

## Documents

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**Energy efficient smart street light for smart city using sensors and controller**

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**Abstract**

Smart street light is an intelligent control of street lights to optimize the problem of power consumption of the street, late in night. Conventional street lights are being replaced by Light Emitting Diode (LED) street lighting system, which reduces the power consumption. The focus of this project is to design a system of street lights controller to provide a reduction in power consumption. The prototype was designed by using Light Dependent Resistor (LDR), Infrared sensor (IR), battery and LED. The brightness of the lamps is being controlled in this project to reduce the power consumption. The dimming of the lamps depends on the speed of object motion detected such as pedestrians, cyclists and cars. The higher speed of moving object, the greater the level of intensity. For this idea, the innovation of street lights is not quite the same as conventional street lights that are controlled by timer switch or light sensor which automatically turns light on during sunset and off during sunrise. According to the study, motion detection devices may help to save up to 40% of energy per month. © 2019 Institute of Advanced Engineering and Science. All rights reserved.

**Author Keywords**

LED street light; Power consumption; Sensor detection; Smart street light

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