Abstract

The application of the field-oriented control strategy to induction motors needs the knowledge of the rotor flux components. On the other hand, in order to enhance the performance of sensorless control of induction motor, the rotor flux and speed of the induction motor should be known. Therefore

In this article and based on the fifth order nonlinear model of the induction motor, the rotor flux and speed of induction motor are being estimated simultaneously using the Extended Kalman Filter (EKF) algorithm. Multiple simulation results are being presented that prove the efficacy of the proposed scheme towards flux and speed estimation of induction motor.

References


Index Terms

Computer Science
Applied Sciences

Keywords
