

ABSTRACT

The use of electricity has become a major need for all communities. The amount of electricity use by every consumer can be measured using an electric energy measuring device that is kWh meter, as done by the State Electricity Company (PLN) on each customer. Customers will pay electricity costs in accordance with the measurable kWh meter value both postpaid and prepaid. However, there are still weaknesses in the electrical energy power payment system. One of the disadvantages is that people cannot control the use of electricity every day because customers only know the amount of power used when the payment time has come.

Prototype household digital kWh meter monitoring aid is designed using a Light Dependent Resistor (LDR) sensor as a led light blink detector on a digital kWh meter controlled by nodemcu ESP32 microcontroller and can connect to the server via api service with codeigniter framework.

The results of implementation and testing, this tool can be integrated between users, website monitoring, and telegram bot applications well in accordance with the design. This digital kWh meter monitoring tool has an accuracy of 100% to the kWh meter with a constant of 1000 impulses / kWh.

Keywords: *kWh Meter Digital, Light Dependent Resistor (LDR), NodeMCU ESP32, telegram bot.*