WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Automatic Room Temperature Controlled Fan Speed Controller

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A B S T R A C T

The weather changes rapidly in the world, the temperature changes frequently. Temperature monitoring and control is important in industrial environments and also in the human living room.Industrial temperature monitoring is important in many applications and systems as excessive changes in the temperature can lead to detrimental effects and failure of operation. Early detection of overheating and proper handling of such situation is essentialto avoid deterioration and faulty components. In this proposed paper we developed a model which provides automatic fan speed control by sensing the room temperature.

Keywords: Temperature sensor, Microcontroller, Fan

1. Introduction

The developed system provides an environment in which no user needed to control the fan speed. Therefore automatically control the fan speed by sensing the room temperature. This fascinating idea to create an intelligent system to provide human being a more convenient life.

2. Flow Chart

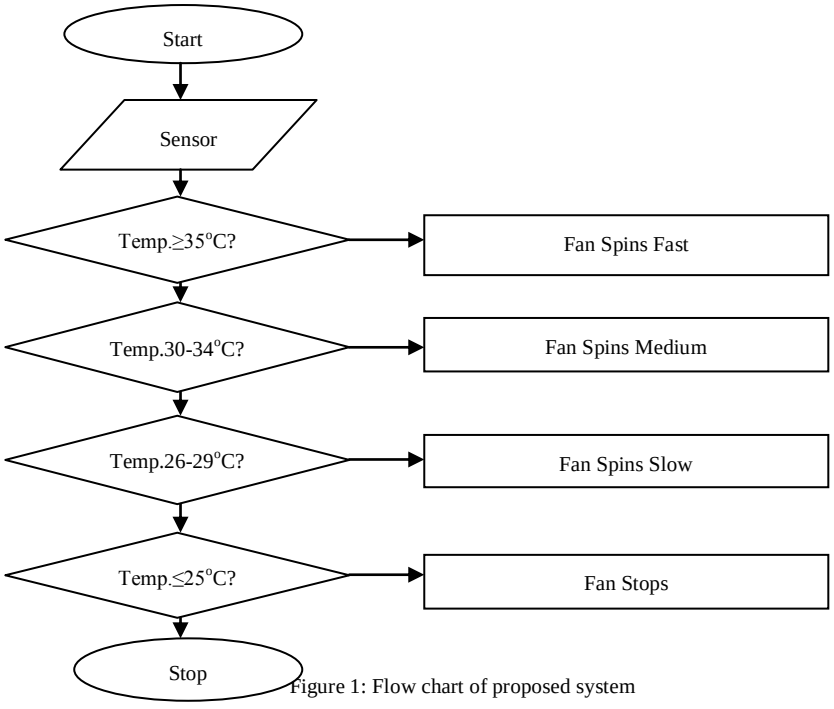

Figure 1: Flow chart of proposed system

3. Block diagram

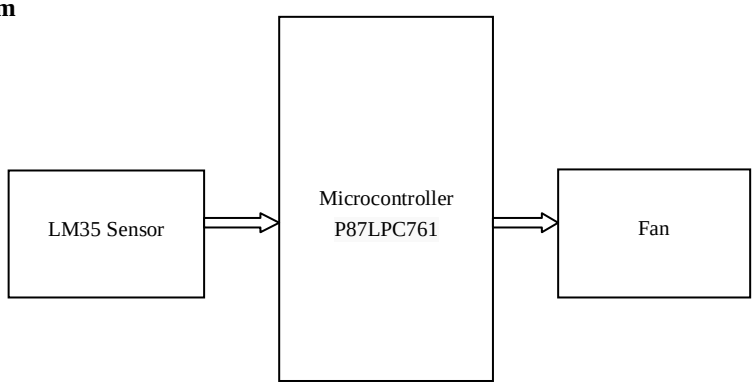

Figure 2: Block diagram of proposed system

4. Methodology

The automatic room temperature controlled fan speed controller system can be done by using an electronic circuit using a microcontroller. The proposed system is designed to detect the temperature of the room through the sensor and send that information to the microcontroller. Then the microcontroller controls the fan speed depends on the program that already inbuilt.The input of this sensor is the amount of temperature in the room, then we have to set program on the desired temperature and output fan speed limits. If the sensor's read temperature is less than or equal to 25°C then the fan will off or will not rotate. If the temperature reads the sensor between 26 – 29°C then the fan will spin slowly. If the temperature reads the sensor between 30 – 34°C then the fan will spin at medium speed. Then if it exceeds 34 °C then the fan will spin rapidly.

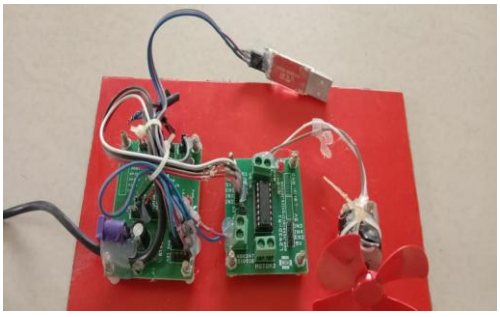

Figure 3: Hardware image

5. Conclusion

This proposed concept is particularly applicable for the areas like where temperature changes radically during day and night time. This project will convert the manual speed regulator fan into automatic fan. The automatic fans will change its speed according to the temperature in the room. In future we planned to do the system that the fans can turn on automatically when the light begins to darken and the fans can also turn off automatically when the light begins to bright again.

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