

**POLITEKNIK SULTAN SALAHUDDIN ABDUL AZIZ SHAH**

**SMART HOME CONTROL**

**MOHAMAD AIMAN HAKIM BIN AHMAD**

**08DJK19F2014**

**JABATAN KEJURUTERAAN ELEKTRIK**

**SESI 2 2021/2022**

**POLITEKNIK**

**SULTAN SALAHUDDIN ABDUL AZIZ SHAH**

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**MOHAMAD AIMAN HAKIM BIN AHMAD**

**08DJK19F2014**

This report submitted to the Electrical Engineering Department in fulfillment of the requirement for a Diploma in Electrical Engineering

**JABATAN KEJURUTERAAN ELEKTRIK**

**SESI 2 2021/2022**

## **CONFIRMATION OF THE PROJECT**

The project report titled "Design a SMART HOME CONTROL" has been submitted,  
reviewed and verified as a fulfills the conditions and requirements of the Project

Writing as stipulated

Checked by:

Supervisor's name : PUAN FA'IZAH BINTI YA'ACOB :

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Verified by:

Project Coordinator name :

Signature of Coordinator :

Date

“I acknowledge this work is my own work except the excerpts I have already explained to our source”

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Name : **MOHAMAD AIMAN HAKIM BIN AHMAD**

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**DECLARATION OF ORIGINALITY AND OWNERSHIP**

**TITLE : SMART HOME CONTROL**

**SESSION: SESI 1 2021/2022**

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- 2. I acknowledge that 'The Project above' and the intellectual property therein is the result of our original creation /creations without taking or impersonating any intellectual property from the other parties.
- 3. I agree to release the 'Project' intellectual property to 'The Polytechnics' to meet the requirements for awarding the **Diploma in Electrical Engineering** to me.

Made and in truth that is recognized by;

a) **MOHAMAD AIMAN HAKIM BIN AHMD** ) *MOHAMAD*  
(Identification card No: - 08DJK19F2014) ) **MOHAMAD AIMAN HAKIM BIN AHMAD**

In front of me, **PUAN FA'IZAH BINTI YA'ACOB** (750212-04-5482) ) .....  
As a project supervisor, on the date: ) **PUAN FA'IZAH BINTI YA'ACOB**

## **ACKNOWLEDGEMENTS**

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I would like to express my gratitude towards my parents & member of (Organization Name) for their kind co-operation and encouragement which help me in completion of this Project. I would like to express my special gratitude and thanks to industry persons for giving me such attention and time.

My thanks and appreciations also go to my colleague in developing the Project and people who have willingly helped me out with their abilities.

## **ABSTRACT**

The project was inspired by the observation of technological change out there. Where this project is used to facilitate the people out there. But half the parties only take lightly above the need to use the “Smart Home Control”. This is because not many people out there know the benefits of using this system in their homes. The objective of this project is to provide convenience to users of “Smart Home Control” where it is combined with electrical appliances at home. The use of this system is focused on Android and IOS users by using the application. The use of this tool is only designed to facilitate users with the use WIFI and internet signal to be an intermediary smartphone with “Arduinio WIFI”. Smart Home Control where it is combined and made into a product. Based on these results, the result of analysis, and discussions that have been conducted, it can be concluded that the system developed has achieved the objectives that have been discussed.

## **ABSTRAK**

Projek ini diilhamkan oleh pemerhatian perubahan teknologi di luar sana. Di mana projek ini digunakan untuk memudahkan orang ramai di luar sana. Tetapi separuh pihak hanya mengambil ringan di atas keperluan untuk menggunakan "Kawalan Rumah Pintar". Ini kerana tidak ramai orang di luar sana mengetahui kebaikan menggunakan sistem ini di rumah mereka. Objektif projek ini adalah untuk memberi kemudahan kepada pengguna "Smart Home Control" di mana ia digabungkan dengan peralatan elektrik di rumah. Penggunaan sistem ini tertumpu kepada pengguna Android dan IOS dengan menggunakan aplikasi tersebut. Penggunaan alat ini hanya direka untuk memudahkan pengguna dengan penggunaan WIFI dan isyarat internet untuk menjadi telefon pintar perantara dengan "Arduino WIFI". Kawalan Rumah Pintar di mana ia digabungkan dan dijadikan produk. Berdasarkan keputusan tersebut, hasil analisis, dan perbincangan yang telah dijalankan, dapat disimpulkan bahawa sistem yang dibangunkan telah mencapai objektif yang telah dibincangkan



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## LIST OF SYMBOLS

## **LIST OF ABBREVIATIONS**

# CHAPTER 1

## 1 INTRODUCTION

### 1.1 Introduction

A “smart home” can be defined as a residence equipped with computing and information technology which anticipates and responds to the needs of the occupants, working to promote their comfort, convenience, security and entertainment through the management of technology within the home and connections to the world beyond. The full-blown concept of the smart home is the acme of domestic technology we can envisage at present. The concept, at one time only encountered in science fiction, has moved closer to realization over the last ten years. Although the gap between reality and fantasy is still wide, it is important that we start to give proper consideration to the implication this technology holds for the way we will live in our homes in the future

### 1.2 Background Research

This Smart Home control serves as a link to make it easier for users to manage electrical appliances at home, especially in large areas without using a switch. This model only uses the INTERNET AND WIFI available on the model. Users only need to download the app available on the play store to give instructions to the electrical appliance



### **1.3 Problem Statement**

Home is the place where people live and individuals invest their most of the time at home. Walking along with the revolution industry, smart home is an emerging innovation, which has changed the way individuals live. Currently, there are various design of smart home which consist of multiple control system can be choose from. However this smart home can be categorized into two main categories which is local control and remotely controlled systems. The different between local control and remotely control systems is the way for operation. Basically, the remotely control can use internet connection by using their electronic devices for long distance while the local control using in-home controller with a stationary or wireless communication technology to connect to the central hub or gateway.

### **1.4 Research Objectives**

- Never walk into a dark home again
- Have the porch light automatically turn on when open the front door after dark.  
Lighting and audio control can make a vacant home look and sound occupied
- You could set your Omni home control system to automatically call you at work when your child comes home from school and keys in his security code into the security system

## **1.5 Scope of Research**

1. This Project is focusing to control the security of home and get the saving electrical.
2. The main controller is using application in play store or apple store with using the blynk

## **1.6 Project Significance**

The importance of this study needs to be done to collect data before undertaking a new project. This is because the successful process of this project runs smoothly without any problems. Resources can be found on the internet or ask a more skilled person

## **1.7 Chapter Summary**

The conclusion that can be made is that this system is in demand in people who have a large home area. It is easier for them to manage electrical appliances at home and in line with current technology. In addition, the importance of installing this model is also taken into account if it should be present or not in their home space.