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**FINAL REPORT OF DIPLOMA PROJECT
KEU 380**

MULTIPURPOSE LIGHT FLASHER

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ACKNOWLEDGEMENT

With the name of Allah s.w.t the most gracious and most merciful, and to our prophet Muhammad s.a.w and his family.

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We are grateful to all of them and will never forget what they have done for us. Only Allah s.w.t could pay back their kindness and we will appreciate it until the rest of our life.

ABSTRACT

Fire is one of the most hazardous natural forces. Sensing fire and fighting it at the early stage can prevent losses to great extent. Flames always occur because of self carelessness, and cause great losses. Thus, this marvelous *Multipurpose Lights Flasher* is to help people avoiding fire problems.

We also had known that some people were born as a handicapped. They cannot sense a problem like a normal person. They were suffering from physical or mental disability. So they need other practical way to sense the problems that occur.

The system presented here uses the most common yet very reliable negative temperature coefficient (NTC) as a heat sensor. It will give a signal to the circuit to switch on the alarm and the lights flasher circuits. When there is fire, the alarm circuit emits a blare sound while the lights flasher circuit will contribute lights. Therefore the owners of the building will notice that there is fire inside. This can reduce that cost of losing property and also life.

These circuits use a 240V voltage supply with 9V dry cell battery as a back up power supply. This system is necessary in large multistoried buildings, hotels, offices and others. Most factories and companies use a costly fire alarm system, but unlike this circuit, it is affordable and reliable.

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BACKGROUND THEORY

Our project is based on *Lights Flasher*. We called it as *Multipurpose Lights Flasher*, because it can function in many ways and gave us a great solution to our daily problems.

The *Multipurpose Lights Flasher* is actually a circuit that we would like to introduce to others to be use to protect their life and property. In these projects we gave priority to a **heat detector**.

This *Multipurpose Lights Flasher* consists combinations of three main circuits. The three main circuits are *Heat Sensor*, *Alarm Circuit*, and *Lights Flasher*. When there is any increasing of the temperature at a critical level, the sensor will sense by the heat sensor circuit. Then the heat sensor will gave a signal to the alarm system, and the lights flasher circuit will automatically operates. The circuit output will produced a sounds and lights that flash to inform people, that there is fire.

The main objectives for these projects are to prevent losing property and also life. Beside, to help the blindness and the deaf, our system is very flexible and can be installed in any situation. The output from this system (speaker) will inform the user (normal and blindness person) while the lights flasher will inform the deaf that there is a fire. So they can save their life and properties. It is very simple to construct and it is quite economical too.