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Nota di contenuto	Singular perturbation approach for linear coupled ODE-PDE systems -- On some neutral functional differential equations occurring in synchronization -- Dynamic Dissipativity Theory for Stability of Time- Delay Systems -- Stability of interconnected uncertain delay systems: a converse Lyapunov approach -- ISS-stabilization of delayed neural elds by small-gain arguments -- Robustness of delayed multistable systems -- A Small-Gain Method for the Design of Decentralized Stabilizing Controllers for Interconnected Systems with Delays -- Stability Analysis of Uniformly Distributed Delay Systems: A Frequency- Sweeping Approach -- Asymptotic Analysis of Multiple Characteristics Roots for Quasi polynomials of Retarded-Type -- Scanning the Space

of Parameters for Stability Regions of a Class of Time-Delay Systems; a Lyapunov Matrix Approach.

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Sommario/riassunto

This book contains advances on the theory and applications of time-delay systems with particular focus on interconnected systems. The methods for stability analysis and control design are based on time-domain and frequency-domain approaches, for continuous-time and sampled-data systems, linear and nonlinear systems. This volume is a valuable source of reference for control practitioners, graduate students, and scientists researching practical as well as theoretical solutions to a variety of control problems inevitably influenced by the presence of time delays. The contents are organized in three parts: Interconnected Systems analysis, Modeling and Analysis for Delay systems, and Stabilization and Control Strategies for Delay Systems. This volume presents a selection of 19 contributions presented in the 4th DelSys Workshop which took place in Gif-sur-Yvette, France November 25-27, 2015.

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