# **FLOOD LEVEL INDICATOR**

# AHMAD SYAHIR BIN MD REDZON AHMAD SHAH BIN ABD RAHIM

A project report submitted to the Faculty of Electrical Engineering, Universiti Teknologi Mara in partial fulfilment of the requirements for the award of Diploma of Electrical Engineering.

# FACULTY OF ELECTRICAL ENGINEERING UNIVERSITI TEKNOLOGI MARA MALAYSIA

OCTOBER 2015

#### ACKNOWLEDGEMENT

In performing our final year project, we had to take the help and guideline of some respected persons, who deserve our greatest gratitude. The completion of this FYP project gives us much pleasure. We would like to show our gratitude to Puan Dayana Binti Kamaruzaman, our supervisor and also our co supervisor, Sir Amar Faiz Bin Zainal Abidin for giving us a good guideline for our proposal throughout numerous consultations. We would also like to expend our deepest gratitude to all those who have directly and indirectly guides us in completion of this FYP project.

In addition, a thank you to our family members who gave us spirit to finish up this project report.

Many people especially our classmates and our housemate, have made valuable comment and suggestion on this project which gave us an inspiration to improve our final year project. We thank to all the people for their help directly to complete our final year project.

#### ABSTRACT

With the development of our country of reaching the first class country in the world. There are some problem that our country has to face every year. One of the problem is flood. The flood water crisis in Malaysia is reaching alarming proportions. It might very soon attain the nature of global crisis. Hence, it is of utmost importance to prevent ourselves from flood. Many people in our country cannot expect the water level that sometimes can be at dangerous level and people are not aware with the flood warning. The purpose of this project is to indicate the water level. Flood level indicator project explains about displaying information of water level in the tank by using seven segment display. There are three level that will be display on the seven segment when the water reach to the certain level. This project uses Arduino Uno microcontroller. The other components are transistors, LCD, LED and resistor. The LCD will displays the level that the water have reach in the water container and the buzzer will lighten the LED to warn the people that the water have reached the final level which is the dangerous level. The contribution of this project is to decrease the number of flood victims in our country. As a result, this project also can help our government in handling the flood phenomena.

## **TABLE OF CONTENTS**

CHAPTER	TITLE	PAGE
	SUPERVISOR'S APPROVAL	11
	CANDIDATE DECLARATION	iii
	ACKNOWLEDGEMENT	1V
	ABSTRACT	v
	TABLE OF CONTENT	VI
	List of figure	viii
1	INTRODUCTION	
	1.1 Background Of Study	1
	1.2 Problem Statement	3
	1.3 Objectives	4
	1.4 Scope of study	5
	1.5 Project Contribution	5
	1.6 Outline thesis	6
2	LITERATURE REVIEW	
2		7
	FJFF	7
	2.2 Electronic components	8
	2.2.1 List of component	8
	2.2.2 Function of component	9

#### **CHAPTER 1**

### INTRODUCTION

#### **1.1 BACKGROUND OF STUDY**

The flood occurred in Malaysia every year especially in Kelantan due to the monsoon season in Malaysia. Flood is a natural disaster that is really important to increase the awareness of flood to the people. By increasing the awareness of the people towards flood, it will help people to be more alert about flood. This also can save human lives, and valuable things from disappear or being damage. When the flood is happen, the water level always increase from time to time. However, people cannot detect the water level that will be danger or not. Therefore, in this project we proposed the flood level indicator in order to increase the awareness to the people.

Most flood level indicators are equipped to indicate and detect only a single level. The Flood Level Indicator implemented here can indicate up to three such levels and the microcontroller displays the level number on a seven segment display. So, the circuit not only capable of cautioning a person that the water tank has been filled up to certain level, but also indicates that the water level has fallen below the