

## ABSTRACT

*One of some ways can people do to save electricity is use electricity only when they need.*

*In this design and realization controller system of fan and temperature detection in a room used 2 sensor. It's different with the last final project which is used long distance system and only use 1 sensor. This controllers system of fan works of the results of temperature detection in the a room. This temperature measuremented with sensor temperature which will integrated with microcontroller. The fan will work automatically when the temperature has exceedd a desired and will stops automatically when the temperature back to normal. This measurements temperature made by sensor LM 35, but there are several additional features of the components, that is sensor PIR (passive infrared receiver). Due to this tool works maximumly, so in this conditions used a PIR sensor, the sensor of this tool detecting of human's moves and this tool will detecting where is the human at. LM 35 is used to detect the temperature in the room and a relay to turn on and off the electronics fan automatically.*

*The results of measurements made of this final project is worked well. The tool has been designed worked well. There are two 2 systems of how the sensor works, firts the electronic fan will work with speed 1 if the sensor detected  $> 25$  degree celcius. PIR sensor detect the human presence and the electronic fan will work at speed 2 if the sensor detected  $> 30$  degree celcius. PIR sensor detect the human presence. To make this tool works well, this tool should work at 3 x 3m room.*

*Keywords : Censor PIR, Temperature censer (LM 35), Electronic fan, mikrokontroler, Relay,*