



Fundamental Issues in Control

Contents

Editorial S. Bittanti	87
Report on the ECC 2005 E. Camacho	88
Guest Editorial S.G. Tzafestas, P.J. Antsaklis	90
Control Challenges in Automotive Engine Management S. Karagiorgis, K. Glover, N. Collings	92
Security and Trust for Wireless Autonomic Networks: Systems and Control Methods J.S. Baras	105
Dissipative Dynamical Systems J.C. Willems	134
Multiparametric Linear Programming with Applications to Control C.N. Jones, M. Barić, M. Morari	152
Walking Primitive Databases for Perception-Based Guidance Control of Biped Robots J. Denk, G. Schmidt	171
Monte Carlo and Las Vegas Randomized Algorithms for Systems and Control: An Introduction R. Tempo, H. Ishii	189
Stabilization of Uncertain Nonlinear Systems via Immersion and Invariance A. Astolfi, D. Karagiannis, R. Ortega	204

Advanced Tools for Nonlinear Sampled-Data Systems' Analysis and Control S. Monaco, D. Normand-Cyrot	221
Identification of Hybrid Systems: A Tutorial S. Paoletti, A.Lj. Juloski, G. Ferrari-Trecate, R. Vidal	242
A Component-Based Approach to the Design of Networked Control Systems K.-E. Årzén, A. Bicchi, G. Dini, S. Hailes, K.H. Johansson, J. Lygeros, A. Tzes	261
A Generic Strategy for Fault-Tolerance in Control Systems Distributed over a Network R.J. Patton, C. Kambhampati, A. Casavola, P. Zhang, S. Ding, D. Sauter	280
Motorway Traffic Surveillance and Control I. Papamichail, M. Papageorgiou, Y. Wang	297
Intelligent Control of Unmanned Aerial Vehicles for Improved Autonomy P. Jones, B. Ludington, J. Reimann and G. Vachtsevanos	320