

Title : **WIRELESS ELECTRONIC HANDBAG (WEHB)**

By

MUHAMMAD HUSAINI BIN MOHTAR @ MOKHTAR  
(2001472717)

A project paper submitted to  
FACULTY OF INFORMATION TECHNOLOGY AND QUANTITATIVE SCIENCE  
MARA UNIVERSITY OF TECHNOLOGY

In partial fulfillment of requirement for the  
BACHELOR OF SCIENCE (Hons) IN DATA COMMUNICATION AND  
NETWORKING

Major Area : Wireless Technologies

Approved by the Examining Committee :

.....  
(En. Mohd Nor Hajar Hasrol bin Jono) : Project Supervisor

.....  
(Pn. Zolidah binti Kasiran) : Examiner

MARA UNIVERSITY OF TECHNOLOGY  
SHAH ALAM, SELANGOR  
OCTOBER 2003

## **ACKNOWLEDGEMENT**

All praises be to Allah S.W.T, for all the bless and strength he has given me during the completion of this final year project. First of all I would like to take this opportunity to express my deepest gratitude to my parent especially to my mother and father for their tender love and constant support. Without them I would have no enthusiasm to go further. I am indebted to my supervisor En. Mohd Nor Hajar Hasrol bin Jono for his patience, understanding, assistance and for his constructive criticisms especially in preparing this Wireless Electronic Handbag (WEHB) prototype. I would like also to address a special gratitude to the CTN Coordinator, Prof. Madya Dr. Saadiah bt Yahya for her valuable guidance, support and encouragement through the progress of this project. This gratitude also goes to En. Adzhar Abdl Kadir for his tolerance, comments and ideas that led to a better quality of my project. Last but not least, to the fellow colleagues of BSc Data Communication And Networking, I would like to thank all of you for your encouragement and the spiritual support.

## **ABSTRACT**

According to the Crime Investigation Department of the Royal Malaysian Police statistic, from January to June 2003, it is showed that there were 8,700 reported snatch theft cases in our country. From that, only 49% of this cases are solved. This cases is also become more tragedies whenever some of the snatch theft, is more brave to use a sharp weapon whenever they attack their victims. This phenomenon is not stop until we take a serious action to prevent this situation from happen again. Therefore, as an University of MARA Technology student, it has encourage us to contribute our knowledge to create a new invention known as a Wireless Electronic Handbag (WEHB). As a user of this handbag, they will not to worried anymore about yelling for help, get injured or struggled with a violent of snatch thief.

## TABLE OF CONTENT

|                             |             |
|-----------------------------|-------------|
| <b>ACKNOWLEDGEMENT.....</b> | <b>ii</b>   |
| <b>ABSTRACT.....</b>        | <b>iii</b>  |
| <b>LIST OF TABLE.....</b>   | <b>vii</b>  |
| <b>LIST OF FIGURE.....</b>  | <b>viii</b> |
| <b>ABBREVIATIONS.....</b>   | <b>ix</b>   |

### **CHAPTER 1 : PROBLEM DESCRIPTION**

|                                                                      |   |
|----------------------------------------------------------------------|---|
| 1.1 Background of the problem.....                                   | 1 |
| 1.2 Thesis objectives.....                                           | 2 |
| 1.3 Thesis scope.....                                                | 2 |
| 1.3.1 Scope of developing wireless electronic handbag part.....      | 2 |
| 1.3.2 Scope of communication signal that using for this handbag..... | 3 |
| 1.4 Problem significance.....                                        | 3 |

### **CHAPTER 2 : LITERATURE REVIEW**

|                                                                                                    |    |
|----------------------------------------------------------------------------------------------------|----|
| 2.1 Introduction.....                                                                              | 4  |
| 2.2 Snatch theft current issues.....                                                               | 4  |
| 2.3 Wireless technology.....                                                                       | 7  |
| 2.4 A comparison between radio frequency and infrared signal.....                                  | 10 |
| 2.4.1 Infrared Signals.....                                                                        | 10 |
| 2.4.2 Radio Frequency Control.....                                                                 | 12 |
| 2.4.3 How do infrared and radio frequency perform in a different environment and Applications..... | 13 |
| 2.5 Electric Current Behavior.....                                                                 | 14 |

# **CHAPTER 1**

## **PROBLEM DESCRIPTION**

### **1.1 BACKGROUND OF THE PROBLEM**

Since 1957, Malaysia has achieved a lot of improvement in all aspects such as social, economic and politics. These three basics improvements indirectly stimulate to an economy growth and increase job market available in Malaysia. These scenarios also make people from poor country migrate to our beloved country to seek a job opportunities.

As a consequence of their migration, they directly or indirectly contribute to a lot of social illnesses that has been reported such as bullying, killing and robbing. On early June 2003 for example, we were shocked with the news about the snatch-and-run cases. Mostly, female is the potential victim of this problem. This cases is also become more tragedies whenever some of the snatch thief is more brave to use a sharp weapon whenever they attack their victims. Therefore, some action should be taken to stop this phenomenon from happen again in the future.