

ABSTRACT

Current technology supports the development in various fields, one of which is information technology in the electronics. These advances can be utilized in the manufacture of internet-based automated systems (internet of things), especially controlling the electronic and electrical components at home. Manually controlling the lights is a very common thing to do that causes a lot of electricity and controls in trouble operations, such as multi-storey lights built in lights.

In this study the authors have developed a system of lighting control and monitoring using smartphone applications. In this research work there are 2 parts of Software and Hardware, but here the author only work on the software, while on the hardware will be done by other authors. In controlling this application can control some lights but at this time only use only 4 lights. This application is connected to the internet so that the system of control and monitoring can be done without limitation of distance during smartphne connected to internet. In addition to this application can be done in the color changes on the lights as well as do the scheduling. Scheduling serves to perform the control automatically.

From the results of research that has been done, when the control is still visible delay. Total delay that occurs at each control is 5.89 seconds. Delay that occurs depends on the condition of the internet connection. Expected with the creation of this application can assist in the process of controlling the lights by using the smartphone either manually or automatically.

Keyword: Control and Monitoring, IoT, Firebase, Android Application.