UNIVERSITI TEKNOLOGI MARA

FINAL REPORT :

POWER FAILURE NOTIFICATION

NUR AFIQAH BINTI ABDUL RAHMAN

NUR MAISARAH BINTI MOHD ZUBIR

FACULTY OF ELECTRICAL ENGINEERING

UNIVERSITI TEKNOLOGI MARA

PULAU PINANG

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ABSTRACT

The power failure notification device is designed to observe the capability of the device to send the notification to the user when the power in the house or office is suddenly off. The aim of this device is to ease people's daily life thus they know that their place is out of power. The device started the operation by lights up the LED to give the signal that the user's place is now have no power, after that the device will give out the output which is the message in SMS term to the user's hand phone through the AT commands but in this project the output will display on the LCD.

In this project, the prototype of the device is develop into hardware to ease the user to use it. The project is fabricated into PCB board and undergo some troubleshoot to ensure the project is successful. The result of the project is achieved but there are a problem related to the hardware because the hardware and the simulation is quite different.

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CHAPTER 1
INTRODUCTION

1.1 Background of Study

In this present world, people are searching for technologies that helps their everyday life be easiest as possible. Most of technologies such as in industry appliances and the household used electricity as the main source of life, thus they need enough electricity to carry their activities at day or night. Also, modern equipment this day need a continuous supply of electricity such as security system and refrigerator to keep food cools. If a person experience a power off situation, all their business or activities will be interrupted. For example, power supply is needed for a person's server if they are a programmer to manage their software or websites.

Damages of the equipment may be arise due to the power off for a long time and the cost to repair the equipment might be higher than the original price that we paid for. For example, foods in refrigerator will be damaged because the power is off for a long time if a person is not at home. Throughout this project, it can help people for saving their money. For those kinds of power outages, or for blackouts that happened at the vacant vacation house, a power failure alarm is a sure-fire device to receive immediate notification to be sent to the user. If a person is not in the house or on a vacation and the power fail to operate, the notifications will be sent through their hand phone via on Short Message Service (SMS) which notify them the power in their house are failed to operate[1].

The main idea of the project is designed to sent SMS to the hand phone through Global System Mobile (GSM) Modem but in this Power Failure Notification project, the output will be displayed on Liquid Crystal Display (LCD).

The system operates; when the power supply which is an Alternating Current (AC) supply turns off and Direct Current (DC) supply will activate continuously. In AC system, the appliances in the house operates normally. Once the supply trip, Light Emitting Diode (LED) lights up and the LCD displays the message as the output.