

美国《工程索引》(EI Compendex)刊源

ISSN 1671-5497

CODEN JDXGAH

吉林大学

学报

工学版

Journal of Jilin University
Engineering and Technology Edition



1
2016

第46卷 第1期

Vol.46 No.1

中国·长春

Changchun, China

吉林大学学报(工学版)

第 46 卷 第 1 期

2016 年 1 月

目 次

- 轮胎滑水机理在钢带式高速轮胎试验台上的应用 杨一洋, 许 男, 郭孔辉, 等 (1)
- 基于双 dSPACE 的汽车动力学集成控制快速原型试验 朱 冰, 贾晓峰, 王 御, 等 (8)
- 基于台架试验的电控液压制动系统动态特性 李 静, 杨 雄, 苗 卉, 等 (15)
- 混合动力汽车工作模式切换控制方案 巴 特, 高印寒, 曾小华, 等 (21)
- 新型双电机构型纯电动汽车节能潜力分析 王军年, 刘德春, 张运昌, 等 (28)
- 基于疲劳寿命的轿车后悬架扭转梁轻量化设计 蒋荣超, 王登峰, 秦 氏, 等 (35)
- 基于客观心理声学参数的重型商用车车内异响噪声分析 高印寒, 张澧桐, 梁 杰, 等 (43)
- 基于虚拟风洞的装载机动力舱热环境预测分析 张钦国, 秦四成, 杨立光, 等 (50)
- 基于条件价值法的公交车内拥挤成本测算模型 王殿海, 叶 盈, 朱文韬, 等 (57)
- 混合自行车交通流下的自行车道通行能力估计 徐 程, 曲昭伟, 陶鹏飞 (63)
- 基于 OD 分布的环形交叉口车辆行程时间建模 宋现敏, 刘焕峰, 李志慧, 等 (70)
- 环形交叉口的所有进口道适时交通信号控制策略 徐洪峰, 章 琨, 姚荣涵 (76)
- 信号交叉口实时排队长度估计 赵淑芝, 梁士栋, 马明辉, 等 (85)
- 基于平均策略的城市轨道交通动态 O-D 矩阵估计 姚向明, 赵 鹏, 禹丹丹 (92)
- 基于云模型的地铁换乘枢纽拥挤度辨识方法 周继彪, 陈 红, 闫 彬, 等 (100)
- 基于云和声搜索的综合运输网络设计和货流分配优化 刘星材, 何世伟, 孙 杨, 等 (108)
- 高速公路驾驶人超车过程中的扫视行为 李鹏辉, 张文会, 胡孟夏, 等 (114)
- 车载式液态融冰雪剂洒布机洒布质量的控制 姚运仕, 闫青青, 王瑞龙, 等 (120)
- 基于可靠度的冻融循环下沥青路面性能 司 伟, 马 磊, 任君平, 等 (126)
- 微粒捕集器对高压共轨柴油机超细微粒捕集特性 孙万臣, 刘 高, 郭 亮, 等 (133)
- 块体材料弹性模量的四点弯曲自动测试 赵宏伟, 董晓龙, 张 霖, 等 (140)
- 多功能电磁法仪器同步系统的设计与实现 于生宝, 苏 发, 何建龙, 等 (146)
- 装载机液压系统的传热仿真分析 王剑鹏, 秦四成, 杨立光, 等 (153)
- 挖掘机工作装置疲劳分析方法 邱清盈, 魏振凯, 高 宇, 等 (159)
- 月球次表层取心钻具功耗特性及地面模拟实验 田 野, 邓宗全, 唐德威, 等 (166)
- 已有模拟火星壤力学性质分析及新火星壤研制 李建桥, 薛 龙, 邹 猛, 等 (172)
- 航空发动机中介轴承试验器的研制 李云峰, 王黎钦, 王 帅, 等 (179)
- 空间二维运动机构的热真空准加速寿命试验设计 上官爱红, 张昊苏, 王晨洁, 等 (186)
- 初始组织对电脉冲处理逆变奥氏体晶粒细化效果的影响 张家陶, 赵宇光, 谭 娟 (193)
- 分布式位移加载方式拉伸成形三维曲面件的数值模拟 杨 振, 蔡中义, 李明哲 (199)

基于响应面的封头冲压成形工艺多目标优化	周 杰, 罗 艳, 王 珣, 等	(205)
具有关节限位的 7R 仿人机械臂逆运动学优化	霍希建, 刘伊威, 姜 力, 等	(213)
基于离子聚合物金属基复合材料线性驱动单元的性能	赵 刚, 孙壮志, 郭华君, 等	(221)
基于整数数据的文档压缩编码方案	特日跟, 江 晟, 李雄飞, 等	(228)
基于 Pi 演算的并行编程语言	康 辉, 王家琦, 梅 芳	(235)
基于 MVC 架构的 LIBS 软件设计与实现	陈鹏飞, 田 地, 杨 光	(242)
优化核参数的模糊 C 均值聚类算法	刘 云, 刘 富, 侯 涛, 等	(246)
一种求解分类问题的自适应人工蜂群算法	马安香, 张长胜, 张 斌, 等	(252)
P2P 流媒体中动态分级传输模型及传输算法	刘衍珩, 李松江, 王爱民	(259)
基于局部邻域约束的空间验证方法	赵宏伟, 李清亮, 汤寰宇, 等	(265)
基于多特征融合的绿色通道车辆检测判定	张 浩, 刘海明, 吴春国, 等	(271)
自标准数据及其在数据交换中的应用	袁 满, 王 权, 夏艳波, 等	(277)
蓝牙微微网内多优先级业务动态带宽分配算法	钱志鸿, 周 策, 程 超, 等	(284)
基于信道估计的 OFDM 定时同步算法	许炜阳, 周 杰, 王雨晴, 等	(290)
P2P 节点在线机制的纳什均衡和社会最优策略	金顺福, 李 洋, 刘建平, 等	(296)
具有固定反馈权的自适应宽带波束形成器设计	吴 凯, 苏 涛, 靳 标, 等	(303)
基于活跃度的图像分割算法性能评价新方法	郑 欣, 彭真明, 邢 艳	(311)
面向 H. 264 的多级自适应快速整像素运动估计算法	姚 睿, 郭庆新, 孙艳梅, 等	(318)
无线传感器网络能量均衡蚁群路由算法	滕志军, 张 帆, 宋明辉	(327)

Journal of Jilin University

(Engineering and Technology Edition)

Vol. 46 No. 1

Jan. 2016

Contents

- Application of hydroplaning mechanism in high-speed steel trip tire test rig
..... YANG Yi-yang, XU Nan, GUO Kong-hui, et al. (1)
- Rapid prototype test for integrated vehicle dynamic control using two dSPACE simulators
..... ZHU Bing, JIA Xiao-feng, WANG Yu, et al. (8)
- Dynamic characteristics of electronic hydraulic brake system based on bench test
..... LI Jing, YANG Xiong, MIAO Hui, et al. (15)
- Mode-switch control scheme for hybrid electric vehicle BA Te, GAO Yin-han, ZENG Xiao-hua, et al. (21)
- Analysis of energy conservation potential of novel pure electric vehicle with dual motors configuration
..... WANG Jun-nian, LIU De-chun, ZHANG Yun-chang, et al. (28)
- Lightweight design of twist beam of rear suspension of passenger car based on fatigue life
..... JIANG Rong-chao, WANG Deng-feng, QIN Min, et al. (35)
- Abnormal noise analysis for commercial vehicle cab based on psychoacoustics
..... GAO Yin-han, ZHANG Li-tong, LIANG Jie, et al. (43)
- Thermal environment prediction of loader engine cabin in a virtual wind tunnel
..... ZHANG Qin-guo, QIN Si-cheng, Yang Li-guang, et al. (50)
- Estimation of crowding costs in bus based on contingent valuation method
..... WANG Dian-hai, YE Ying, ZHU Wen-tao, et al. (57)
- Estimation of bicycle path capacity under mixed bicycle traffic flow
..... XU Cheng, QU Zhao-wei, TAO Peng-fei (63)
- New model of vehicle travel time at roundabout based on OD distribution
..... SONG Xian-min, LIU Huan-feng, LI Zhi-hui, et al. (70)
- Control strategy of full metering signalization at roundabout
..... XU Hong-feng, ZHANG Kun, YAO Rong-han (76)
- Real-time queue length estimation at signalized intersection
..... ZHAO Shu-zhi, LIANG Shi-dong, MA Ming-hui, et al. (85)
- Dynamic origin-destination matrix estimation for urban rail transit based on averaging strategy
..... YAO Xiang-ming, ZHAO Peng, YU Dan-dan (92)
- Identification of pedestrian crowding degree in metro transfer hub based on normal cloud model
..... ZHOU Ji-biao, CHEN Hong, YAN Bin, et al. (100)
- Comprehensive transportation mixed network design and freight flow allocation based on cloud harmony
search algorithm LIU Xing-cai, HE Shi-wei, SUN Yang, et al. (108)
- Analysis on saccade behavior of driver during overtaking on freeway
..... LI Peng-hui, ZHANG Wen-hui, HU Meng-xia, et al. (114)
- Spraying quality control of vehicle-mounted sprayer for liquid deicing and snow-melting agent
..... YAO Yun-shi, YAN Qing-qing, WANG Rui-long, et al. (120)
- Analysis of asphalt pavement performance under freeze-thaw cycles using reliability method
..... SI Wei, MA Biao, REN Jun-ping, et al. (126)
- Efficiency of DPF on ultrafine particles in a common-rail diesel engine
..... SUN Wan-chen, LIU Gao, GUO Liang, et al. (133)
- Determination of the elastic moduli of bulk materials by four-point bending automatic test
..... ZHAO Hong-wei, DONG Xiao-long, ZHANG Lin, et al. (140)
- Design and realization of synchronization system of multifunctional electromagnetic instrument
..... YU Sheng-bao, SU Fa, HE Jian-long, et al. (146)

Simulation analysis of heat transfer in the hydraulic system of loader	WANG Jian-peng, QIN Si-cheng, YANG Li-guang, et al. (153)
Fatigue analysis method of working devices of hydraulic excavator	QIU Qing-ying, WEI Zhen-kai, GAO Yu, et al. (159)
Power consumption of lunar subsurface coring driller and earth environment stimulant experiments	TIAN Ye, DENG Zong-quan, TANG De-wei, et al. (166)
Terra-mechanics characters and development of Martian simulant regolith	LI Jian-qiao, XUE Long, ZOU Meng, et al. (172)
Design of intershaft bearing test rig of aircraft-engine	LI Yun-feng, WANG Li-qin, WANG Shuai, et al. (179)
Design of thermal vacuum quasi-accelerated life test for space two-axis gimbal	SHANGGUAN Ai-hong, ZHANG Hao-su, WANG Chen-jie, et al. (186)
Effect of starting microstructure on refining potency of electro-pulsing on reverse austenite grain	ZHANG Jia-tao, ZHAO Yu-guang, TAN Juan(193)
Stretch forming of three-dimensional sheet metal part by distributed displacement loading method	YANG Zhen, CAI Zhong-yi, LI Ming-zhe(199)
Multi-objective optimization of stamping forming process of head based on response surface model	ZHOU Jie, LUO Yan, WANG Xun, et al. (205)
Inverse kinematic optimization of 7R humanoid arm with joint limits	HUO Xi-jian, LIU Yi-wei, JIANG Li, et al. (213)
Performance of linear actuator unit based on ionic polymer metal composites	ZHAO Gang, SUN Zhuang-zhi, GUO Hua-jun, et al. (221)
Document compression scheme based on integer data	TE Ri-gen, JIANG Sheng, LI Xiong-fei, et al. (228)
A parallel programming language based on Pi-calculus	KANG Hui, WANG Jia-qi, MEI Fang(235)
Design and implementation of LIBS software based on MVC architecture	CHEN Peng-fei, TIAN Di, YANG Guang(242)
Kernel-based fuzzy C-means clustering method based on parameter optimization	LIU Yun, LIU Fu, HOU Tao, et al. (246)
Adaptive artificial bee colony algorithm for classification problem	MA An-xiang, ZHANG Chang-sheng, ZHANG Bin, et al. (252)
Dynamic layering model and transmission algorithm in P2P live streaming system	LIU Yan-heng, LI Song-jiang, WANG Ai-min(259)
Spatial verification method based on local regional constraint	ZHAO Hong-wei, LI Qing-liang, TANG Huan-yu, et al. (265)
Detection method of vehicle in highway green toll lane based on multi-feature fusion	ZHANG Hao, LIU Hai-ming, WU Chun-guo, et al. (271)
Self-standard data and its application in data exchange	YUAN Man, WANG Quan, XIA Yan-bo, et al. (277)
Dynamic bandwidth allocation algorithm for multi-priority business of Bluetooth piconet	QIAN Zhi-hong, ZHOU Ce, CHENG Chao, et al. (284)
OFDM timing synchronization algorithm based on channel estimation	XU Wei-yang, ZHOU Jie, WANG Yu-qing, et al. (290)
Strategies of Nash equilibrium and social optimization for online mechanisms of P2P nodes	JIN Shun-fu, LI Yang, LIU Jian-ping, et al. (296)
Design of adaptive broadband beamformer with fixed feedback weights	WU Kai, SU Tao, JIN Biao, et al. (303)
Novel method of evaluating image segmentation algorithms based on activity degree	ZHENG Xin, PENG Zhen-ming, XING Yan(311)
Multi-level adaptive fast integer pixel motion estimation algorithm for H.264	YAO Rui, GUO Qing-xin, SUN Yan-mei, et al. (318)
Wireless sensor network energy balance ant colony routing algorithm	TENG Zhi-jun, ZHANG Fan, SONG Ming-hui(327)

- ☆ 中文综合性科学技术类核心期刊
- ☆ 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46卷第1期(总第183期) 2016年1月

Journal of Jilin University

(Engineering and Technology Edition)

Bimonthly, Started in 1957

Vol. 46 No. 1 (Sum 183) Jan. 2016

主管单位 中华人民共和国教育部
 主办单位 吉林大学
 主 编 任露泉
 常务副主编 陈永杰
 编 辑 吉林大学学报(工学版)编辑部
 (长春市人民大街5988号130022)
 电话:0431-85095297
 传真:0431-85094074
 E-mail: xbgxb@jlu.edu.cn
 http://xuebao.jlu.edu.cn/gxb
 出 版 吉林大学出版社
 印 刷 长春市赛德印业有限公司
 国内总发行 长春市报刊发行局
 国内订购处 全国各地邮局
 国外总发行 中国国际图书贸易总公司
 (北京399信箱,100044)

Responsible Institution Ministry of Education, the
 People's Republic of China
 Sponsored by Jilin University
 Editor-in-Chief Ren Lu-quan
 Standing Associate Chief Editor Chen Yong-jie
 Edited by Editorial Board of Journal of Jilin
 University (Engineering and Technology Edition)
 (5988 Renmin Street, Changchun 130022, China)
 Tel: 86-431-85095297
 Fax: 86-431-85094074
 E-mail: xbgxb@jlu.edu.cn
 http://xuebao.jlu.edu.cn/gxb
 Published by Jilin University Press
 Printed by Changchun Saide Printing Co., Ltd.
 Distributed Abroad by China International Book
 Trading Corporation
 (P. O. Box 399, Beijing 100044, China)
 International Subscription Code BM4549

中国标准连续出版物号 ISSN 1671-5497
 CN 22-1341/T

发行代号 国内 12-46
 国际 BM4549

国内定价 26.00元/期
 156.00元/年