

## **ABSTRACT**

The most important form of energy for life, and especially for humans, is electrical energy. The Kilo Watt Hour (kWh) meter is used in a kWh metering system in Indonesian housing, such as a residence or boarding house, with only one primary kWh meter per house. For this reason, it is necessary to save electricity, but for each user to be able to know the current, voltage and power of the electricity consumption used daily, it can be concluded that this study describes a single phase electricity using Ethernet to convert this tool into a single phase power meter with a sensor. current, voltage, and frequency on the Antares Platform using the MQTT Protocol by utilizing the PZEM-004T 10A sensor as an Ethernet network link to enable data transmission through the Antares platform with the results obtained, namely system testing, there are resistive testing and inductive testing, on resistive testing, accuracy results in the resistive experiment at least 33.72% and the maximum accuracy is 99.61% while in the inductive experiment the accuracy is 0.23%.

**Keywords:** MQTT, microcontroller, PZEM004T sensor, Ethernet, Antares Platform.