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Collana	Lecture Notes in Networks and Systems, , 2367-3389 ; ; 509
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Soggetti	Automatic control Robotics Automation Telecommunication Control and Systems Theory Control, Robotics, Automation Communications Engineering, Networks
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Sommario/riassunto	This book is a collection of the latest research findings in such areas as networked multi-agent systems, co-design of communication and control, distributed control strategies that can cope with asynchrony between local loops, event-triggered control, modelling of network infrastructure, novel concepts of distributed control for networked and cyber-physical systems. The book contains the result of the latest research in the field of communication and control system design to support networked control systems with stringent real-time requirements. It introduces readers to research in the field of joint design of the control and communication protocol and presents the latest developments in the area of novel optimal control and scheduling designs under resource constraints. The book also covers the issues of

creating emerging information and communication technologies for traffic estimation and control, connected and autonomous technology applications and modelling for commercial and shared vehicle operations. The reader will find information on emerging cyber-physical systems, networked multi-agent systems, large-scale distributed energy systems, as well as on real-time systems, safety and security systems. A significant block of studies is devoted to the topic of transitions towards electrification and automation of vehicles. Modern concepts of road infrastructure construction are described in detail in the presented research papers. Automotive industry professionals will be particularly interested in the sections on the novel mechanisms for medium access in multi-hop wireless networks with real-time requirements, optimal layering architecture and co-design for wireless communication. The book will be incredibly interesting for researchers interested in human–digital interfaces, industrial Internet of Things, artificial intelligence and machine learning.
