

DESIGN AND IMPLEMENTATION OF A NEURO-FUZZY BASED
CONTROLLER FOR AN AIR-CONDITIONING SYSTEM

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ABSTRACT

The project entitled the Design and Implementation of a neuro-Fuzzy Based Controller for an Air-Conditioning System is based upon the simulation of the neuro-fuzzy and fuzzy logic system. This project shows the process of the design of a fuzzy and neuro-fuzzy system for an air-conditioning system, which is able to control and maintain the desired temperature with little or no human intervention. This is a type of intelligence controls temperature automatically, and reaches its target output with out a large overshoot. It is the control of temperature of a room through an air-conditioning system. The aim of the project is to design a system in which the air-conditioner will be able to control and maintain the temperature without human intervention. The change in temperature and humidity of a room are the inputs for the system and the control rate is the output. By first creating a fuzzy inference system based on membership function rules, it is then possible to train the system to decrease the percentage of error.