

<<机械系统先进滑模变结构控制>>

图书基本信息

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内容概要

本书从MATLAB仿真角度系统地介绍了机械系统先进滑模变结构控制的基本设计方法，是作者多年来从事控制系统教学与科研工作的结晶，同时融入了国内外同行的新近成果。

全书共分12章，包括滑模变结构控制基本设计方法、基于名义模型的滑模控制、基于线性矩阵不等式和反演的滑模控制、离散滑模控制、动态滑模控制、自适应滑模控制、终端滑模控制、基于观测器的滑模控制、模糊滑模控制、神经网络滑模控制以及针对机器人和飞行器的滑模控制。每种控制方法都通过MATLAB仿真程序进行了仿真分析。

本书适于从事生产过程自动化、计算机应用、机械电子和电气自动化领域工作的工程技术人员阅读，也可作为大专院校相关专业学生的参考教材。

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编辑推荐

《机械系统先进滑模变结构控制:设计、分析及MATLAB仿真》编辑推荐 : Advanced Sliding Mode Control for Mechanical Systems Design, Analysis and MATLAB Simulation takes readers through the basic concepts, covering the most recent research in sliding mode control. "The book is written from the perspective of practical engineering and examines numerous classical sliding mode controllers, including continuous time sliding mode control, discrete time sliding mode control, fuzzy sliding mode control, neural sliding mode control, backstepping sliding mode control, dynamic sliding mode control, sliding mode control based on observer, terminal sliding mode control, sliding mode control for robot manipulators, and sliding mode control for aircraft. This book is intended for engineers and researchers working in the field of control. Dr. Jinkun Liu works at Beijing University of Aeronautics and Astronautics and Dr. Xinhua Wang works at the National University of Singapore.

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