

THE AUTOMATIC ROAD LIGHT CONTROL DESIGN BASED ON ARDUINO

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ABSTRACT

A good road light system is part of the lighting system that is useful for supporting safety for road sidewalk users and vehicle drivers. Usually, the level of road brightness required to light a road is calculated based on the lighting levels recommended by the International Commission on Illumination (CIE) and local standards. The use of street lights is a form of electricity that is quite large and less efficient. With the creation of automatic street lighting, it can reduce the use of electrical energy because public street lighting uses solar panels as an energy source that is obtained from converting solar heat into electrical energy and then stored in batteries. At night, the lights light up brightly, when during the day the lights will dim or turn off. In this study, determining the subject and object of research was indispensable. Subjects or research respondents on the design of street light control systems. The object of this research was the automatic street light control system which was the main object of the research. Based on the results of the conclusions and discussions, it showed that Arduino-based automatic street light control is as follow: this automatic street light control prototype used a light sensor as a source of electrical energy, and a light sensor, the stepdown module was integrated with the Arduino Uno microcontroller using a programming language. It was able to detect light intensity to the sensor, the value of the LDR sensor became a parameter to adjust the LED light.

Keywords : Arduino Uno, Street Lights, Stepdown Module, LDR Sensor.