MARA DREVERSE OF TECHNOLOG

ENHANCEMENT OF CHEMICAL INFORMATION MANAGEMENT SYSTEM THROUGH BUSINESS PROCESS REEMGINEERING

AHMAD ZULHILM SIN ZAMRI

BACHELOR OF SCIENCE HONS INFORMATION BY STELLENS MEERING FACULTY OF COMPUTER AND MATREMATICAL SCIENCES

#### ACKNOWLEDGEMENT

Alhamdulillah, I am really grateful to Allah S.W. T for giving me healthy, strength, idea and opportunity to complete my final year project for this semester as a fulfillment of the requirements for the course ITS 690 (IT Project). Without his blessing and permission, this project could not have been completed.

First of all, my utmost gratitude to the Almighty ALLAH for His blessings and guidance throughout time. I would like to take the opportunity to thank those who have helped and supported me all this while. My very first thank goes to Puan Wan Adilah Wan Adnan, the ever patient advisor. Without her guidance and help, this thesis would not have been a successful one. To Puan Hasnora bt Jafri, I thank you for your assistance and ideas for the system. Also to my family who is always there whenever I'm iri need, mentally and financially. Last but not least, I treasure the streaming help and support from friends and classmates. It has been such a wonderful year being with all of you, through all the bitter and sweet memories.

#### ABSTRACT

The aim of this research is to enhance the chemical distribution process which is one of sub module from the Laboratory Management Module of Chemical Information Management System (CWfS). The objective of this research is to examine the existing system for enhancement, to design the existing chemical distribution process and to demonstrate the process of chemical distribution module. Indeed, this research focuses on the managing of the chemical laboratory of Mara University Of Technology in particular of chemical distribution process from laboratory to laboratory and from inventory to laboratory. The main users of this system is the laboratory assistant who are responsible to manage the distribution chemical. To solve this problem, Business Process Reengineering (BPR) approach has been employed.BPR consist of three stages which are prepare for reengineering, map and analyze business process and design and implement reengineering process. The significance of this research includes helping laboratory assistant to manage the distribution of chemicals and to help lecturer request any chemicals to be used in a lab.

# TABLE OF CONTENTS

APPROVAL DECLARATION	i <sub>2.2</sub>	2
ACKNOWLEDGEMENT	iii	
ABSTRACT	iv.	
LIST OF TABLES		
LIST OF FIGURES		
LIST OF APPENDICES	vii	

### CHAPTER ONE : INTRODUCTION

1.1 Introduction	1
1.2 Research Background	
1.2 Problem Statement	1
	Z
1.4 Aim	
1.5 Objective of Research	
1.6 Scope of Research	4
1.7 Stakeholder	4
1.8 Siignificant	4
1.9 Report Outline	5

## CHAPTER TWO : LITERATURE REVIEW

2.1 Introduction	7	
Chemical Information Management System (CIMS)		7

2.3 Business Process Reengineering (BPR)	11

2.4 Reengineering	11
2.5 Important of Business Process Reengineering	12
2.6 Phases of Business Process Reengineering	13
2.7 Summary of the chapter	16

# CHAPTER THREE : RESEARCH APPROACH AND METHODOLOGY

3.1 Introduction	17
3.2 Description of CR', ÅS through Business Process Reengineering	18.
3.3 Summary of the chapter	22

#### CHAPTER FOUR: ANALYSIS AND RESULTS

4.1 To examine the existing system for enhancement	23
4.2 To design the existing chemical distribution process	33 <u>.</u>
4.3 To demonstrate the process of chemical distribution module	45
4.4 Summary of the chapter	48.

#### CHAPTER FIVE: CONSTRUCTION

5.1 Introduction	49
	42