

Abstract

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Fuzzy Control of An Air Conditioning System For A Hospital In Hot and Humid Climates

This paper presents a simulation process for an air conditioning system for hospital in hot and humid climates using the fuzzy logic control. The study deals with a two-stage experimental test rig, specially designed to simulate the air conditioning system for a hospital in damp-warm areas. The dry bulb temperature (DBT) and relative humidity of the supply air to the system rang from 35 to 40 oC and 90 to 95% consequently, the air supply to the conditioned space should fulfill the required air quality for the hospital. The experimental results and the fuzzy logic control output are in a good match, which is the first step of using the fuzzy logic control in the HVAC system.