CHAPTER 1

PROJECT INTRODUCTION

1.1 Introduction

The two major problems faced by organizations are time consuming manual attendance and wastage of electrical power. Our project is going to solve these problems by using RFID technology. Radio Frequency Identification (RFID) is an automatic identification method, relying on storing and remotely retrieving data using devices called RFID tags or transponders. So the RFID is a wireless identification. Normally the RFID system comprises of two main parts are RFID Reader and RFID Tag.

Radio Frequency Identification (RFID) is one of the automatic identification technologies more in vogue nowadays. There is a wide research and development in this area trying to take maximum advantage of this technology, and in coming years many new applications and research areas will continue to appear. This sudden interest in RFID also brings about some concerns, mainly the security and privacy of those who work with or use tags in their everyday life. [1]
RFID has for some time, been used to access control in many different areas, from asset tracking to limiting access to restricted areas. Although the use of RFID systems in educational institutions is not new, it is intended to show how the use of it came to solve daily problems in our university.

Nowadays, there are so many institutions that have been growing in Malaysia whether private or government. One of that is University of Malaysia Pahang (UMP). Universities in Malaysia still using old method to take student attendance by giving attendance sheet to be sign out by student. After that, lecturers have to analyze it manually to know who absent and attend to the class. This will make lecturer have a lot work to do.

In a developing country like ours, lot of latest technology that has been developed such as RFID, wireless, Bluetooth, robot and so on. Therefore, these technologies can be adopted to improve our daily routines so take our life more comfortable and easy. All universities should try adopting these technologies to improve their quality of student and management. Besides not being left behind in latest development, it will produce more quality and discipline graduates and they know to use advanced technology in the future. Attendance taking in universities should be done in more advanced method with using the latest technology. The attendance system was developed to help lecturers to manage student attendance in more effective method.

As for system development and implementation, it should be able to help the lecturers to managing their student attendance systematically. The system must have database that contains student information and it must be able to help lecturer to manipulate data, update database, alert lecturers accordingly, and also nice interface to make it easier to use. Finally, the attendance system must be user friendly for commercial purpose. This thesis will focus on UMP regulation about attendance to class, and implement it to develop the system that will do all the attendance management automatically by using RFID technology.
1.2 Problem Statements

Most of the universities still use old method to take attendance student by giving attendance sheet to student and student only needs to sign that paper. By use this method, many students will cheat by asking their friends to help them to sign their attendance if they absent. With this method, lecturers have to analyze and record the attendance list manually to know who absent and come to class. If the attendance sheet lost, the lecturers have to take attendance again and this will give opportunity to students to cheat their attendance. This would impose the lecturer and data that given also inaccurate.

At University of Malaysia Pahang, the attendance of all students present in a given class was recorded. To carry out this registration, each lecturer has an attendance register that must be filled in for every class held. At the beginning of each lesson the lecturer was required to fill in the attendance sheet with all the information concerning the lesson. After that, the attendance sheet handed out so that all students will sign the sheet. When all students have signed, the lecturer collects the sheet and checks the attendance of each student. The purpose of the attendance sheet is to verify whether the student has already exceeded the maximum number of absences allowed for each subject.

This procedure, besides being troublesome for lecturer, also affects students as time is expended on signing, verifying and submitting the attendance sheet manually. Therefore, a system that can manage and help the lecturers to take attendance easily has to be developed. This system must be created based on UMP regulation for attendance contains information about all students from a lecturer section. The system can be easily accessed by the lecturers via the web. This system must be able to manipulate and manage the data of the student attendance so that the lecturers do not have to analyze the student attendance manually. They only have to transfer the data, and the system will analyze all the data automatically.