**9. Conclusion:**

The significance of Arduino UNO is that, we can have notably accurate control over the devices that are connected to it. During this project, an Arduino based temperature-controlled dc fan is implemented and the design and construction of fan speed control system to control the room temperature is explained also.

Here, an Arduino board has been used to regulate the fan speed in accordance with the temperature sensed by the help of a DHT11 Temperature and Humidity Sensor. Additionally, the

Arduino was successfully programmed to compare the room temperature to a standard temperature, set the fan speed, and display the results on an LCD.

The fan turns "on" when the threshold temperature is achieved and turns "off" when the temperature drops below the threshold temperature. So, it’s basically an automated process.

This project can be used wherever internal temperature of circuit got to be stabilized or saving it from overheating. This is to improve its functionality to become more efficient and effective for huge space and during hot weather.

In conclusion, the circuit has achieved its main objective of using an Arduino Uno and a temperature controller to regulate the speed of a DC fan.