Conventional Controller Design for Switched Reluctance Motor Drives

Abstract

This paper proposed a proportional Integral Controller for Switched Reluctance Motor Drive. PI controller is one of the conventional controller. The basic sensorless operation of the Switched Reluctance Motor Drive is usually tested by this conventional controller under steady state condition. The parameter speed of the drive is controlled and analysed with the help of this controller without any position sensor. Instead of position sensor, the speed can be indirectly measured with the help of phasor current and voltage as the input for the controller. The simulation results of the proposed controller validates that the PI controller is best suited for basic sensorless operation under steady state condition.

References

1. Debiprasad Panda, V. Ramanarayanan, IEEE, 2000,
2. pp. 1569-1574, “Sensorless control of SRM drive with self measured flux linkage characteristics.”


Index Terms

Computer Science
Automated Systems

Keywords

PI controller,SRM,phasor current and voltage.