

目 次

• 交通基础设施工程 •

针对环境振动关注频段的地铁整体道床进出站轮轨相互作用力计算方法..... 孙 微,刘全民,刘林芽(1)

基于 SSA-CNN 的无砟轨道结构参数识别 刘全民,付维旺,宋立忠,高 亏,宋子威(12)

电加热道岔融雪系统传热方式优化..... 贺 清,李宗霖,王晓光,李 飞(23)

基于响应面法的多孔混凝土材料优化与跨尺度增强机制 曲广雷,刘振爽,刘杲朋,郑木莲,唐 得(36)

超高性能混凝土的脆性系数和抗压强度设计值..... 杨 简,罗俊伟,陈宝春,罗 霞,孙同庆,王文荣(51)

考虑电力设施失效的区域路网桥梁震后修复决策方法..... 温佳年,危丽燕,张望欣,韩 强(61)

桥梁裂缝病害检测的轻量化 YOLOv8-ALTE 算法 杨 炜,方虹苏,唐湘松,高维勇,周勇军(75)

收缩徐变作用下的大跨度斜拉桥上无砟轨道受力特性..... 闫 斌,潘雨亭,娄徐瑞利,曾志平(90)

• 载运工具运用工程 •

油液双向流式抗蛇行减振器简化物理参数模型..... 黄彩虹,杨连鹏(98)

三模块虚拟轨道列车分布式驱动的转矩分配研究..... 陈 勇,左建勇,曹文祥,刘宏达,吴 磊(112)

摩托车防抱死制动系统液压控制单元压力响应特性分析
..... 曾 科,傲 其,王小琛,尹晓军,段 浩,胡二江(124)

基于深度学习的铝合金自冲铆接头成形质量预测 ... 刘 洋,郭 浩,吴庆军,张静静,解东旋,庄蔚敏(135)

• 交通运输规划与管理 •

面向网联自动驾驶混行场景的车道通行能力与路阻函数研究
..... 李同飞,赵梦晴,熊 杰,周文涵,窦雪萍(146)

基于时空网络的城际公交化列车开行方案优化
..... 朱昌锋,安 醇,唐兆鑫,成琳娜,王 傑,章 超,符云琪(157)

基于雾天退化图像的高速公路 U 形去雾车道线检测网络 ... 隋胜春,何永明,裴玉龙,张龙龙,金玉凤(169)

考虑枢纽平衡的干支通多层航空运输网络优化模型 姜 雨,林 操,龙 颖,薛清文(186)

基于远海岛屿的海上常态巡航救助系统选址-路径优化
..... 吴 迪,朱玉玺,武文龙,胡 生,刘 可,刘保利(200)

• 交通信息与控制 •

基于前馈控制的高密度停车场自主泊车动态分配模型..... 杨佳逸,梅振宇,唐 崴,巩津瑞,冯 驰(219)

基于滚动时域优化的动态车队协同驻站控制策略 ... 赖心荷,徐 婷,姜瑞森,邓恺龙,张梁颢,张志顺(229)

基于随机矩阵动态时空网络的交通流量预测..... 唐郑熠,陈豫超,黄贻望,王金水,邢树礼(243)

迎浪中船舶垂荡纵摇非线性运动建模与仿真..... 王 帅,任俊生,刘兆春,唐浩云,张广斌(255)

基于 MDS-YOLO 的轻量级隧道表观病害检测算法 张振海,孙 岩,李哲远(271)

• 交通安全与环境 •

城市轨道交通车站站台车致噪声限值 马 蒙,李玉路,张胜龙,石 熠,徐 栋,宋天浩(284)

基于错时序因果变量和分目标训练的车辆事故风险分类分层评估方法
..... 牛世峰,毋俊杰,濮泽昱,赵辰浩(293)

• 其 他 •

《交通运输工程学报》2025 年(第 25 卷)总目次 (I)

CONTENTS

• Transportation Infrastructure Engineering •

Calculation method of wheel-rail interaction forces for subway integrated ballast bed during station entry and exit focusing on frequency range of interest in environmental vibration SUN Wei, LIU Quan-min, LIU Lin-ya(1)

Identification of structural parameters of ballastless track based on SSA-CNN LIU Quan-min, FU Wei-wang, SONG Li-zhong, GAO Kui, SONG Zi-wei(12)

Optimization of heat transfer in electric heating snow melting systems for turnout HE Qing, LI Zong-lin, WANG Xiao-guang, LI Fei(23)

Material optimization and cross-scale enhancement mechanism of porous concrete based on response surface method QU Guang-lei, LIU Zhen-shuang, LIU Gao-peng, ZHENG Mu-lian, TANG De(36)

Brittleness coefficient and compressive strength design value of ultra-high performance concrete YANG Jian, LUO Jun-wei, CHEN Bao-chun, LUO Xia, SUN Tong-qing, WANG Wen-rong(51)

A post-earthquake repair decision method for bridges in regional road networks considering power facility failures WEN Jia-nian, WEI Li-yan, ZHANG Wang-xin, HAN Qiang(61)

Lightweight YOLOv8-ALTE algorithm for bridge crack disease detection YANG Wei, FANG Hong-su, TANG Xiang-song, GAO Wei-yong, ZHOU Yong-jun(75)

Mechanical characteristics of ballastless track on long-span cable-stayed bridge under shrinkage and creep effects YAN Bin, PAN Yu-ting, LOU Xu-rui-li, ZENG Zhi-ping(90)

• Transportation Vehicle Application Engineering •

Simplified physical parameter model for bidirectional-flow yaw dampers HUANG Cai-hong, YANG Lian-peng(98)

Torque distribution for distributed drive of three-module virtual track trains CHEN Yong, ZUO Jian-yong, CAO Wen-xiang, LIU Hong-da, WU Lei(112)

Analysis of pressure response characteristics of hydraulic control unit in motorcycle anti-lock braking system ZENG Ke, AO Qi, WANG Xiao-chen, YIN Xiao-jun, DUAN Hao, HU Er-jiang(124)

Forming quality prediction of aluminum alloy self-piercing riveted joints based on deep learning LIU Yang, GUO Hao, WU Qing-jun, ZHANG Jing-jing, XIE Dong-xuan, ZHUANG Wei-min(135)

• Transportation Planning and Management •

Lane capacity and cost function for the mixed traffic scenario with connected and autonomous vehicles LI Tong-fei, ZHAO Meng-qing, XIONG Jie, ZHOU Wen-han, DOU Xue-ping(146)

Optimization of intercity public transportation train operation plan based on spatio-temporal network ZHU Chang-feng, AN Chun, TANG Zhao-xin, CHENG Lin-na, WANG Jie, ZHANG Chao, FU Yun-qi(157)

U-shape defogging lane detection network for expressway based on fog-degraded images SUI Sheng-chun, HE Yong-ming, PEI Yu-long, ZHANG Long-long, JIN Yu-feng(169)

Optimization model of trunk-regional-general multilevel air transportation network considering hub balance JIANG Yu, LIN Cao, LONG Ying, XUE Qing-wen(186)

Location-routing optimization for regular maritime cruise and emergency rescue system in remote islands WU Di, ZHU Yu-xi, WU Wen-long, HU Sheng, LIU Ke, LIU Bao-li(200)

• Traffic Information and Control •

A proactive control-based dynamic allocation model for high-density autonomous parking lots YANG Jia-yi, MEI Zhen-yu, TANG Wei, GONG Jin-rui, FENG Chi(219)

Dynamic fleet cooperative holding control strategy based on rolling horizon optimization LAI Xin-he, XU Ting, JIANG Rui-sen, DENG Kai-long, ZHANG Liang-hao, ZHANG Zhi-shun(229)

Traffic flow prediction based on random matrix-based dynamic spatio-temporal network TANG Zheng-yi, CHEN Yu-chao, HUANG Yi-wang, WANG Jin-shui, XING Shu-li(243)

Modeling and simulation of nonlinear motion of ship heave and pitch in head sea WANG Shuai, REN Jun-sheng, LIU Zhao-chun, TANG Hao-yun, ZHANG Guang-bin(255)

Lightweight tunnel surface defect detection algorithm based on MDS-YOLO ZHANG Zhen-hai, SUN Yan, LI Zhe-yuan(271)

• Traffic Safety and Environment •

Train-induced noise limit on station platform of urban rail transit MA Meng, LI Yu-lu, ZHANG Sheng-long, SHI Yi, XU Dong, SONG Tian-hao(284)

Hierarchical assessment method for vehicle accident risk classification based on temporal misalignment causal variables and sub-objective training NIU Shi-feng, MU Jun-jie, PU Ze-yu, ZHAO Chen-hao(293)

• The Others •

Total contents of Vol. 25 of *Journal of Traffic and Transportation Engineering* in 2025 (V)