

Institutional Sign In

BrowseMy SettingsGet HelpSubscribe

AdvertisementAdvertisement

Conferences > 2010 1st International Confer...

Direct torque control system for a three phase induction motor with fuzzy logic based speed Controller

Publisher: IEEE

3 Author(s)Turki Y. Abdalla ; Haroutian Antranik Hairik ; Adel M. DakhilView All Authors

3 Paper Citations908 Full Text Views

Export toCollabratec

Alerts

ManageContent AlertsAdd to CitationAlerts

More Like This

Induction motor drives with direct torque control based on adaptive fuzzy control
Proceedings of the 4th World Congress on Intelligent Control and Automation (Cat. No.02EX527)
Published: 2002

A New Control Strategy of Direct Torque Fuzzy Control of a PWM Inverter Fed Induction Motor Drive
2006 IEEE International Symposium on Industrial Electronics
Published: 2006

View More

Top Organizations with Patents on Technologies Mentioned in This Article



Advertisement

Abstract

Document Sections

I. Introduction

II. Vector Model of Inverter Output Voltage

III. Induction Motor Model

IV. Direct Torque Control

V. Stator Flux Estimator

Authors

Figures

References

Citations

Keywords

Metrics

More Like This

DownlPDF

Abstract: This paper presents a method for improving the speed profile of a three phase induction motor in direct torque control (DTC) drive system using a proposed fuzzy logic bas... **View more**

Metadata

Abstract: This paper presents a method for improving the speed profile of a three phase induction motor in direct torque control (DTC) drive system using a proposed fuzzy logic based speed controller. A complete simulation of the conventional DTC and closed-loop for speed control of three phase induction motor was tested using well known Matlab/Simulink software package. The speed control of the induction motor is done by using the conventional proportional integral (PI) controller and the proposed fuzzy logic based controller. The proposed fuzzy logic controller has a nature of (PI) to determine the torque reference for the motor. The dynamic response has been clearly tested for both conventional and the proposed fuzzy logic based speed controllers. The simulation results showed a better dynamic performance of the induction motor when using the proposed fuzzy logic based speed controller compared with the conventional type with a fixed (PI) controller.

Published in: 2010 1st International Conference on Energy, Power and Control (EPC-IQ)

Date of Conference: 30 Nov.-2 Dec. 2010 **INSPEC Accession Number:** 11989659

Date Added to IEEE Xplore: 12 May 2011 **Publisher:** IEEE

Electronic ISBN: 978-0-9366330-0-0 **Conference Location:** Basrah, Iraq

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our Privacy Policy.

Accept & Close