Abstract

This paper introduces a new technique for controlling the speed of Permanent Magnet Synchronous Motor (PMSM). This technique depends on two well known control methods; the first control method is known the variable structure system (VSS), which has a main advantage known as an sliding mode property. The second method depends on fuzzy logic control. A combination between the two mentioned above methods is suggested in this paper. In addition for simplifying the suggested technique, the model of PMSM is decoupled. Simulation results illustrate the validity and the effectiveness of the new suggested technique.

References

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1442-1446. Analysis of Chattering in Continuous Sliding-Mode Controllers
Chattering Free Robust Control for Nonlinear Systems

Index Terms

Computer Science
Control Systems

Keywords
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