

ABSTRACT

COMPARISON OF WIRELESS SENSOR NETWORK FOR ENERGY MONITORING SYSTEM BETWEEN MQTT AND WEBSOCKET PROTOCOL

By

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13/344158/PA/15141

The need for electricity is very large and directly proportional to the use of electricity then the need for a system that can control the flow of electricity, As providing limits of current usage, so the use of electricity can be used in accordance with the usage. This system is created to monitor electricity consumption from household appliances by using NodeMCU ESP8266 module and ACS712 current sensor processed by an Arduino uno.

This final project implements IoT technology on a terminal outlet to facilitate the user which method is better between MQTT and Websocket protocol in managing the use of electrical appliances in the household. While the software will be shown as a website. Comparison is performed by testing the value of throughput, and packet delay. The energy monitoring system can be used as data source for performance testing of MQTT and Websocket protocol.

Keywords: Internet of Things, Energy Monitor, Arduino Uno, ESP8266, ACS712