

目 次

“高原极端环境公路防灾与服役安全”专栏

交通荷载下高原公路翻浆病害机理与处治对策..... 张军辉,陈志德,高峰,纳启财,马鹏飞,肖林(1)
 基于信息量模型的进藏公路灾害风险区划..... 刘卫民,郭冠森,蔡庆娥,尉学勇,董小波,陈培聪(11)
 考虑材料冻融劣化与多年冻土退化影响效应的桥梁桩基础抗震性能..... 张熙胤,于生生,王万平,文海荣(20)
 变温变湿条件下早强水泥稳定碎石的断裂性能..... 葛冬冬,刘定远,吕松涛,姜向阳,薛艳华,于洋(31)
 进藏公路交通阻断状态判别及预测模型..... 吴玲,刘建蓓,张志伟,单东辉,叱干都(42)
 脲酶诱导碳酸钙沉淀对盐渍土冻胀特性的影响..... 李岷,温自丽,刘正楠(53)
 基于不确定性量化理论的寒区道路服役性能预测及评价研究..... 刘媛媛,司君岭,郑好,任道驹,樊少冰,权磊(60)
 基于LSTM+Transformer的冻融循环作用下路基土永久变形预估模型..... 张安顺(67)

路面结构与材料

装配式钢-混凝土空心路面板接缝传荷性能分析..... 朱广山,董梓昊,杨野,王金山(73)
 耐高温不粘轮乳化沥青的制备与性能研究..... 严涵,查旭东,康潇刚,龚演,张政基,张文帅(80)
 含混凝土再生骨料水泥稳定基层性能综述..... 宋承哲,李家全,孔靖勋,周长俊,安星(88)
 石墨烯类材料改性沥青的研究进展..... 张宗伟,何凯(100)

桥梁工程与隧道工程

TRECC复合约束混凝土柱轴压力学性能模型分析..... 马高,王朝阳(109)
 悬索桥锚碇系统拉杆组件螺母受力性能研究..... 柳正,李钊,秦桂芳,谢钦建,姜远根,张吉勇,王磊,马亚飞(119)
 连续梁桥滑动支座安装方向设计及施工控制..... 关长禄,孙秀东,董浩,王兴舟(129)
 基于路面破损的车-钢桥面板裂纹扩展研究..... 汤胜,殷新锋,张明,晏万里(135)
 圆形管墩-承台承插式连接承插深度计算..... 陈景丽,肖锋,王志刚,王志海,徐艳(146)
 土工合成材料加筋土柔性桥台施工关键技术..... 余晓晓,徐超,李昊煜,左彬澧(153)
 温度效应组合下大跨度混凝土箱形拱桥可靠度参数分析..... 郑峻林,蒋友宝,郑欣豪,鲁乃唯(159)
 多跨高墩组合连续刚构桥静力性能及稳定性研究..... 黄宇,刘冠宇,易建波,邢轩,粟森,彭晖(166)
 考虑嵌岩效应的重力式锚碇基础承载性能模型试验研究..... 尹敬泽,过超,张鑫敏,李伟,石海洋,付佰勇(174)
 自适应空间转体式主索鞍理论及试验研究..... 陈远林,黄安明,陈龙,谢俊(181)
 隧道机械化大断面进洞施工与加固措施研究..... 梁肖,李科,郭鸿雁,胡学兵,姚成睿(186)
 列车速度对寒区隧道保温防融长度的影响研究..... 黄华南,陈勇,王一博,吴亚平(196)
 超大直径盾构空推段明挖隧道断面形式研究..... 孙超,张光伟(204)

智慧公路与智能交通

BIM技术在公路装配式桥梁方案设计中的应用研究..... 李金龙,王欣南,刘东升,陈中治(212)
 跨海大桥防船撞系统超高检测技术的应用研究..... 宋小东,段敏,任全礼,胡佳男,杨乃恒,陈静文,童建荣(219)
 常规跨径钢箱梁桥工业化设计及经济性分析..... 崔冰,陈鲲(225)

国外公路

钢筋桁架叠合板施工阶段参数分析..... 张俊豪,贺君,谭超,奉思东,王梓桐(235)
 塞内加尔高速公路融合收费方案设计与仿真评估..... 赖增成,张宁,杨世春,丁雪琪,季彦婕(244)

CONTENTS

Highway Hazard Prevention and Service Safety in Plateau Extreme Environment

- Mechanism of Mud Pumping on Plateau Highway under Traffic Loads and Its Treatment Strategy
 ZHANG Junhui, CHEN Zhide, GAO Feng, NA Qicai, MA Pengfei, XIAO Lin(1)
- Risk Zoning of Hazards along Highways to Xizang Based on Information Model
 LIU Weimin, GUO Guanmiao, CAI Qing'e, YU Xueyong, DONG Xiaobo, CHEN Peicong(11)
- Seismic Performance of Bridge Pile Foundation Considering Effects of Material Freeze-Thaw Deterioration and Permafrost
 Degradation..... ZHANG Xiyin, YU Shengsheng, WANG Wanping, WEN Hairong(20)
- Cracking Characteristics of Cement-Stabilized Macadam with Early Strength Agent under Variable Temperature and Humidity
 Curing Conditions GE Dongdong, LIU Dingyuan, LYU Songtao, JIANG Xiangyang, XUE Yanhua, YU Yang(31)
- Identification and Prediction Model for Traffic Blockage State of Highways to Xizang
 WU Ling, LIU Jianbei, ZHANG Zhiwei, SHAN Donghui, CHI Gandu(42)
- Influence of Urease-Induced Calcium Carbonate Precipitation on Frost Heave Characteristics of Saline Soil
 LI Jue, WEN Zili, LIU Zhengnan(53)
- Prediction and Evaluation of Road Service Performance in Cold Regions Based on Uncertainty Quantification Theory
 LIU Yuanyuan, SI Junling, ZHENG Hao, REN Daoju, FAN Shaobing, QUAN Lei(60)
- Permanent Deformation Prediction Model of Subgrade Soil under Freeze-Thaw Cycles Based on LSTM and Transformer
 ZHANG Anshun(67)

Pavement Structure and Materials

- Analysis of Joint Load Transfer Performance of Prefabricated Steel-Concrete Hollow Pavement Slab
 ZHU Guangshan, DONG Zihao, YANG Ye, WANG Jinshan(73)
- Preparation and Performance of Emulsified Asphalt with High-Temperature Resistant and Wheel Sticking-Free Effects
 YAN Han, ZHA Xudong, KANG Xiaogang, GONG Yan, ZHANG Zhengji, ZHANG Wenshuai(80)
- A Review of Performance of Cement-Stabilized Base Materials Containing Recycled Concrete Aggregate
 SONG Chengzhe, LI Jiaquan, KONG Jingxun, ZHOU Changjun, AN Xing(88)
- Research Progress of Modified Asphalt with Graphene Materials..... ZHANG Zongwei, HE Kai(100)

Bridge Engineering & Tunnel Engineering

- Model Analysis of Axial Compressive Mechanical Properties of Concrete Column Constrained by Textile-Reinforced Engineered
 Cementitious Composites MA Gao, WANG Zhaoyang(109)
- Mechanical Performance of Nuts in Tie Rod Assembly of Anchorage System of Suspension Bridge
 LIU Zheng, LI Zhao, QIN Guifang, XIE Qinjian, JIANG Yuangen, ZHANG Jiyong, WANG Lei, MA Yafei(119)
- Installation Direction Design and Construction Control of Sliding Bearing of Continuous Girder Bridge
 GUAN Changlu, SUN Xiudong, DONG Hao, WANG Xingzhou(129)
- Crack Propagation of Vehicle-Steel Bridge Deck Slabs Based on Pavement Damage
 TANG Sheng, YIN Xinfeng, ZHANG Ming, YAN Wanli(135)
- Calculation of Socket Depth for Circular Pipe Pier-Bearing Platform Socket Connection
 CHEN Jingli, XIAO Feng, WANG Zhigang, WANG Zhihai, XU Yan(146)
- Key Techniques for Constructing Flexible Geosynthetic Reinforced Soil Abutments
 YU Xiaoxiao, XU Chao, LI Haoyu, ZUO Binli(153)
- Reliability Analysis of Long-Span Concrete Box Arch Bridge under Temperature Effect Combinations
 ZHENG Junlin, JIANG Youbao, ZHENG Xinhao, LU Naiwei(159)
- Static Performance and Stability of a Multi-Span Hybrid Continuous Rigid Frame Bridge with High Piers
 HUANG Yu, LIU Guanyu, YI Jianbo, XING Xuan, SU Miao, PENG Hui(166)
- Model Test on Bearing Capacity of Gravity Anchor Foundation Considering Rock Socketed Effect
 YIN Jingze, GUO Chao, ZHANG Xinmin, LI Wei, SHI Haiyang, FU Baiyong(174)
- Theoretical and Experimental Studies on Adaptive Spatial Rotating Main Cable Saddle
 CHEN Yuanlin, HUANG Anming, CHEN Long, XIE Jun(181)
- Research on Mechanical Entry Excavation and Reinforcement Measures for Large Cross-Section Tunnel
 LIANG Xiao, LI Ke, GUO Hongyan, HU Xuebing, YAO Chengrui(186)
- Influence of Train Speed on Thermal Insulation and Anti-Thawing Length for Tunnel in Cold Region
 HUANG Huanan, CHEN Yong, WANG Yibo, WU Yaping(196)
- Section Form of Open-Cut Tunnel by Ultra-Large-Diameter Shield Empty-Push Technology..... SUN Chao, ZHANG Guangwei(204)

Smart Road and Intelligent Transportation

- Application Research of BIM Technology in Highway Prefabricated Bridge Scheme Design
 LI Jinlong, WANG Xinnan, LIU Dongsheng, CHEN Zhongzhi(212)
- Application of Superelevation Detection Technology in Ship Collision Prevention System of Cross-Sea Bridges
 SONG Xiaodong, DUAN Min, REN Quanli, HU Jianan, YANG Naiheng, CHEN Jingwen, TONG Jianrong(219)
- Industrial Design and Economic Analysis of Steel Box Girder Bridge with Conventional Span CUI Bing, CHEN Kun(225)

Foreign Highway

- Parametric Analysis of Composite Slab with Steel Bar Trusses at Construction Stages
 ZHANG Junhao, HE Jun, TAN Chao, FENG Sidong, WANG Zitong(235)
- Design and Simulation Evaluation of Converged Toll Collection Schemes for Senegalese Highways
 LAI Zengcheng, ZHANG Ning, YANG Shichun, DING Xueqi, JI Yanjie(244)