

**UNIVERSITI TEKNOLOGI MARA
PERAK BRANCH**

**PRECAST WALL PANEL MACHINE
(ELECTRIC FORKLIFT)**

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BSc

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AUTHOR'S DECLARATION

I declare that the work in this innovation project report was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledgment as referenced work. This topic has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

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TABLE OF CONTENTS

ACKNOWLEDGEMENT iii

LIST OF FIGURES viii

LIST OF TABLES x

ABSTRACT xi

CHAPTER 1.0 1

INTRODUCTION..... 1

1.1 Introduction 1

1.2 Background of Study 1

1.3 Problem Statement 3

1.4 Research Question..... 4

1.5 Aim and Objective of the Study 5

1.6 Scope of Study 5

1.7 Limitation of Study 6

1.8 Significant of the Study..... 7

1.9 Outline of Report..... 8

CHAPTER 2.0 9

LITERATURE REVIEW 9

2.1 Introduction 9

ABSTRACT

Handling and installation method of precast wall panel is one of the important process in the Industrialized Building System (IBS) construction project. IBS was established or created to enhance and improve the quality, environment purpose and the most important to improve in advance of method construction. There are some problems has been identified based on the previous research such as worker health issues, manually handling method, wall panel delivery issues and dangerous method that can occur incident in the construction site. The aim of the research is to identify and determine the problems of handling and installation process of precast wall panel in construction industry and to build an innovation product to solve the problem regarding the precast wall panel. There are few methods has been conducted to complete this innovation project which are collecting data from the literature review and conducting online survey. Other than that, 3D prototype and simulation video has been created to present the innovation product. The detail of the innovation idea which includes the design concept, dimension of the product, component of the product and performance of the product are well explained in detail. Based on the previous innovation and the new innovation product, it shows that Precast Wall Panel Machine (Electric Forklift) offer more benefits and better performance for the handling and installation work of precast wall panel. Therefore, this innovation idea can give a better performance and can be able to help the construction industry especially for IBS project.