

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  
中国期刊网 全文收录期刊  
中国学术期刊 ( 光盘版 )  
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

QK1921404

ISSN 1006-4311  
CN13-1085/N

JIAZHI GONGCHENG

2019 5

下旬刊 ( 总第 527 期 / 第 38 卷 )

价值工程



ISSN 1006-4311

9 771006 431068 15 >

万方数据

# 价值工程

# 目 录

2019年5月下刊(总第527期/第38卷)  
1982年创刊 2019年5月28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  
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 编:高志彪  
总 编 室:师瑞  
电 话:0311-87024742

编辑部:马慧霞  
刘英禄  
电 话:0311-83020178  
0311-83036626  
传 真:0311-87024742  
投稿邮箱: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:廊坊市长岭印刷厂

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

## \* 价值管理 \*

- 基于PSC评价法的地下综合管廊PPP项目评价 ..... 田语嫣等(1)  
基于DEMATEL的装配式建筑成本影响因素研究 ..... 朱颖等(5)  
系统弹性——装备体系保障效能评估新指标 ..... 李梓等(8)  
海绵城市目标下开放街区建设与雨洪管理研究 ..... 张宇峥等(10)  
中小企业担保融资创新研究 ..... 冯如意等(14)  
基于动态规划方法的飞行训练初级教练机更新决策研究  
..... 刘沐林(17)  
区域经济极化到扩散效应的演变过程研究 ..... 江杨思捷等(21)  
顺丰控股借壳上市财务绩效分析 ..... 李恒瑞(24)  
安徽省农村产业融合发展评价与区域差异研究 ..... 王瑜(27)  
基于孙氏图的保密奖惩制度的分析与改进研究 ..... 曹伟娜(31)  
建设工程项目施工质量管理研究 ..... 谢金民(35)  
上海市中小学建设项目概算审核要点与案例分析 ..... 陈秋(38)  
基于结构熵权模糊综合评价的施工安全管理研究 ..... 王佩顺等(41)

## \* 价值链·供应链 \*

- 产业集聚下战略伙伴选择的最优指标选择研究 ..... 余晓鑫等(44)  
EPC模式下的装配式建筑供应链协同管理研究 ..... 陈宇等(47)

## \* 功能载体创新 \*

- 基于PXI总线和计算阶比跟踪的远程振动监测技术研究  
..... 刘晓锋等(50)  
国道310潼关县至华阴段列斜沟大桥0#块施工方案 ..... 孔令山(53)  
试论新建公路隧道上跨既有铁路隧道施工技术 ..... 李征文(56)  
高速铁路墩身冬期施工浅析 ..... 杨晓芳(59)  
现浇混凝土空心楼盖高层建筑的抗震性能分析 ..... 史翔(63)  
道桥工程桥面铺装病害的原因及处理技术 ..... 彭博(66)  
智能电热蚊香系统的设计与开发 ..... 黄剑斌等(69)  
高速铁路运营长大隧道主要病害建模分析及整治措施 ..... 李仁强(73)  
山区城市道路设计技术难点及解决措施探讨 ..... 李慧(81)  
基于预制吊装法施工系杆拱的系杆极限安装跨度的研究与应用  
..... 尚宗柱(84)  
临近营业线施工安全防护措施浅析 ..... 马跃(88)  
高速铁路预制简支箱梁混凝土温度控制研究 ..... 马磊(92)  
碾压混凝土施工技术在水库大坝工程中的应用 ..... 付龙(96)  
连续梁0号块支架施工技术 ..... 杨勇(99)  
贵阳市奥体中心网球场钢结构安装施工研究 ..... 邓守勇(102)

支架法在芜申运河大桥连续梁 0# 块的设计与施工运用 .....	刘长军(107)
防渗技术在水利工程中的应用初探 .....	陈秋凡(111)
试论铁路特大桥水下钻孔桩施工技术 .....	周荣贵(114)
地铁车站施工的风险认识及对策 .....	陈晟(117)
铁路既有站场灯桥改造施工技术浅析 .....	朱培(120)
监控量测体系在铁路隧道下穿桥梁中的应用 .....	张浩(125)
莱钢 5#1080m <sup>3</sup> 高炉提高煤比实践 .....	陈建巧等(129)
高位现浇、落梁就位技术在施工中的应用 .....	王淼章(133)
某电厂灰管下穿在建高速铁路的防护方案研究 .....	孟建创(136)

\* 价值应用 \*

一种用于应急监测的通用化测试平台 .....	薛伟宁等(139)
基于文献计量的个性化推荐研究进展分析 .....	徐勇等(142)
基于安全隔离的能源计量数据信息交换系统应用探究 .....	李杰等(145)
新时代我国精准扶贫现状及对策建议 .....	李剑芳等(148)
基于 R 语言 SARIMA 模型的航材需求预测分析 .....	毕钊等(151)
镉、铅单一及复合污染对黑麦草种子萌发特征的影响 .....	洪燕等(154)
楠木井滑坡特征分析及稳定性评价 .....	熊扬福等(158)
我国一流大学创新创业教育改革特点与反思 .....	马天瑜等(161)
基于 Markov 的轨道车辆运输联锁系统 RAMS 分析 .....	吴丹(163)
植物生长对生物滞留池水文效应影响的试验研究 .....	崔咏军等(166)
基于 STC90C58RD 的鸡舍环境控制器的设计 .....	刘引弟等(169)
昆明市智慧城市架构及其对未来城市的发展影响 .....	冯亚飞等(172)

\* 工业工程 \*

面向集成解决方案的汽车零部件承诺保修期决策研究 .....	郭亚涛等(175)
-------------------------------	-----------

\* 理论综述 \*

专利与我国区域经济水平的相关性分析 .....	段欣等(178)
老龄化视角下家庭商业养老保险研究 .....	胡承欢(183)
丰城市推进城镇化和城镇规划建设研究 .....	鄢林晔等(186)
产学研合作效果、路径及关系 .....	侯倩(188)
浅谈隐身武装直升机的现状和技术发展 .....	沈桂将等(191)
能源消费与物质资本的空间效应分析 .....	谷冰清(194)

**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,请来信来电咨询稿件进展。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. 本刊已被“中国知网、万方数据数字化期刊群、中文科技期刊数据库”收录。凡向本刊投稿作者,若不同意在上述数据库收录,请在来稿注明。

# Value Engineering

(VE)

Fortnightly Issue

Started in 1982

Vol.38 5.c

(Sum No.527)

Published in May 28, 2019

**Inscribed:**

Yuan Baohua

**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:**

vezzsbjb@163.com

**Printed by:**

Changling Printing House, 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 PPP Project Evaluation of Utility Tunnel Based on PSC Evaluation Method ..... TIAN Yu-yan, *et al.*  
5 Research on Influencing Factors of Prefabricated Building Cost Based on DEMATEL ..... ZHU Ying, *et al.*  
8 System Flexibility: New Indicator for Equipment System Security Effectiveness Evaluation ..... LI Zi, *et al.*  
10 Research on Open Block Construction and Stormwater Management under the Sponge City Target ..... ZHANG Yu-zheng, *et al.*  
14 Research on Innovation of SME Guaranteed Financing ..... FENG Ru-yi, *et al.*  
17 A Study on Replacement Decision of Flight Training Trainer Based on Dynamic Programming Model ..... LIU Mu-lin  
21 Studying on the Evolution of Regional Economic Polarization to Diffusion Effect ..... JIANG Yang-si-jie, *et al.*  
24 Financial Performance Analysis of S.F. Holding Backdoor Listing ..... LI Heng-rui  
27 The Evaluation of Rural Industrial Integration Development and Regional Difference in Anhui Province ..... WANG Yu  
31 Analysis and Improvement of Reward and Punishment Secrecy System Based on Sun Diagram ..... CAO Wei-na  
35 Study on Construction Quality Management of Construction Projects ..... XIE Jin-min  
38 The Main Points of the Budgetary Review of Shanghai Primary and Secondary School Construction Projects and Case Analysis  
..... CHEN Qiu  
41 Research on Construction Safety Management Based on Fuzzy Comprehensive Evaluation of Structure Entropy Weight  
..... WANG Pei-shun, *et al.*

## VALUE CHAIN·SUPPLY CHAIN

- 44 Research on Optimal Index Selection of Strategic Partner Selection under Industrial Agglomeration ..... YU Xiao-xin, *et al.*  
47 Research on Collaborative Management of Assembly Building Supply Chain under EPC Mode ..... CHEN Yu, *et al.*

## FUNCTION CARRIER INNOVATION

- 50 Research on Remote Vibration Monitoring Technology Based on PXI Bus and Computational Order Tracking  
..... LIU Xiao-feng, *et al.*  
53 The Construction Scheme of 0# Block of Liexiegou Bridge in National Highway 310 from Tongguan County to Huayin City  
..... KONG Ling-shan  
56 Discussion on Construction Technology of Newly Built Highway Tunnels across Existing Railway Tunnels ..... LI Zheng-wen  
59 Analysis on the Winter Construction of High-speed Railway Pier Body ..... YANG Xiao-fang  
63 Seismic Performance Analysis of High-rise Buildings with Cast-in-place Concrete Hollow Floor ..... SHI Xiang  
66 Causes and Treatment Techniques of Bridge Deck Pavement Diseases in Road and Bridge Project ..... PENG Bo  
69 Design and Development of Intelligent Electric Mosquito Incense System ..... HUANG Jian-bin, *et al.*

73 Modeling Analysis and Treatment Measures for Main Diseases of Long-Large Tunnels in High-speed Railway Operation .....	LI Ren-qiang
81 Discussion on Technical Difficulties and Solutions of Road Design in Mountainous Cities .....	LI Hui
84 Research and Application of the Ultimate Installation Span of Tie Rods Based on Prefabricated Hoisting Method .....	SHANG Zong-zhu
88 Analysis on the Safety Protection Measures for the Construction of Adjacent Business Lines .....	MA Yue
92 Research on Concrete Temperature Control of Precast Simple Support Box Girder for High Speed Railway .....	MA Lei
96 Application of Roller Compacted Concrete Construction Technology in Reservoir Dam Project .....	FU Long
99 Construction Technology of Continuous Beam 0# Block Bracket .....	YANG Yong
102 Research on Installation Construction of the Steel Structure of Tennis Court in Guiyang Olympic Sports Center .....	DENG Shou-yong
107 Application of Bracket Method in Design and Construction of 0# Block of Continuous Beam of Wushen Canal Bridge .....	LIU Chang-jun
111 Preliminary Study on Application of Anti-seepage Technology in Hydraulic Engineering .....	CHEN Qiu-fan
114 Discussion on Construction Control Technology of Underwater Bored Piles for Railway Super Large Bridges .....	ZHOU Rong-gui
117 Risk Awareness and Countermeasures for Subway Station Construction .....	CHEN Sheng
120 Analysis on Construction Technology of Light Bridge Reconstruction in Existing Railway Stations .....	ZHU Pei
125 Application of Monitoring and Measuring System in Undercrossing Bridge of Railway Tunnel .....	ZHANG Hao
129 Practice of 5#1080m <sup>3</sup> BF in Laiwu Steel Improving Coal Ratio .....	CHEN Jian-qiao, <i>et al.</i>
133 Application of High Position Cast-in-place and Drop-beam In-Place Technology in Construction .....	WANG Miao-zhang
136 Study on the Protection Scheme of a Power Plant Ash Pipe underpassing High-speed Railway under Construction .....	MENG Jian-chuang

#### VALUE APPLICATION

139 Universal Test Platform for Emergency Monitoring .....	XUE Wei-ning, <i>et al.</i>
142 Research Progress Analysis of Personalized Recommendation Based on Bibliometrics .....	XU Yong, <i>et al.</i>
145 Application and Exploration of Energy Measurement Data Information Switch System Based on Security Isolation .....	LI Jie, <i>et al.</i>
148 Current Situation of Precision Poverty Alleviation in China and Suggestions in the New Era .....	LI Jian-fang, <i>et al.</i>
151 Aircraft Spareparts Demand Forecasting Based on R Language and SARIMA Model .....	BI Zhao, <i>et al.</i>
154 Effect of Cadmium, Lead Single and Composite Pollution on Seed Germination Characteristics of Rye Grass .....	HONG Yan, <i>et al.</i>
158 Characteristic Analysis and Stability Evaluation of Nanmujing Landslide .....	XIONG Yang-fu, <i>et al.</i>
161 Characteristics and Reflections on the Reform of Innovation and Entrepreneurship Education in First Class Universities of China .....	MA Tian-yu, <i>et al.</i>
163 RAMS Analysis of Rail Vehicle Transportation Interlocking System Based on Markov .....	WU Dan
166 Experimental Study on the Hydrologic Performance of Bioretention under Different Plant Conditions .....	CUI Yong-jun, <i>et al.</i>
169 Design of Chicken House Environment Controller Based on STC90C58RD .....	LIU Yin-di, <i>et al.</i>
172 The Smart City Structure of Kunming and Its Impact on the Future Development of the City .....	FENG Ya-fei, <i>et al.</i>

#### IE

175 Research on Decision-making of Auto Parts Promise Warranty Period Oriented to Integrated Solutions .....	GUO Ya-tao, <i>et al.</i>
--------------------------------------------------------------------------------------------------------------	---------------------------

#### THEORETICAL REVIEW

178 Analysis of the Correlation between Patent and Regional Economic Level in China .....	DUAN Xin, <i>et al.</i>
183 Research on Family Commercial Endowment Insurance from the Perspective of Aging .....	HU Cheng-huan
186 Research on Urbanization and Town Planning Construction Promotion in Fengcheng City .....	YAN Lin-tan, <i>et al.</i>
188 Industry-university-research Cooperation Effect, Path and Relationship .....	HOU Qian
191 Present Situation and Technology Development of Stealth Armed Helicopter .....	SHEN Gui-jiang, <i>et al.</i>
194 Analysis of Spatial Effect of Energy Consumption and Material Capital .....	GU Bing-qing

# 2015第三届价值工程与项目管理国际会议

◇ 剪影 ◇



北京航空航天大学党委副书记、  
副校长、中国工程院院士张军



美国价值工程师协会主席  
玛丽安·刘易斯



米兰比科卡大学教授、IEEE  
系统杂志总编Vincenzo Piuri



终身价值专家、博士、台湾  
新竹交通大学教授张柏毅



北京市工程咨询公司  
副总经理王革平



西南财经大学副教授、北京价  
值工程学会副秘书长张汉鹏

