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Soggetti	Automatic control Artificial intelligence System theory Control and Systems Theory Artificial Intelligence Systems Theory, Control
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	<p>Stabilization of Nonlinear Delay Systems: A Tutorial on Recent Results</p> <p>-- Robust Stabilization of Nonlinear Globally Lipschitz Delay Systems</p> <p>-- Back stepping Designs in the Presence of Non-constant Delays on the Virtual Input</p> <p>-- Prediction-Based Control of Linear Systems by Compensating Input-Dependent Input Delay of Integral-Type</p> <p>-- State Estimation and Control of Nonlinear Systems with Large and Variable Measurement Delays</p> <p>-- On the Existence of the Normal Form for Nonlinear Delay Systems</p> <p>-- Compensating for Fatigue-Induced Time-Varying Delayed Muscle Response in Neuromuscular Electrical Stimulation Control</p> <p>-- Global and Local Weighted Homogeneity for Time-Delay Systems</p> <p>-- Sliding Mode Observer for Robust Fault Reconstruction of Time Delay Systems</p> <p>-- A Lyapunov-Krasovskii Methodology for a Class of Large-Scale Neutral Systems in an iISS Framework</p> <p>-- Input-to-State Stability of Switched Systems with Time Delays</p> <p>-- A Note on Converse Lyapunov Theorems for Neutral Systems</p> <p>-- Hybrid Dynamical Systems with Finite Memory</p> <p>-- Control-Oriented</p>

Modeling of Fluid Networks: A Time-Delay Approach -- Finite Spectrum Assignment for Nonlinear Time-delay Systems -- Improved Stability Criteria for Sampled-Data Systems with Input Saturations -- Inversion of State-Dependent Delay -- Sliding Mode Observer Based-Controller Design for Nonlinear Systems with Time Varying Delay -- An LMI Approach to Control of Exponentially Unstable Systems Subject to Saturation and Time-Varying Delay in the Input -- Identifiability and Observability of Nonlinear Time-Delay Systems with Unknown Inputs.

**Sommario/riassunto**

This volume collects recent advances in nonlinear delay systems, with an emphasis on constructive generalized Lyapunov and predictive approaches that certify stability properties. The book is written by experts in the field and includes two chapters by Miroslav Krstic, to whom this volume is dedicated. This volume is suitable for all researchers in mathematics and engineering who deal with nonlinear delay control problems and students who would like to understand the current state of the art in the control of nonlinear delay systems.