

IEEE TRANSACTIONS ON CONTROL SYSTEMS TECHNOLOGY



A PUBLICATION OF THE IEEE CONTROL SYSTEMS SOCIETY

JANUARY 2011

VOLUME 19

NUMBER 1

IETTE2

(ISSN 1063-6536)

SPECIAL ISSUE ON APPLIED LPV MODELING AND IDENTIFICATION

GUEST EDITORIAL

Special Issue on Applied LPV Modeling and Identification *M. Lovera, C. Novara, P. L. dos Santos, and D. Rivera* 1

SPECIAL ISSUE PAPERS

| | |
|--|-----|
| Direct Identification of Optimal SM-LPV Filters and Application to Vehicle Yaw Rate Estimation | 5 |
| <i>C. Novara, F. Ruiz, and M. Milanese</i> | |
| Design and Validation of a Gain-Scheduled Controller for the Electronic Throttle Body in Ride-by-Wire Racing Motorcycles | 18 |
| <i>M. Corno, M. Tanelli, S. M. Savaresi, and L. Fabbri</i> | |
| Linear Parameter Varying Identification of Freeway Traffic Models | 31 |
| <i>T. Luspáy, B. Kulcsár, J.-W. van Wingerden, M. Verhaegen, and J. Bokor</i> | |
| Interpolation-Based Modeling of MIMO LPV Systems | 46 |
| <i>J. De Caigny, J. F. Camino, and J. Swevers</i> | |
| Continuous-Time Linear Parameter-Varying Identification of a Cross Flow Heat Exchanger: A Local Approach | 64 |
| <i>G. Mercère, H. Palsson, and T. Poinot</i> | |
| An LPV Modeling and Identification Approach to Leakage Detection in High Pressure Natural Gas Transportation Networks | 77 |
| <i>P. Lopes dos Santos, T.-P. Azevedo-Perdicoulis, J. A. Ramos, J. L. M. de Carvalho, G. Jank, and J. Milhinhos</i> | |
| Identification of LPV State Space Models for Autonomic Web Service Systems | 93 |
| <i>M. Tanelli, D. Ardagna, and M. Lovera</i> | |
| Development of an Integrated LPV/LFT Framework: Modeling and Data-Based Validation Tool | 104 |
| <i>Z. Szabó, A. Marcos, D. Mostaza, M. Kerr, G. Rödönyi, J. Bokor, and S. Bannani</i> | |
| Generation of Optimal Linear Parametric Models for LFT-Based Robust Stability Analysis and Control Design | 118 |
| <i>H. Pfifer and S. Hecker</i> | |

(Contents Continued on Back Cover)

请阅后放回:

排架号 E229 处



SPECIAL ISSUE BRIEF PAPERS

Computation of a Flexible Aircraft LPV/LFT Model Using Interpolation *G. Ferreres* 132

Frequency-Weighted Discrete-Time LPV Model Reduction Using Structurally Balanced Truncation *H. S. Abbas and H. Werner* 140

Identification of Piecewise Affine LFR Models of Interconnected Systems *E. Pepona, S. Paoletti, A. Garulli, and P. Date* 148

REGULAR ISSUE PAPERS

Dual-Stage Vertical Feedback for High-Speed Scanning Probe Microscopy *A. J. Fleming* 156

A Norm Optimal Approach to Time-Varying ILC With Application to a Multi-Axis Robotic Testbed *K. L. Barton and A. G. Alleyne* 166

Discrete-Time Complementary Filters for Attitude and Position Estimation: Design, Analysis and Experimental Validation *J. F. Vasconcelos, B. Carneira, C. Silvestre, P. Oliveira, and P. Batista* 181

Supervisory Predictive Control of Standalone Wind/Solar Energy Generation Systems *W. Qi, J. Liu, X. Chen, and P. D. Christofides* 199

Control of Coupled Vessel, Crane, Cable, and Payload Dynamics for Subsea Installation Operations *B. V. E. How, S. S. Ge, and Y. S. Choo* 208

REGULAR ISSUE BRIEF PAPERS

Reliable Control of Ship-Mounted Satellite Tracking Antenna *M. N. Soltani, R. Izadi-Zamanabadi, and R. Wisniewski* 221

Torque Observers Design for Spark Ignition Engines With Different Intake Air Measurement Sensors *M. Hong, T. Shen, M. Ouyang, and J. Kako* 229

Optimal Excitation for Nonparametric Identification of Viscoelastic Materials *A. Rensfelt and T. Söderström* 238