

ICCREM 2018

Construction Enterprises and Project Management

Proceedings of the International Conference on
Construction and Real Estate Management 2018

Charleston, South Carolina, USA
9 – 10 August 2018

Editors:

**Yaowu Wang
Yimin Zhu**

**Geoffrey Q. P. Shen
Mohamed Al-Hussein**

ISBN: 978-1-5108-6988-2

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2018) by American Society of Civil Engineers
All rights reserved.

Printed by Curran Associates, Inc. (2018)

For permission requests, please contact American Society of Civil Engineers
at the address below.

American Society of Civil Engineers
1801 Alexander Bell Drive
Reston, VA 20191
USA

Phone: (800) 548-2723
Fax: (703) 295-6333

www.asce.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

Contents

Analyzing Risks in Public-Private-Partnership Projects: An Integrated Model of Sensitive Analysis and Monte Carlo Simulation	1
Chong Feng and Yaowu Wang	
Stakeholder Value Systems on Disaster Resilience of Residential Buildings.....	10
Mahdy Taeby and Lu Zhang	
A Comparative Study on Evaluation Methods of Domestic and Foreign Enterprises' Brand Value	18
Xuewen Gong and Yaowu Wang	
Probabilistic Estimation for Microtunneling Projects' Penetration Time.....	27
Emad Elwakil and Mohamed Hegab	
Comparing Life Cycle Cost of Public and PPP Transportation Infrastructure in Thailand: An Empirical Evidence	34
Nakhon Kokkaew and Veerasak Likhitrungsilp	
Research on Life-Cycle Cost of Bridge Based on the Method of Monte Carlo Simulation.....	41
Hang Shang and Lixin Sun	
Conceptual Proposal and Modeling of a Construction Surety Reinsurance Company with a Quasi-Public Function: Empirical Evidence from China.....	46
Yanguang Xue, Xiaomei Deng, Kai Luo, Jiyi Wan, and Ke Feng	
Systematic Model Study on the Investment Influencing Factors of Utility Tunnel Based on PPP Mode.....	56
Xuan Zhang and Jun Fang	
How Does Employee Competence Affect Job Performance in Indonesia: The Mediating Role of Person-Job Fit	64
Weiwei Wu, Zhou Liang, Yexin Liu, and Sanjaya Regina	
Evaluation of Retrofit and Maintenance Schemes on Transport Infrastructure Based on VE Theory: An Example of Urban Bridge.....	72
Lili Gao, Yulong Li, Guijun Li, and Zhiye Huang	
Develop an Assessment Model for Healthcare Facilities: A Framework to Prioritize the Asset Criticality for the Capital Renewals.....	82
Dalia Salem and Emad Elwakil	

Organizational Evolution of Megaprojects in China under Co-Effects of Politics and Markets	89
Yun Le and Jiayi Liu	
The Research on Construction Safety Evaluation Based on Rough Set	96
Lijuan Luo, Chengjie Xu, and Tingting Chen	
Research on Factors Affecting Social Responsibility of Construction Enterprises	102
Zeyu Wang, Jianfeng Lu, Xiaolong Xue, and Xuotong Wang	
Dynamic Research on Stakeholders of the Utility Tunnel PPP Project	114
Hong Zhang and Bingjie Wang	
An Empirical Study of the Influence of Authentic Leadership and the Unethical Pro-Organizational Behavior Based on Organizational Identity	121
Guang Xu, Huimingmei Li, and Jiarui Wang	
Research on Equilibrium of Revenue Sharing Contract in Existing PPP Projects Based on the Theory of Share Tenancy	128
Yanhua Du, Jun Fang, and Jun Hu	
High-Risk Nodes Determination for the Urban Rail Transit Station	139
Hui Xu, Yongtao Tan, Shulin Chen, Junwei Zheng, and Ningxin Shen	
Research on Selection of Characteristic Towns Based on Fuzzy Comprehensive Evaluation	147
Jingjing Yang, Zhiwei Liao, Han Bao, and Jiaqing Chen	
Evaluation System Design for Application of Innovative Teaching Methods in Major of Construction Management: Case Study in a University of Finance and Economics	157
Hao Wang, Changyun Cao, Nishang Guan, and Zhiye Huang	
Research on the Transformation Path from Traditional Construction Method to Off-Site Construction: Taking Chinese Enterprises as Example	167
Fangyun Xie, Chao Mao, and Guiwen Liu	
Research on Risk Sharing of PPP Project Based on Shapley Value	176
Qing Wang	
Research on Engineering Credit Consultation Enterprise Credit Evaluation Based on System Dynamics.....	186
Yalan Xu and Deyi Chen	
Application of Multilevel Extension Method in Synergy Evaluation of Construction Program Management.....	192
Changlin Niu, Lei Zhang, Huishan Li, and Ran Wang	

Discussion about the Analysis and Design of Over-Height High-Rise Structure.....	200
Jun Xie, Difei Jiang, Zhengtai Bao, and Qiguo Li	
Design of Performance Evaluation System of the Urban Utility Tunnel Based on PPP Mode	215
Jun Fang, Baifeng Wang, and Yu Zhang	
Empirical Analysis on How Urban Infrastructure Influence Residents’ Satisfaction	223
Pengyu Wang and Shiyong Shi	
The Feasibility Research of Houses-for-Pension: Based on Analysis of the Houses-for-Pension Situation in Tianjin	231
Zhenxiang Shi and Hui Wang	
Modeling the Effect of Group Norms on Construction Workers’ Safety Behavior.....	238
Qingting Xiang, Xiaoli Gong, Gui Ye, Qinjun Liu, and Yuhe Wang	
Efficiency Analysis of the Listed Construction Enterprises in USA Based on DEA Model from 2007 to 2016	245
Bingzhen He, Yulong Li, Yanqiu Song, and Jie Lin	
Hierarchical Structure Analysis of Influencing Factors of Tracking Audit Risk in the Whole Process of PPP Project.....	254
Suping Ren and Jun Fang	
Exploration on the Methods of Forming an IPD Project Team and the Responsibility of Team Members	263
Junfeng Guan	
A Theory Calculation Model of Safety Detection Cycle for Existing Reinforced Concrete Structures	268
Ying Wang, Yang Chen, and Legang Cai	
Research on Risk Allocation Model of PPP Projects Based on Fuzzy TOPSIS.....	277
Guiying Zhang and Jun Fang	
A Study of Undergraduate Engineering Management Education Reform Using CDIO Engineering Education Model.....	284
Jiehui Zhang and Renhua Wu	
Study on the Performance Evaluation of Construction Project Based on Matter: Element Analysis Method	291
Jingtao Feng and Junwu Wang	

**Risk Analysis of Pension Real Estate Based on Gray Fuzzy
Comprehensive Evaluation Model299**
Xiaozhuang Yang, Jun Wang, and Yongjun Chen