

Niti Kaewwannasri 2012: Direct Torque Control of Brushless DC Motor. Master of Engineering (Electrical Engineering), Major Field: Electrical Engineering, Department of Electrical Engineering. Thesis Advisor: Associate Professor Peerayot Sanposh, D.Sc. 103 pages.

At the present, a brushless DC motors have been used in the manufacturing and well-known automotive applications such as hybrid engines. Main problem of the brushless DC motor is the torque ripple affecting the industry which has to control the smooth and stable torque until the end of the process. Therefore, this study has used direct torque control theory to address this problem. The direct torque control is used for vector control of induction motors. To control the response of the motor according to the reference signal. The performance of the direct torque control theory indicated in simulation results can control the brushless DC motor at a very low torque ripple and converge to the speed reference after take load with very little settling time.

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Thesis Advisor's signature