SMART TEMPERATURE FAN

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ABSTRACT

This thesis describe about the design and development of Smart Temperature Fan. The scope of this project is to program and operate a fan that can rotate at the constant speed whether backward or reverse rotation depending on the certain temperature. The fan will turn at a constant speed, until the temperature is drop to a certain range of temperature. Furthermore, if temperature drops further after the lowest range, the fan will rotate constantly in the other or opposite direction. This Smart Temperature Fan will be controlled using the PIC16F84A (Peripheral Interface Controller) microcontroller and the coding PIC16F84A is developed on Microchip's MPLAB IDE.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Throughout time man has considered the fan to be one of the most highly practical household items. From giant cooling towers, to small hand- held miniatures, fans have become an essential part of our daily lives. Most people can not even imagine a home without a fan. But how did it all start? How did the fan evolve from a frivolous accessory carried around by royalty to the giant cooling systems of today?

The fan timeline began with early man, who used a palm frond or other broad based leaf as they sought relief from the heat. They soon found other uses for the discovery and began refining it. Fans became a form of art, and an indication of social status. It also began to be used in religious ceremonies.

As technology started to advance, so did fans. With the advent of electricity came electric fans in which the blades move on their own with the help of an electric motor. These new mechanical fans worked by using revolving blades that would force air to move parallel to the shaft about which the blades rotate. These first electric fans lead to centrifugal and now even axial-flow fans.

Now days, modern fans are used for purposes of ventilation, in manufacturing, in winnowing grain, to remove dust, cuttings, or other waste, or even to provide draft for a fire. They are also used to move air for cooling purposes, as in automotive engines and air-conditioning systems.

Electrical fans are cheap and have been used for cooling electronic equipment and surrounding environment for more than half a century. However, in recent