

# TRANSFORMER OVERHEAT PROTECTION

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## ABSTRACT

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This project is about a design and implement of transformer overheat protection. This project uses AT89C52 microcontroller to read, compared and trigger relay to switch ON the cooling device. Once the temperature is over the programmed value the cooling device is ON and if the transformer temperature is below the programmed value, the cooling is OFF.

In this project, a 600V A single phase transformer is used. To the more heat produces from the transformer, an overloading condition will be applied. A temperature sensor LM35 will be attached on the transformer core to detect the temperature of the transformer.

After the temperature sensor detects the temperature, the analog electric signal will be converting to binary signal by analog to digital convertor ADC0804 and the binary data will be feed to the microcontroller. A 16x2 LCD display will used to display the real-time temperature of the transformer.

### **Keywords:**

Transformer Overheat Protection  
Microcontroller AT89C52  
Trigger Relay  
Temperature Sensor LM35  
Analog to Digital Convertor ADC0804  
16x2 LCD Display