ABSTRACT

Lamp is one of the household electrical devices that are indispensable. In general, the lamp is controlled through a switch that requires the user to move towards the switch to turn the lamp on/off. To efficiently time, the lamp can be controlled via internet of things.

The light control system is built on an Internet of Things (IoT) based. The lamp used in this system is RGB Lamp, RGB lamp is subject to change color and light intensity. Discoloration of lights can describe a person's mood, this discoloration Light color and light intensity change is controlled via internet. For controllers of this system is used microcontroller NodeMcu ESP8266 because it is integrated with wireless communication.

The built system takes time to process on/off commands, change color (red, green, blue, white, orange, yellow and purple) and light intensity with 5 levels, namely 20%, 40%, 60%, 80% and 100% ranging from 1.19 second to 1.4 second. The accuracy rate of the system in processing orders is 100%. For Power required the lights range from 11.5 Watts to 22.9 Watts depending on the intensity level. From the tests that have been done it can be concluded that internet speed can affect the response time in processing commands.

Keywords: Control, lights, color, intensity, internet of things