

隧道建設

(中英文)

TUNNEL CONSTRUCTION

4

2023年4月 第43卷 第4期

Vol.43 No.4 2023

隧道及地下工程智能建造专题（二）

扫码看
工程简介

主管 中铁隧道局集团有限公司
主办 中铁隧道勘测设计研究院有限公司



04>

隧道建设(中英文)

第43卷 第4期(总第273期) 2023年4月20日

目 次

· 专家论坛 ·

钻爆法隧道智能建造技术研究综述与展望(中英文)☆ 王志坚,童建军(529)

我国隧道智能建造技术发展与展望(中英文)☆ 郭卫社,洪开荣,高攀,李凤远,李叔敖,赵旭(549)

· 综述 ·

隧道围岩分级方法研究进展及“人工智能+”应用动态☆ 申艳军,吕游,李曙光,张津源,马文,张蕾,许振浩,黄勇(563)

· 研究与探索 ·

基于多模态控制策略的TBM掘进参数预测模型研究☆ 郑永光,张娜,刘扬扬,孙春焕,荆留杰,李鹏宇(583)

基于Attention-ResNet-LSTM混合神经网络的盾构掘进速度预测新方法☆ 高昆,于思淏,许维青,张子新(592)

克泥效特性试验及其在盾构穿越施工中的应用 唐璇,邵小康,谢维,付晓峰,陈越,蔡子峰,张雷(602)

基于深度学习的隧道混凝土温度滚动预测方法研究☆ 范中晶,郑晨路(611)

白云岩隧道排水路径结晶趋势变化及影响分析 庄潮辉,刘禹阳,席龙龙,周旋,汤九科(618)

基于PIV技术的隧道施工引起的地层变形规律试验研究 梁连,方焘,方立建,肖炎冬(625)

基于局部强度折减法的地下洞室群“危险区”破坏判据及其工程应用 陈以超,张黎明,丛宇,王肖珊,王在泉(634)

基于变权集对-多维联系正态云模型的TBM地质适应性评价预测 张建明,侍克斌,巴合特别克·达拉依汗,善鸿泽,石仁义,符涛,卢志鹏(645)

隧道平导中隔板结构及平导断面形式对通风效果的影响研究 龙开天,赵建华,郭春(658)

· 规划与设计 ·

沉管隧道岸上最终接头处二次围堰结构设计与应用——以襄阳市东西轴线道路工程鱼梁洲段项目为例 冯先导,王聪,孙晓伟,曾波存(665)

桥隧工程GIS+BIM正向设计方法与应用☆ 刘少鹏,邓斌,曹影峰,夏丰勇(674)

· 施工技术 ·

极小覆岩厚度条件下地铁隧道逆台阶法开挖稳定性分析 王建辉,高萌,王润生,阳凯,黄长鑫,张连震,张青,赵耀,韩旭,赵军云,王安妮,李志鹏,翁贤杰(690)

· 施工机械 ·

盾构隧道内部中隔墙安装机智能化控制系统设计☆ 王华,林春刚,李荆(698)

大直径盾构常压复合刀盘滚刀刀筒结构设计与分析 张帅坤(711)

· 数据统计 ·

截至2022年底中国铁路隧道情况统计及2022年新开通项目重点隧道概况(中英文) 巩江峰,王伟,黎旭,朱勇(721)

· 资讯 ·

日本研发既有管道拆除、破碎、回填Re-cube mole技术 (601)

永临结合钢板桩构筑地下大空间,日本大林组开发“Diver Street”施工技术 (644)

更轻更强,防腐抗蚀——美国研发新型聚合物混凝土管片 (657)

清水建设开发山岭隧道开挖面可视化“SP-MAPS”系统 (689)

《隧道建设(中英文)》刊登过的有关“隧道及地下工程智能建造”的文章 (739)

“白云说隧®”之圣彼得堡地铁事故修复方案 (744)

广告目次 (591)

注:本期含“隧道及地下工程智能建造”专题文章8篇(标☆)。

专题组稿顾问:陈湘生 组稿总负责人:洪开荣 组稿咨询专家:雷升祥,王志坚

特邀组稿人:马伟斌,张琦,丁正全,吕刚,刘建友,林志,高峰,宋神友,刘健,金文良,贾连辉,郭卫社,高攀,芮易,龚琛杰,叶飞,荆留杰,王志伟,邹文浩

Tunnel Construction

Vol. 43, No. 4 (Total No. 273) April 20, 2023

CONTENTS

- Overview and Prospect of Researches on Intelligent Engineering Technologies for Tunnels Constructed by Drilling-and-Blasting Method WANG Zhijian, TONG Jianjun (529)
- Status Quo and Prospects of Tunnel Intelligent Construction in China GUO Weishe, HONG Kairong, GAO Pan, LI Fengyuan, LI Shu'ao, ZHAO Xu (549)
- Research Progress of Tunnel Surrounding Rock Classification Method and Application Trend of "Artificial Intelligence+" ... SHEN Yanjun, LYU You, LI Shuguang, ZHANG Jinyuan, MA Wen, ZHANG Lei, XU Zhenhao, HUANG Yong (563)
- Prediction Model of Tunnel Boring Machine's Tunneling Parameters Based on Multimodal Control Strategy ZHENG Yongguang, ZHANG Na, LIU Yangyang, SUN Chunhuan, JING Liujie, LI Pengyu (583)
- Novel Prediction Method for Shield Advancing Speed Based on Attention-ResNet-Long Short-Term Memory Hybrid Neural Network GAO Kun, YU Sihao, XU Weiqing¹, ZHANG Zixin (592)
- Performance Test of Clay Shock and Its Application in Shield Undercrossing Construction TANG Xuan, SHAO Xiaokang, XIE Wei, FU Xiaofeng, CHEN Yue, CAI Zifeng, ZHANG Lei (602)
- Rolling Prediction Method of Tunnel Concrete Temperature Based on Deep Learning FAN Zhongjing, ZHENG Chenlu (611)
- Crystallization Trend Change and Influencing Factors of Tunnel Drainage Path in Dolomite ZHUANG Chaohui, LIU Yuyang, XI Longlong, ZHOU Xuan, TANG Jiuke (618)
- Experimental Study on Deformation Law of Stratum Caused by Tunnel Construction Based on Particle Image Velocimetry Technique LIANG Lian, FANG Tao, FANG Lijian, XIAO Yandong (625)
- Damage Criterion of Danger Zone of Underground Cavern Group Based on Local Strength Reduction Method and Its Engineering Application CHEN Yichao, ZHANG Liming, CONG Yu, WANG Xiaoshan, WANG Zaiquan (634)
- Evaluation and Prediction of TBM's Geological Adaptability Based on Variable-Weight Set Pair-Multidimensional Linked Normal Cloud Model ZHANG Jianming, SHI Kebin, DALAYIHAN Bahetebieke, SHAN Hongze, SHI Renyi, FU Tao, LU Zhipeng (645)
- Influence of Middle Partition Wall Structure and Cross-Section Type of Parallel Pilot Tunnel on Ventilation Effect LONG Kaitian, ZHAO Jianhua, GUO Chun (658)
- Design and Application of Secondary Cofferdam Structure at Onshore Final Joint of Immersed Tunnel: a Case Study of Yuliangzhou Section on East-West Axis Road Project in Xiangyang, China FENG Xiandao, WANG Cong, SUN Xiaowei, ZENG Bocun (665)
- Geographic Information System + Building Information Modeling-Based Forward Design Method: Applications in Bridges and Tunnels LIU Shaopeng, DENG Bin, CAO Yingfeng, XIA Fengyong (674)
- Stability Analysis of Surrounding Rock of Inverse Bench Excavation of Metro Tunnel with Minimal Overburden Thickness WANG Jianhui, GAO Meng, WANG Runsheng, YANG Kai, HUANG Changxin, ZHANG Lianzhen, ZHANG Qing, ZHAO Yao, HAN Xu, ZHAO Junyun, WANG Anni, LI Zhipeng, WENG Xianjie (690)
- Design of Intelligent Control System for Installation Machine of Shield Tunnel Middle Partition Wall WANG Hua, LIN Chungang, LI Jing (698)
- Design and Analysis of Disc Cutter Barrel Structure of Atmospheric Composite Cutterhead of Large-Diameter Shield ZHANG Shuaikun (711)
- Statistics of Railway Tunnels in China by the End of 2022 and Overview of Key Tunnels of Projects Newly Put into Operation in 2022 GONG Jiangfeng, WANG Wei, LI Xu, ZHU Yong (721)