

IEEE/CAA JOURNAL OF
AUTOMATICA SINICA



A PUBLICATION OF THE IEEE AND CHINESE ASSOCIATION OF AUTOMATION

APRIL 2022 VOLUME 9 NUMBER 4 IJASJC (ISSN: 2329-9266)

REVIEWS

Searching for Best Network Topologies with Optimal Synchronizability: A Brief Review G. R. Chen (573)

Energy Theft Detection in Smart Grids: Taxonomy, Comparative Analysis, Challenges, and Future Research Directions M. Ahmed, A. Khan, M. Ahmed, M. Tahir, G. Jeon, G. Fortino, and F. Piccialli (578)

Unmanned Aerial Vehicles: Control Methods and Future Challenges Z. Zuo, C. J. Liu, Q.-L. Han, and J. Song (601)

PAPERS

Coordination of Networked Nonlinear Multi-Agents Using a High-Order Fully Actuated Predictive Control Strategy G.-P. Liu (615)

Distributed Periodic Event-Triggered Optimal Control of DC Microgrids Based on Virtual Incremental Cost J. K. Peng, B. Fan, Z. H. Tu, W. Zhang, and W. X. Liu (624)

Spatiotemporal Input Control: Leveraging Temporal Variation in Network Dynamics Y. H. Lin, J. W. Sun, G. Q. Li, G. X. Xiao, C. Y. Wen, L. Deng, and H. E. Stanley (635)

Belief Combination of Classifiers for Incomplete Data Z. W. Zhang, S. T. Ye, Y. R. Zhang, W. P. Ding, and H. Wan (652)

On the System Performance of Mobile Edge Computing in an Uplink NOMA WSN With a Multiantenna Access Point Over Nakagami-*m* Fading V.-T. Truong, V. N. Vo, D.-B. Ha, and C. So-In (668)

Continuous-Time Prediction of Industrial Paste Thickener System With Differential ODE-Net Z. L. Yuan, X. R. Li, D. Wu, X. J. Ban, N.-Q. Wu, H.-N. Dai, and H. Wang (686)

Atomic Spin Polarization Controllability Analysis: A Novel Controllability Determination Method for Spin-Exchange Relaxation-Free Co-Magnetometers Z. Wang, S. X. Liu, R. G. Wang, L. L. Yuan, J. Huang, Y. Y. Zhai, and S. Zou (699)

A Fusion Kalman Filter and UFIR Estimator Using the Influence Function Method W. Xue, X. L. Luan, S. Y. Zhao, and F. Liu (709)

A Feature Weighted Mixed Naive Bayes Model for Monitoring Anomalies in the Fan System of a Thermal Power Plant M. Wang, L. Sheng, D. H. Zhou, and M. Y. Chen (719)



IEEE/CAA JOURNAL OF
AUTOMATICA SINICA



A PUBLICATION OF THE IEEE AND CHINESE ASSOCIATION OF AUTOMATION

APRIL 2022 VOLUME 9 NUMBER 4 IJASJC (ISSN: 2329-9266)

REVIEWS

Searching for Best Network Topologies with Optimal Synchronizability: A Brief Review G. R. Chen (573)

Energy Theft Detection in Smart Grids: Taxonomy, Comparative Analysis, Challenges, and Future Research Directions M. Ahmed, A. Khan, M. Ahmed, M. Tahir, G. Jeon, G. Fortino, and F. Piccialli (578)

Unmanned Aerial Vehicles: Control Methods and Future Challenges Z. Zuo, C. J. Liu, Q.-L. Han, and J. Song (601)

PAPERS

Coordination of Networked Nonlinear Multi-Agents Using a High-Order Fully Actuated Predictive Control Strategy G.-P. Liu (615)

Distributed Periodic Event-Triggered Optimal Control of DC Microgrids Based on Virtual Incremental Cost J. K. Peng, B. Fan, Z. H. Tu, W. Zhang, and W. X. Liu (624)

Spatiotemporal Input Control: Leveraging Temporal Variation in Network Dynamics Y. H. Lin, J. W. Sun, G. Q. Li, G. X. Xiao, C. Y. Wen, L. Deng, and H. E. Stanley (635)

Belief Combination of Classifiers for Incomplete Data Z. W. Zhang, S. T. Ye, Y. R. Zhang, W. P. Ding, and H. Wan (652)

On the System Performance of Mobile Edge Computing in an Uplink NOMA WSN With a Multiantenna Access Point Over Nakagami-*m* Fading V.-T. Truong, V. N. Vo, D.-B. Ha, and C. So-In (668)

Continuous-Time Prediction of Industrial Paste Thickener System With Differential ODE-Net Z. L. Yuan, X. R. Li, D. Wu, X. J. Ban, N.-Q. Wu, H.-N. Dai, and H. Wang (686)

Atomic Spin Polarization Controllability Analysis: A Novel Controllability Determination Method for Spin-Exchange Relaxation-Free Co-Magnetometers Z. Wang, S. X. Liu, R. G. Wang, L. L. Yuan, J. Huang, Y. Y. Zhai, and S. Zou (699)

A Fusion Kalman Filter and UFIR Estimator Using the Influence Function Method W. Xue, X. L. Luan, S. Y. Zhao, and F. Liu (709)

A Feature Weighted Mixed Naive Bayes Model for Monitoring Anomalies in the Fan System of a Thermal Power Plant M. Wang, L. Sheng, D. H. Zhou, and M. Y. Chen (719)



LETTERS

Tube-based Model Reference Adaptive Control for Vibration Suppression of Active Suspension Systems.....
..... Y. Mousavi, A. Alfi, I. B. Kucukdemiral, and A. Fekih (728)

Distributed Optimization Algorithm for Multi-Robot Formation with Virtual Reference Center
..... J. Y. Huang, S. Y. Zhou, H. Tu, Y. H. Yao, and Q. S. Liu (732)

A Braille Reading System Based on Electrotactile Display With Flexible Electrode Array
..... Z. L. Zhou, Y. C. Yang, and H. H. Liu (735)

A Short-Term Precipitation Prediction Model Based on Spatiotemporal Convolution Network and Ensemble Empirical
Mode Decomposition Y. A. Qiu, Z. Y. Lu, and S. P. Fang (738)

A Sandwich Control System with Dual Stochastic Impulses
..... C. L. Liao, D. Tu, Y. M. Feng, W. Zhang, Z. T. Wang, and B. O. Onasanya (741)

Exponential Convergence of Primal-Dual Dynamical System for Linear Constrained Optimization.....
..... L. Y. Guo, X. L. Shi, and J. D. Cao (745)

IEEE/CAA JOURNAL OF AUTOMATICA SINICA		自 动 化 学 报 (英文版)	
Vol. 9 No. 4 April 2022		第 9 卷 第 4 期 2022 年 4 月	
Edited by	Editorial Board of IEEE/CAA Journal of Automatica Sinica Add: 95 Zhongguancun East Road, Beijing 100190, China Tel: 010-82544459 E-mail: jas@ia.ac.cn	编 辑	《自动化学报》(英文版) 编辑委员会 地址: 北京中关村东路 95 号 邮政编码: 100190 电话: 010-82544459 E-mail: jas@ia.ac.cn
Editor-in-Chief	MengChu ZHOU	主 编	周孟初
Administrated by	Chinese Association for Science and Technology	主 管	中国科学技术协会
Sponsored by	Chinese Association of Automation, Institute of Automation, Chinese Academy of Sciences, and China Science Publishing & Media Ltd.	主 办	中国自动化学会 中国科学院自动化研究所 中国科技出版传媒股份有限公司
Published by	China Science Publishing & Media Ltd. Add: 16 Donghuangchenggen North Street, Beijing 100717, China	出 版	中国科技出版传媒股份有限公司 地址: 北京东黄城根北街 16 号 邮政编码: 100717 电话: 010-64019820
Printed by	Beijing Kexin Printing Co., Ltd	印刷装订	北京科信印刷有限公司
Copyright © 2022 IEEE/CAA Journal of Automatica Sinica. All rights reserved.			
CN 10-1193/TP		邮发代号 80-604	
		RMB ¥210.0	

