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


**Index Terms**

Computer Science

Control Systems

**Keywords**

Sliding Mode Control

Single Order Discrete Sliding Mode

Second Order Discrete Sliding Mode

Maglev