- The device should be of small in size and very less in weight such that it can be kept in the room without any problem
- The device should not depend on the corded system as it can be moved anywhere and also for back up battery backup can be used
- The microcontroller used by me is ATMEGA as the sensor is calibrated to 70 ppm detection, humidity sensor HPP805A031 is used because of its 10 sec response time.
- The humidity sensor output is given to the analog input of microcontroller as mentioned the sensor is calibrated to detect 70 ppm, and also the power consumption of hydro sensor is 1.4MA so has an output impedance of 70 ohms
- Building integrated RH and temperature sensing to these products provides a more complete picture of the environmental conditions than temperature sensing alone. For outdoor electronics and remote installations, RH and temperature sensing can help prevent costly equipment failure. For consumer in-home monitoring devices, RH and temperature sensing offers added value to parents and homeowners who will be using these devices. RH and temperature sensing can be added to new embedded designs for a small incremental cost and without the need for complex and expensive calibration during PCB assembly.
- Materials used:
- ATMEGA328P,7805 voltage regulator, TL-431,LED,HPP805A031 humidity sensor, resistors, capacitors,buzzer.