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5.6 Problems6 Robust Control of Nonlinear Systems; 6.1 Introduction; 6.2 Matched Uncertainty; 6.3 Unmatched Uncertainty; 6.4 Uncertainty in the Input Matrix; 6.5 Notes and References; 6.6 Problems; 7 Kharitonov Approach; 7.1 Introduction; 7.2 Preliminary Theorems; 7.3 Kharitonov Theorem; 7.4 Control Design Using Kharitonov Theorem; 7.5 Notes and References; 7.6 Problems; 8 H and H2 Control; 8.1 Introduction; 8.2 Function Space; 8.3 Computation of H2 and H Norms; 8.4 Robust Control Problem as H2 and H Control Problem; 8.5 H2/H<&infinity > Control Synthesis8.6 Notes and References; 8.7 Problems; 9 Robust Active Damping; 9.1 Introduction; 9.2 Problem Formulation; 9.3 Robust Active Damping Design; 9.4 Active Vehicle Suspension System; 9.5 Discussion; 9.6 Notes and References; 10 Robust Control of Manipulators; 10.1 Robot Dynamics; 10.2 Problem Formulation; 10.3 Robust Control Design; 10.4 Simulations; 10.5 Notes and References; 11 Aircraft Hovering Control; 11.1 Modelling and Problem Formulation; 11.2 Control Design for Jet-borne Hovering; 11.3 Simulation; 11.4 Notes and References
Appendix A: Mathematical Modelling of Physical SystemsReferences and Bibliography; Index

Sommario/riassunto

Comprehensive and accessible guide to the three main approaches to robust control design and its applications Optimal control is a mathematical field that is concerned with control policies that can be deduced using optimization algorithms. The optimal control approach to robust control design differs from conventional direct approaches to robust control that are more commonly discussed by firstly translating the robust control problem into its optimal control counterpart, and then solving the optimal control problem. Robust Control Design: An Optimal Control Approach offers

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temperature management patients?; Summary; ICU Telemedicine Solutions; Key points; Intensive care unit telemedicine solutions; Patient safety
Increased access to expertise: a leveraged workforce solutionImproving effectiveness: population management, standardization, and reporting; Intensive care unit telemedicine staffing; Intermittent intensive care unit telemedicine; Financial considerations; Summary; Supportive Care; Controversies and Misconceptions in Intensive Care Unit Nutrition; Key points; Introduction; Answers to common misconceptions in intensive care unit nutrition; Other controversies in intensive care unit nutrition; Summary; Sleep Loss and Circadian Rhythm Disruption in the Intensive Care Unit; Key points
IntroductionConsequences of intensive care unit sleep disruption; Sources of intensive care unit sleep disruption; Management goals; Pharmacologic strategies; Nonpharmacologic strategies; Self-management strategies; Summary/Discussion; Barriers and Challenges to the Successful Implementation of an Intensive Care Unit Mobility Program; Key points; Introduction; The challenge of early intensive care unit mobilization as a change initiative; Start by letting go of the idea of changing culture; Planning for change at a leadership level Understanding the psychology of change and motivation at an individual level