

AUTOMATIC FAN SPEED CONTROLLER

ABSTRACT:

This project is an automatic fan speed controller that controls the speed of an electric fan according to the requirements. Arduino board is very progressive among all controller circuits, thus we employed Arduino board for fan speed control. The proposed framework is used to determine the temperature and humidity of the room and send that data to the Arduino board. At that point the Arduino board executes the temperature dependent on the inbuilt program and helps in movement of fan. The main reason to use this controller is it does not require any fan regulator and physical contact with it.

The thermal comfort of the person at a particular place depends on temperature and humidity. This project proposes an automatic fan speed controller based on temperature and humidity. The proposed system takes in the temperature and humidity and prediction the required fan speed. A neural network is created based on the relation between the temperature, humidity and airspeed obtained from the CBE Thermal Comfort Tool for ASHRAE-55. The predicted airspeed is fed to the ceiling fan through the driver circuit. The system is implemented using the ATmega328 microcontroller.