

Contents

1	Observer Design for Discrete-Time Switched Lipschitz Nonlinear Singular Systems with Time Delays and Unknown Inputs	1
	Jinxing Lin	
2	Anti-disturbance Control for Nonlinear Systems with Mismatched Disturbances Based on Disturbance Observer	11
	Lingyan Zhang and Xinjiang Wei	
3	Distributed Optimization for Continuous-Time Multi-Agent Systems with External Disturbance and Discrete-Time Communication	19
	Zhenhua Deng and Yiguang Hong	
4	Camera Calibration Implementation Based on Zhang Zhengyou Plane Method	29
	Pingping Lu, Qing Liu and Jianming Guo	
5	Online Identification and Robust Adaptive Control for Discrete Hysteresis Preisach Model	41
	Xuehui Gao, Xuemei Ren, Chengyuan Zhang and Changsheng Zhu	
6	Switching Control for Multi-motor Driving Servo System with Uncertain Parameters	51
	Wei Zhao and Xuemei Ren	
7	Method of Fault Diagnosis Based on SVDD-SVM Classifier	63
	Feng Lv, Hua Li, Hao Sun, Xiang Li and Zeyu Zhang	

8	Second-Order Sliding Mode Control for BUCK Converters	69
	Jiadian Wang and Shihong Ding	
9	Open-World Planning Algorithm Based on Logic.	77
	Jie Gao, Ya-song Liu and Rui Bian	
10	Apple Nighttime Images Enhancement Algorithm for Harvesting Robot	85
	Xingqin Lv, Bo Xu, Wei Ji, Gang Tong and Dean Zhao	
11	Research on Grasping Planning for Apple Picking Robot's End-Effector.	95
	Feiyu Liu, Wei Ji, Wei Tang, Bo Xu and Dean Zhao	
12	Extended State Observer Based Sliding Mode Control for Mechanical Servo System with Friction Compensation	105
	Chenhang Li and Qiang Chen	
13	Local Linear Discriminant Analysis Using ℓ_2-Graph	115
	Ya Gu, Caikou Chen, Yu Wang and Rong Wang	
14	A New Detecting and Tracking Method in Driver Fatigue Detection	123
	Yang Yu, Xiaobin Li and Haiyan Sun	
15	A Multi-objective Dual-Resource Shop Scheduling Model Considering the Differences Between Operational Efficiency	131
	Weizhong Wang, Jialian Wang, Chencheng Ma, Zhenqiang Bao and Richao Yin	
16	A Vision-Based Traffic Flow Detection Approach.	143
	Hongpeng Yin, Kun Zhang and Yi Chai	
17	The Research of High-Definition Video Processing System Based on SOC	153
	Jian Gao, Xiaofu Zou, Yue Zhang and Fei Tao	
18	A Study on Feature Extraction of Surface Defect Images of Cold Steel.	163
	Yingjun Guo, Xiaoye Ge, Hexu Sun and Xueling Song	

19 Consensus of Multi-agent System with Singular Dynamics and Time Delay	173
Hua Geng, Zengqiang Chen, Zhongxin Liu and Qing Zhang	
20 Data-Driven Filter Design for Linear Networked Systems with Bounded Noise	183
Yuanqing Xia, Li Dai, Wen Xie and Yulong Gao	
21 Distributed Finite-Time Coordination Control for 6DOF Spacecraft Formation Using Nonsingular Terminal Sliding Mode	195
Fangya Gao and Yingmin Jia	
22 A Comparative Study on Optimal Transient Control of Aircraft Engines	205
Yang Gao, Jiqiang Wang, Xin Wu, Zhifeng Ye, Zhongzhi Hu and Georgi Dimirovski	
23 Region-Based Shape Control for Multi-Robot Systems with Uncertain Kinematics and Dynamics	213
Jia Yu, Yingmin Jia and Changqing Chen	
24 Image Threshold Processing Based on Simulated Annealing and OTSU Method	223
Yue Zhang, Hong Yan, Xiaofu Zou, Fei Tao and Lin Zhang	
25 Fault Tolerant Tracking Control for a Team of Non-Minimum Phase VTOL Aircrafts Based on Virtual Leader Structure	233
Shuyao Cheng, Hao Yang and Bin Jiang	
26 Sliding Mode Fault-Tolerant Control for Air-Breathing Hypersonic Vehicles with External Disturbances	243
Wei Huang and Yingmin Jia	
27 On Indirect Model Reference Adaptive Learning Control.	253
Wen Du	
28 Stereo Vision Pose Estimation for Moving Objects by the Interacting Multiple Model Method.	263
Ying Peng, Shihao Sun, Yingmin Jia and Changqing Chen	
29 A Carrier Tracking Algorithm of Kalman Filter Based on Combined Maneuvering Target Model	273
Zhulin Xiong, Shijie Ren, Celun Liu and Jianping An	

30 Smooth Time-Varying Formation Control of Multiple Nonholonomic Agents	283
Chenghui Yang, Wenjing Xie, Chen Lei and Baoli Ma	
31 Robust Stability Analysis for Uncertain Time-Delay System	293
Wenfang Xin, Yaoyong Duan, Yi Luo and Qingmei Ji	
32 Interconnection Power Converter for Multi-Rail DC Distribution System	303
Huiyang Lu, Yuru Zhu, Ying Hua, Wei Jiang and Nailu Li	
33 Sensitivity Analysis and Simulation of Performance for $M/G/1/K$ Queuing Systems	313
Liping Yin, Hongyan Zhang, Lihua Wang and Li Zhou	
34 Bayesian Network Structure Learning Algorithms of Optimizing Fault Sample Set.	321
Hongyang Guo, Rupei Zhang, Jiaqi Yong and Bin Jiang	
35 The Face to Face and Teleoperation by Using Remote Control of Robots	331
Xue Wang and Chaoli Wang	
36 Robust Adaptive Control for Robotic Systems with Guaranteed Parameter Estimation	341
Baorui Jing, Jing Na, Guanbin Gao and Guoqing Sun	
37 Cross-Media Big Data Tourism Perception Research Based on Multi-Agent	353
Dong Guan and Junping Du	
38 Location and Navigation Study of Laser Base Station	361
Peng Wang, Weicun Zhang and Yuzhen Zhang	
39 Sentiment Analysis Based on Evaluation of Tourist Attractions	375
Zhicheng Ma, Junping Du and Yipeng Zhou	
40 Target Localization and Tracking of Unmanned Mining Equipment Based on Multi-sensor Information Fusion Technology	383
Xuan Li, Jiannan Chi and Weicun Zhang	

41 Improved Robust Multiple Model Adaptive Control of the Two-Cart Mass-Spring-Damper System with Uncertainties.	393
Ya Wang, Baoyong Zhao and Weicun Zhang	
42 An Improved Laplacian Eigenmaps Algorithm for Nonlinear Dimensionality Reduction	403
Wei Jiang, Nan Li, Hongpeng Yin and Yi Chai	
43 A Distributed Charging and Discharging Coordination for Large-Population Plug-In Electric Vehicles.	415
Huiling Li and Zhongjing Ma	
44 3D Model Classification Based on Transductive Support Vector Machines.	425
Qiang Cai, Zhongping Si and Haisheng Li	
45 Robot Localization Based on Optical-Flow Sensor Array	435
Shaoxian Wang, Mingxiao He, Guoli Wang and Xuemei Guo	
46 Composite Continuous Anti-disturbance Autopilot Design for Missile System with Mismatched Disturbances	447
Xinge Liu, Haibin Sun and Jiayuan Shan	
47 On Three-Player Potential Games	457
Xinyun Liu and Jiandong Zhu	
48 Flocking of Multi-Agent Systems with Multiple Virtual Leaders Based on Connectivity Preservation Approach	465
Zonggang Li, Chen Na and Guangming Xie	
49 An Adaptive Weighted One-Class SVM for Robust Outlier Detection	475
Jinhong Yang, Tingquan Deng and Ran Sui	
50 An Improved Kalman Filter for Fractional Order System with Measurement Lévy noise	485
Yi Wang, Yonghui Sun, Zhenyang Gao, Xiaopeng Wu and Chao Yuan	
51 Nonlinear Control of Inertial Wheel Pendulum and Its Implementation Based on STM32	493
Yan Lixia and Ma Baoli	

52	Intermittent Synchronization of Cascaded Boolean Networks with Time Delays	503
	Zhengdong Yang and Tianguang Chu	
53	Overhead Transmission Line Condition Evaluation Based on Improved Scatter Degree Method	511
	Guoqiang Sun, Chao Zhu, Ming Ni and Zhinong Wei	
54	A Novel Driving Method for Switching Control Pulse Signal	523
	Jin-Yan Zheng, Yu Fang, Pan Xu and Qi-Qi Zhao	
55	Study of Transformer Fault Diagnosis Based on DGA and Coupled HMM	535
	Hao Guo, Zhinong Wei, Ming Ni, Guoqiang Sun and Yonghui Sun	
56	On Regular Subspaces of Boolean Control Networks	545
	Jiandong Zhu and Pengjing Jü	
57	Research on Evolution and Simulation of Transaction Process in Cloud Manufacturing	553
	Chun Zhao, Lin Zhang, Bowen Li, Jin Cui, Lei Ren and Fei Tao	
58	Robust Output Feedback Control of Civil Aircrafts with Unknown Disturbance	563
	Mengjie Wei, Mou Chen and Qingxian Wu	
59	Photovoltaic System Power Generation Forecasting Based on Spiking Neural Network	573
	Tong Chen, Guoqiang Sun, Zhinong Wei, Huijie Li, Kwok W. Cheung and Yonghui Sun	
60	Stochastic Stabilization of a Class of Nonlinear Systems with Sampled Data Control	583
	Yueling Shen and Wenbing Zhang	
61	A Reconfigurability Evaluation Method for Satellite Control System	593
	Heyu Xu, Dayi Wang and Wenbo Li	
62	LS-SVM Generalized Predictive Control Based on PSO and Its Application of Fermentation Control	605
	Li Huang, Zhaohua Wang and Xiaofu Ji	

63 Delay Consensus of Second-Order Nonlinear Leader-Following Multi-Agent Systems 615
Jiezhi Wang, Qing Zhang and Hang Li

64 An Investigation of Model-Based Design Framework for Aero-Engine Control Systems 625
Jinzhi Lu, DeJiu Chen, Jiqiang Wang and Wentao Li

65 Container Throughput Time Series Forecasting Using a Hybrid Approach 639
Xi Zha, Yi Chai, Frank Witlox and Le Ma

66 A Dynamic Performance Analyzing Method of Intelligent Fire Control System Based on SCPN 651
Tianqing Chang, Junwei Chen, Bin Han, Kuifeng Su and Rui Wang

67 Forecast of Train Delay Propagation Based on Max-Plus Algebra Theory 661
Hui Ma, Yong Qin, Guoxing Han, Limin Jia and Tao zhu

Proceedings of the 2015 Chinese Intelligent Systems
Conference

Volume 1

Jia, Y.; Du, J.; Li, H.; Zhang, W. (Eds.)

2016, XI, 672 p. 273 illus. in color., Hardcover

ISBN: 978-3-662-48384-8