

## **ABSTRACT**

Electricity is needed in this 21st century, due to the activity of human life that continues to advance. In this era of modernization Humans will never escape from an electrical energy. This happens because someone uses his mind to solve every problem he faces. With the utilization of electrical energy in the current era of modernization to achieve the practical goals of applied science and the overall means to provide the goods necessary for the continuity and comfort of human life.

Power Meter is a practical energy-saving device that can help monitor how much power consumption is consumed daily per household electronic component. Therefore, continuous monitoring of electric power is essential for the prevention of excessive energy use. In this final project discussed the implementation of Modbus protocol by using Power Meter SPM 91 to know the power consumption. The result of this implementation is a tool that can calculate the electrical energy used every day.

Through this monitoring application, potential users can experience how to estimate the use of electrical power that can save if we can use electricity properly and can reduce the electrical energy crisis for the future.

**Key Word** : *Monitoring Application, Power Meter, Modbus Protocol*