DESIGN AND REALIZATION OF MONITORING SYSTEMS AND DAMAGE NOTIFICATIONS ON KWH METERS

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ABSTRACT

In this modern era, electricity is needed by the community because electricity functions as a source of energy for electronic devices or machines so that they can move or work. Many electricity needs are used in daily activities so that work can be done more easily, such as in the industrial sector to run machines, use electronic devices at home, turn on residential lights. In designing this tool using the PZEM004T sensor to measure current and voltage then sent to the NodeMCU ESP8266 which is already connected to the internet and the data will be sent to the Blynk application. In this test, it can be concluded that the display on the Blynk application in the form of numbers has two sides, namely the customer side and PLN. If the KWH is in good condition Blynk will display numbers in the form of Current and Voltage, and if the current from one of them is not read then there is an error in the MCB. From the results of this study, it shows the system can send data to the Blynk application via the internet, the average error generated for reading voltage and current in the fan load can be read voltage on the PLN side 0.85% and the customer side 1.58% while the average reading The current on the PLN side is 19.39% and the customer side is 19.27%. The results of this study indicate that the system created can perform real-time load monitoring via a smartphone with an accuracy of 80% reading.

Keywords: Module, KWH, Blynk, Sensor PZEM004T NodeMCU ESP8266