UNIVERSITI TEKNOLOGY MARA

HEALTH MONITORING SYSTEM USING RADIO FREQUENCY IDENTIFICATION (RFID)

AWANG HAZIQ FAHMI BIN AWANG MUHIDIN

BACHELOR OF COMPUTER SCIENCES (Hons.) DATA COMMUNICATION AND NETWORKING

JULY 2021

ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious and the Most Merciful. Alhamdulillah, praise and thanks to Allah SWT, for all the graces and blessings and also Selawat and Salam to the Prophet Rasulullah SAW, hopefully His syafaʻat will be abundant in days later.

First of all, I would like to express my highest gratitude to my supervisor, Madam Norkhushaini Binti Awang for her guidance, advice and support in order to complete this final year project. I appreciate every single advice that she taught me.

Thanks also to all the lecturers in the course of Bachelor of Science (Hons) Networking & Data Communications at UiTM Shah Alam for their patience and kind advice during the process of completing the project.

Lastly, thank you so much to all those who has given support for me in any way during the completions of this proposal report by discussing, sharing or exchanging ideas and everyone who are directly or indirectly involved in writing this report.

Thank you so much.

ABSTRACT

Health Monitoring System Using RFID is an application that operates on peer-to-peer networks and are based on the radio frequency technology. This is the solution to the miscommunication in real life between doctors and patients. The application was developed for the hospital staff to acquire more accurate reading on a patient's condition. The doctor will receive the notification when things went wrong such as the changes in the blood pressure of the patients or the temperature. All of the information regarding the medical condition of the patients will be updated continuously from time to time so that the doctors can monitor their patients remotely instead of walking around to make a check-up of all of their patients. In term of security, the patients' personal information is guaranteed safe as this project is being confident with the database system.

Table of Content

CHAPTER 1

INTRODUCTION

In this chapter, we will discuss about the project that is going to be implemented. This project begins with the context of the project, describes the problem statement, the goals, the scope of the project and the importance of the project.

1.1   Project Background

Differ from the world back then, with a rising population, it has become important to protect the patient's data in an appropriate way. Often it becomes difficult for the patient to recall the procedures he received and the correct information to express. A study has lately been conducted by the World Health Organization and the research reported that nearly 1.4 million people worldwide are killed or seriously injured each year as a result of medical error, such as misinterpretation between patients and doctors (S. Padmapriya et al., 2014). As the medical error arise, we should improve in term of communications between the doctors and patients. Whenever the value of public health is analysed, it is essential for the personal data to be transmitted in a timely and accurate way in order to provide the patient with prompt first aid (Pai et al., 2017). This problem should be improved by using certain technologies. Hence, we proposed to use RFID technology in order to improve the data transmission from the patients to the legitimate doctors in charge. RFID technology come up with two important component which is the RFID reader that act as receiver to receive the information transmitted by the RFID tag that is associated with the item or person.

1.2   Problem Statement

The main issue to implement this project is because of lack of communications. Doctors need to know all the information about the patient such as previous treatment and medical records in order to perform the best service for the assigned patients. Besides, due to the increase of population in the world, there are also an increase in population in the hospital. If the patients are in a critical condition, they must be warded first. The doctors cannot monitor all of the patients at the same time in the hospital. Besides, the patients usually tell the doctors about