ABSTRACK

Automatic Lighting System is an automatic lighting system both in turning on and off the lights according to the intensity of light in the room and the presence of humans. This system consists of two sensors, namely thermal sensor and light sensor. In its work the thermal sensor detects human body temperature then the light sensor detects the intensity of the room light if the intensity is less then the light is on. With this system the emphasis on energy can be done. So there is no wasted energy so help save household expenses.

This Final Project discusses about the process of making this system up to the application of the tool. Thermal sensors that can detect humans based on body temperature. Once detected then the LDR sensor checks the light intensity of the room if the intensity is less then the light is on.

Thermal sensors determine an object as a human when the object temperature is worth $29,10^0$C and above. Thermal sensor has an optimal distance of 1-2 meters. The system will turn on the light when the object is detected at $29,10^0$C and above and the light intensity is below 180 lux. If the object is detected as human but the intensity of light above 180 lux then the lamp does not light. Luxmeter made has been calibrated with conventional luxmeter with success rate 95,5% -100%.

Keywords : Automasisasi, Lighting, Multisensor, Ruangan.