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Nota di contenuto	Chapter 1 Introduction -- Chapter 2 Basics Of Time-Delay Systems And Their Applications -- Chapter 3 Chapter Title: Integral/Summation Inequalities -- Chapter 4 Stability Analysis For Linear Systems With Time-Delays -- Chapter 5 Stability Analysis For Lur'e Systems Of Neutral-Type With Time-Varying Delays -- Chapter 6 Stability Analysis Of Neural Networks With Various Types Of Time Delays -- Chapter 7 Control Design For Ts Fuzzy Systems With Time-Delays -- Chapter 8 Delayed Feedback Control Of Chaotic Lur's Systems -- Chapter 9 H1 Control For Complex Dynamical Networks With Coupling Delays -- Chapter 10 H1 State Estimation Of Static Neural Networks With Time Varying Delays -- Chapter 11 State Estimation For Genetic Regulatory Networks With Leakage Delays And Time-Varying Delays -- Chapter 12 Secure Communication Based On Synchronization Of Chaotic Systems

With Channel Delay.

Sommario/riassunto

This book presents up-to-date research developments and novel methodologies to solve various stability and control problems of dynamic systems with time delays. First, it provides the new introduction of integral and summation inequalities for stability analysis of nominal time-delay systems in continuous and discrete time domain and presents corresponding stability conditions for the nominal system and an applicable nonlinear system. Next, it investigates several control problems for dynamic systems with delays including $H(\infty)$ control problem; Event-triggered control problem; Dynamic output feedback control problem; Reliable sampled-data control problem. Finally, some application topics covering filtering problem, state estimation, and synchronization are considered. It can be a valuable resource and guide for graduate students, researchers, scientists, and engineers in the field of system sciences and control communities.
