ALTERNATING CURRENT/DIRECT CURRENT ENERGY METER

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ABSTRACT

Efficient use of energy becomes more crucial when increase in the cost of energy is observed. Since energy management is required to define the amount of consumed/generated energy in a specific period of time, utilization of Energy Meters is essential. This thesis presents the design of the energy meter using Arduino Uno kit. The main objective is to measure and display the amount of consumed/generated energy in a specific period of time. This project involved both hardware and software programming activities. It determined the current by using Hall Effect current transducer. It also measures the input voltage by using voltage divider. The integrated energy will be displayed in a 16x2 backlight LCD as kilowatt hour (kWh). The sampling time is 60 seconds. In the software activity, the code is constructed in C programming and was used on the Arduino Uno. Periodic readings of energy meter establishes energy used during a cycle.

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