

CHAPTER 1

INTRODUCTION

1.0 Project Overview

Public Address (PA) system is important in our daily live. This system usually found at the public area likes bus station, supermarket and hospital. The main purpose of this system is to inform the people about anything. At the bus station for example, the public address system main purpose is to inform the passenger about the bus information and their journey information. The traditional Public Address system is using the electronic circuit and it is manually control by human. It need full attention to make the system work efficiently .In this project, a new Public Address system using wireless connection with a complete Graphical User Interface (GUI) to inform the departure and arriving of busses to nearby cell phone using Bluetooth wireless connection. This fully automatic system will scan nearby busses, check the details about the bus information and send the information to nearby Bluetooth hand phones. The information will be send on demand of the users or passenger. The details about this project will be explained in this report.

1.1 Project Objective

The objectives for this project are,

1. To study about the Bluetooth wireless connection and applied it to the new PA system.
2. Develop a fully working wireless PA system to be use at the bus station to inform the departure and arriving of the busses to the mobile phone.

1.2 Scope of study

The scopes of the project are as the following:

1. To understand the Java™ APIs for Bluetooth™ Wireless Technology (JSR-82) flow system to develop a Bluetooth™ application program using Java™ programming language.
2. To understand the Netbeans™ GUI designer to build the GUI for the PA system and application in hand phone GUI.
3. To gain the knowledge in Java™ wireless programs, Java Swing programming and J2ME for mobile.
4. To understand how to work with MySql Database.

1.3 Expected finding

Nowadays, the demand for the Bluetooth connection is highly compare to other wireless connections. The Bluetooth device become a basic specification in newest electronic devices likes laptop computer, mobile phone and even the head unit in car entertainment. This make over 1 billion Bluetooth device sold each year. This gives the opportunities to the software developer to develop the application for the Bluetooth wireless connection. This project will explain how to build the application using Bluetooth application using Java and GUI using NetBeans IDE.

1.4 The organization of work

This thesis will explain the flow on how to develop the wireless PA system and all details will be explain in 6 Chapter. In this subtopic the summary of each chapter will be covered.

Chapter 2 provides the history of Bluetooth connection and how it works. This will explain about Bluetooth connectivity and the future of Bluetooth in the wireless connection. This chapter will discuss the advantage and disadvantage of the Bluetooth connection compare to other wireless connection and why Bluetooth is choose to develop this project.

Chapter 3 will describe the methodology to develop the project. This chapter contain two main parts. Part 1 is the methodology to develop the PC side program and the part 2 is the methodology to develop the device side program. Each process will be explained in this chapter.

Chapter 4 contains the result and analysis of the project. All the output from this system can be observed and analysis in this chapter.

Chapter 5 will be the discussion and the conclusion for the overall achievement from this project. There will be few recommendations on how to expand this project for the future.