

5th International Conference on Urban Construction and Management Engineering (ICUCME 2024)

Advances in Engineering Research Volume 242

Xi'an, China and Online
19 - 21 July 2024

ISBN: 979-8-3313-0374-7

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.

Print copyright© (2024) by Atlantis Press (part of Springer Nature)
All rights reserved.
Copyright for individual electronic papers remains with the authors.

For permission requests, please contact the publisher:

Atlantis Press
Van Godewijckstraat 30
3311GX Dordrecht
The Netherlands

contact@atlantis-press.com

Printed with permission by Curran Associates, Inc. (2025)

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

TABLE OF CONTENTS

An Analysis and Discussion of Rural Planning System and Its Sustainable Development in Ghana Based on ‘Capital’ Framework Approach.....	1
<i>Jiani Jiang</i>	
Investigation of the Factors Influencing the Rehabilitation of Underground Pipes in Old Neighborhoods Using DEMATEL-ISM.....	12
<i>Yingbo Ji, Xinyi He, Yuan Qi</i>	
Research on Response of Hydrological Process in Taozhuang River Basin, Danjiangkou City, China	20
<i>Zhiyong Wu, Hongjiao Qu</i>	
The Innovative Application of Aluminium Alloy Formwork in Construction----A Case Study of the Great Bay University’s (Dongguan) Construction Site	27
<i>Jiaxuan He</i>	
Review on the Application of the SIR Model in Predicting Urban Traffic Congestion: Successes and Future Directions	38
<i>Yiming Teng, Wo Wei</i>	
Study on Air Volume Ratio of New Connecting Flue Structure in Urban Tunnel	48
<i>Xuepeng Jiang, Ding Yuan, Yuyuan Chen</i>	
Evolutionary Game Research of Intelligent Transformation of Water Conservancy Enterprises in the Digital Background.....	60
<i>Xin Jiang, Fengbiao Li, Guokun Qiu, Jiayu Peng, Li Jian</i>	
Cross Business Integration Technology and Application Based on Mobile Portal.....	78
<i>Xiaozhen Li</i>	
Study on the Pavement Maintenance Quality of Rural Roads in Nonpolicy Supported Areas.....	87
<i>Bing Li, Yuting Yang, Meng Zhang, Siyu Zhu, Ke Dong</i>	
Indoor Thermal Environment and Energy-Saving Design of Existing Rural Residences in Hohhot Region	95
<i>Nan Jiang, Dawei Shang, Enmao Qiao, Ya Tuo</i>	
Embracing Emerging Technologies for Safety Management: What is Needed to Raise the Adoption Level for Urban Construction?	102
<i>Jeffrey Boon Hui Yap</i>	
Spatial Accessibility Evaluation on the Public Charging Facilities for New Energy Vehicles in Anning District, Lanzhou City, China	113
<i>Yufan Shi, Tianpeng Wang</i>	
Design Scheme for Power Consumption Optimization of Mobile Applications	125
<i>Yubing Bai, Hui Wang, Shengjie Gao</i>	
A On-Site Testing Method to Verify the Assumption of Rigid Floor in Urban Construction	132
<i>Yu Chen</i>	

Protection and Design of Miao Traditional Village in Qiandongnan Region in China During Rapid Urbanization	143
<i>Ziqi Yi, Hongjiao Qu, Luo Guo</i>	
Research on Urban Renewal Area Boundary Control Algorithm Based on Macro Basic Map	152
<i>Yongzhi Lei, Anfan Shang, Liang Wang, Xin Li, Hao Fu</i>	
Peer-Review Statements	164
<i>Zakiah Ahmad, Seyed Mohammadreza Ghadiri, Rita Yi Man Li, Ruiqing Lang</i>	
Research on the Stability Analysis of Car Following Model Influenced by Multiple Factors in the Internet of Vehicles Environment	167
<i>Jiacheng Xiao, Yuxing Yin, Yanzun Zhang, Yang Dai, Wei He</i>	
Quantitative Modeling and Evaluation of Urban Landmark Building Image Impact Factor Based on Computer Big Data Framework	177
<i>Shengnan Zhang, Congna Lv, Yueming Yang, Yufei Zhang</i>	
Study on Calculation Methods of Runoff Coefficient in Data-Scarce Areas.....	187
<i>Lin Zhang, Zizhu Peng, Shiming Yao, Qinghong Yang, Jinyun Deng, Jiasheng Wang, Ligang Li</i>	
An Analysis of the Role of Smart Transportation in Economic Development Under the Background of Big Data	196
<i>Mingli Xu, Dongdong Peng, Junjie Xue, Yiran Yin</i>	
Analysis and Research on Green Building Technology Based on Big Data Analysis	202
<i>Yuchen Xue</i>	
Application of Anti-Icing Hydrophobic Electric Heating Film in Urban Bridge Management.....	210
<i>Ke Xu, Yu Shi, Ganxin Jie, Youji Tao</i>	
Enhancing Safety and Satisfaction of Electric Bicycle Centralized Charging Facilities in Community: Insights from Shunyi District, Beijing.....	217
<i>Xiu Gu, Tongtong Jiang</i>	
A Review of Domestic Research on Renewal of Public Space in Child-Friendly Community.....	231
<i>Shiyi Xiong</i>	
Research on Climate Adaptive Design Strategies of Traditional Residential Buildings in Dakar, Senegal	239
<i>Juan Ren, Mamadou Yacine Diop, Lei Zhang, Yue Wang</i>	
Evaluation of Aging Adaptation of Slow Traffic System in Community Spaces in Kunming	246
<i>Lv Wu, Lianghui Qian, Rongkai Cui</i>	
GIS-Based Ecological Sensitivity Evaluation of Xiangxi Tujia and Miao Autonomous Prefecture in China	254
<i>Yimeng Wang, Hongjiao Qu, Luo Guo</i>	
Resilience Assessment of Ethnic Village Tourism Communities -Taking Ping'an Village as an Example.....	261
<i>Xuanyi Lu, Yin Li</i>	
Bibliometric Analysis of Research Literature on Subway Station Construction Based on CiteSpace	271
<i>Dehuan Sun, Shuxiang Zhang, Wentao Liu, Tao Deng</i>	

An Analysis of Tea Room Spatial Composition Architectural Design from the Perspective of Spatial Production Theory	278
<i>Yage Liu</i>	
Study on Expected Fatigue Loading Cycles for Accelerated Loading Test of Asphalt Pavement Structure	285
<i>Shujuan Wang, Zhiguo Chen, Weijun Qin, Ziqi An, Ruoting Shen</i>	
Research on Analysis and Performance Optimization of Green Building Design Fundamentals Based on Big Data Technology	298
<i>Yuchen Xue</i>	
The Innovation and Influence of Cubism in Architectural Education and Design	306
<i>Zitong Ma, Yifeng Sun, Mingchang Ma, Lingxu Li</i>	
The Impact of Improving Throughput Efficiency of Coastal Ports Based on Machine Learning Methods on Sulfur Emissions.....	314
<i>Xumeng Wang</i>	
A Supplementary Study on Adjustment of Accessibility Data Based on Changes in Human Body Size in China	322
<i>Xiaopeng Zhang, Boyang Zhao, Shaoqing Yan</i>	
Enhancing Collaboration Efficiency in Building Construction: Exploring BIM-Based Lean Construction Management for Cost Estimate.....	334
<i>Junze Wang, Liuming Wei</i>	
Evaluation Method of Building Height Around Urban Architectural Heritage Based on Fuzzy Mathematics Theory	342
<i>Jifeng Li</i>	
A Study on the Preparation and Key Properties of Open-Graded Asphalt Stabilized Aggregates Base Mixes	351
<i>Chao Shi, Li Dong, Chao Wang</i>	
Research on the Spatial Attraction Based on the Theory of Improved Fracture Point in Tianshui City, China.....	360
<i>Yinxia Tian, Tianpeng Wang</i>	
Research on Theoretical Methods for Function and Theme Positioning of Mountainous Tourism Highways—A Case Study of the Jiangxi-Anhui Border to Wuyuan Section of the Dezhou-Shangrao Expressway.....	369
<i>Yiyun Wan, Yiru Wang, Zhichao Shao, Xianjun Wan, Jianrong Ma</i>	
Application of New Synthetic Stone Materials in Interior Design	379
<i>Sen Zhang</i>	
Study on Seismic Performance of Variable Section Columns Based on Increasing Section Method.....	389
<i>Jingwei Li, Xin Liu</i>	
Research on the Construction of Highway Construction Environment Supervision System	396
<i>Yongning Liu</i>	
Analysis of Truck Carbon Emissions Per Month on Highway Road.....	404
<i>Yonghua Zhang, Yansen Gao, Yuqi Zheng, Na Li, Xiaomin Dai</i>	

Using Holt-Winters Model and Regression Forecast Models to Describe and Predict the Concentration Level of Carbon Dioxide.....	416
<i>Ruolin Peng, Shichen Huang</i>	
Study on the Influence of Smart City Construction on Municipal Social Governance capacity--- Empirical Analysis Based on Panel Data from 283 Prefecture-Level Cities	430
<i>Peitai Yu</i>	
Research on Tourist Perception of Guilin Li River Scenic Area Based on Grounded Theory.....	446
<i>Yihuang Chen, Yuwei Liu, Yehao Lu</i>	
Research on the Construction of County-Level Digital Pedestal Platform Based on WEBGL-- Taking a County as an Example	456
<i>Heng Liu, Zhenghui Yang, Zhi Zeng, Chengfu Chai, PengJie Hou</i>	
Dynamic and Static Analysis of LNG Tank Dome Mesh Shell Structure	464
<i>Jiedong Zhan, Chenguang Liang, Jichong Zhao</i>	
Architectural and Environmental Design of the Comprehensive Building of Meizhou Vocational and Technical College	482
<i>Chenyuan Chiu, Yifan Chen, Shan Gao, Lin Mou, Bin Lai, Yihui Yip</i>	
The Study of Coupling Coordination Between Urbanization and Ecosystem Service Value-Taking Shandong Province as an Example.....	490
<i>Yu Pan, Chang You</i>	
Simulation and Analysis on the Urban Thermal Environment Network Pattern Based on MSPA and Circuit Theory in Lanzhou City, China	497
<i>Yali Wang, Tianpeng Wang</i>	
Efficient Channel Attention Optimized Multi-Layer Fusion Edge Detection Network for Boundary Extraction	507
<i>Tianyi Qin, Bingyu Qu, Houlin Wang</i>	

Author Index