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Discrete-Time Tracking Problem; 4.5 Discrete Regulator with Function of Final State Fixed; 4.6 Discrete Second-Order Variations in the Performance Index; Problems
5 Final-Time-Free And Constrained Input Control5.1 Final-Time-Free Problems; 5.2 Constrained Input Problems; Problems; 6 Dynamic Programming; 6.1 Bellman's Principle of Optimality; 6.2 Discrete-Time Systems; 6.3 Continuous-Time Systems; Problems; 7 Optimal Control for Polynomial Systems; 7.1 Discrete Linear Quadratic Regulator; 7.2 Digital Control of Continuous-Time Systems; Problems; 8 Output Feedback and Structured Control; 8.1 Linear Quadratic Regulator with Output Feedback; 8.2 Tracking a Reference Input; 8.3 Tracking by Regulator Redesign; 8.4 Command-Generator Tracker
8.5 Explicit Model-Following Design8.6 Output Feedback in Game Theory and Decentralized Control; Problems; 9 Robustness And Multivariable Frequency-Domain Techniques; 9.1 Introduction; 9.2 Multivariable Frequency-Domain Analysis; 9.3 Robust Output-Feedback Design; 9.4 Observers and the Kalman Filter; 9.5 LQG/Loop-Transfer Recovery; 9.6 H8 DESIGN; Problems; 10 Differential Games; 10.1 Optimal Control Derived Using Pontryagin's Minimum Principle and the Bellman Equation; 10.2 Two-player Zero-sum Games; 10.3 Application of Zero-sum Games to H8 Control; 10.4 Multiplayer Non-zero-sum Games
11 Reinforcement Learning and Optimal Adaptive Control11.1 Reinforcement Learning; 11.2 Markov Decision Processes; 11.3 Policy Evaluation and Policy Improvement; 11.4 Temporal Difference Learning and Optimal Adaptive Control; 11.5 Optimal Adaptive Control for Discrete-time Systems; 11.6 Integral Reinforcement Learning for Optimal Adaptive Control of Continuous-time Systems; 11.7 Synchronous Optimal Adaptive Control for Continuous-time Systems; Appendix a Review of Matrix Algebra; A.1 Basic Definitions and Facts; A.2 Partitioned Matrices; A.3 Quadratic Forms and Definiteness
A.4 Matrix Calculus

Sommario/riassunto

A new edition of the classic text on optimal control theory As a superb introductory text and an indispensable reference, this new edition of Optimal Control will serve the needs of both the professional engineer and the advanced student in mechanical, electrical, and aerospace engineering. Its coverage encompasses all the fundamental topics as well as the major changes that have occurred in recent years. An abundance of computer simulations using MATLAB and relevant Toolboxes is included to give the reader the actual experience of applying the theory to real-world situations. Major t