UNIVERSITI TEKNOLOGI MARA

IOT BASED CLASSROOM CONTROLLING SYSTEM USING ANDRIOD

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ABSTRACT

This project is about how to control and monitor classroom using IOT. This project aim to control light and fan to detect smoke by using MQ-5 gas sensor using Blynk. The main platform to control and monitor data using blynk application which is cheaper and easier to manage compare other hardware and Blynk application is easy to use and the data is much easier to understand.

Besides that, this project also develop alert system to detect smoke in the classroom. When the smoke detected, the Blynk will send notification to classroom management and the buzzer will siren to alert people about that incident.

The development of classroom automation system via smartphone benefits to the user. The advantages of this system will save cost in electricity usage while facilitate user to switch off and on the light and fan in the class through smartphone especially during in rush go to work.

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND STUDY

Internet of thing (IoT) is a technology that able to transfer data over a network without need human to human or human to computer interaction. Besides, internet Of thing (IoT) is a system rely between computer devices, digital machines, object or people provided with unique identifiers (UIDs) (TechTargert, 2019). The smartphone-enabling technologies like intrinsically sensors, Bluetooth, radio-frequency identification (RFID) trailing, Associate in nursing near-field communications (NFC) permit it to be an integral a part of IoT and IoE world and therefore the largely used device in these environments.

Nowadays, Internet Of thing (IoT) technology produced assist products that can help people life more efficient and convenient for example smart home using Dragino project that can help household to control their home through phone. This technology will help household to ensure their home in a safe condition even if they are away from home. This project presents a prototype classroom automation system using smartphone. The purposes of this project are control usage of light and fan in the classroom through smart phone and monitor the air temperature in the classroom to detect unwanted events such as fires or to detect smoking in the classroom.

This project will use blynk application as platform to monitor and control the classroom. This project related to power on and off the light and fan wirelessly and alert to classroom environment either safe or not. In this case, Blynk will monitor the air temperature in class and if something happened such as detect smoker. The blynk will send notification to responsible worker and notify the smoker about their activity through alarm. This project will bring many benefits to various parties such as cost savings and facilitate employees to monitor classroom.