THREE PHASE DIGITAL KWH METER MONITORING SYSTEM BASED ON INTERNET OF THINGS (IOT)

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ABSTRACT

Internet of Things (IoT)-based remote monitoring system is a system designed to simplify and shorten the time of doing work, knowing usage on consumer load usage. The working system of the tool in general This tool will be designed using the Blynk application and the Huawei E5372 Bolt Slim Wifi modem as an indicator in the form of a user display so that it can access remotely. The PZEM-004T sensor is a sensor that can detect current, voltage, power, energy and costs so that consumers can find out usage. This study uses the PZEM-004T sensor, the comparison of tools with measuring instruments is not far away or accurate with an average value of Phase 1 voltage error (V_1) *accounting for 0.23%, an accuracy of 99.7%, the average error in Phase 1 current* (I_1) *accounted for 3.4% accuracy of 96.6%, the average error on the Phase 2 voltage* (V_2) *counted 0.24% accuracy of 99.76%, the average error on the Phase 2 current* (I_2) *counted 0 .24% accuracy of 99.76%, the average voltage error in Phase 3* (V_3) *accounts for 0.26% accuracy of 99.74%, the average error in Phase 3* (I_3) *accounts for 3.4% accuracy of 96.6%. In this study there were several results of the cost of using the load, testing on three days to get a total of Rp. 318,292. Differences in error values for voltage, current and costs are relatively different due to load usage and testing at different times.*

Keywords*: PZEM-004T, monitoring kWh meter, cost, internet of think, energy*