

## **ABSTRACT**

Nowadays, we can find many water heaters which are used for daily needs. On this final project will planned and realization an automatic water heater with microcontroller based which can control water temperature, and these projects are completed with a display to inform the accurate temperature. The Microcontroller series AT89S51 is used as the operating center.

This water heater will have temperature tolerance about 2°C. The Acknowledge of this tool there is temperature stabilized that do after the temperature input is reached. So the water conditions will stabile as the needed until we turn off this tool.

To realize this tool, IC LM35 is used as temperature sensor. And as the controller center we use microcontroller AT89S51 that programmable as we want and have more less wire connector. The temperature input through the keypad will show in LCD. And the temperature is show in the same LCD. Relay is connected to microcontroller to control the heater. The output result is showed in Celsius degree.