

目次

· 电动汽车充换电设施布局规划与调控运营专栏 ·

基于元网络的电动汽车高速公路充电设施选址优化方法 李佳佩, 谢 驰(1)

“光储充”一体化公交充电设施两阶段鲁棒选址方法 刘小寒, 程 颖, 王聘玺, 马 皓, 马晓磊(14)

站点需求响应的电动模块公交车重组调度优化 高 虹, 刘 锴, 姚恩建(24)

考虑混合车位的自动驾驶电动共享汽车系统配置与运营联合优化 胡 路, 徐尉耀, 李 皓(37)

基于电动汽车大数据的多等级充电站选址与服务能力研究 孙 健, 宋茂星, 邱 果, 刘占文(48)

基于拓展交通均衡的高速路网充电桩优化部署 张兆磊, 郝 威, 李 豪, 唐 峰, 吕能超, 刘至真(61)

电动公交车队置换与充电设施布局协同优化 王玉生, 罗欣欣, 单香琦(72)

交通流“流速密能”图谱模型与应用 黄健畅, 宋国华(84)

· 路面工程 ·

基于材料信息学的沥青混合料性能提升综述及展望 刘志杨, 董泽蛟, 周 涛, 单丽岩, 马宪永(98)

掺加纳米 SiO₂/GNPs/GO 的冷再生沥青路面基层性能及作用机理
..... 陈渊召, 李振霞, 冯纪兵, 郭滕滕, 闫浩博, 王朝辉, 房辰泽(121)

· 路基工程 ·

基于 CEL 法的砂土中相邻 XCC 桩贯入对既有 XCC 单桩影响的研究
..... 周 鹏, 夏良利, 刘汉龙, 徐长节, 崔 杰, 曹光伟, 丁选明(141)

循环荷载下镍铁渣-黏土的动力特性及本构模型
..... 尹平保, 邹 敏, 贺 炜, 杨锐波, 张永杰, 李 鑫, 陈彦虎, 张晓曦(155)

· 桥梁工程 ·

超 2 000 m 级悬索桥重力式锚碇抗滑安全度设计方法 熊 文, 王仁贵, 汪 涛, 魏乐永, 周小燚(166)

往复荷载下自复位 CFST 桥墩预应力工作及损失机理试验
..... 贾俊峰, 刘 洋, 邱灿星, 郭 河, 赵建瑜, 郭彬立, 张凯迪(176)

面向低碳理念的桥梁群多目标维护决策优化研究 王 磊, 陈 瑞, 戴理朝, 涂荣辉(188)

天峨龙滩特大桥外包混凝土全过程性能设计与施工质量控制
..... 陈 正, 陈 霖, 吴昌杰, 郑皆连, 丁庆军, 罗小斌, 徐 文, 杨 阳, 赵国欣(201)

近场爆炸作用下节段预制拼装 RC 桥墩的易损性评估 刘 路, 宗周红, 周海飞, 陈振健, 唐光武(212)

自黏结预应力 CFRP 修复含缺陷钢板的疲劳性能 陈卓异, 刘 雁, 王升旗, 严子卓, 彭 晖(224)

波形钢腹板组合箱梁日照非均匀温度场研究 黄石基, 蔡陈之, 邹云峰, 何旭辉, 张炎培(239)

型钢开口肋-UHPC 轻型组合桥面新结构静力与疲劳性能 孙 璇, 邵旭东, 邹德强(252)

煤矿地面环境与荷载耦合作用下 RC 柱受压性能 李生元, 吕恒林, 吴元周, 周淑春, 彭 浩, 孙呈凯(263)

· 隧道工程 ·

顶板局部脱空状态下正交密贴下穿通道的车致振动响应研究
..... 章慧健, 付柏毅, 牛晓宇, 王峥峥, 郭宏博(274)

暗挖隧道 SRG 拱架节点抗弯性能及参数影响机制研究 宋 远, 黄明利, 张旭东, 李 然(286)

· 交通工程 ·

交叉口自动驾驶车辆事故前场景生成与致因分析 刘 倩, 王雪松(297)

基于竞合理论的“双 Y 形”接驳公交线路共线段站点优化 李文勇, 魏 聪, 杨瑞新, 廉 冠(310)

CONTENTS

• Special Column on Layout Planning, Regulation and Operation of Electric Vehicle Charging and Swapping Facilities •

A Metanetwork-based Optimization Approach to Locating Charging Stations for Electric Vehicles in Highway Networks LI Jia-pei, XIE Chi(1)

Two-stage Robust Location Approach for Solar-powered Bus-charging Infrastructure Integrated with Energy Storage LIU Xiao-han, CHENG Ying, WANG Pin-xi, MA Hao, MA Xiao-lei(14)

Formation and Scheduling Optimization of Electric Modular Buses with Station-based Demand-responsive Model GAO Hong, LIU Kai, YAO En-jian(24)

Joint Optimization of Mixed Parking Spaces and Dynamic Pricing for a Shared Autonomous Electric Vehicle System HU Lu, XU Wei-yao, LI Hao(37)

Location and Service Capability of Multilevel Charging Stations Based on Electric Vehicle Big Data SUN Jian, SONG Mao-xing, QIU Guo, LIU Zhan-wen(48)

Optimized Deployment of Charging Piles Based on Extended Traffic Equilibrium in Highway ZHANG Zhao-lei, HAO Wei, LI Hao, TANG Feng, LYU Neng-chao, LIU Zhi-zhen(61)

Collaborative Optimization of Electric Bus Fleet Replacement and Charging Facility Layout WANG Yu-sheng, LUO Xin-xin, SHAN Xiang-qi(72)

Traffic Flow Diagram Model and Application for “Flow, Speed, Density, and Energy” HUANG Jian-chang, SONG Guo-hua(84)

• Pavement Engineering •

Review and Prospects of Performance Enhancement of Asphalt Mixtures Based on Material Informatics LIU Zhi-yang, DONG Ze-jiao, ZHOU Tao, SHAN Li-yan, MA Xian-yong(98)

Investigating Performance and Mechanism of Sub-advanced Asphalt Pavement Full-depth Cold Recycled Base with Nano-SiO₂/GNPs/GO CHEN Yuan-zhao, LI Zhen-xia, FENG Ji-bing, GUO Teng-teng, YAN Hao-bo, WANG Chao-hui, FANG Chen-ze(121)

• Subgrade Engineering •

Study on the Influence of Adjacent XCC Pile on Existing XCC Single Pile in Sand Based on CEL Method ZHOU Peng, XIA Liang-li, LIU Han-long, XU Chang-jie, CUI Jie, CAO Guang-wei, DING Xuan-ming(141)

Dynamic Characteristics and Constitutive Model of Ferronickel Slag-clay Under Cyclic Loading YIN Ping-bao, ZOU Min, HE Wei, YANG Kai-bo, ZHANG Yong-jie, LI Xin, CHEN Yan-hu, ZHANG Xiao-xi(155)

• Bridge Engineering •

Anti-slip Safety Design of Gravity Anchorage of Suspension Bridges with Over-2 000-meter Main Spans XIONG Wen, WANG Ren-gui, WANG Tao, WEI Le-yong, ZHOU Xiao-yi(166)

Experimental Study on Prestressed Working and Loss Mechanism of Self-centering CFST Bridge Columns Under Cyclic Load JIA Jun-feng, LIU Yang, QIU Can-xing, GUO He, ZHAO Jian-yu, GUO Bin-li, ZHANG Kai-di(176)

Multi-objective Maintenance Optimization Strategy for Bridge Networks Oriented to Low-carbon WANG Lei, CHEN Rui, DAI Li-zhao, TU Rong-hui(188)

Whole Process Performance Design and Construction Quality Control of Encased Concrete of the Tian’e Longtan Bridge CHEN Zheng, CHEN Ben, WU Chang-jie, ZHENG Jie-lian, DING Qing-jun, LUO Xiao-bin, XU Wen, YANG Yang, ZHAO Guo-xin(201)

Vulnerability Assessment of Precast Segmental RC Bridge Piers Under Near-field Explosion LIU Lu, ZONG Zhou-hong, ZHOU Hai-fei, CHEN Zhen-jian, TANG Guang-wu(212)

Fatigue Performance of Self-bonded Prestressed CFRP Repaired Steel Plates Containing Defects CHEN Zhuo-yi, LIU Yan, WANG Sheng-qi, YAN Zi-zhuo, PENG Hui(224)

Investigation of Non-uniform Temperature Field of Composite Box-girders with Corrugated Steel Webs Under Solar Radiation HUANG Shi-ji, CAI Chen-zhi, ZOU Yun-feng, HE Xu-hui, ZHANG Yan-pei(239)

Research on Static and Fatigue Properties of New Structure of Section Steel-UHPC Lightweight Composite Deck with Open Rib SUN Xuan, SHAO Xu-dong, ZOU De-qiang(252)

Compression Performance of Reinforced-concrete Columns Under Coupled Action of Colliery Ground Environment and Load LI Sheng-yuan, LYU Heng-lin, WU Yuan-zhou, ZHOU Shu-chun, PENG Hao, SUN Cheng-kai(263)

• Tunnel Engineering •

Research on the Vehicle-induced Dynamic Response of Close-attached Underpass with Local Void Above Ceiling ZHANG Hui-jian, FU Bo-yi, NIU Xiao-yu, WANG Zheng-zheng, GUO Hong-bo(274)

Bending Performance and Parameter Influencing Mechanism of Spatial Reticulated Grid Joint Components in Mined Tunnel SONG Yuan, HUANG Ming-li, ZHANG Xu-dong, LI Ran(286)

• Traffic Engineering •

Pre-crash Scenario Generation and Causation Analysis for Autonomous Vehicle Crashes at Intersections LIU Qian, WANG Xue-song(297)

Optimization of Stops in Common Section of “Double Y-shaped” Feeder Bus Routes Based on Competing Theory LI Wen-yong, WEI Cong, YANG Rui-xin, LIAN Guan(310)