Abstract

A modified Direct Torque Control (DTC) by using Space Vector Modulation (DTC-SVM) for
permanent magnet synchronous machine (PMSM) drive is proposed in this paper. DTC-SVM technique improves the basic DTC performances, which features low torque and flux ripple and also fixed switching frequency. The computer simulation results, in Matlab/Simulink, demonstrate the effectiveness of the proposed control scheme which improves the performance of the PMSM.

References

- K. Chikh, A. Saad, M. Khafallah and D. Yousfi "PMSM Vector control"
performance improvement by using pulse width modulation and ant windup PI controller,” the second international conference on multimedia computing and systems 2011.

Index Terms

Computer Science

Control Systems

Keywords

Pmsm  Dtc  Dtc-svm  Torque Ripple  Flux Ripple  Fixed Switching Frequency.