1.
Record Nr.	UNINA9910484199003321
Autore	Park Ju H
Titolo	Recent Advances in Control and Filtering of Dynamic Systems with Constrained Signals / / by Ju H. Park, Hao Shen, Xiao-Heng Chang, Tae H. Lee
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-319-96202-7
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (240 pages)
Collana	Studies in Systems, Decision and Control, , 2198-4190 ; ; 170
Disciplina	629.8312
Soggetti	Control engineering
	Computational intelligence
	Control and Systems Theory
	Computational Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Network-based Control with Asynchronous Samplings and Quantizations -- Quantized Static Output Feedback Control For Discrete-Time Systems -- Sampled-Data Control for a Class of Linear Systems with Randomly Occurring Missing Data -- Reliable Event-triggered Retarded Dynamic Output Feedback H Control for Networked Systems -- Reliable H Event-triggered Control for Markov Jump Systems -- Fuzzy Resilient Energy-to-Peak Filter Design for Continuous-time Nonlinear Systems -- Fuzzy Generalized H2 Filtering For Nonlinear Discrete-Time Systems With Measurement Quantization -- Event-triggered Dissipative Filtering for Networked semi-Markov Jump Systems -- Network-based H State Estimation for Neural Networks Using Limited Measurement -- Mixed H/passive Synchronization for Complex Dynamical Networks with Sampled-data Control -- Index.
Sommario/riassunto	This book introduces the principle theories and applications of control and filtering problems to address emerging hot topics in feedback systems. With the development of IT technology at the core of the 4th industrial revolution, dynamic systems are becoming more sophisticated, networked, and advanced to achieve even better

performance. However, this evolutionary advance in dynamic systems also leads to unavoidable constraints. In particular, such elements in control systems involve uncertainties, communication/transmission delays, external noise, sensor faults and failures, data packet dropouts, sampling and quantization errors, and switching phenomena, which have serious effects on the system's stability and performance. This book discusses how to deal with such constraints to guarantee the system's design objectives, focusing on real-world dynamical systems such as Markovian jump systems, networked control systems, neural networks, and complex networks, which have recently excited considerable attention. It also provides a number of practical examples to show the applicability of the presented methods and techniques. This book is of interest to graduate students, researchers and professors, as well as R&D engineers involved in control theory and applications looking to analyze dynamical systems with constraints and to synthesize various types of corresponding controllers and filters for optimal performance of feedback systems.