

Digital Control Strategy on Satellite

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Abstract

In this paper, a digital computer control technique is presented for satellite control use. Computer control, stabilizing control, and optimal control are three primary goals of the criteria. Today, almost all satellite control designs embrace one of three strategies. The first, the system can be controlled by digital computer. The second, modular is designed for multiple missions. The third, the overall system is controlled by as less energy as possible. The design strategy in use today, drastically reduces costs and energy with robust stability. The control technique developed in this paper provides new control methods on satellite control design.

Key words: Computer Control; Satellite; Digital Control;
Optimal Control

摘要

在這篇文章中,發表一個介由數位電腦來控制衛星系統的技術。電腦控制,穩定性控制和最佳化控制是三個主要的系統控制目標。現今,大多數的衛星控制設計會至少包括下列其中一項顧慮。第一,系統由數位電腦所控制。第二,系統被設計做為可重複執行任務。第三,整個系統可以用最少的成本來達到任務。這個現今使用的設計策略,大大的降低了成本和使用能量,而且並考慮到系統的強健穩定性。在這篇文章中,依據以上的考量,發展出一個新的衛星控制設計。

關鍵字: 電腦控制;衛星; 數位控制;最佳控制