



中国科技期刊卓越行动计划项目入选期刊

ISSN 1001-0920
CN 21-1124/TP
CODEN KYJUEF

控制与决策

C O N T R O L A N D D E C I S I O N

• 东北大学百年校庆特刊 •



东北大学建校100周年
THE 100th ANNIVERSARY OF
NORTHEASTERN UNIVERSITY

8
2023

第38卷 第8期
Vol.38 No.8

自强不息 知行合一

控制与决策

第38卷 第8期 2023年8月

目次

《控制与决策》东北大学百年校庆特刊序言	王福利, 杨光红 (2049)
端边云协同的复杂工业过程运行控制智能系统	柴天佑, 程思宇, 李平, 贾瑶, 郑锐 (2051)
复杂工业过程特征建模方法及应用研究	乔俊飞, 黄卫民, 丁海旭, 于涛 (2063)
航天器姿轨控制研究综述: 微分几何控制方法	姜斌, 孟庆开, 杨浩 (2079)
网络攻击下的信息物理系统安全状态估计研究综述	杨光红, 芦安洋, 安立伟 (2093)
基于熵理论的综合能源系统不可能三角研究综述	孙秋野, 任一平, 刘子铭, 胡旭光 (2106)
类严格反馈系统的模糊弱扰动解耦控制	刘晓平, 王娜, 刘存根 (2122)
从结构推断到根因识别——工业过程故障根因诊断研究综述	赵春晖, 宋鹏宇 (2130)
产品溯源研究综述及前景展望	黄敏, 宋扬, 高哲明, 胡悦嫣, 王兴伟 (2158)
基于多智能体的数字孪生及其在工业中应用的综述	张颖伟, 高鸿瑞, 张鼎森, 冯琳, 张升阳, 毕诸明 (2168)
基于模糊强化学习的空气压缩机群组协调预测控制	王伟, 仲璐璐, 刘洋, 赵珺, 王霖青 (2183)
面向厚板板形质量监控与异常诊断的大数据可视分析	丁进良, 关凯丰, 张同康 (2192)
正则/非正则最优控制方法在最优趋同控制的应用	张焕水, 徐娟娟 (2203)
竞争环境下两个B2C服务共享平台的均衡决策	樊治平, 董仲鹏, 池雪 (2211)
具有未知参数的非线性系统动态优化	付俊, 彭燕, 刘彦辉 (2223)
随机神经网络增量构造学习方法研究进展	代伟, 南静 (2231)
网络攻击下的信息物理系统安全性研究综述	叶丹, 靳凯净, 张天予 (2243)
光纤激光腔内的传感技术研究进展	程同蕾, 曲雨晗, 刘伟, 周雪, 尹智远, 闫欣, 张学楠, 王方 (2253)
被动式红外成像气体目标智能检测算法及量化研究进展	王琦, 潘夏童, 邢明玮, 孙云龙, 赵勇 (2265)
介电弹性体驱动系统建模及控制方法综述	李智, 陈国强, 徐泓智, 陈新开, 陕晋军, 张秀宇 (2283)
分布式反馈优化研究现状与发展	刘腾飞, 秦正雁, 姜钟平 (2301)
面向人体健康防护的光纤生化传感技术	张亚男, 靳波, 郑万禄, 赵勇 (2313)
具有输入饱和的不确定非线性系统自适应渐近跟踪控制	李元新, 魏淑仪 (2326)
混合攻击下直流微电网的FDI估计与模糊控制联合设计	解相朋, 杨馥伊, 魏聪, 葛辉, 岳东 (2335)
FDI攻击下有源配电网储能系统安全控制	邓超, 唐旗, 郭方洪, 王宇, 范莎 (2346)
网联车辆有限时间分布式轨迹优化和协同控制	郭戈, 张忍永康, 杨冬琪, 段洪君 (2355)
基于预设时间收敛的分布式优化算法	杨涛, 常怡然, 张坤朋, 徐磊 (2364)
基于优先经验回放可迁移深度强化学习的高铁调度	代学武, 吴越, 石琦, 崔东亮, 俞胜平 (2375)
基于隐性记忆的非平稳时变污水处理过程多目标运行优化	周平, 张天娇 (2389)
竞合关系下共享制造模式选择与决策优化	蒋忠中, 林群庚, 何娜, 臧元基 (2401)
基于数据驱动的管道云边协同泄漏检测方法	马大中, 王天彪, 胡旭光, 刘羽洋, 刘金海 (2415)
基于自适应动态规划和梯度下降法的自适应最优输出调节	高伟男, 杨涛, 柴天佑 (2425)
信息与动态	
下期要目	(2230)
《控制与决策》东北大学百年校庆特刊编辑委员会	(封4)

期刊基本参数: CN21-1124/TP * 1986 * m * A4 * 384 * zh * P * ¥50.00 * 1200 * 32 * 2023-08

责任总编辑: 滕蓉

Control and Decision

Vol. 38 No. 8 Aug. 2023

CONTENTS

- Preface to the Special Issue of the Control and Decision—Celebrating the 100th Anniversary of Northeastern University
..... WANG Fu-li, YANG Guang-Hong (2049)
- Intelligent system for operational control of complex industrial process based on end-edge-cloud collaboration
..... CHAI Tian-you, CHENG Si-yu, LI Ping, JIA Yao, ZHENG Rui (2051)
- Research on feature modeling method for complex industrial process and its application
..... QIAO Jun-fei, HUANG Wei-min, DING Hai-xu, YU Tao (2063)
- A survey on spacecraft attitude and orbit control: Differential geometric control approaches
..... JIANG Bin, MENG Qing-kai, YANG Hao (2079)
- A survey on secure state estimation of cyber-physical systems under cyber attacks
..... YANG Guang-Hong, LU An-yang, AN Li-wei (2093)
- Review of energy trilemma research of integrated energy system based on entropy theory
..... SUN Qiu-ye, REN Yi-ping, LIU Zi-ming, HU Xu-guang (2106)
- Fuzzy weak disturbance decoupling for strict feedback-like systems LIU Xiao-ping, WANG Na, LIU Cun-gen (2122)
- From structure inference to root cause identification: A survey on root cause diagnosis of industrial process faults
..... ZHAO Chun-hui, SONG Peng-yu (2130)
- Review and prospect of product traceability HUANG Min, SONG Yang, GAO Zhe-ming, HU Yue-yan, WANG Xing-wei (2158)
- A review of multi-agent-based digital twins and its application in industry
..... ZHANG Ying-wei, GAO Hong-rui, ZHANG Ding-sen, FENG Lin, ZHANG Sheng-yang, BI Zhu-ming (2168)
- Coordinated predictive control of air compressor units based on fuzzy reinforcement learning
..... WANG Wei, ZHONG Lu-lu, LIU Yang, ZHAO Jun, WANG Lin-qing (2183)
- Big data visual analytics for heavy plate shape quality monitoring and anomaly diagnosis
..... DING Jin-liang, GUAN Kai-feng, ZHANG Tong-kang (2192)
- Optimal consensus control of multi-agent systems with regular/irregular optimal control method
..... ZHANG Huan-shui, XU Juan-juan (2203)
- Equilibrium decisions of two B2C service sharing platforms in competitive environment
..... FAN Zhi-ping, DONG Zhong-peng, CHI Xue (2211)
- Dynamic optimization of nonlinear systems with unknown parameters FU Jun, PENG Yan, LIU Yan-hui (2223)
- Recent advances in incremental learning methods for random weight neural network DAI Wei, NAN Jing (2231)
- A survey on security of cyber-physical systems under network attacks YE Dan, JIN Kai-jing, ZHANG Tian-yu (2243)
- Research progress of sensing technology in fiber laser cavity
..... CHENG Tong-lei, QU Yu-han, LIU Wei, ZHOU Xue, YIN Zhi-yuan, YAN Xin, ZHANG Xue-nan, WANG Fang (2253)
- A survey of automatic gas leakage detection and quantification based on passive infrared imaging
..... WANG Qi, PAN Xia-tong, XING Ming-wei, SUN Yun-long, ZHAO Yong (2265)
- A review of modeling and control methods for dielectric elastomer actuator systems
..... LI Zhi, CHEN Guo-qiang, XU Hong-zhi, CHEN Xin-kai, SHAN Jin-jun, ZHANG Xiu-yu (2283)
- Distributed feedback optimization: Status and prospects LIU Teng-fei, QIN Zheng-yan, JIANG Zhong-Ping (2301)
- Research on optical fiber biochemical sensing technology for human health protection
..... ZHANG Ya-nan, JIN Po, ZHENG Wan-lu, ZHAO Yong (2313)
- Adaptive asymptotic tracking of uncertain nonlinear systems with input saturation LI Yuan-xin, WEI Shu-yi (2326)
- Joint design of FDI estimation and fuzzy control for DC microgrid under hybrid attacks
..... XIE Xiang-peng, YANG Fu-yi, WEI Cong, GE Hui, YUE Dong (2335)
- Security control for energy storage systems in active distribution network under FDI attacks
..... DENG Chao, TANG Qi, GUO Fang-hong, WANG Yu, FAN Sha (2346)
- Finite-time distributed trajectory optimization and collaborative control of connected vehicle platoon
..... GUO Ge, ZHANG Ren-yong-kang, YANG Dong-qi, DUAN Hong-jun (2355)
- Distributed optimization algorithms based on predefined-time convergence
..... YANG Tao, CHANG Yi-ran, ZHANG Kun-peng, XU Lei (2364)
- A transferable deep reinforcement learning high-speed railway rescheduling method based on prioritized experience replay
..... DAI Xue-wu, WU Yue, SHI Qi, CUI Dong-liang, YU Sheng-ping (2375)
- Implicit memory based multi-objective operation optimization of wastewater treatment process
under nonstationary time-varying conditions ZHOU Ping, ZHANG Tian-jiao (2389)
- Model selection and decisions optimization of sharing manufacturing under co-opetitive relationships
..... JIANG Zhong-zhong, LIN Qun-geng, HE Na, ZANG Yuan-ji (2401)
- Data-driven pipeline leak detection method based on cloud-edge collaboration
..... MA Da-zhong, WANG Tian-biao, HU Xu-guang, LIU Yu-yang, LIU Jin-hai (2415)
- Adaptive optimal output regulation based on adaptive dynamic programming and gradient descent method
..... GAO Wei-nan, YANG Tao, CHAI Tian-you (2425)

Serial parameters: CN21-1124/TP * 1986 * m * A4 * 384 * zh * P * ¥ 50.00 * 1200 * 32 * 2023 - 08

《控制与决策》东北大学百年校庆特刊编辑委员会

顾问: (以姓氏汉语拼音为序)

曹希仁 柴天佑 戴汝为 段广仁 封锡盛 桂卫华 黄琳 李衍达
孙优贤 唐立新 王天然 王子才 吴澄 吴启迪

主编: 王福利 杨光红

副主编: (以姓氏汉语拼音为序)

丁进良 董久祥 郭戈 刘腾飞 孙秋野 杨涛 叶丹

总编辑: 滕蓉

责任编辑: 郑晓蕾 孙艺红 齐霁 闫妍



控制与决策

(月刊)

(1986年创刊)

第38卷 第8期 2023年8月

Control and Decision

(Monthly)

(Started in 1986)

Vol. 38 No. 8 Aug. 2023

主管单位 中华人民共和国教育部
主办单位 东北大学

编辑出版 《控制与决策》编辑部
(沈阳市东北大学125信箱)

邮编: 110819
电话: 024-83687766
电子信箱:

kzyjc@mail.neu.edu.cn
网址: <http://kzyjc.alljournals.cn>

主编 王福利 杨光红

印刷 沈阳中科印刷有限责任公司

发行范围 国内外发行

国内发行 辽宁省邮政报刊发行局

国内代号 8-51

国外发行 中国国际图书贸易总公司
(100044 北京399信箱)

国外代号 MO 5676

Responsible Institution Ministry of Education, PRC

Sponsor Northeastern University

Edited & Published by

Editorial Office of Control and Decision

(P. O. Box 125 Northeastern University

Shenyang 110819, China)

Tel: 024-83687766

E-mail: kzyjc@mail.neu.edu.cn

Website: <http://kzyjc.alljournals.cn>

Chief Editor WANG Fu-li, YANG Guang-Hong

Printed by

Printing House of Shenyang Zhongke

Limited Company

Overseas Distributed

China International Book Trading Corporation

(P. O. Box 399, Beijing 100044, China)

Code No. MO 5676

刊号 ISSN 1001-0920
CN 21-1124/TP

国内定价: 50.00元

ISSN 1001-0920



9 771001 092233

08>