Contents

Modeling and Control of Autonomous Helicopters
Manuel Béjar, Anibal Ollero, Federico Cuesta 1

Efficient Quantization in the Average Consensus Problem
Ruggero Carli, Sandro Zampieri 31

Human-Robot Interaction Control Using Force and Vision
Agostino De Santis, Vincenzo Lippiello, Bruno Siciliano, Luigi Villani... 51

A Dissipation Inequality for the Minimum Phase Property of Nonlinear Control Systems
Christian Ebenbauer, Frank Allgöwer 71

Input Disturbance Suppression for Port-Hamiltonian Systems: An Internal Model Approach
Luca Gentili, Andrea Paoli, Claudio Bonivento 85

A Systems Theory View of Petri Nets
Alessandro Giua, Carla Seatzu..... 99

Wireless Sensing with Power Constraints
Orhan C. Imer, Tamer Başar 129

The Important State Coordinates of a Nonlinear System
Arthur J. Krener 161

On Decentralized and Distributed Control of Partially-Observed Discrete Event Systems
Stéphane Lafortune..... 171

A Unifying Approach to the Design of Nonlinear Output Regulators
Lorenzo Marconi, Alberto Isidori 185

Controller Design Through Random Sampling: An Example
Maria Prandini, Marco C. Campi, Simone Garatti 201

Digital Control of High Performance Power Supplies for a Synchrotron Light Source
Carlo Rossi, Andrea Tilli, Manuel Toniato 213

Distributed PCHD-Systems, from the Lumped to the Distributed Parameter Case
Kurt Schlacher 239

Observability and the Design of Fault Tolerant Estimation Using Structural Analysis
Marcel Staroswiecki 257

Robust Hybrid Control Systems: An Overview of Some Recent Results
Andrew R. Teel 279

List of Contributors 303