Record Nr. UNINA9910299839603321 Autore Peng Chen Titolo Communication and Control for Networked Complex Systems / / by Chen Peng, Dong Yue, Qing-Long Han Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, , 2015 **ISBN** 3-662-46813-1 Edizione [1st ed. 2015.] 1 online resource (172 p.) Descrizione fisica Disciplina 005.7 519 620 621.382 629.8 Vibration Soggetti Dynamical systems **Dynamics** Electrical engineering Control engineering System theory Computers Vibration, Dynamical Systems, Control Communications Engineering, Networks Control and Systems Theory Systems Theory, Control Information Systems and Communication Service Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali

Nota di bibliografia Includes bibliographical references and index.

Nota di contenuto Introduction -- Preliminaries: modeling, communication scheme and

lemmas for NCSs -- Part I Communication-delay-distributiondependent method NCSs -- Delay distribution dependent control for networked linear control systems -- Delay distribution dependent control for networked Takagi-Sugeno fuzzy systems -- Decentralized

control for IP-based large-scale systems -- Part II Necessary

Sommario/riassunto

communication based method for control design of NCSs -- H¥ filtering for NCSs with an adaptive event-triggering communication -- Co-design of event-triggered communication scheme and H¥ controller for NCSs -- Self-triggered sampling scheme for NCSs -- A mixed sampling scheme for wireless networked control systems -- Event-triggered control for networked Takagi-Sugeno fuzzy systems.

This book reports on the latest advances in the study of Networked Control Systems (NCSs). It highlights novel research concepts on NCSs; the analysis and synthesis of NCSs with special attention to their networked character; self- and event-triggered communication schemes for conserving limited network resources; and communication and control co-design for improving the efficiency of NCSs. The book will be of interest to university researchers, control and network engineers, and graduate students in the control engineering, communication and network sciences interested in learning the core principles, methods, algorithms and applications of NCSs.