1. Record Nr. UNINA9910254237703321

Titolo	Delays and Networked Control Systems / / edited by Alexandre Seuret, Laurentiu Hetel, Jamal Daafouz, Karl H. Johansson
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-32372-5
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XIII, 272 p. 46 illus., 36 illus. in color.)
Collana	Advances in Delays and Dynamics, , 2197-117X ; ; 6
Disciplina	629.8
Soggetti	Control engineering System theory Calculus of variations Computational complexity Robotics Automation Control and Systems Theory Systems Theory, Control Calculus of Variations and Optimal Control; Optimization Complexity Robotics and Automation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	On the Codimension of the Singularity at the Origin for Networked Delay Systems -- Stability and Stabilization for Continuous-Time Difference Equations with Distributed Delay -- Model Reduction for Norm Approximation: An Application to Large-Scale Time-Delay Systems -- General Formula for Event-based Stabilization of Nonlinear Systems with Delays in the State -- Analysis of Bilinear Systems with Sampled-Data State Feedback -- On the Stability Analysis of Sampled-Data Systems with Delays -- Output Feedback Event-Triggered Control -- Stabilization by Quantized Delayed State Feedback -- Discrete-time Networked Control under Scheduling Protocols -- Stabilization of Networked Control Systems with Hyper-Sampling Periods -- Optimal

Control Strategies for Load Carrying Drones -- Delays in Distributed Estimation and Control over Communication Networks -- Design and Analysis of Reset Strategy for Consensus in Networks with Cluster Pattern -- Synthesis of Distributed Control Laws for Multi-Agent Systems using Delayed Relative Information with LQR Performance.- Topology Preservation for Multi-Agent Networks: Design and Implementation.

Sommario/riassunto

This edited monograph includes state-of-the-art contributions on continuous time dynamical networks with delays. The book is divided into four parts. The first part presents tools and methods for the analysis of time-delay systems with a particular attention on control problems of large scale or infinite-dimensional systems with delays. The second part of the book is dedicated to the use of time-delay models for the analysis and design of Networked Control Systems. The third part of the book focuses on the analysis and design of systems with asynchronous sampling intervals which occur in Networked Control Systems. The last part of the book exposes several contributions dealing with the design of cooperative control and observation laws for networked control systems. The target audience primarily comprises researchers and experts in the field of control theory, but the book may also be beneficial for graduate students. .