ABSTRACT

As the waste in the use of electrical energy, such as turning off lights when not in use, is one of the causes of electrical energy waste that must be addressed. As a result of forgetfulness is one of them costs will continue to increase the amount of electrical energy flow that will be used or wasted. It would require a system that can control electronic equipment that can be used as needed. Then made electrical appliances control system using XBee wireless communication, because it can be a bridge to help ease lethal electronic equipment. In making this electronic controllers, communication is done on the master side is used as the center of the slave controller with a microcontroller ATMega8 used as control relay drivers for each switch. At a frequency of 2.4 GHz modules selected in this design is the type of XBee, i.e., Radio Frequency module for IEEE 802.15.4 wireless standard. The process itself is the XBee on laptop devices will send data to the master, then the slave will be sent to the recipient's status for the data to be when electronic life or not, while ATMega8 Slave used to organize data once the data is used to set the relay. In ATMega8 microcontroller output port outputs leading to the relay driver, who is expected that the output of the slave circuit logic 1 input sent. At a distance of XBee can maximum distance between the master and slave, the maximum distance for which the measurement distance of 46 m outside the room, and indoor measurements at distances of 36 m.

Keywords: XBee, ATmega8 microcontroller, Series Master, Slave circuit, Relay Driver.