



全国百强报刊 百强科技期刊
住建部优秀期刊 中国最具国际影响力学术期刊
中文核心期刊 中国人文社科核心期刊

建筑经济

CONSTRUCTION ECONOMY



ISSN 1002-851X



2022年12月 增刊

福州地铁智慧园项目

中冶建工集团四川公司 施工总承包

CONT 目 录

行业 发展 研究

我国工程管理信息化建设进展与思考	徐承, 辜斌, 刘阳, 陈娣, 廖勇 (19)
招标采购领域推动全国统一大市场建设的路径研究	傅立海 (24)
招标管理的问题剖析与对策研究	干汗锋, 张晓健 (28)
建筑业高质量发展评价研究	
——以辽宁省为例	孙妍, 刘文昌 (32)
中国省域建筑业绿色全要素生产率的空间效应	
.....	张松艳, 李浩然 (37)
区块链技术在绿色建材推广中的应用研究	胡楠, 周祥真, 邹林秀 (44)
国际道路基础设施数字化政策标准比较对接	
.....	王世法, 徐晟, 黄河, 张驰, 邱芷霞 (50)
数字孪生技术在IDC建设中的应用研究与实践	
.....	辜斌, 张晨, 陈娣, 徐承, 廖勇 (56)
SWOT-PEST视域下造价工程师“能力新优势”的来源和拓展路径	
.....	张李文佳, 吴绍艳 (61)
片区综合开发项目总体策划探讨	
——以龙港市龙湖片区为例	陈淑鹏 (67)
设计主导下的EPC工程总承包项目价值提升路径	
.....	李洪宇, 陈小伟, 郑国幸 (71)
医院改扩建的实践与思考	宋雪 (75)

目 录

造 价 管 理

- 建筑施工企业定额革新思路探究 翟旺, 王佳伟 (78)
- 市政道路改造工程造价影响因素分析 崔俊, 廖志平 (81)
- 设计概算审核的技术要点分析 朱云娇 (84)
- 基于BP神经网络的数据中心项目投资智能估算研究
..... 李婉斌, 刘帆, 黄兆祖 (88)
- 对外援助成套项目投资估算编制的问题及对策研究
..... 刘欢, 周海兰, 吕增印 (92)
- 花岗岩工程性质差异对造价的影响分析及计价方法探讨 张欣 (95)
- 基于历史数据的输变电工程造价偏差关键影响因素研究
..... 高逸全, 夏睿, 战丽萍, 顾艳, 程文馨 (98)
- 长江库岸高陡岸坡治理工程设计概算编制难点及对策分析
——以箭穿洞危岩为例 乔小艳, 曾玉 (103)
- 抽水蓄能电站生产成本预测模型研究 李沐阳, 崔姗姗, 翟海燕 (106)
- 时间因子优化灰色关联度模型在抽水蓄能输电线路造价中的应用
..... 朱琳, 汪鹏 (110)
- 国内某地下污水处理厂造价指标分析 沈丹 (114)
- 基于机器学习的LNG接收站工程造价预测研究 郑巧珍, 张莹, 徐双双 (118)
- 基于模态区间分析的造价控制阈值研究
..... 王超, 杜英, 马天男, 郭小帆, 周萍, 刘金朋 (123)

CONT 目 录

硬梁包水电站振冲桩施工工效测定与成本分析

..... 乔曙, 高杭, 陈贤, 刘勇 (129)

透水混凝土路面的定额计价探讨..... 陈锐伟, 周芳德 (134)

“造价工匠”主题课程思政教学实践探析..... 舒美英, 李文博 (138)

项目管理

机场改扩建工程项目组织模式研究

——以A机场改扩建工程为例 孙继德, 刘静 (143)

基于物元可拓模型的公租房PPP项目绩效评价研究 刘妍, 唐永忠 (148)

施工企业建设项目停工缓建风险分析及应对策略..... 阮兴龙, 王定方 (155)

设计施工总承包模式下风险控制流程优化研究..... 李洪宇, 郭茶发, 张浩 (159)

见索即付银行保函应用中的注意事项研究..... 张鑫, 刘抒琪, 肖伟军 (163)

组织因素下建设安全演化博弈分析

..... 王壮, 邢会歌, 李玥琳, 李弘扬, 蔡健敏 (167)

基于TQM的建筑工程施工质量管理体系建设研究 杨亮 (173)

军工固定资产投资项目标准化合同管理模式探讨

..... 唐江舟, 李静, 邓芳, 钟华 (178)

科研事业单位基础设施建设投资项目监督要点分析..... 魏立峰 (182)

高校大型基建工程项目管理存在的问题与对策分析

——以某高校图书馆项目为例..... 曾雪芳 (185)

目 录

工程总承包的IPD集成交付式沟通研究..... 王乔玥, 汪霄 (189)

两阶段招标方式遴选PPP项目社会资本的可行政及实施路径研究

..... 毛君豪 (197)

关联交易视角下片区综合开发项目的实施效果比较分析

——基于2017-2021年A股建筑业上市公司实例分析

..... 潘义峰 (202)

基于CiteSpace的工程项目质量管理研究热点及趋势的可视化分析

..... 郭月凯, 屈少辉, 王廷福, 王小兵 (206)

基于故障树的光伏发电项目施工安全管理研究 黄锋, 潘正伟, 肖丽丽 (212)

城镇污水处理PPP项目绩效评价研究..... 吕方园 (217)

工程项目电子投标文件编制要点探析..... 庄晓瑞, 方艳丽 (223)

项目组织结构成熟度评价指标体系构建研究

..... 肖晨, 汤吉松, 王晓峰, 彭彩云, 李林 (226)

设计管理

高效综合设计管理咨询在工程建设阶段的应用研究

..... 彭翔, 徐毅敏, 李博, 王利峰, 陈栋 (231)

生物医药产业园规划设计要素分析..... 谭善隆 (235)

基于JIT理论的桥梁梁场生产排程算法研究..... 徐洁, 章竑骏, 刘浩, 贺帅 (239)

高维多目标权衡导向下建筑方案性能设计优化研究 陈平, 张杰 (245)

CONTENTS

目 录

城市绿色开放空间规划设计研究进展..... 牛月艳, 李康, 周彤 (253)

LIM技术在城市园林景观竖向设计中的应用研究

——以东阳市南山国家森林公园元宝湖入口景观工程为例

.....余毅敏, 戴晶斌, 章晶晶, 金建海, 朱莎, 卢山 (257)

联合办公空间参与式设计的应用探究

——以粤港澳大湾区和创联合办公空间为例 郑莉, 马航威 (262)

寒冷地区工业企业室外管网敷设方式研究

.....孙建荣, 徐子平, 周星星, 孙建梅, 孙启洋 (265)

基于数字化的道路勘测设计课程教学改革研究

.....武保华, 黄艳梅, 顾海琛 (271)

B I M 研 究 与 应 用

BIM+智慧工地应用价值与发展趋势探讨

.....邱昌, 康文创, 邓运生, 蒋少武, 田浩, 秦鑫华 (275)

BIM技术在造价咨询中的应用研究..... 田佳乐 (279)

BIM技术在工程建设管理中的应用

——以西江塘工程为例 于亚东 (283)

住宅4D-BIM模型半自动构建方法研究与应用

.....张明正, 余芳强, 赵震, 许璟琳 (288)

基于BIM的铁路物化阶段碳排放测算研究

.....肖磊, 李智勇, 王聪, 张海明, 郭森, 柳文祥, 王京京 (295)

CONTENTS

目 录

基于BIM技术的装配式建筑节能减排分析与评价

..... 朱丽, 陆盛武, 梁积峰, 吴静, 杨宇 (302)

BIM技术在历史建筑保护中的应用

——以林祥谦烈士就义处修复工程为例

..... 尚伟, 何聪, 郑小雪, 吕桑, 周思轩 (307)

基于BIM技术的建筑企业财务数字化转型路径研究

..... 贾丽, 王龙梅 (312)

BIM技术在暖通设计校审中的应用 宋晋, 姜湜予, 张晖 (317)

建筑节能

净零碳建筑实施路径探索

——以济南领秀城檀樾项目为例

..... 娄中凯, 孙留存, 苏卫江, 李敬敬 (322)

基于健康理念的《绿色办公建筑评价标准》比较研究 姜凯 (326)

基于“海绵城市”理念的已建居住区绿化改造研究

..... 许登辉, 梁克中, 郭先华, 寇佳宁 (332)

智能化建筑材料及其在生态节能方面的应用

..... 陈纳新, 刘震, 陈一锋, 郑凯, 李俊 (338)

气候变化对建筑能耗影响研究进展 郭阳阳, 文雯 (343)

室内环境对办公建筑人员工作效率的影响探究

..... 田冬梅, 马欣悦, 贾畅畅, 刘浩震 (349)

CONTENTS

目录

企 业 经 营 管 理

大型设计公司城市综合开发业务发展战略研究

——以中交三航院为例.....朱颀阳 (354)

造价咨询企业应对BIM算量技术升级的SWOT分析及策略研究

.....王景刚 (360)

大型工程咨询企业开展全过程工程咨询业务的应用探索

.....王宏远, 刘婉平 (364)

智能建造背景下建筑施工企业转型发展研究.....范云翠, 李昕浩 (368)

可持续发展背景下大型建筑企业ESG绩效评价研究.....侯雨凝, 于跃奇 (372)

“微信公众号+二维码”应用于高速公路施工人员培训的方法探讨

.....吉恒港, 范祥, 王宏 (377)

基于二维码技术的公路工程工人职业技术培训方式探讨

.....马保亮, 赵晖, 贾尧, 王安 (381)

钢材期货交易在工程建设企业中应用的可行性与策略分析

.....高宁波, 张鸿 (384)

房 地 经 济

房地产业新发展模式的探索与思考.....翟宇星, 翟嘉 (388)

基于社区养老模式的80-90年代老旧小区适老化改造探究

——以天津天拖社区改造为例.....张冬雨, 隋杰礼, 吴松 (392)

CONTENTS

目 录

开发企业参与商品住房租赁项目的综合效益研究

..... 齐锡晶, 文大棒, 翟宇星 (396)

房地产开发项目投资测算的关键因素分析..... 常俊松, 张天宝 (401)

养老地产融资效率存在的问题及对策研究..... 刘梦珂 (405)

房地产项目开发全过程工程计划管理探讨 孙留存, 刘斌 (408)

全国主要城市商业步行街的业态多元化、消费潜力与市场定位

..... 郭俊辉, 陆中元, 于江川 (411)

城市轨道交通对沿线二手住宅价格的空间差异化影响研究

——以成都地铁3号线为例 张怡, 陈坤阳, 王刚, 周雯雯, 刘琅嘉 (417)

沈阳商品住房价格与土地价格的耦合协调性研究

..... 齐锡晶, 陈浩然, 修梦君 (423)

轨道交通对城市房地产价格影响特征分析

..... 杨军, 乔林珂, 李秉建, 马星, 关永浩 (429)

基于XGBoost算法的城市热点区域房价预测

——以南京江北新区为例 朱海煜, 王志杰, 叶灿灿 (433)

党政机关业务技术用房分类研究..... 史富文 (438)

研究探索

区块链技术在电力基建工资支付领域的应用探索

..... 王美丹, 王晓丽, 曹磊, 王亮, 裴佑, 刘智 (444)

CONTENTS

目 录

共享模式对建设工程绩效影响的实证研究

.....张安发, 饶孜古丽, 王紫瑜, 徐光远, 陈建东 (450)

基于贝叶斯网络的重大工程知识创新影响机理研究

.....骆怡菲, 谢琳琳 (454)

国内城市地下综合管廊文献计量可视化分析

.....陈刚, 张培兴, 王博冉, 张瑞萍, 宋晓刚 (461)

基于峰谷电价的抽水蓄能电站效益分析研究.....赵晨晨, 马良, 翟海燕 (467)

基于“四链”场景的配电网工程数字化审计探索与实践

.....杨学梅, 刘莹 (471)

基于博弈论的老旧小区电梯加装过程中居民交互行为研究

.....王丽娟, 李热, 贾智元, 岳钊, 张鹏鹏 (474)

基于蒙特卡洛的储能配置模式决策模型研究

.....仲冉, 吴洁, 史纯子, 翟瑞 (480)

生命周期视角下水泥粉煤灰替代成本分析

.....肖静, 景紫怡, 梁学敏, 党文玲, 樊哲旭, 张岳玲 (485)

基于FAHP-DEA的项目群生产效率评价.....宫泽浩, 钟姗姗, 戴璐祺 (493)

20世纪建筑遗产视角下非历史名城社区遗产价值评价

——以合肥为例.....孟庆贺, 陆明 (499)

基于CiteSpace的国内传统村落民居特征研究进展

.....梅晓林, 邹昌锋 (504)

目 录

河北省传统村落基础设施与文旅资源评价研究

.....姚胜,王振坤,刁建新,马晓蕾,黄丽颖,王亚妤(508)

乡村振兴背景下的美丽乡村人居环境整治实践

——以信阳市夏家冲建设试点为例.....韦峰,魏娜,王晨(516)

地下车库联络道交通引导策略研究

.....邱昌,蒋少武,邓运生,张晋华,田浩,龚政(521)

建筑企业开展新能源渣土车充电站建设的商业计划研究

.....郭振翔,陈荣朗,沈雅雯,彭子祥,范丽佳(526)

授权型领导风格对项目公民行为的作用机制

——有调节的链式中介效应.....张子垚,倪国栋,方亚琦,胡海波(529)

基于CiteSpace的太阳能建筑研究演变可视化分析

.....徐伟,刘振领,李志鹏(535)

智能合约赋能建筑企业财务共享服务中心建设研究.....陆磊,王龙梅,孙璐(540)

基于技术阐释价值的连云港锦屏磷矿整体性保护研究

.....邓元媛,高智强,周奇松,李晗(544)

流动经济与城市交通服务的耦合协调发展关系

——以陕西省为例.....张琦,张宇杰,丁昕(548)

真空水流窗太阳得热系数的实验研究

.....彭浩,吕原丽,杨维,苏华,周天泰,李骏(552)

地下环路与相邻地下车库建设时序探讨.....蒋少武,邱昌,范祥,李小克(559)

CONTENTS

Industry Development Research

- Progress and Enlightenment on Informatization Construction of Engineering Management in China
.....*XU Cheng, GU Bin, LIU Yang, et al*(19)
- Research on the Path of Promoting the Construction of the National Unified Market in the Bidding and Procurement Field
..... *FU Lihai*(24)
- Analysis and Countermeasures of Some Problems in Bidding Management.....*GAN Hanfeng, ZHANG Xiaojian*(28)
- Research on Evaluation of High-Quality Development of the Construction Industry..... *SUN Yan, LIU Wenchang*(32)
- Spatial Effect of Green Total Factor Productivity of China's Provincial Construction Industry*ZHANG Songyan, LI Haoran*(37)
- Research on the Application of Blockchain Technology in the Promotion of Green Building Materials
.....*HU Nan, ZHOU Xiangzhen, ZOU Linxiu*(44)
- Comparison of International Policies and Standards for Highway Infrastructures Digitalization
.....*WANG Shifa, XU Sheng, HUANG He, et al*(50)
- Application Research and Practice of Digital Twin Technology in IDC Construction*GU Bin, ZHANG Chen, CHEN Di, et al*(56)
- The Source and Expansion Path of “New Ability Advantage” of Cost Engineer from the Perspective of SWOT-PEST
.....*ZHANG Liwenjia, WU Shaoyan*(61)
- Discussion of Overall Planning for Urban Area Comprehensive Development Project *CHEN Shupeng*(67)
- Value Promotion Path of EPC Project under the Lead of Design..... *LI Hongyu, CHEN Xiaowei, ZHENG Guoxing*(71)
- Practice and Thinking of Hospital Reconstruction and Expansion.....*SONG Xue*(75)

Cost Management

- Research on Quota Innovation of Construction Enterprises.....*ZHAI Wang, WANG Jiawei*(78)
- Analysis on Influencing Factors of Municipal Road Reconstruction Project Cost.....*CUI Jun, LIAO Zhiping*(81)
- Technical Points and Case Analysis of Design Budget Review *ZHU Yunjiao*(84)
- Research on Investment Intelligent Estimation of Data Center Project Based on BP Neural Network
.....*LI Wanbin, LIU Fan, HUANG Zhaozu*(88)
- Research on the Problems and Countermeasures of Investment Estimation of Foreign Aid Projects
.....*LIU Huan, ZHOU Hailan, LV Zengyin*(92)
- Analysis of Impact on Cost of Engineering Property Difference of Granite and Discussion on Pricing Method
.....*ZHANG Xin*(95)

CONTENTS

Research on Key Impact Factors of Power Transmission and Transformation Project Cost Deviation Based on Historical Data	<i>GAO Yiquan, XIA Rui, ZHAN Liping, et al</i> (98)
Difficulties and Countermeasures in Compiling the Design Budget of the High and Steep Bank Slope Treatment Project of the Yangtze River Reservoir	<i>QIAO Xiaoyan, ZENG Yu</i> (103)
Research on the Prediction Model of Production Cost for Pumped Storage Power Station	<i>LI Muyang, CUI Shanshan, ZHAI Haiyan</i> (106)
Research on Transmission Line Cost Based on Grey Relational Degree Model Optimized by Time Factor	<i>ZHU Lin, WANG Peng</i> (110)
Cost Index Analysis of Domestic Underground Sewage Treatment Plant	<i>SHEN Dan</i> (114)
Research on the Cost Prediction of LNG Terminal Project Based on Machine Learning	<i>ZHENG Qiaozhen, ZHANG Ying, XU Shuangshuang</i> (118)
Research on Cost Control Threshold Based on Modal Interval Analysis	<i>WANG Chao, DU Ying, MA Tiannan, et al</i> (123)
Analysis of Construction Work Efficiency and Cost of Vibroflotation Pile in Yingliangbao Hydropower Station	<i>QIAO Shu, GAO Hang, CHEN Xian, et al</i> (129)
Discussion on Quota Valuation of Permeable Concrete Pavement	<i>CHEN Ruiwei, ZHOU Fangde</i> (134)
Analysis on the Practice of Ideological & Political Teaching in the Theme of Cost Craftsman	<i>SHU Meiying, LI Wenbo</i> (138)
Project Management	
Research on the Organization Mode of Airport Reconstruction and Expansion Project	<i>SUN Jide, LIU Jing</i> (143)
Research on Performance Evaluation of Public Rental Housing PPP Projects Based on Matter–Element Extension Model	<i>LIU Yan, TANG Yongzhong</i> (148)
Construction Enterprises' Construction Project Suspension Risks and Countermeasures	<i>RUAN Xinglong, WANG Dingfang</i> (155)
Research on Optimization of Risk Control Process under Design and Build Mode	<i>LI Hongyu, GUO Chafa, ZHANG Hao</i> (159)
Analysis of Application of On–Demand Bank Guarantee	<i>ZHANG Xin, LIU Shuqi, XIAO Weijun</i> (163)
Evolutionary Game Model of Project Safety Management Based on Organizational Factors	<i>WANG Zhuang, XING Huige, LI Yuelin, et al</i> (167)
Research on Construction Quality Management System Based on TQM	<i>YANG Liang</i> (173)

CONTENTS

Discussion on Standardized Contract Management Mode of Military Fixed Assets Investment Project	<i>TANG Jiangzhou, LI Jing, DENG Fang, et al</i> (178)
Analysis on Key Points of Supervision over Infrastructure Construction Investment Projects of Scientific Research Institutions	<i>WEI Lifeng</i> (182)
Problems and Countermeasures of Large-scale Infrastructure Engineering Project Management in Colleges and Universities	<i>ZENG Xuefang</i> (185)
Research on EPC Communication Mechanism under IPD Contract Mode	<i>WANG Qiaoyue, WANG Xiao</i> (189)
Feasibility Study and Implementation Path on Selecting Social Capital of PPP Project by Two-stage Bidding	<i>MAO Junhao</i> (197)
Comparative Analysis of Implementation Effect of Urban Comprehensive Development Projects from Perspective of Related Party Transactions	<i>PAN Yifeng</i> (202)
Visualized Analysis of Hotspots and Trends in Engineering Project Quality Management Based on CiteSpace	<i>GUO Yuekai, QU Shaohui, WANG Tingfu, et al</i> (206)
Safety Management of the Construction of Photovoltaic Power Generation Project Based on Fault Tree Analysis	<i>HUANG Feng, PAN Zhengwei, XIAO Lili</i> (212)
Research on Performance Evaluation of PPP Project of Urban Sewage Treatment	<i>LV Fangyuan</i> (217)
Discussion of the Electronic Tender Document Compilation of Construction Projects	<i>ZHUANG Xiaorui, FANG Yanli</i> (223)
Study on the Construction of Project Organizational Structure Maturity Evaluation Index System	<i>XIAO Chen, TANG Jisong, WANG Xiaofeng, et al</i> (226)

Design Management

Research on Efficient Comprehensive Design Management Consulting in the Stage of Project Construction	<i>PENG Xiang, XU Yimin, LI Bo, et al</i> (231)
Analysis of Key Planning and Design Elements of Biopharmaceutical Park	<i>TAN Shanlong</i> (235)
Research on Production Scheduling Algorithm of the Bridge Prefabricated Beam Factory Based on JIT Theory	<i>XU Jie, ZHANG Hongqin, LIU Hao, et al</i> (239)
The Performance Design Optimization of the Building Scheme under the Orientation of Many-objective	<i>CHEN Ping, ZHANG Jie</i> (245)
Advances in Urban Integrated Park Planning and Design Research	<i>NIU Yueyan, LI Kang, ZHOU Tong</i> (253)

CONTENTS

Application of LIM Technology in Vertical Design of Urban Landscape	<i>YU Yimin, DAI Jingbin, ZHANG Jingjing, et al</i> (257)
Application of Participatory Design in Co-working Space	<i>ZHENG Li, MA Hangwei</i> (262)
Study on Outdoor Pipe Network Laying Mode of Industrial Enterprises in Cold Area	<i>SUN Jianrong, XU Ziping, ZHOU Xingxing, et al</i> (265)
Research on Teaching Reform of Road Survey and Design Course Based on Digitization	<i>WU Baohua, HUANG Yanmei, GU Haichen</i> (271)

BIM Research and Application

Research on Application Value and Development Trend of BIM + Smart Construction Site	<i>QIU Chang, KANG Wenchuang, DENG Yunsheng, et al</i> (275)
Application and Research of BIM in Cost Consultation	<i>TIAN Jiale</i> (279)
Application of BIM Technology in Seawall Construction Management	<i>YU Yadong</i> (283)
Research and Application of Semi-Automatic Construction Method of Residential 4D-BIM	<i>ZHANG Mingzheng, YU Fangqiang, ZHAO Zhen, et al</i> (288)
Research on Carbon Emission Measurement in Railway Materialized Stage Based on BIM	<i>XIAO Lei, LI Zhiyong, WANG Cong, et al</i> (295)
Analysis and Evaluation of Energy Saving and Emission Reduction of Prefabricated Buildings Based on BIM Technology	<i>ZHU Li, LU Shengwu, LIANG Jifeng, et al</i> (302)
Application of BIM Technology in Heritage Building Protection	<i>SHANG Wei, HE Cong, ZHENG Xiaoxue, et al</i> (307)
Research on Financial Digital Transformation Path of Construction Enterprises Based on BIM Technology	<i>JIA Li, WANG Longmei</i> (312)
Application of BIM Technology in HVAC Design Review	<i>SONG Jin, JIANG Haoyu, ZHANG Hui</i> (317)

Building Energy Saving

Exploring the Implementation Path of Net Zero Carbon Building	<i>LOU Zhongkai, SUN Liucun, SU Weijiang, et al</i> (322)
Comparative Study of Green Office Building Evaluation Criteria Based on the Concept of Healthy Building	<i>JIANG Kai</i> (326)
Research on Greening Transformation of Built Residential Areas Based on the Concept of “Sponge City”	<i>XU Denghui, LIANG Kezhong, GUO Xianhua, et al</i> (332)

CONTENTS

Intelligent Building Materials and Their Application in Ecological Energy Saving

.....*CHEN Naxin, LIU Zhen, CHEN Yifeng, et al*(338)

Progress on the Impact of Climate Change on Building Energy Consumption..... *GUO Yangyang, WEN Wen*(343)

The Impact of Indoor Environment on Work Efficiency of Office Building Personnel

.....*TIAN Dongmei, MA Xinyue, JIA Changchang, et al*(349)

Enterprise Operation and Management

Research on the Development Strategy of Comprehensive Urban Development Business of Large Design Company

..... *ZHU Diyang*(354)

Research on Coping Strategies of Cost Consulting Enterprises to BIM Calculation Technology Upgrade..... *WANG Jinggang*(360)

Exploration on the Application of Whole Process Engineering Consultation in Large Engineering Consulting Enterprises

..... *WANG Hongyuan, LIU Wanping*(364)

Research on Transformation and Development of Construction Enterprises under the Background of Intelligent Construction

.....*FAN Yuncui, LI Xinhao*(368)

ESG Performance Evaluation of Large Construction Companies in the Context of Sustainable Development

.....*HOU Yuning, YU Yueqi*(372)

Discussion on Application of “WeChat Public Account + QR Code” on Training Method for Expressway Constructors

..... *JI Henggang, FAN Xiang, WANG Hong*(377)

Exploring Vocational Training Methods for Road Engineering Workers Based on QR Code Technology

.....*MA Baoliang, ZHAO Hui, JIA Yao, et al*(381)

Feasibility and Strategy Studies on the Application of Steel Future Trading in Engineering Construction Enterprises

..... *GAO Ningbo, ZHANG Hong*(384)

Real Estate Economy

Exploration and Thinking of New Development Mode of Real Estate Industry *ZHAI Yuxing, ZHAI Jia*(388)

Research on the Suitable Renovation of the Old Community in the 1980s and 1990s Based on the Model of Community

Endowment.....*ZHANG Dongyu, SUI Jieli, WU Song*(392)

Research on Comprehensive Benefits of Commercial Housing Rental Project Involving Real Estate Development Enterprise

..... *QI Xijing, WEN Dabang, ZHAI Yuxing*(396)

CONTENTS

Analysis on Key Factors of Real Estate Development Project Investment Calculation	<i>CHANG Junsong, ZHANG Tianbao(401)</i>
Research on the Problems and Countermeasures of Financing Efficiency of Pension Real Estate	<i>LIU Mengke(405)</i>
Discussion on the Whole Process Engineering Plan Management of Real Estate Project	<i>SUN Liucun, LIU Bin(408)</i>
The Retail Diversification, Consumption Potential and Market Positioning of Commercial Pedestrian Streets for Major Cities in China.....	<i>GUO Junhui, LU Zhongyuan, YU Jiangchuan(411)</i>
Uncovering the Spatially Differentiated Impact of Urban Metro on the Second-hand Housing Prices	<i>ZHANG Yi, CHEN Kunyang, WANG Gang, etal(417)</i>
The Coupling Coordination of Commodity Housing Prices and Land Prices in Shenyang	<i>QI Xijing, CHEN Haoran, XIU Mengjun(423)</i>
Analysis on the Characteristics of the Impact of Rail Transit on Urban Real Estate Price	<i>YANG Jun, QIAO Linke, LI Bingjian, etal(429)</i>
House Price Prediction in Urban Hotspot Areas Based on XGBoost Algorithm	<i>ZHU Haiyu, WANG Zhijie, YE Cancan(433)</i>
Study on the Classification of Business and Technical Housing in Party and Government Organizations	<i>SHI Fuwen(438)</i>
Research and Exploration	
Application and Exploration of Blockchain Technology in the Field of Power Infrastructure Salary Payment	<i>WANG Meidan, WANG Xiaoli, CAO Lei, etal(444)</i>
An Empirical Study on the Impact of Sharing Mode on the Performance of Construction Projects	<i>ZHANG Anfa, RAO Ziguli, WANG Ziyu, etal(450)</i>
Research on Influence Mechanism of Megaproject Knowledge Innovation Based on Bayesian Network	<i>LUO Yifei, XIE Linlin(454)</i>
Bibliometric Analysis of Domestic Comprehensive Pipe Gallery Research Field	<i>CHEN Gang, ZHANG Peixing, WANG Boran, etal(461)</i>
Benefit Analysis of Pumped Storage Power Station Based on Peak-valley Electricity Price	<i>ZHAO Chenchen, MA Liang, ZHAI Haiyan(467)</i>
Research on Digital Audit of Distribution Network Project Based on ‘Four Chains’ Scenario	<i>YANG Xuemei, LIU Ying(471)</i>
Research on Residents’ Interactive Behavior in the Process of Elevator Installation in Old Residential Area Based on Game Theory.....	<i>WANG Lijuan, LI Re, JIA Zhiyuan, etal(474)</i>

CONTENTS

Research on Decision-making Model of Energy Storage Configuration Mode Based on Monte Carlo	<i>ZHONG Ran, WU Jie, SHI Chunzi, et al(480)</i>
Cost Analysis of Chinese Fly Ash Substitution in Cement from the Perspective of Life Cycle	<i>XIAO Jing, JING Ziyi, LIANG Xuemin, et al(485)</i>
Production Efficiency Evaluation of Programs Based on FAHP-DEA	<i>GONG Zehao, ZHONG Shanshan, DAI Luqi(493)</i>
Value Evaluation of Community Heritage of Unfamous Historical City from the Perspective of 20th Century Architectural Heritage	<i>MENG Qinghe, LU Ming(499)</i>
Research Progress on Architectural Characteristics of Chinese Traditional Residential Houses Based on CiteSpace	<i>MEI Xiaolin, ZOU Changfeng(504)</i>
Study on the Basic Characteristics and Tourism Development Strategy of Traditional Villages in Hebei Province	<i>YAO Sheng, WANG Zhenkun, DIAO Jianxin, et al(508)</i>
Renovation Practice of Beautiful Rural Residential Environment under the Background of Rural Revitalization	<i>WEI Feng, WEI Na, WANG Chen(516)</i>
Traffic Guidance Strategy for Underground Garage Liaison Lane	<i>QIU Chang, JIANG Shaowu, DENG Yunsheng, et al(521)</i>
Research on Business Plan of New Energy Vehicle Charging Station for Construction Enterprises	<i>GUO Zhenxiang, CHEN Ronglang, SHEN Yawen, et al(526)</i>
Effects of Empowering Leadership on Project Citizenship Behavior	<i>ZHANG Ziyao, NI Guodong, FANG Yaqi, et al(529)</i>
Visual Analysis of Solar Architecture Research Evolution Based on CiteSpace	<i>XU Wei, LIU Zhenling, LI Zhipeng(535)</i>
Research on Smart Contract Enabling Construction Enterprise Financial Sharing Service Center	<i>LU Lei, WANG Longmei, SUN Lu(540)</i>
Study on Integrated Conservation of Lianyungang Jinping Phosphate Mine Based on the Value of Technical Interpretation	<i>DENG Yuanyuan, GAO Zhiqiang, ZHOU Qisong, et al(544)</i>
Coupling Coordination between Mobile Economy and Urban Transportation Service	<i>ZHANG Qi, ZHANG Yujie, DING Xin(548)</i>
Experimental Study on Solar Heat Gain Coefficient of Vacuum Water Flow Window	<i>PENG Hao, LV Yuanli, YANG Wei, et al(552)</i>
Discussion on Construction Time Sequence between Underground Ring Road and its Neighbour Underground Garage	<i>JIANG Shaowu, QIU Chang, FAN Xiang, et al(559)</i>