

综述与评论

适应控制综述

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收稿日期 1991-6-25 修回日期 网络版发布日期 接受日期

摘要

对于适应反馈控制已研究了各种实用的开环方案(增益计划设定等)和闭环方案(模型参考,自校正,模式识别等).这些方案是用以克服过程中大的变化或动态干扰而造成的问题.本文从应用观点综述适应控制的各种方案.讨论了用基准试验进行性能比较评定的必要性.最后,综述了新涌现的专家系统和基于知识控制可能做出的贡献.

关键词 [适应控制](#) [PID调节器](#) [基于知识控制](#)

分类号

A Review of Adaptive Feedback Control

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Abstract

Practical open-loop (gain scheduling) and closed-loop (model reference, self-tuning, pattern recognition) schemes for adaptive feedback control have been developed to overcome problems caused by large variations in process or disturbance in dynamic characteristics. These adaptive feedback control schemes are reviewed from an applications point of view. The need for a comparative performance evaluation through benchmark tests is discussed. Finally, the potential contributions of the emerging technique of expert or knowledge-based control is reviewed.

Key words [Adaptive control](#) [PID controller](#) [knowledge-based control](#)

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