University Technology MARA

The Development of Automated Parking System and Mobile Apps for Indoor Locator Using QR code

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ABSTRACT

Nowadays, as the percentage of people owning vehicle have getting high, parking places in shopping malls and other places have become conflicting situation for many people. Inconvenient parking option have become one of the problem that customers faced when they visited shopping malls such as Aeon Mall.

Thus, this project is aimed to design and develop an automated parking system and android application for parking space at Aeon Shopping mall. Qr code has been used to search many items by scanning the item id in Qr code. It also has been applied in many ways such as in marketing to build creative ads for apps, create greeting card and etc.

Therefore, a mobile application for indoor parking locator aimed to locate vehicle inside the shopping mall using Qr code is developed. This project also allows users to check current numbers of available parking slot in Aeon Mall. It utilizes QR-code to locate customer's vehicle and Raspberry Pi to control sensors and count the number of free parking slot. In general, this application showed the promising result and achieve its goals.

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CHAPTER 1

INTRODUCTION

In this chapter 1, this project is focusing on the overall view of the project which covers the details of the topics, problem statement, objectives, scope and significance of the project.

1.1 Project Background

Nowadays, smartphone is widely use all over the world since it is an advanced mobile that is based on an operating system which allows it to run various applications. As the world now is getting advanced day by day, smartphone have become one of the most important gadget to bring along when people are going out. Smartphone is a handheld use and have many functions such as accessing the internet and it can run variety of third-party software components including QR-code (Cassavoy, n.d.). Every large shopping mall have multi-levels car parking area with doors and labels for each car park. Surveys have been conducted at large shopping malls and the result shows that customers have problems to locate back their vehicle when they forgot the exact location. This project is focusing on the scope that concentrates on mobile application to locate vehicle by using Qr code and display the information of free parking slot to the user.