Abstract

Design of reliable and robust controller for electric vehicle in urban and sub urban areas is very much challenging task due to time varying load torque requirement at the wheel of the vehicle. In this paper indirect field oriented vector control of induction motor, PI speed control with anti-windup scheme and hysteresis current control scheme have been proposed for three phase induction motor drive train and simulated in MATLAB Platform. For its hardware implementation, a laboratory level experimental set up has been build up and the control logic has been tested successfully by performing a no of experiments at different operating conditions.

References

Design and Implementation of Speed Controller with Anti-Windup Scheme for Three Phase Induction Motor

Engineering, Volume 2, Issue 1, 2013, pp 95-100, ISSN: 2319-3182.


- R. Krishnan, "Electric motor drives: Modeling, Analysis, and Control";


- www.mathworks.com

Index Terms

Computer Science

Applied Sciences

Keywords

Electric Vehicle  Three Phase Induction Motor  IFOC  Anti-windup PI controller  Hysteresis Current Controller