

speed control of fuzzy pdf

A fuzzy logic control for a speed control of Induction motor the simulation developed by using Fuzzy MATLAB Toolbox and SIMULINK. The fuzzy logic controller is also introduced to the system for keeping the motor speed to be constant when the load varies.

Speed Control of Induction Motor Using Fuzzy Logic Approach

Speed Control of DC Motor Using Fuzzy PID Controller 1Umesh Kumar Bansal and 2Rakesh Narvey 1Dept. of Electrical Engineering, M.I.T.S. Gwalior. 2Assistant Professor, Dept. of Electrical Engineering, M.I.T.S. Gwalior. Abstract In this paper we have designed a DC motor whose speed can be controlled using PID controller.

Speed Control of DC Motor Using Fuzzy PID Controller

DC motors speed can be controlled by various methods of which most commonly used is fuzzy controller based on Mamdani and Sugeno systems. 7][1 [18] have not discussed the reason of using Mamdani system rather than preferring Sugeno system.

Controlling Speed of DC Motor with Fuzzy Controller in

Front Panel and Block Diagram view for speed control of DC motor using different tuning methods is shown in Fig.20 and Fig.21 respectively. Fig.20: Front panel window for PID, Fuzzy and Fuzzy plus PID controller. 4.2step response is to be calculated using S PID controller, Fuzzy controller and FPID controller for speed control of DC

FUZZY Based PID Controller for Speed Control of D.C. Motor

4.1 Fuzzy Controller Fuzzy logic control (FLC) is a rule based controller. It is a control algorithm based on a linguistic control strategy which tries to account the human's knowledge about how to control a system without requiring a mathematical model. The approach of the basic system is illustrated in Fig.4.

Speed Control of Brushless DC Motor Using Fuzzy Based

Abstract- Speed control of DC Motor is vital in many applications. In this paper, an effort has been made to control the speed of the DC motor using fuzzy logic control (FLC) based on LabVIEW (Laboratory Virtual Instrument Engineering Workbench) program. LabVIEW provides a graphical

Speed Control of DC Motor using Fuzzy Logic based - IJSRP

the performance (speed) of the DC motor in order to control the angular speed of the motor. The purpose of Fuzzy Logic controller is to improve the performance of DC motor by controlling the speed of the motor using different system and to show that the Fuzzy Logic controller can be used on the DC motor control.

Comparative Speed Control Study Using PID and fuzzy Logic

Speed control by fuzzy logic controller for variable speed control. F. Result for variable speed using PI controller Fig.26. Electromagnetic torque of three phase induction motor for variable speed control using PI controller. Fig.27.PI controller response for controlling gain of V/f controller for variable speed control response.

Matlab Simulation Model Design of Fuzzy Controller based V

Speed generator block is the mechanical part of BLDC motor developed this model for generating the actual speed (ω) of the BLDC motor by using the mechanical and electrical equations. 3. Fuzzy logic has rapidly

become one of the most successful of today's technology for developing sophisticated control system.

Fuzzy Controller for Speed Control of BLDC motor using MATLAB

could call the "heuristic approach to fuzzy control" as opposed to the more recent mathematical focus on fuzzy control where stability analysis is a major theme. In Chapter 1 we provide an overview of the general methodology for conventional control system design. Then we summarize the fuzzy control system design process and contrast the two.

Fuzzy Control - Electrical and Computer Engineering

Design and Simulation of Speed Control of DC Motor by Fuzzy Logic Technique with Matlab/Simulink Shashi Bhushan Kumar*, Mohammed Hasmat Ali**, Anshu Sinha * * Asstt. Professor, Department of Electronics & Communication Engg. , Buddha Institute of Technology Gaya, India ** Asstt. Professor, Department of Electrical Engg. , National Institute of ...

Design and Simulation of Speed Control of DC Motor by

Induction Motor Speed Control using Fuzzy Logic Controller V. Chitra, and R. S. Prabhakar
Abstract "Because of the low maintenance and robustness induction motors have many applications in the industries.

Induction Motor Speed Control using Fuzzy Logic Controller

Speed control of BLDC motor by using PID control and self-tuning fuzzy PID controller Conference Paper (PDF Available) · September 2014 with 2,938 Reads DOI: 10.1109/REM.2014.6920443

(PDF) Speed control of BLDC motor by using PID control and

Simulink model of fuzzy logic speed control of DC motor is shown in Fig. 12. Reference speed is defined as 200 rad/s. Gain 1, Gain 2 and Gain 3 in the model, define change of error, error, and change of alpha scaling factors, respectively. 50 Nm load is applied to motor at 0.6 s. Simulation results for 50

FUZZY LOGIC SPEED CONTROL OF A DC MOTOR

In the projected mechanism the fuzzy logic among the traditional controllers are incorporated and the vector control mechanism was utilized. In order to enhance the speed response of the three-phase induction motor the fuzzy logic controller with the old PI controllers is used collaboratively.

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