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Disciplina	629.8312
Soggetti	Automatic control System theory Systems biology Biomathematics Electrical engineering Power electronics Control and Systems Theory Systems Theory, Control Systems Biology Mathematical and Computational Biology Communications Engineering, Networks Power Electronics, Electrical Machines and Networks
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Nota di contenuto	Collective Control of Multiple Constant-Speed UAVs with Wind Effect -- Optimization for Metabolic Rate Estimation in Hyperpolarized Carbon-13 MRI -- Control and Systems Theory for Advanced Manufacturing -- Network Systems in Science and Technology -- Robustness Scaling in Large Networks -- Feedback Control for Distributed MIMO Communications -- Control Systems Theory Applications in Synthetic Biology -- Manipulating Time: A Model Predictive Control Approach to Circadian Entrainment -- Robust Transportation on Graphs -- Identification of Dynamical Networks -- Hierarchical Decentralized

Control for Networked Dynamical Systems with Global/Local Objectives -- Dynamic Modelling of Bacterial Plasmids: Transfer and Curing within Populations -- Novel Systems and Control Directions in Integration of Renewable Electric Energy into Power Grids -- The Prices of Packets and Watts -- System Completion Problem: Theory and Applications -- Optimal Actuator/Sensor Location for Distributed Parameter Systems -- Feedback and Control in Biological Circuit Design -- Privacy in Networks of Interacting Agents -- Differential Analysis of Nonlinear Feedback Circuits -- Characterization of Distributed Controllers for Multi-Agent Coordination -- Curvature and the Robustness of Biological Networks -- Networked Parallel Algorithms for Robust Convex Optimization with Nonlinear Uncertainties -- On the Consensus Problem for Multi-Agent Systems with Positivity Constraints -- Hypertracking beyond the Nyquist Frequency.

Sommario/riassunto

This book celebrates Professor Mathukumalli Vidyasagar’s outstanding achievements in systems, control, robotics, statistical learning, computational biology, and allied areas. The contributions in the book summarize the content of invited lectures given at the workshop “Emerging Applications of Control and Systems Theory” (EACST17) held at the University of Texas at Dallas in late September 2017 in honor of Professor Vidyasagar’s seventieth birthday. These contributions are the work of twenty-eight distinguished speakers from eight countries and are related to Professor Vidyasagar’s areas of research. This Festschrift volume will remain as a permanent scientific record of this event.