS) IMPLEMENTATION: CONTRACTORS' PERSPECTIVE**

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

**PREPARED BY: NURUL AFIQAH BINTI SAMSOL (2019495828)  
SEMESTER: MARCH 2021 – AUGUST 2021**

## **ABSTRACT**

Since the 1960s, Malaysia has been pursuing IBS. However, it is not fully accepted by the contractor until today. The number of projects using IBS is still minimal, which has created various worries in the construction sector if they continue to utilize the traditional approach instead of IBS. So, the main aim of this study is to identify the benefit of using the IBS for a long-term duration in a project and increase the usage of IBS in the Malaysian construction industry. This study used a quantitative research methodology in the form of a questionnaire, which was sent to G7 contractors in the Petaling District of Selangor. Statistical Package for the Social Science (SPSS) software was used to collect and analyse the data. According to the research, the most significant result benefit of IBS is increase productivity and efficiency and improve site management. From this study, it is hoped that the contractor can start the accept the IBS and start implementing them in their project.

## **ACKNOWLEDGEMENT**

Firstly, I wish to thank God for giving me the opportunity and strength to embark on my dissertation and for completing this long and challenging journey successfully especially in this pandemic. My gratitude and appreciation go to my supervisor for always guiding and give contributing ideas in preparing the dissertation.

My appreciation also goes to all contractors that agreed to answer the survey and gave me new knowledge, views, and experience. Special thanks to my colleagues and friends for helping me with this project by giving moral support and encouragement during the preparation of this dissertation.

Last but not least, this thesis is dedicated to my dearest parents and family members for their devotion, ideas, and endless pouring of love and never stop giving me their encouragement and full support to finish this dissertation successfully. I will never forget all good deeds from all of you.

Thank you.

# TABLE OF CONTENT

## DECLARATION

**ABSTRACT ..... i**

**ACKNOWLEDGEMENT ..... ii**

**TABLE OF CONTENT .....iii**

**LIST OF TABLES ..... v**

**LIST OF FIGURES .....vi**

**LIST OF ABBREVIATIONS .....vii**

**CHAPTER 1 INTRODUCTION ..... 1**

1.1 Research Background ..... 1

1.2 Problem Statement..... 2

1.3 Research Aim..... 4

1.4 Research Questions..... 4

1.5 Research Objectives ..... 4

1.6 Research Methodology..... 5

1.7 Chapter Summary ..... 7

**CHAPTER 2 LITERATURE REVIEW ..... 9**

2.1 Introduction ..... 9

2.2 Definition of Terms ..... 9

2.3 Classification of Industrialised Building System (IBS) ..... 11

## CHAPTER 1

# INTRODUCTION

### 1.1 Research Background

It is undeniable that the construction industry contributes to the Gross Domestic Product (GDP) of a country. The construction sector recorded the value of the gross output of RM204.4 billion in 2017 with an annual growth rate of 7.2% per annum. There is no decreasing demand for construction (Nawi et al., 2011). Ali et al. (2018) stated that private projects and the huge-scale public have dominated the activities of the construction sector in Malaysia. The 11th Malaysia Plan (11MP), covering the years between 2016 to 2020, focuses on transforming the construction industry to be environmentally sustainable, highly productive, environmentally sustainable, with globally competitive players while focused on safety and quality standards, among other economic areas.

According to Rahim and Qureshi (2018), since the 1960s, IBS has been pursued in Malaysia to address housing shortages. IBS was, however, introduced in infancy and not fully accepted. Some of the foreign IBS systems were implemented in the late 1960s and early 1970s, but these systems were found to be incompatible with the environmental situation in Malaysia, leading to the closure of precast concrete factories and the traditional method still had to be applied in the Malaysian construction industry.

On 31st December 2015, only about 70% of private projects and 42% of public projects in Malaysia use the IBS method. Malaysian Government has launched Road Map IBS 2003-2010 and 2011-2015 through CIDB aimed to encourage IBS usage that can reduce the construction industry's reliance on the foreign workforce (Nawi et al., 2015). Unfortunately, the target of the