



ISSN 1672-7029

CN43-1423/U

铁道科学与工程学报

Journal of Railway Science and Engineering

January 2020

Volume 17 Number 1



中南大学 主办
中国铁道学会

万方数据

铁道科学与工程学报

Volume 17 Number 1

January 2020 Pages 1-272

目次

高速铁路技术与智慧交通

- 地震作用下 CRTS III型板式无砟轨道行车安全性.....姜平, 宫凯伦, 赵晨(1)
- 基于有限元仿真的列车-桥梁防护墙碰撞研究.....吕思雨, 钟睦, 鲁寨军, 刘项(8)
- 基于黄金比例遗传算法的动车组列车节能优化研究.....汤旻安, 王茜茜(16)
- 考虑高铁客运产品间交叉弹性的动态票价策略.....车瑶, 符卓, 袁雪莹(25)
- 客车捎带模式下高铁快捷货物运输方案研究.....姚玉莹, 张玉召(31)

轨道与基础

- 肋板形状对肋板式挡墙稳定性影响试验分析.....梅明明, 罗强, 李元昊, 张良, 蒋良滩(39)
- 分幅距离对青藏高速公路分离式路基动力响应的影响.....赵涛, 梁庆国, 王育红, 陈拓, 王燕(48)
- 红层泥质岩循环干湿风化下变形特性试验研究.....孙怡, 邓荣贵, 文琪鑫, 董玲(57)
- 回弹法检测灌浆料早期强度的试验研究.....陈大川, 林悦慈, 郭杰标, 李亮如, 彭勃(66)
- 预崩解炭质泥岩路堤填料工程性能试验研究.....曾铃, 肖柳意, 刘杰, 侯鹏, 袁玉荣(73)
- 宁波软土地区相连深基坑开挖施工时空效应实测分析.....吴波, 彭逸勇, 蒙国往, 濮松权(82)
- 填石路堤强夯加固施工参数及路基动应力响应规律研究.....张健, 刘俊(95)

桥梁隧道与结构

- 悬索桥并列双吊索整体风振特性与气动阻尼研究.....华旭刚, 杨维青, 温青, 陈政清, 黄智文(102)

- 基于基准有限元模型的箱梁 TMD 振动控制研究.....罗锐,张新亚,雷晓燕(110)
- 非定常气动荷载对桥上列车行驶安全舒适性影响分析.....韩艳,刘叶,胡朋(118)
- 轻骨料混凝土桥梁地震易损性分析.....台玉吉,惠迎新,师新虎,金宝宏,徐赞(129)
- 基于颗粒流的高填黄土减载明洞土拱效应分析.....姚玉相,李盛,马莉,王焕,于本田,王长丹(139)
- 软弱夹层对隧道光面爆破效果影响机理研究.....张运良,孙宁新,毛雨,雷明锋,苏光明,黄国富,安永林(148)
- 盾构隧道双道密封垫防水能力及失效模式研究.....李雪,霍鹏,周顺华,黄大维,黄琦(159)
- 固定支承式悬浮隧道在列车荷载下的竖向动力响应研究.....何任飞,袁勇,贺维国,张金伟(167)
- “上软下硬”复合地层地连墙快速成槽施工关键技术研究.....卢伟(174)
- 站台雨棚钢结构在锈蚀作用下的耐久性评估.....杨娜,刘威,白凡,秦术杰,余洋(181)
- 预应力 CTCRC 板加固持载混凝土梁的抗弯性能研究.....杜运兴,邵喜诚,周芬(189)
- 湘西土家族传统民居火塘的变迁研究.....李哲,刘柱梁,石磊,陈颖(198)

机车车辆与设备

- NPC 三电平容错逆变器异步电机驱动系统 FCS-MPTC.....张磊,王思明,梁运华(207)
- 考虑绞凸特征的输电线气动力 CFD 模拟.....刘成,刘慕广,邹云峰(215)
- 基于雷达的列车直轨运行前方障碍物检测方法研究.....郭双全,董昱(224)
- 基于声发射检测的钢轨断裂实时监测及定位方法研究.....周长义,孙伟(232)

运输·物流·工程管理

- 预售环境下考虑消费者时间偏好的定价与订货策略.....周雄伟,李娟(239)
- 基于大数据的铁路工程投标企业异常行为预警研究.....乔柱,刘伊生,茹建青(250)
- 基于环境承载力的隧道工程环境影响评价体系及应用.....万炳彤,鲍学英,李爱春(258)
- 复合地层盾构施工安全影响因素及安全事故致因机理.....刘天雄,陈辉华,李瑚均(266)

责任编辑: 阳丽霞 英文编审: 杨小礼 封面设计: 刘 谊

期刊基本参数: CN43-1423/U*2004*m*A4*272*zh*P*¥50.00*1500*32*2020-01

CONTENTS

High-speed Rail Technology and Intelligent Transportation

- Vehicle running safety on CRTS III slab ballastless track under earthquake.....LOU Ping, GONG Kailun, ZHAO Chen(1)
- Study on train-bridge protecting wall collision based on finite element simulation
.....LÜ Siyu, ZHONG Mu, LU Zhaijun, LIU Xiang(8)
- Research on energy-saving optimization of EMU trains based on golden ratio genetic algorithm
.....TANG Minan, WANG Qianqian(16)
- Dynamic ticket price strategy considering the degree of cross price elasticity between high-speed railway passenger products
.....CHE Yao, FU Zhuo, YUAN Xueying(25)
- Study on express freight transport scheme of high-speed rail in piggyback mode of passenger car
.....YAO Yuying, ZHANG Yuzhao(31)

Track and Foundation

- Experiment for the influence of rib shape on the stability of ribbed slab retaining wall
.....MEI Mingming, LUO Qiang, LI Yuanhao, ZHANG Liang, JIANG Liangwei(39)
- Influence of distance between two lines on seismic dynamic response of separated embankment along the Qinghai-Tibet
Expressway.....ZHAO Tao, LIANG Qingguo, WANG Yuhong, CHEN Tuo, WANG Yan(48)
- Experimental study on deformation characteristics of red-bed mudstone under cyclic dry-wet weathering
.....SUN Yi, DENG Ronggui, WEN Qixin, DONG Ling(57)
- Experimental study on testing the early strength of grouting material by rebound method
.....CHEN Dachuan, LIN Yueci, GUO Jiebiao, LI Liangru, PENG Bo(66)
- Experiment study on road mechanical properties and permeability characteristics of pre-disintegration carbonaceous mudstone
.....ZENG Ling, XIAO Liuyi, LIU Jie, HOU Peng, YUAN Yurong(73)
- Analysis on time-space effect of excavation construction of adjacent deep foundation pit in Ningbo soft soil area
.....WU Bo, PENG Yiyong, MENG Guowang, PU Songquan(82)
- Dynamic stress response law and construction parameters study of rockfill embankment under dynamic compaction
.....ZHANG Jian, LIU Jun(95)

Bridge, Tunnel and Structure

- Aerodynamic damping and wind-induced vibrations for coupled parallel twin hangers of suspension bridges
.....HUA Xugang, YANG Weiqing, WEN Qing, CHEN Zhengqing, HUANG zhiwen(102)

- Research on TMD vibration control of box girder based on reference finite element model
LUO Kun, ZHANG Xinya, LEI Xiaoyan(110)
- Impact analysis of unsteady aerodynamic loads on the safety and comfort of trains running on bridges
HAN Yan, LIU Ye, HU Peng(118)
- Analysis of seismic vulnerability of lightweight aggregate concrete bridges
TAI Yuji, HUI Yingxin, SHI Xinhua, JIN Baohong, XU Zan(129)
- Analysis on soil arching for unloading structure of high-filled cut-and-cover tunnel based on particle flow simulation
YAO Yuxiang, LI Sheng, MA Li, WANG Huan, YU Bentian, WANG Changdan(139)
- Study on the influence mechanism of weak interlayer on tunnel smooth blasting effect
ZHANG Yunliang, SUN Ningxin, MAO Yu, LEI Mingfeng, SU Guangming, HUANG Guofu, AN Yonglin(148)
- Test research on watertight mechanism and failure model of the double sealing gaskets in shield tunnel
LI Xue, HUO Peng, ZHOU Shunhua, HUANG Dawei, HUANG Qi(159)
- Dynamic response analysis of submerged floating tunnel supported on columns under train load
HE Renfei, YUAN Yong, HE Weiguo, ZHANG Jinwei(167)
- Study on key construction techniques of diaphragm wall in upper-soft lower-hard strata.....LU Wei(174)
- Durability evaluation of steel structure of platform canopy under corrosion
YANG Na, LIU Wei, BAI Fan, QIN Shujie, YU Yang(181)
- Flexural behavior of RC beams repaired with prestressed CFRP plates under sustaining loads
DU Yunxing, SHAO Xicheng, ZHOU Fen(189)
- Research on the changes of the fireplace of Xiangxi Tujia traditional houses
LI Zhe, LIU Zhuliang, SHI Lei, CHEN Ying(198)

Vehicles and Equipment

- Finite control set model predictive torque control for IM systems driven by three-phase eight-switch fault-tolerant inverter
ZHANG Lei, WANG Siming, LIANG Yunhua(207)
- CFD simulation of transmission lines aerodynamics considering the twisted convex characteristics
LIU Cheng, LIU Muguang, ZOU Yunfeng(215)
- Research on detection method of obstacle in front of straight track operation of train based on radar
GUO Shuangquan, DONG Yu(224)
- Study on real-time detection and location method for rail broken based on acoustic emission.....ZHOU Changyi, SUN Wei(232)

Transportation · Logistics · Engineering Management

- Optimal pricing and ordering strategies considering consumer time preference under advance selling
ZHOU Xiongwei, LI Juan(239)
- Research on early warning of abnormal behavior of railway engineering bidding enterprises based on big data
QIAO Zhu, LIU Yisheng, RU Jianqing(250)
- Environmental impact assessment system of tunnel engineering based on environmental bearing capacity and its application
WAN Bingtong, BAO Xueying, LI Aichun(258)
- Research on safety impact factors and safety accident causation mechanism of subway shield construction in mix-ground
LIU Tianxiong, CHEN Huihua, LI Hujun(266)