

美国《工程索引》(EI Compendex) 刊源

ISSN 1671-5497
CODEN JDXGAH
CN 22-1341/T



Q K 2 0 4 7 6 1 7

吉林大学学报

工 学 版

Journal of Jilin University
Engineering and Technology Edition



5/2020

第50卷 第5期
Vol.50 No.5

吉林大学学报(工学版)

第 50 卷 第 5 期 2020 年 9 月

目 次

车辆工程·机械工程

- 基于车辆状态估计的商用车 ESC 神经网络滑模控制 李 静, 石求军, 洪 良, 等 (1545)
基于混合粒子群算法的双离合变速器参数优化设计 杜常清, 曹锡良, 何 彪, 等 (1556)
基于轮胎力预判与拟合的轨迹跟踪控制 陈吉清, 蓝庆生, 兰凤崇, 等 (1565)
高温和荷电状态对锂离子电池单体力学响应的耦合影响 高 菲, 肖 阳, 张文华, 等 (1574)
风洞中未知声源漂移误差的逼近修正 沈 哲, 王毅刚, 杨志刚, 等 (1584)
后视镜造型对侧窗水相分布的影响 兰 巍, 刘 江, 李婧锡, 等 (1590)
轨道车辆垂向振动建模及运动关联分析 刘 刚, 程江琳, 朱玉田, 等 (1600)
基于遗传与粒子群算法的隔振平台减振性能优化 马芳武, 韩 丽, 吴 量, 等 (1608)
一种用于轴承故障诊断的迁移学习模型 张根保, 李 浩, 冉 球, 等 (1617)
一种新型变壁厚涡旋型线的构建理论 侯才生, 刘 涛, 郭李先 (1627)
基于双稳态尾迹的方背 Ahmed 模型减阻 杨志刚, 范亚军, 夏 超, 等 (1635)

材料科学与工程

- 微合金化 2205 双相不锈钢组织及性能 向红亮, 陈盛涛, 邓丽萍, 等 (1645)
Ti 添加量对球墨铸铁组织及力学性能的影响 王金国, 王志强, 任 帅, 等 (1653)
EP/EN 模数对铝合金 VP-CMT 焊熔滴过渡及焊道成形的影响
..... 田银宝, 申俊琦, 胡绳荪, 等 (1663)

- 焊接能量对铜/钛超声波焊接接头性能的影响 谷晓燕, 隋成龙, 狄 星, 等 (1669)

交通运输工程·土木工程

- 动态公交专用道的设置及其仿真分析评价 宋现敏, 张明业, 李振建, 等 (1677)
跳格布置对环形交叉索桁结构静动力性能的影响 薛素铎, 鲁 建, 李雄彦, 等 (1687)
CFRP 筋粘结式锚固体界面失效演化机制及粘结强度计算
..... 陈 华, 陈耀嘉, 谢 斌, 等 (1698)

- 疏水性纳米白炭黑改性沥青及混合料的粘弹特性 王子文, 郭学东, 郭 威, 等 (1709)
连续梁桥地震行为可控设计准则及实用装置 高 翼, 王君杰, 刘慧杰, 等 (1718)
装配式箱涵结构缩尺模型静载试验及有限元分析 宫亚峰, 宋加祥, 毕海鹏, 等 (1728)
基于短期风速资料的基本风压计算方法 王 勃, 董元正, 董丽欣 (1739)

计算机科学与技术

- 基于多尺度信息融合的图像识别改进算法 车翔玖, 董有政 (1747)
基于生成对抗网络的低剂量能谱层析成像去噪算法 史再峰, 李金卓, 曹清洁, 等 (1755)
基于关键点注意力和通道注意力的服装分类算法 赵宏伟, 刘晓涵, 张 媛, 等 (1765)

- 基于卷积神经网络的联合估计图像去雾算法 王柯伊, 王 迪, 赵 煦, 等 (1771)
基于深度学习的SAR图像道路识别新方法 谌 华, 郭 伟, 闫敬文, 等 (1778)
基于深度卷积神经网络的信息流增强图像压缩方法 李志军, 杨楚哲, 刘 丹, 等 (1788)
阈值迭代的单目视觉系统中像点质心定位 周 靖, 张小宝, 白云龙, 等 (1796)
一种考虑可靠性的常带宽服务器低功耗调度算法 吴昊天, 郭锐锋, 彭阿珍, 等 (1802)
基于线边集成超市的混流装配线动态物料配送调度 周炳海, 何朝旭 (1809)
基于卷积神经网络的脉搏波时频域特征混叠分类 刘国华, 周文斌 (1818)
基于 Linked data 的数据完整性评估新方法 袁 满, 胡 超, 仇婷婷 (1826)
大规模流数据处理中代价有效的弹性资源分配策略 李丽娜, 魏晓辉, 郝琳琳, 等 (1832)
基于机器学习的虚拟网络感知数据缺陷自动检测 方 伟, 黄 翼, 马新强 (1844)
基于姿态估计算法的组件感知自适应模型 管乃彦, 郭娟利 (1850)
基于多目标进化算法的人才质量模糊综合评价系统设计 蒋 磊, 管仁初 (1856)
基于贝叶斯模型与机器学习算法的金融风险网络评估模型
..... 李 阳, 李 硕, 井丽巍 (1862)

通信与控制工程

- 一种基于跳频的散射通信新方法与仿真分析 沈斌松, 秦建存, 任文成 (1870)
浅海信道低频入射声场时空分布特性 祝令国, 赵安邦, 杨宝山, 等 (1876)
分布式通信网络多频段信号源远程切换控制算法 陈海燕 (1886)
基于统计的物联网分布式拒绝服务攻击检测 陈红松, 陈京九 (1894)
基于极局部模型的机械臂自适应滑模控制 吴爱国, 韩俊庆, 董 娜 (1905)
基于多质点模型的列车自动驾驶非线性模型预测控制 贾 超, 徐洪泽, 王龙生 (1913)

农业工程·仿生工程

- 玉米柔性脱粒滚筒脱粒元件设计与试验 耿端阳, 谭德蕾, 于兴瑞, 等 (1923)
低温等离子体处理功率对酱牛肉贮藏品质的影响 李欣欣, 李大宇, 赵子瑞, 等 (1934)

Journal of Jilin University

(Engineering and Technology Edition)

Vol. 50 No. 5 Sept. 2020

Contents

Commercial vehicle ESC neural network sliding mode control based on vehicle state estimation	.....LI Jing, SHI Qiu-jun, HONG Liang, et al. (1545)
Parameters optimization of dual clutch transmission based on hybrid particle swarm optimization	.....DU Chang-qing, CAO Xi-liang, HE Biao, et al. (1556)
Trajectory tracking control based ontire force prediction and fitting	.....CHEN Ji-qing, LAN Qing-sheng, LAN Feng-chong, et al. (1565)
Influence of coupling of elevated temperature and state ofcharge on mechanical response of Li-ion battery cells	.....GAO Fei, XIAO Yang, ZHANG Wen-hua, et al. (1574)
Drift error correction of unknown sound source inwind tunnel using approximation method	.....SHEN Zhe, WANG Yi-gang, YANG Zhi-gang, et al. (1584)
Influence of rearview mirror styling on water phasedistribution on side windows	.....LAN Wei, LIU Jiang, XIN Li, et al. (1590)
Vertical vibration modeling and motion correlation analysis of rail vehicles	.....LIU Zhao, CHENG Jiang-lin, ZHU Yu-tian, et al. (1600)
Damping optimization of heavy-loaded anti-vibration platform based on genetic algorithm and particle swarm algorithm	.....MA Fang-wu, HAN Li, WU Liang, et al. (1608)
A transfer learning model for bearing fault diagnosis	.....ZHANG Gen-bao, LI Hao, RAN Yan, et al. (1617)
Construction theories of a new type of variablewall thickness scroll profile	.....HOU Cai-sheng, LIU Tao, GUO Li-xian(1627)
Drag reduction of a square-back Ahmed model based on bi-stable wake	.....YANG Zhi-gang, FAN Ya-jun, XIA Chao, et al. (1635)
Microstructure and properties of microalloying 2205 duplex stainless steel	.....XIANG Hong-liang, CHEN Sheng-tao, DENG Li-ping, et al. (1645)
Effect of Ti addition on microstructure andmechanical properties of ductile iron	.....WANG Jin-guo, WANG Zhi-qiang, REN Shuai, et al. (1653)
Effect of EP/EN Balance on droplet transfer andweld formation of Al alloy by VP-CMT	.....TIAN Yin-bao, SHEN Jun-qi, HU Sheng-sun, et al. (1663)
Effect of welding energy on performance of Cu/Ti joints obtained by ultrasonic welding	.....GU Xiao-yan, SUI Cheng-long, DI Xing, et al. (1669)
Setting of dynamic bus lane and itsimulation analysis and evaluation	.....SONG Xian-min, ZHANG Ming-ye, LI Zhen-jian, et al. (1677)
Influence of grid-jumping arrangement on static and dynamic performance of annular crossed cable-truss structure	.....XUE Su-duo, LU Jian, LI Xiong-yan, et al. (1687)
Interface failure mechanism and bonding strength calculation of CFRP tendons bonded anchorage system	.....CHEN Hua, CHEN Yao-jia, XIE Bin, et al. (1698)
Viscoelasticity of hydrophobic nano-silicamodified asphalt and asphalt mixture	.....WANG Zi-wen, GUO Xue-dong, GUO Wei, et al. (1709)
Design criterion and applied devices for controlled seismic behavior of continuous girder bridges	.....GAO Hao, WANG Jun-jie, LIU Hui-jie, et al. (1718)
Static test and finite element analysis of scale model offabricated box culvert	.....GONG Ya-feng, SONG Jia-xiang, BI Hai-peng, et al. (1728)

Calculation of basic wind pressure based on short-term wind speed data	WANG Bo, DONG Yuan-zheng, DONG Li-xin(1739)
Improved image recognition algorithm based on multi-scale information fusion	CHE Xiang-jiu, DONG You-zheng(1747)
Low-dose spectral computer-tomography imaging denoising method via a generative adversarial network	SHI Zai-feng, LI Jin-zhuo, CAO Qing-jie, et al. (1755)
Clothing classification algorithm based on landmark attention and channel attention	ZHAO Hong-wei, LIU Xiao-han, ZHANG Yuan, et al. (1765)
Image dehazing based on joint estimation via convolutional neural network	WANG Ke-yan, WANG Di, ZHAO Xi, et al. (1771)
A new deep learning method for roads recognition from SAR images	CHEN Hua, GUO Wei, YAN Jing-wen, et al. (1778)
Deep convolutional networks based image compression with enhancement of information flow	LI Zhi-jun, YANG Chu-xi, LIU Dan, et al. (1788)
Centroid location of image points in single camera vision measurement system with threshold iteration	ZHOU Jing, ZHANG Xiao-bao, BAI Yun-long, et al. (1796)
A low power scheduling algorithm based on constant bandwidth server considering reliability	WU Hao-tian, GUO Rui-feng, PENG A-zhen, et al. (1802)
Dynamic material handling scheduling for mixed-model assembly lines based on line-integrated supermarkets	ZHOU Bing-hai, HE Zhao-xu(1809)
Pulse wave signal classification algorithm based on time-frequency domain feature aliasing using convolutional neural network	LIU Guo-hua, ZHOU Wen-bin(1818)
A new method for data integrity assessment based on Linked data	YUAN Man, HU Chao, QIU Ting-ting(1826)
Cost-effective elastic resource allocation strategy in large-scale streaming data processing	LI Li-na, WEI Xiao-hui, HAO Lin-lin, et al. (1832)
Automatic defect detection for virtual network perceptual database based on machine learning	FANG Wei, HUANG Yi, MA Xin-qiang(1844)
Component awareness adaptive model based on attitude estimation algorithms	GUAN Nai-yan, GUO Juan-li(1850)
Design of fuzzy comprehensive evaluation system for talent quality based on multi-objective evolutionary algorithm	JIANG Lei, GUAN Ren-chu(1856)
Estimate model based on Bayesian model and machine learning algorithms applied in financial risk assessment	LI Yang, LI Shuo, JING Li-wei(1862)
A new method of troposcatter communication based on frequency hopping and simulation analysis	SHEN Bin-song, QIN Jian-cun, REN Wen-cheng(1870)
Temporal and spatial distribution of incident sound field with low frequency in shallow water	ZHU Ling-guo, ZHAO An-bang, YANG Bao-shan, et al. (1876)
Design of remote switching control algorithm for multi-band signal source in distributed communication network	CHEN Hai-yan(1886)
Statistical based distributed denial of service attack detection research in internet of things	CHEN Hong-song, CHEN Jing-jiu(1894)
Adaptive sliding mode control based on ultra-local model for robotic manipulator	WU Ai-guo, HAN Jun-qing, DONG Na(1905)
Nonlinear model predictive control for automatic train operation based on multi-point model	JIA Chao, XU Hong-ze, WANG Long-sheng(1913)
Design and test of corn flexible threshing cylinder element	GENG Duan-yang, TAN De-lei, YU Xing-rui, et al. (1923)
Effect of low-temperature plasma treatment power on storage quality of spiced beef	LI Xin-xin, LI Da-yu, ZHAO Zi-rui, et al. (1934)

- ☆《中文核心期刊要目总览》收录期刊
- ☆中国科技核心期刊
- ☆中国科学引文数据库(CSCD)核心期刊
- ★美国《工程索引》(EI Compendex)收录期刊
- ★美国《化学文摘》(CA)收录期刊
- ★俄罗斯《文摘杂志》(AJ)收录期刊
- ★美国《剑桥科学文摘》(CSA)收录期刊
- ☆中国知网收录期刊
- ☆中国科技论文在线收录期刊
- ☆《中国学术期刊文摘》等国内十多种文摘收录期刊

吉林大学学报（工学版）

JILIN DAXUE XUEBAO (GONGXUE BAN)

双月刊 1957 年创刊

第 50 卷 第 5 期 (总第 211 期) 2020 年 9 月

JOURNAL OF JILIN UNIVERSITY

(Engineering and Technology Edition)

Bimonthly, Started in 1957

Vol.50 No.5(Sum 211) Sept. 2020

主管单位 中华人民共和国教育部

Responsible Institution Ministry of Education, the

主办单位 吉林大学

People's Republic of China

主编 任露泉

Sponsored by Jilin University

常务副主编 陈永杰

Editor-in-Chief Ren Lu-quan

编辑出版 吉林大学学报(工学版)编辑部

Standing Associate Chief Editor Chen Yong-jie

(长春市人民大街 5988 号 130022)

Edited by Editorial Board of Journal of Jilin

电话: 0431-85095297

University(Engineering and Technology Edition)

E-mail: xbgxb@jlu.edu.cn

(5988 Renmin Street, Changchun 130022, China)

http://xuebao.jlu.edu.cn/gxb

Tel: 86-0431-85095297

印 刷 吉林省保隆冠彩印刷有限公司

E-mail: xbgxb@jlu.edu.cn

发 行 范 围 公开发行

http://xuebao.jlu.edu.cn/gxb

国 内 发 行 吉林省邮政报刊发行公司

Printed by Jilin Baolong Guancai Printing Co., Ltd.

国 外 发 行 中国国际图书贸易集团公司

Issue Scope Public issue

(北京399信箱邮编 100044)

Domestic Distributor Distribution Company for Newspaper and

Journals of Jilin Province

Overseas Distributor China International Book Trading Corporation
(P.O.Box 399, Beijing 100044, China)

