DESIGN AND BUILD A PROTECTION SYSTEM AND MONITORING OF THE USE OF ELECTRIC POWER ON A HOUSEHOLD SCALE BASED ON ARDUINO UNO

Name of Student : *Riski*

Nim : *3204161071*

Advisor : *Jefri Lianda, S.ST.,MT*

ABSTRACT

A protection system device and monitoring of the use of electric power at scale loads have been made household in real time based on Atmega328P. microcontroller. In performing its functions, the system using the on-off control action to perform protection with the relay module as an actuator, meanwhile The sensor uses a Hall effect ACS712-based current sensor and a ZMPT101b voltage sensor. The system also uses the GSM sim900 module to provide information and to monitor use of electric power. As a whole the system has been able to provide protection by means of disconnecting electric current when an overload occurs. The system has also been able to monitor the use of electric power in a way displays power data on the LCD, and sends SMS to the operator.

Keywords: Arduino uno, Current sensor ACS712, Current Votage ZMPT101b, Module GSM SIM900.