# BARCODE READER PROGRAMME: SOFTWARE DEVELOPMENT FOR DINING HALL

Thesis is presented in partial fulfillment for the award of the Bachelor of Electrical Engineering (Honours) UNIVERSITI TEKNOLOGI MARA



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### ABSTRACT

This project focuses on implementing a barcode reader programme in dining hall's college in UiTM. The programme is a One Dimensional (1D) barcode system, is developed to improve the conventional attendance system used in College and also to help improving the services in the dining hall. By scanning the student's matric card, the system can determine and analyse information. It is targeted that the efficiency of the attendance system in College will increase. This system was tested and the result shows that the system works correctly where it can record and present the detailed analysis just by scanning the student's matric card by the use of barcode scanner. The development of the code program for this project is done using the Microsoft Visual Basic 6.0. The Microsoft Access database is used for the database record.

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## **CHAPTER 1**

## INTRODUCTION

### 1.1 Introduction

Modern bar code began in 1948 and was developed by two graduate students, Bernard Silver and Joseph Woodland at Drexel Institute of Technology in Philadelphia. Silver and Wood began developing the bar code system for a local food chain that wanted to develop a system to automatically read product information during checkout. Barcodes are printed bars and spaces representation of digital data. Data is extracted from a barcode symbol with an optical scanner. Interfacing is needed to provide an environment whereby the barcode scanned by the scanner.

This project involves designing the database center. This database center stores all the information related to each codes that have been scanned by the scanner. The data structures of this database include the information for each resident of the college (hostel) in UiTM. The information includes id-num (barcode number), matric number, name, address, campus address, faculty, programme code, date of birth, IC number, race, citizenship, gender, religion, status and dining data. The database resides under specific barcodes assigned to each student identity.

The Barcode Reader Programme for Dining Hall is presented in this thesis will be benefited and advantage to own the system for any potential user. As a student who frequent used dining hall hostels for daily meals, it is cumbersome for the management to monitor the daily food consumption of students. Observing the issue at hand there are ways to overcome this problem. With that in mind, this thesis intends to embark on a research for a more systematic way which may assist the management to overcome the problems of the traditional practice which is manually handled.