

**DEVELOPING A PC CONTROLLER APPLICATION USING
BLUETOOTH TECHNOLOGY**

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DEVELOPING A PC CONTROLLER APPLICATION USING BLUETOOTH TECHNOLOGY

A thesis submitted to the Graduate School in partial fulfillment of the
requirements for the degree Master of Science (Information Technology)
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ABSTRACT

Wireless communications have become more common and reliable to use in many applications, and is still developing. There are many types of wireless network connection, and one of these is Bluetooth technology. The Bluetooth technology supports many features that replace wires with low cost and high speed transmission. It is difficult to manage the networked PCs manually; the best solution for this problem is an easier way to manage a network remotely. *PC Controller* is a program to control the network by using messages through Bluetooth technology. This study concerns primarily about how to design and develop a *PC Controller* Application.

ABSTRAK

Komunikasi tanpa wayar semakin menjadi suatu kebiasaan dan boleh dipercayai untuk digunakan dalam banyak aplikasi, dan ianya masih dalam proses pembangunan. Terdapat banyak jenis sistem perhubungan tanpa wayar, dan salah satu daripadanya ialah teknologi “Bluetooth”. Teknologi “Bluetooth” mampu untuk melaksanakan pelbagai perkara yang menggantikan wayar dengan kos yang rendah dan kelajuan pemindahan maklumat yang tinggi. Ianya adalah suatu yang sukar untuk menguruskan PC yang telah disistemkan secara manual; penyelesaian yang terbaik untuk masalah ini adalah suatu cara yang lebih mudah untuk menguruskan suatu sistem adalah secara kawalan jarak jauh. Pengawal PC merupakan suatu program yang mengawal sistem dengan menggunakan maklumat melalui teknologi “Bluetooth”. Kajian ini mengambil berat terutamanya tentang bagaimana untuk merangka dan membina sebuah pengaplikasian kawalan PC.

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I would like to dedicate this work to my father and to the memory of my mother

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CHAPTER 1

INTRODUCTION

1.1 Introduction

PC controller is a program to control the computer by using messages through Bluetooth technology. In *PC Controller*, there is a need to support the system with Bluetooth (embedded or USB dongle), to control the computer by sending files with certain names to the computer to take the desired action. The process starts when a user sends a message from his/her mobile phone to a target PC. After the message reaches at the destination it will trigger that specific file, while the *PC Controller* checks the arriving message according to their name and from there action will be taken.

The most common type of network connection is the wireless connection. However, Bluetooth technology supports many features that can replace the traditional wired network connections with a low cost, high speed transmission, low power, secure and robust standard for short range connectivity. The technology has been designed for ease of use, simultaneous voice and data and multi-point communications. It supports a range of 10 m, which can be increased up to 100 m with the use of an amplifier (Rumiana. et al., 2005).

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the thesis is for
internal user
only

specific files or send it to the students in easy way any time, and he can open his slides, view it, and move between it in easy way by his mobile from faraway distance, and use every application he may need it in the class.

6.5 Conclusion

Controlling the network using Bluetooth technology provides a solution to control the network without wires, with low cost and high speed manner. Using Bluetooth technology makes the process unlimited because the divisions like walls can be passed and without need to have line of sight between the talking devices.

In *PC controller* application, the user can track all commands that sent to the computer through the rich text which shows all files that reached the folder. The user can send the commands and take the desired action from any device that is supported with Bluetooth technology, because of it is file transfer service, it is possible to use mobile phone or any computer to control the network. The user can guarantee the security, because the user must predefine the device which the user will send the files and give commands through it.

Visual c#.net is easy to use and provide the programmer with huge amount of libraries and built in functions that can use it. In this time it is possible to control the network in easy and interested way, from any computer or any mobile that supported by Bluetooth technology.

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