

ABSTRACT

Electrical energy in a building that is consumed in excessively can reduce the efficiency of the building. Because the user does not know how much power is released. The level of the energy efficiency is required energy audit. An energy audit is collecting and analyzes electrical power usage. For that is needed device can measuring voltage, current, and electrical power in real time. In this research, it was made monitoring electrical power system consisting of voltage, current measurement and electrical power calculation. As the result of dengan voltage measurement has input range 30–230 VAC and average error 0.35%. Current measurement has range 0-30 Ampere and minimum load input 100 watts has average error 2.22%. Electrical power system equipped with data logging in real time. It was tested with varying loads consists of resistive and inductive loads. Minimum load input 100 watts has 87.45% accuracy, 93.12% precision, and average error 3.8%.

.Keywords: Energy Audit, Measuring instrument, Electrical Power, Data logger