

SUPER SAVER STREET LIGHT

SITI ANIQAH BINTI MOHD SAIKE
NORFARAHIN BINTI MOHAMAD NASIR

FACULTY OF ELECTRICAL ENGINEERING
UNIVERSITI TEKNOLOGI MARA
MALAYSIA

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ABSTRACT

Generally, we come out the idea with street light because street light was one of the factor that cause the atmospheric pollution such as ozone layer depletion. Street light been switch on the whole night without considering the percentage of the vehicle movement. So, we thought to overcome the problem by creating new project which is street light that conserve energy smartly.

The 'Street Light That Glow on Detecting Vehicle Movement' is the project that utilize microcontroller function smartly. ARDUINO UNO was the most suitable microcontroller as it consist all the port that we need .The uniqueness of this project are instead of using one type of sensor we used two types of sensor which were LDR sensor and IR sensor . The LDR sensor will be function during daylight mode which detect changes of weather voltage while IR sensor will be function during night mode where, when movement been detected it will bright up 100% of brightness for 10 second and will automatically change the brightness to 20% when no movement been detected.

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CHAPTER 1

INTRODUCTION

1.1 Background study

Basically, nowadays street light been switch on the whole night without filtering the intensity of light and the power that been supply. As we know, our earth ozone layer were in critical condition which the ozone layer become thinner day by day. One of the factor that affect the global warming is the heating of earth. Heating of earth that can be cause by high usage of light energy that produce heat. So, street light is one of the factor that affect the global warming.

Generally, the ‘Street Lights That Glow on Detecting Vehicle Movement’ was an upgrading system which consider the energy saving or we can say as go green street light. This street light project were design to reduce the light energy in order to save our earth. Other than that, the street light will be function in two condition with 2 types of sensor. LDR sensor will be function during daylight while IR sensor will be function during night.

In this project, consist of ARDUINO UNO, IR sensor, LDR sensor, RTC, LCD and resistor. Each component will be function according to the command and the mode that been determine by the microcontroller which data can be consist from the RTC.

1.2 Problem statement

During the night time, the street lights are not necessary if there are no traffic and at the same times it will contribute to waste of electrical energy. This street light project will help to overcome this problem and help to increase up country economy by saving the electrical energy.