

中国核心期刊（遴选）数据库 收录期刊

Value Engineering

中国商界文联 会刊

中国技术经济研究会价值工程专业委员会 会刊
中国高等教育学会价值工程分会 会刊

中国学术期刊综合评价数据库来源期刊
万方数据—数字化期刊群入网期刊
中文科技期刊数据库收录期刊

ISSN 1006-4311

CN13-1085/N

JIAZHI GONGCHENG

2022 4

中旬刊(总第 631 期 / 第 41 卷)

价值工程

ISSN 1006-4311



9 771006 431068

万方数据

价值工程

2022年4月中旬刊 (总第631期 / 第41卷)

1982年创刊

2022年4月18日出版

中国商界文联会刊

中国技术经济研究会价值工程专业委员会
中国高等教育学会价值工程分会 会刊

封面刊名题字：袁宝华

主管单位：

河北省科学技术协会

主办单位：

河北省技术经济管理现代化研究会

总顾问：管在源

总 编：高志彪

总编室：师瑞

电 话：0311-87024742

编辑部：马慧霞

电 话：0311-83020178

0311-83036626

传 真：0311-87024742

投稿信箱：vezzsbjb@163.com

网 址：www.vezzs.com

责任编辑：高生明

封面设计：王金军

版面设计：韩宇红

国际标准连续出版物号：ISSN 1006-4311

国内统一连续出版物号：CN 13-1085/N

国内邮发代号：18-2

国内订阅：全国各地邮局

国内发行：河北省报刊发行局

国外发行：中国国际图书贸易总公司

印 刷：廊坊市长岭印务有限公司

编辑出版单位：价值工程杂志社

社 址：石家庄槐安西路88号

邮 编：050091

国内定价：30.00 元人民币

海外定价：30.00 美元

目录

* 价值管理 *

- 浅谈部队营区工程代建绩效评价指标体系构建 唐荟杰等(1)
工程项目施工方效益影响因素分析 景建军(5)
海外水电投资项目业主选择EPC模式利弊分析及管理建议
..... 张军等(9)
电力工程物资设备采购的招标发展及改进研究 陈勍(12)
收购光伏发电站时如何计算其价值 柯成惠(15)
长输燃气管道施工阶段的风险分析 周秋纬(18)
大中型水库移民后期扶持项目建立标准化管理体系探讨
..... 席磊等(21)

- 乡村规划体系构建研究 杨润春(24)
工程中合约管理与成本控制研究 邓秀(27)
河道生态修复PPP项目成本控制策略 谢晓燕(30)
乡镇级国土空间总体规划编制体系研究与实践探索 申振等(33)

* 价值链·供应链 *

- 基于物流金融下的供应链批发价格契约研究 毕林生等(36)

* 功能载体创新 *

- 基于UG软件的焊接结构件数字化设计方法 宫丽(40)
滨海互通承台无封底钢混组合吊箱围堰施工关键技术
..... 李红卫(43)
珠海某大学图书馆大楼建筑能耗分析及节能改造 廖爱群等(48)
基于ABAQUS的土工格栅加筋铁路道床稳定性分析
..... 郑春明等(51)
高速公路隧道施工技术的应用措施 赵博(54)
山区连续刚构桥上部结构装配式三角托架施工应用
..... 赵素军等(57)
下承式钢筋混凝土系杆拱桥现浇支架设计及应用 李宁(60)
门式高墩大尺寸盖梁模板支撑体系设计及施工 高燕(63)
GO含量对GO/NBR/MMA复合材料组织和性能的影响
..... 王鑫磊等(66)
站场咽喉区32米D型便梁加固架空线路施工技术 宋作栋(69)
基于空间静刚度的工作台优化设计 邵睿等(72)

水泥混凝土抗硫酸盐侵蚀试验方法的研究	张庆华(75)
深基坑锚索力突变的原因分析与应对措施探讨	陈宗国(78)
跨铁路不利施工条件下大跨度门式墩施工技术研究	刘勇(81)
临清高速王家寨隧道通风井优化设计	郑勇等(84)
轨道交通线路拨接施工技术	李向军(87)
盖挖法在梯田区隧道进洞施工中的应用	陈星宇等(90)
主令控制器在轧钢天车控制系统中的应用	王东凯等(93)
市政高架桥盖梁施工技术研究	刘谋春等(96)
浅析堆积体浅埋偏压隧道处治	皮顺富(99)
掘锚机机载锚杆钻机基座连接耳结构优化	冯磊等(102)
现浇预应力连续箱梁人行天桥受力性能分析	岳烨(105)
不等跨预应力连续箱梁人行天桥抗震性能分析	李云(108)
非对称性结构形式的公路路基拓宽工程响应分析	叶柯志(111)
浅谈斜拉桥索导管测量定位控制	魏继顺(115)

* 价值应用 *

上海轨道交通 18 号线列车故障诊断以太网的设计	程珂(118)
煤炭采矿工程巷道掘进和支护技术的应用探析	惠凡光(122)
BIM 技术在工程全过程造价管理中的应用分析	李从银(125)
BIM 技术在装配式建筑项目管理中的应用	刘洋(128)
移动式预制构件工厂的探索与应用	刘备等(131)
水泥混凝土外加剂与水泥适应性的影响因素	李昊霖(135)
市政道路桥梁施工中现场施工技术的应用与管理	吕振康(138)
建筑工程项目中装配式建筑施工技术及其应用探究	江颖(141)
基于 OpenMV 的水面漂浮物清理系统	姚贵发等(144)
华测 LandStar7 在工程中的应用	李建新(148)
基于 CT 图像的沥青混合料结构特征参数检验	王漾博等(151)
全过程工程咨询的探索与实践	李海培等(154)
生活垃圾渗滤液膜浓缩液处理工艺探讨	李选顺(157)
消防应急照明和疏散指示系统应注意问题探讨	刘伟华(160)
GPS-RTK 定位技术在测绘工程中的应用	杨政勇(163)
城市高层建筑施工技术要点及质量控制	张玲(166)

郑重声明

- 1、本刊所刊载内容未经书面许可，任何部分不得以任何形式翻印、转载、复制，及存储于检索系统，提供给公众或私人使用。
- 2、来稿在 15 个工作日内给予回复录用与否，若未收到回复信息，请来电咨询稿件进展。来稿正常刊登周期为 3 个月内，未录用者可自行处理。请勿一稿多投，不涉及保密、署名无争议，请作者自留底稿，恕不退稿。
- 3、编辑部对来稿文章标题、内容、参考文献等保留删修权，不同意删修的稿件请在来稿中声明。
- 4、本刊已许可相关期刊网站以数字化方式复制、汇编、发行、信息网络传播本刊全文。本刊支付的稿酬（或稿酬与作品审稿费、与作品样刊费相抵）已包含相关期刊网站著作权使用费，所有署名作者向本刊提交文章发表之行为视为同意上述声明。如有异议，请在投稿时说明，本刊将按作者说明处理。

Value Engineering
(VE)
Fortnightly Issue
Started in 1982
Vol.41 4.b
(Sum No.631)
Published in Apr. 18, 2022

Inscribed: Yuan Baohua
General Counsel: Guan Zaiyuan
Executive Editor-in-chief:
Gao Zhibiao
Manager:
Hebei Association for
Science and Technology
Sponsor:
Hebei Institute of Technology
Economy and Modern Management

Chief Editor's Department:
Shi Rui
Editor: Editorial Team of VE
Publisher:
Magazine Publishing House of VE
Address:
No.88 Huai'an Road, Shijiazhuang
Tel: (0311) 87024742
E-mail: vezzshjb@163.com

Printed by:
Changling Printing Co., Ltd. Langfang
Distributor: Shijiazhuang Post Office
Subscriptions:
Chinese Local Post Office
Domestic Issue Code: 18-2
Domestic Single Price: ¥30.00
Overseas Single Price: 30.00
Open Publishing
ISSN 1006-4311
CN 13-1085/N

CONTENTS

VALUE MANAGEMENT

- 1 Research on the Construction of the Performance Evaluation Index System of the Engineering Agency Construction in the Army Barracks TANG Hui-jie,*et al.*
- 5 Analysis on the Factors Influencing the Benefit of Construction Party of Engineering Project JING Jian-jun
- 9 Analysis of Pros and Cons and Management Suggestions for Application of EPC Mode in Overseas Investment Hydropower Projects ZHANG Jun,*et al.*
- 12 Development and Improvement of Bidding for Electric Power Engineering Materials and Equipment Procurement CHEN Jie
- 15 How to Calculate the Value When Buying a Photovoltaic Power Station KE Cheng-hui
- 18 Risk Analysis in Construction Stage of Long-distance Gas Pipeline ZHOU Qiu-wei
- 21 Discussion on the Establishment of Standardized Management System for Large and Medium-sized Reservoir Resettlement Support Projects XI Lei,*et al.*
- 24 Research on the Construction of Rural Planning System YANG Run-chun
- 27 Research on Contract Management and Cost Control in Engineering DENG Xiu
- 30 Cost Control Strategy of PPP Project for River Ecological Restoration XIE Xiao-yan
- 33 Research and Practice Exploration of the Compilation System of Township-level Territorial Spatial Master Plan SHEN Zhen,*et al.*

VALUE CHAIN•SUPPLY CHAIN

- 36 Study on Supply Chain Wholesale Price Contract Based on Logistics Finance BI Lin-sheng,*et al.*

FUNCTION CARRIER INNOVATION

- 40 Digital Design Method of Welded Structural Parts Based on UG Software GONG Li
- 43 Key Technology for Construction of Steel-concrete Composite Suspending Cofferdam without Bottom Cover for Platform of Coastal Intercommunication Project LI Hong-wei
- 48 Analysis of Building Energy Consumption and Energy-saving Renovation of a University Library Building in Zhuhai LIAO Ai-qun,*et al.*
- 51 Stability Analysis of Geogrid Reinforced Railway Track Bed Based on ABAQUS ZHENG Chun-ming,*et al.*
- 54 Application Measures of Highway Tunnel Construction Technology ZHAO Bo
- 57 Application of Fabricated Triangular Bracket in Superstructure Construction of Continuous Rigid Frame Bridge with Steep Wall in Mountain Area ZHAO Su-jun,*et al.*

60 Design and Application of Cast-in-place Support for Bottom-bearing Reinforced Concrete Tied Arch Bridge	LI Ning
63 Design and Construction of Large-size Cover Beam Formwork Support System for Portal High Piers	GAO Yan
66 Effect of GO Content on Microstructure and Properties of GO/NBR/MMA Composites	WANG Xin-lei, <i>et al.</i>
69 Construction Technology of 32-meter D-shaped Beam Reinforcement Overhead Line in the Throat Area of the Station	SONG Zuo-dong
72 Optimal Design of Worktable Based on Spatial Static Stiffness	SHAO Rui, <i>et al.</i>
75 Study on Test Method for Cement Concrete to Sulphate Corrosion	ZHANG Qing-hua
78 Cause Analysis and Countermeasures for the Sudden Change of Anchor Cable Force in Deep Foundation Pit	CHEN Zong-guo
81 Research on Construction Technology of Large-span Portal Piers under Unfavorable Construction Conditions across Railways	LIU Yong
84 Optimization Design of Ventilation Shaft in Wangjiazhai Tunnel of Linqing Expressway	ZHENG Yong, <i>et al.</i>
87 Construction Technology of Line Connection in Track Engineering	LI Xiang-jun
90 Application of Cover and Excavation Method in Tunnel Entry Construction in Terraced Fields	CHEN Xing-yu, <i>et al.</i>
93 Application of Master Controller in Control System of Rolling Crane	WANG Dong-kai, <i>et al.</i>
96 Research on Construction Technology of Municipal Viaduct Cover Beam	LIU Mou-chun, <i>et al.</i>
99 Analysis on Treatment of Shallow Buried Bias Voltage Tunnel in Accumulation	PI Shun-fu
102 Structural Optimization of the Drill Machine Base Connection Lug on the Anchor Cxeavator Machine	FENG Lei, <i>et al.</i>
105 Mechanical Performance Analysis of Cast-in-place Prestressed Continuous Box Girder Pedestrian Overpass	YUE Ye
108 Seismic Performance Analysis of Unequal Span Prestressed Continuous Box Girder Pedestrian Overpass	LI Yun
111 Response Analysis of Highway Subgrade Widening Engineering with Asymmetric Structure	YE Ke-zhi
115 Brief Discussion on Measurement and Positioning Control of Cable–Stayed Bridges	WEI Ji-shun

VALUE APPLICATION

118 Diagnostic Ethernet Design of Shanghai Line 18 Rolling Stock	CHENG Ke
122 Application Analysis of Tunnel Excavation and Support Technology in Coal Mining Engineering	HUI Fan-guang
125 Application Analysis of BIM Technology in the Whole Process Cost Management of Engineering	LI Cong-yin
128 The Application of BIM in Prefabricated Construction Project Management	LIU Yang
131 Exploration and Application of the Mobile Factory for Precast Concrete Component	LIU Bei, <i>et al.</i>
135 Influencing Factors of Cement Concrete Admixtures and Cement Adaptability	LI Hao-lin
138 Application and Management of On-site Construction Technology in Municipal Road and Bridge Construction	LV Zhen-kang
141 Research on Prefabricated Building Construction Technology and Its Application in Construction Projects	JIANG Ying
144 OpenMV-based Floating Object Cleaning System	YAO Gui-fa, <i>et al.</i>
148 Application of CTI LandStar7 in Engineering	LI Jian-xin
151 Inspection of Asphalt Mixture Structural Characteristic Parameters Based on CT Image	WANG Yang-bo, <i>et al.</i>
154 Exploration and Practice of Whole Process Engineering Consultation	LI Hai-pei, <i>et al.</i>
157 Discussion on Treatment Process of Domestic Waste Leachate Membrane Concentrate	LI Xuan-shun
160 Discussion on the Problems that Should be Paid Attention to in Fire Emergency Lighting and Evacuation Indication System	LIU Wei-hua
163 Application of GPS-RTK Positioning Technology in Surveying and Mapping Engineering	YANG Zheng-yong
166 Technical Key Points and Quality Control of Urban High-rise Building Construction	ZHANG Ling