Abstract

The advent of highly efficient and superior digital devices and fast microprocessors for control application has opened the field of discrete time controller design. This paper presents an exciting application of magnetic levitation system using discrete sliding mode control. There is a limited volume of literature available for discrete sliding mode control as applied to magnetic levitation system. This paper presents an application of magnetic levitation system using discrete sliding mode control. In this work, a discrete first order sliding mode control (1-DSMC) and second order sliding mode control (2-DSMC) is investigated in order to show the difference between the both strategies. A comparative study of both the approaches is presented.
Analysis of Discrete Time Sliding Mode Control for a Magnetic Levitation System

References

- G. Bartolini, A. Pisano, and E. Usai. "a Digital 2- sliding control algorithm for a
Analysis of Discrete Time Sliding Mode Control for a Magnetic Levitation System


Index Terms

Computer Science  Control Systems

Keywords

Sliding Mode Control  Single Order Discrete Sliding Mode  Second Order Discrete Sliding Mode
Maglev