

ABSTRACT

Electrical energy in a house that is consumed in excess can result inefficient electricity usage. This is because the user does not know how much electricity is expended. To determine the level of consumption of electrical energy by measuring electrical power consumption. In this research, an electrical power measuring device has been designed which consists of measuring voltage, current, and electric power. As a result voltage measurements have an input distance of 0-230 VAC and an average error of 0.98%. Current measurements have a measurement range of 0-30 A and a minimum input load of 100 watts have an average error of 5.8%. Power system Tested using a variable load consisting of resistive and inductive loads. From the results of the load test produces an average error of electric power of 5.03%, a precision of 98.01%, and an accuracy of 92.51%.

Keyword : Measuring instrument, Error, Electric power