

# 工程建设与设计





# 建筑与结构设计

- 01 城市有机更新背景下的咸阳渭城中学校园规划设 计(刘动,侯桢珍)
- 04 高密度建筑设计策略在小学校园综合体设计中的 应用(胡伟民)
- 07 沉浸式青少年科创活动中心的建设规模与功能配置研究(陈佳妮)
- 10 基于IDA的某秀场倒塌模式分析(杨德圣)
- 13 试论高层建筑电梯井烟囱效应及防火设计 (刘建军)
- 16 新时期新型城镇化背景下城市更新的伦理探究 (金杭杭)

# 基础工程设计

- 22 沿海淤积地区铁路箱梁场制存梁台位基础设计及 施工(张才刚)

# 公用工程设计

26 江西上饶某精准医疗中心项目防雷问题的探讨 (黄兆睿,曹宇)

#### 2022 / 04 下 / 目次

- 30 基于BIM技术的暖通系统集成化设计方法研究 (杨春磊)
- 33 高层建筑消防灭火救援难点及对策研究(刘腾飞)
- 36 基于多目标优化算法的市政给排水管网改造模型 (曲振军,邸文正)
- 39 分布式光伏发电的现状分析及技术改进研究 (向萌)
- 42 固定消防设施在高层建筑火灾救援中的应用 (马海峰)

# 市政・交通・水利工程设计

- 45 寒旱地区波形腹板钢-混组合结构桥梁防腐涂装的 应用研究(袁文金)
- 48 城市快速路高架桥的结构设计研究(徐聪)
- 51 某移动立交桥搬迁工作状态受力分析(王辉)
- 54 盐城市区公共交通系统的规划研究(江舟)
- 57 趸船与活动钢引桥搭接处软管布置方案优化 (曹宇,黄兆睿)
- 60 城市道路设计中的人性化设计(潘军)
- 63 市政道路工程平面交叉口设计思路与应用研究 (孟宪虹)
- 66 试析原生态环境景观设计在城市公园中的应用 (梁超越)
- 69 盐城市铁路综合客运枢纽道路交通监控设计研究 (杨诗伟)
- 72 水利水电工程地质勘测的主要方法探究 (吴爱军)
- 75 软质景观与环境景观人性化设计初探(郭子铭)
- 78 河道蓄水工程稳定性及防渗处理技术研究 (丰小华)
- 82 海绵城市理念在城市建设过程中的应用(黄丽)

# 工业工程设计

85 某实验堆区域辐射监测系统改造设计及实施 (戎永华,李永生,张春杰,刘洋)

## 环境工程设计

89 沧州某国产化节能型反渗透海水淡化工程设计 (宋瑞平,张建中,张希建,何钦雅,翁晓丹, 陶如钧)

## 智能与信息化

92 互联网大数据技术在智慧交通发展中的应用策略 分析(张健飞)

- 95 "互联网+""智慧消防"促进消防工程管理创新 之探讨(庞凤芝)
- 98 通信智能中电子信息工程技术的运用(李靓熙)
- 101 遥感航测技术在地图测绘中的应用(郭昕)

# 工程施工技术

- 104 静压振动取样在砂源勘察中的应用(郑洪文)
- 107 人工同步碎石封层在农村公路过渡型路面中的应 用探究(唐德才,赵登科)
- 110 钢纤维混凝土技术在公路桥梁施工中的应用分析 (商国峰)
- 113 桥涵施工中的钻孔桩施工技术控制对策分析—— 以念喀大桥桥涵施工为例(杨茂召)
- 117 软土地基处理中素混凝土桩复合地基的运用研究 (叶忠志)
- 120 顶推滑移技术在钢结构桥梁施工中的应用研究 (刘凯)
- 123 探究复杂条件下隧道爆破施工技术方案(王军章)
- 126 方柱盖梁抱箍优化设计及应用(黄永建)
- 129 整体模架在建筑施工领域的应用分析(李建强)
- 132 双塔单索面空间斜拉索整体张拉技术研究 (李丽宁)
- 135 重力式锚碇预应力锚固系统的定位研究与应用 (闫贝贝)
- 138 大跨径钢混叠合梁斜拉桥三节段安装施工技术要 点(殷绪敏)
- 141 注浆微型钢管桩复合支护在深基坑支护工程中的 应用(刘均)
- 144 粉砂地质条件下受限空间超大变径固结扩盘桩施 工技术应用(王海龙,金晓宇)
- 147 冷再生成套技术在国道路面改造项目中的应用 (覃建科)
- 150 桥梁工程质量通病防治措施(沈鹏)
- 153 深水区浅覆盖层锚桩法钢栈桥设计及施工 (李晨, 谌捷)
- 157 张拉控制应力对钢绞线组织和性能的影响性研究 (王显录,刘存建)
- 160 陀螺定向在地铁长区间隧道控制测量中的应用 (张健,曾力,易军,雷攀)
- 163 建筑现浇钢筋混凝土结构中铝合金模板施工研究 (李宇思)
- 166 下沉式绿地施工技术研究(王超)
- 169 新方法、新技术、新材料在室内装饰装修工程中 的应用(杨雪峰)

172 悬浇段挂篮施工要点及质量控制对策分析——以 柏香岭大桥为例(赵双)

2022 / 04 下 / 目次

- 175 珠江三角洲水资源配置工程中光缆水浮敷设应用研究(张兆波,刘震,刘毅,肖海明)
- 178 高速公路机电工程施工技术及质量管理研究 (李家璋)
- 181 邻近地铁盾构隧道的深基坑施工要点及施工监测研究(龙侨平)
- 184 绿色节能技术在建筑工程施工中的应用 (赵景锋)
- 187 新疆沙漠地区路面病害分析及施工处治技术 (曾文)
- 190 喷播植草生态护坡技术在市政景观工程中的应用 分析(章浩明,郑永吉)
- 193 市政工程中的沥青混合料摊铺施工工序及技术 (何海国)
- 196 房屋建筑工程混凝土后浇带施工技术研究 (胡小锋)

# 工程项目管理

- 199 集中供热管网工程全过程造价管理控制要点分析 (王源,王昱心)
- 202 不同热泵供热方式的供热成本及工程造价对比研究(何怡枫)
- 205 复杂条件下建设工程项目招标投标策略分析 (韩文彬)
- 208 装配整体式剪力墙结构的质量管理措施(周翀)
- 211 双块式轨枕预制质量控制措施(付元元)
- 214 混凝土生产过程的质量控制(王瑞亮,寇成杰)
- 217 探讨基于超概问题的公路工程概算调整管理方法 (左雅萍)
- 220 提高房屋建筑工程管理与施工质量的策略探讨 (娄海燕)
- 223 大跨径连续钢结构桥梁施工质量控制对策研究 (张生龙)
- 226 建筑工程质量通病及工程质量管理措施分析 (曹利军)
- 229 城市轨道交通工程安全管理要点(余世海)
- **232** 建筑工程试验检测现状分析及其解决对策 (王宏伟)

#### **Architectural and Structural Design**

- 01 Campus Planning and Design of Xianyang Weicheng Middle School Under the Background of Urban Organic Renewal(LIU Dong, HOU Zhen-zhen)
- **04** Application of High Density Building Design Strategy in Primary School Campus Complex Design(HU Wei-min)
- 07 Study on Construction Scale and Functional Configuration for Teenager Science and Technology Innovation Activity Center(CHEN Jia-ni)
- 10 Collapse Mode Simulation of a Show Theater Based on IDA(YANG De-sheng)
- 13 Discussion on Elevator Shaft Chimney Effect and Fire Prevention Design of High-Rise Building(LIU Jian-jun)
- 16 Ethical Exploration on Urban Renewal Under the Background of New Urbanization in the New Period(JIN Hang-hang)

#### **Engineering Design of the Ground**

- 19 Problems and Treatment of Indoor Geotechnical Test in Geotechnical Engineering Investigation in Shanghai Area(HUANG Hui)
- 22 Foundation Design and Construction Technology of Beam Fabrication and Storage Platform in Railway Box Girder Yard in Coastal Siltation Area(ZHANG Cai-gang)

# **Public Utilities Design**

- 26 Discussion on Lightning Protection of a Precision Medical Center Project in Shangrao City, Jiangxi Province(HUANG Zhao-rui, CAO Yu)
- 30 Research on Integrated Design Method of HVAC System Based on BIM Technology(YANG Chun-lei)
- **33** Research on Difficulties and Countermeasures of Fire Fighting and Rescue in High-Rise Buildings(LIU Teng-fei)
- 36 Reconstruction Model of Municipal Water Supply and Drainage Network Based on Multi-Objective Optimization Algorithm(QU Zhenjun, DI Wen-zheng)
- 39 Present Situation Analysis and Technical Improvement Research of Distributed Photovoltaic Power Generation(XIANG Meng)
- **42** Application of Fixed Fire Fighting Facilities in Fire Rescue of High-Rise Buildings(MA Hai-feng)

## Municipal ·Traffic· Water Resources Engineering Design

- 45 Application of Anticorrosion Coating of Wave-Shaped Peritoneal Steel-Concrete Combined Structure Bridge in Cold and Dry Area(YUAN Wen-jin)
- **48** Research on Elevated Bridge Structure Design of Urban Expressway(XU Cong)
- 51 Stress Analysis of a Mobile Overpass Under Moving Working Condition(WANG Hui)
- 54 Planning Stady on Public Transportation System in Yancheng City(JIANG Zhou)

#### 2022 / 04B / CONTENTS

- 57 Optimization of Hose Layout Scheme at the Connection Between Barge and Movable Steel Approach Bridge(CAO Yu, HUANG Zhaorui)
- 60 Humanized Design in Urban Road Design(PAN Jun)
- 63 Research on Design Idea and Application of Municipal Road Engineering Plane Intersection(MENG Xian-hong)
- 66 Analysis of the Application of Original Ecological Environment Landscape Design in Urban Park(LIANG Chao-yue)
- **69** Research on Road Traffic Monitoring Design of Yancheng Railway Comprehensive Passenger Transport Hub(YANG Shi-wei)
- 72 Research on the Main Methods of Geological Survey of Water Conservancy and Hydropower Engineering(WU Ai-jun)
- **75** Preliminary Study on Humanization Design of Soft Landscape and Environmental Landscape(GUO Zi-ming)
- 78 Study on Stability and Anti-Seepage Treatment Technology of River Storage Project(FENG Xiao-hua)
- **82** Application of Sponge City Concept in Urban Construction Process(HUANG Li)

## **Industrial Engineering Design**

85 Design and Implementation of Radiation Monitoring System in an Experimental Reactor Area(RONG Yong-hua, LI Yong-sheng, ZHANG Chun-jie, LIU Yang)

### **Environment Engineering Design**

89 Design of a Domestic Energy-Saving Reverse Osmosis Seawater Desalination Project in Cangzhou(SONG Rui-ping, ZHANG Jian-zhong, ZHANG Xi-jian, HE Qin-ya, WENG Xiaodan, TAO Ru-jun)

#### Intelligentialize and Informatization

- **92** Application Strategy Analysis of Internet Big Data Technology in the Development of Intelligent Transportation(ZHANG Jian-fei)
- 95 Discussion on the Innovation of Fire Fighting Engineering Management Promoted by "Internet +" and "Smart Fire Fighting"(PANG Feng-zhi)
- **98** Application of Electronic Information Engineering Technology in Communication Intelligence(LI Liang-xi)
- **101** Application of Remote Sensing Aerial Survey Technology in Ground Mapping(GUO Xin)

# **Construction Technology**

- 104 Application of Static Pressure Vibration Sampling in Sand Source Investigation(ZHENG Hong-wen)
- 107 Application of Artificial Synchronous Gravel Sealing Lager in Transitional Road Surface of Rural Highway(TANG De-cai, ZHAO Deng-ke)
- 110 Application Analysis of Steel Fiber Reinforced Concrete Technology in Road and Bridge Construction(SHANG Guo-feng)

- 113 Analysis on Control Countermeasures of Bored Pile Construction Technology in Bridge and Culvert Construction—Taking Niangka Bridge and Culvert Construction as an Example(YANG Mao-zhao)
- **117** Study on Application of Plain Concrete Pile Composite Foundation in the Treatment of Soft Soil Foundation(YE Zhong-zhi)
- **120** Application of Jacking and Sliding Technology in Steel Structure Bridge Construction(LIU Kai)
- **123** Exploration on the Technical Scheme of Blasting Construction of Tunnel Under Complex Conditions(WANG Jun-zhang)
- **126** Optimization Design and Application of Hoop for Square Column Cap Beam(HUANG Yong-jian)
- **129** Analysis on the Application of the Integral Formwork in the Construction Field(LI Jian-qiang)
- **132** Study on Integral Tensioning Technology of Double Tower Single Cable Plane Space Stay Cables(LI Li-ning)
- **135** Location Research and Application of Prestressed Anchor System for Gravity Anchorage(YAN Bei-bei)
- 138 Technical Points of Three-Section Installation and Construction of Long Span Steel-Concrete Composite Girder Cable-Stayed Bridge(YIN Xu-min)
- **141** Application of Grouting Micro-Steel Tube Pile Composite Support in Deep Foundation Pit Support Engineering(LIU Jun)
- 144 Application of Large Variable Diameter Consolidation and Expansion Pile Construction Technology in Confined Space Under Silty Geological Conditions(WANG Hai-long, JIN Xiao-yu)
- **147** Application of Cold Regeneration Technology in National Road and Provincial Surface Reconstruction Project(QIN Jian-ke)
- **150** Prevention and Treatment Measures of Common Quality Defects of Bridge Engineering(SHEN Peng)
- **153** Design and Construction of Steel Trestle with Anchor Pile Method for Shallow Overburden in Deep Water Area(LI Chen, CHEN Jie)
- **157** Study on Effect of Tension Control Stress on Microstructure and Properties of Steel Strand(WANG Xian-lu, LIU Cun-jian)
- **160** Application of Gyro Orientation Survey in Control Survey of Metro Long Tunnel(ZHANG Jian, ZENG Li, YI Jun, LEI Pan)
- **163** Study on Construction of Aluminum Alloy Formwork in Cast-in-Place Reinforced Concrete Structural Engineering(LI Yu-si)
- **166** Study on Construction Technology of Sinking Green Space(WANG Chao)
- **169** Application of New Methods, New Technologies and New Materials in Interior Decoration Engineering(YANG Xue-feng)
- 172 Analysis on Construction Points and Quality Control

  Countermeasures of Hanging Basket in Cantilever Section —

  Taking Baixiangling Bridge as an Example(ZHAO Shuang)
- 175 Research on the Application of Water Floating Laying of Optical Cables in the Water Resources Allocation Project in Pearl River Delta(ZHANG Zhao-bo, LIU Zhen, LIU Yi, XIAO Hai-ming)
- 178 Research on the Construction Technology and Quality Management of Highway Mechanical and Electrical Engineering(LI Jia-zhang)

181 Research on Construction Key Points and Construction Monitoring of Deep Foundation Pit Adjacent to Subway Shield Tunnel(LONG Qiao-ping)

2022 / 04B / CONTENTS

- **184** Application of Green Energy Saving Technology in Building Engineering Construction(ZHAO Jing-feng)
- 187 Road Surface Disease Analysis and Construction Treatment Technology in Xinjiang Desert Area(ZENG Wen)
- **190** Application Analysis of Ecological Slope Protection Technology of Spraying Grass in Municipal Landscape Engineering(ZHANG Haoming, ZHENG Yong-ji)
- **193** Construction Procedureand Technology of Asphalt Mixture Paving in Municipal Engineering(HE Hai-guo)
- **196** Research on Construction Technology of Post-Pouring Concrete Belt in Housing Construction Engineering(HU Xiao-feng)

#### **Project Management**

- 199 Analysis on Key Points of Cost Management and Control in the Whole Process of Central Heating Pipe Network Project(WANG Yuan, WANG Yu-xin)
- **202** Comparative Study on Heating Cost and Project Cost of Different Heating Mode of Heat Pumps(HE Yi-feng)
- 205 Analysis on Bidding Strategy of Construction Project Under Complex Conditions(HAN Wen-bin)
- **208** Quality Management Measures for Assembling Integral Shear Wall Structure(ZHOU Chong)
- **211** Quality Control Measures for Double Block Sleeper Prefabrication(FU Yuan-yuan)
- **214** Quality Control in the Concrete Production Process(WANG Ruiliang, KOU Cheng-jie)
- 217 Discussion on the Management Method of Highway Engineering Budgetary Adjustment Based on the Overestimation Problem(ZUO Ya-ping)
- **220** Strategy Discussion on Improving the Management and Construction Quality of Housing Construction Project(LOU Hai-yan)
- 223 Study on the Construction Quality Control Countermeasures of Large-Span Continuous Steel Structure Bridge(ZHANG Sheng-long)
- **226** Analysis of Common Problems of Construction Quality and Management Measures of Construction Quality(CAO Li-jun)
- **229** Key of Urban Rail Transit Engineering Safety Management(YU Shihai)
- 232 Analysis of the Present Situation of Testing and Detection in Construction Engineering and Its Solutions(WANG Hong-wei)