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Titolo	Control Strategies and Co-Design of Networked Control Systems : Considering Time Delay Effects // by Héctor Benítez-Pérez, Jorge L. Ortega-Arjona, Paul E. Méndez-Monroy, Ernesto Rubio-Acosta, Oscar A. Esquivel-Flores
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Collana	Modeling and Optimization in Science and Technologies, , 2196-7326 ; ; 13
Disciplina	629.83
Soggetti	Automatic control Computer networks Electrical engineering System theory Control and Systems Theory Computer Communication Networks Communications Engineering, Networks Systems Theory, Control
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Nota di contenuto	Introduction to Networked Control Systems -- Modelling of Networked Control Systems -- Distributed Systems Modelling -- Design of Networked Control System -- Control Design considering Mobile Computing -- Applications -- Conclusions. .
Sommario/riassunto	This book presents Networked Control System (NCS) as a particular kind of a real-time distributed system (RTDS), composed of a set of nodes, interconnected by a network, and able to develop a complete control process. It describes important parts of the control process such as sensor and actuator activities, which rely on a real-time operating system, and a real-time communication network. As the use of common bus network architecture introduces different forms of uncertainties between sensors, actuators, and controllers, several

approaches such as reconfigurable systems have been developed to tackle this problem. Moreover, modeling NCS is a challenging procedure, since there are several non-linear situations, like local saturations, uncertain time delays, dead-zones, or local situations, it is necessary to deal with. The book describes a novel strategy for modelling and control based on a fuzzy control approach and codesign strategies.
