



**THE POTENTIAL IMPLEMENTATION OF CIM IN MALAYSIAN  
MANUFACTURING INDUSTRY**

**MOHD HAMIDI BIN MOHD KASSIM  
(2000338661)**

**A thesis submitted in partial fulfilment of the requirements for the award of Bachelor  
Engineering (Hons) (Mechanical)**

**Faculty of Mechanical Engineering  
Universiti Teknologi MARA (UiTM)**

**OKTOBER 2003**

## **ACKNOWLEDGEMENT**

In the name of ALLAH S.W.T., The Most Gracious and Grateful. I praise HIM and HIS blessing on HIS noble Prophet Muhammad S.A.W.; first I give thanks to ALLAH Who enable us to complete this final project in time.

Here I would like to express my heartfelt gratitude and appreciation to Mrs. Nor Hayati Saad who initiated and supervised this final project. Her endless help and guidance throughout this final project have enabled me to complete this project.

Finally, I would like to express my deepest gratitude to my lecturers, staffs in Faculty of Mechanical Engineering UiTM, my parents, and all to my classmate and friends who are directly or indirectly involved to contribute in this final project.

## **ABSTRACT**

CIM commonly used abbreviation for Computer Integrated Manufacturing. It deals with the fundamental effect on manufacturing industry of integrating manufacturing activities and facilities using computers. In this report, questionnaire survey was conducted in order to gather information about the level of CIM implementation in Malaysia. From the questionnaire feedback it, can be concluded that the level of CIM implementation are still very low. Majority of the manufacturing company in Malaysia had implemented CIM partially. It is also noted that, the manufacturing company in Malaysia are also have possibility to further (fully) implement the CIM.

## TABLE OF CONTENTS

<b>CONTENTS</b>		<b>PAGE</b>
	PAGE TITLE	i
	ACKNOWLEDGEMENT	ii
	ABSTRACT	iii
	TABLE OF CONTENTS	iv
	LIST OF TABLES	viii
	LIST OF FIGURES	x
<b>CHAPTER I</b>	<b>INTRODUCTION</b>	
	1.1 Background of Project	1
	1.2 Objective of Project	1
	1.3 Scope of Project	2
<b>CHAPTER II</b>	<b>LITERATURE REVIEW</b>	
	2.1 Introduction to CIM	4
	2.2 Definition of CIM	5
	2.3 Need and Benefits of CIM	7
	2.4 Elements of CIM	
	2.4.1 CAD/CAM	9

## **CHAPTER I**

### **INTRODUCTION**

#### **1.1 Background of Project**

Computer Integrated Manufacturing (CIM) is the phrase to describe the complete automation of manufacturing plant, with all processes functioning under computer control and digital information tying them together.

In CIM, the traditionally separate functions of research and development, design, production, assembly, inspection, and quality control are all linked. Consequently, integration requires that quantitative relationships among product design, materials, manufacturing process and equipment capabilities and related activities be well understood. In the way changes in, for example, material requirements, product types, or market demand can be accommodated. Also, high quality is far more attainable via the integration of design and manufacturing.

#### **1.2 Objective of Project**

The objectives of the project are:

1. To study what is Computer Integrated Manufacturing in the context of: