

目 次

• 交通基础设施工程 •

集中式气室对高速铁路隧道内压缩波演化的影响·····	刘 峰,马健斌,张扬泰,卫梦杰,陈大伟(1)
多源动态检测数据驱动的高速铁路轨道板周期性不平顺诊断方法·····	魏子龙,孙宪夫,杨 飞,张 航(15)
基于改进 YOLOv8s 算法的地铁轨道缺陷目标智能检测方法 ·····	崔广炎,李宇杰,王艳辉,安 洁,赵文岳,张 泰(27)
浅埋管幕法隧道竖向应力计算模型与工程应用·····	黄 明,陈骏宁,赖丰文,路德春,肖 雄,李洪江(39)
电石渣与磷石膏改良隧道渣土路基的力学性能与微观机理 ····	焦 宁,张立师,丁建文,薛传荣,王首杰(53)
高速液压夯加固黄河冲积平原软土地基动力传播特性与计算方法 ·····	厉 超,张宇轩,李文杰,马 龙,刘 乾,周 冲,宋曙光(69)
外包 UHPC 加固长期荷载作用下 CFST 墩柱轴压力学性能 ·····	孔文渊,邢智权,陈力波,郑 立,吴晓磊,陈 誉(81)
环境温度场对桥梁动态称重方法的影响 ·····	陈适之,许嘉琳,赵梦翔,陈嘉琪,杨 干,王 涛,韩万水(98)
边坡滚石-植被连续碰撞作用下滚石的运动特征与运动轨迹 ·····	豆红强,夏志豪,郭树成,王 浩,郭朝旭,简文彬(111)
正反向水容量差异对巢湖船闸开通闸运行条件的影响·····	吴 俊,陈韵吉,池映华,周世良,孙腾飞(122)

• 载运工具运用工程 •

冻土区路段下动车组车轮扁疤对车轨动力特性影响·····	吴 丹,完颜博,姚 韵,龙 烨,李险峰(134)
AEB 作用下正面碰撞乘员损伤机理与一体化保护综述 ····	郭建保,曹立波,康 巍,梁 征,张家飞(145)
基于不同雨载荷计算模型的强降雨环境高速列车风雨载荷特性分析·····	盛旭高,毛 军,于梦阁(165)
分布式电驱动多轴应急救援车辆强化学习防侧翻控制 ·····	李 健,李 帅,苏炎召,程 坤,徐海军,黄 晋,陈俊杰(176)

• 交通信息与控制 •

赛事数据驱动的自动驾驶测试评价方法优化与决策规划技术建议 ·····	田 野,黎 瑞,郭慧洁,周 昕,冯华越,孙 剑(190)
非结构化道路下自动驾驶车辆轨迹规划与分层鲁棒控制·····	陈 峥,李春宇,陈博闻,张 景,郭凤香(204)
线结构光扫描的高速公路波形梁钢护栏多参数检测机器人系统 ·····	王会峰,官月圆,白佳迪,张 恒,曹景明,王 蕊,马雪妍,黄 鹤,焦云梅(220)

CONTENTS

• Transportation Infrastructure Engineering •

Influence of a centralized air chamber on the evolution of compression waves in high-speed railway tunnels

..... LIU Feng, MA Jian-bin, ZHANG Yang-tai, WEI Meng-jie, CHEN Da-wei(1)

Diagnosis method for periodic irregularity of track slab on high-speed railway driven by multi-source dynamic inspection data

..... WEI Zi-long, SUN Xian-fu, YANG Fei, ZHANG Hang(15)

Intelligent detection method for metro track defect targets based on improved YOLOv8s algorithm

..... CUI Guang-yan, LI Yu-jie, WANG Yan-hui, AN Jie, ZHAO Wen-yue, ZHANG Tai(27)

Calculation model for vertical stress of shallowly buried pipe-roofing tunnels and its engineering application

..... HUANG Ming, CHEN Jun-ning, LAI Feng-wen, LU De-chun, XIAO Xiong, LI Hong-jiang(39)

Mechanical properties and micro-mechanisms of tunnel spoil roadbed improved by calcium carbide slag and phosphogypsum

..... JIAO Ning, ZHANG Li-shi, DING Jian-wen, XUE Chuan-rong, WANG Shou-jie(53)

Dynamic stress propagation characteristics and calculation methods for soft soil foundation reinforced by high-speed hydraulic compaction in

Yellow River alluvial plain LI Chao, ZHANG Yu-xuan, LI Wen-jie, MA Long, LIU Qian, ZHOU Chong, SONG Shu-guang(69)

Axial compression performance of CFST pier column under long-term load reinforced by encased UHPC

..... KONG Wen-yuan, XING Zhi-quan, CHEN Li-bo, ZHENG Li, WU Xiao-lei, CHEN Yu(81)

Effects of environmental temperature field on bridge weigh-in-motion methods

..... CHEN Shi-zhi, XU Jia-lin, ZHAO Meng-xiang, CHEN Jia-qi, YANG Gan, WANG Tao, HAN Wan-shui(98)

Motion characteristics and trajectories of rockfalls under successive rockfall-vegetation collisions on slopes

..... DOU Hong-qiang, XIA Zhi-hao, GUO Shu-cheng, WANG Hao, GUO Chao-xu, JIAN Wen-bin(111)

Impact of forward and reverse water capacity difference on open lock operation conditions of Chaohu ship lock

..... WU Jun, CHEN Yun-ji, CHI Ying-hua, ZHOU Shi-liang, SUN Teng-fei(122)

• Vehicle Operation Engineering •

Influence of wheel flat of EMUs on vehicle-track dynamic characteristics at sections in permafrost region

..... WU Dan, WANYAN Bo, YAO Yun, LONG Ye, LI Xian-feng(134)

Review of occupant injury mechanism and integrated protection in frontal collision under AEB conditions

..... GUO Jian-bao, CAO Li-bo, KANG Wei, LIANG Zheng, ZHANG Jia-fei(145)

Analysis of wind and rain load characteristics on high-speed train in heavy rainfall environment based on different rain load calculation models

..... SHENG Xu-gao, MAO Jun, YU Meng-ge(165)

Reinforcement learning anti-rollover control for distributed electric drive multi-axle emergency rescue vehicles

..... LI Jian, LI Shuai, SU Yan-zhao, CHENG Kun, XU Hai-jun, HUANG Jin, CHEN Jun-jie(176)

• Traffic Information and Control •

Optimization of testing and evaluation methods and recommendations for decision-making and planning technologies of autonomous driving

driven by competition data TIAN Ye, LI Rui, GUO Hui-jie, ZHOU Xin, FENG Hua-yue, SUN Jian(190)

Trajectory planning and hierarchical robust control for autonomous driving on unstructured roads

..... CHEN Zheng, LI Chun-yu, CHEN Bo-wen, ZHANG Jing, GUO Feng-xiang(204)

Multi-parameter detection robot system for highway corrugated beam steel guardrail based on linear structured light scanning

..... WANG Hui-feng, GUAN Yue-yuan, BAI Jia-di, ZHANG Heng, CAO Jing-ming, WANG Rui, MA Xue-yan, HUANG He, JIAO Yun-mei(220)