**SMOKE SENSING CIRCUIT**



A smoke Sensing circuit is designed with smoke sensor MQ2 AND OP\_AMP(IC LM358), and Transistor. The alcohol sensor MQ2 converts the smoke contents to difference the resistance. The resistance variation is inversely proportional to smoke. Here the OP\_AMP is used as a voltage comparator. The sensor is connected to the non-inverting terminal Pin No 3 of the OP\_AMP to provide the potential difference. The inverting terminal Pin No 2 of the OP\_AMP get the potential difference & variable resistor (10 KΩ), to adjust the Reference Voltage or a set value of the parameter. The LED connected at the collector gives an indication of sensing parameter when it exceeding the threshold value.

When the smoke level in industry, vehicle pollution level, safety smoke sensing in any location the level exceeds the predefined safe value Because of this condition the voltage at Pin No 3 i.e. non-inverting terminal of the OP\_AMP changes and its output goes high which in turn activate (Saturate) the transistor. This signal is given connected to buzzer, transmitter, relay or microcontroller unit to take further actions like alert indication, exhaust fan system etc.