

2023 11th International Conference on Traffic and Logistic Engineering (ICTLE 2023)

**Macau, China
25-27 August 2023**



**IEEE Catalog Number: CFP23AU7-POD
ISBN: 979-8-3503-3965-9**

**Copyright © 2023 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

| | |
|-------------------------|-------------------|
| IEEE Catalog Number: | CFP23AU7-POD |
| ISBN (Print-On-Demand): | 979-8-3503-3965-9 |
| ISBN (Online): | 979-8-3503-3964-2 |

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
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

2023 11th International Conference on Traffic and Logistic Engineering (ICTLE 2023) Table of Contents

| | |
|-----------------|------|
| Preface..... | vii |
| Committee | viii |

❖ Autonomous Driving Simulation and Environmental Measurement

| | |
|---|----|
| The Influence of Driving Conditions on the Temperature of Key Components of Fuel Cell Vehicles..... | 1 |
| <i>Guozhuo Wang, Shiyu Wu, Ting Guo, Zhijun Wang</i> | |
| Long-term Consistent Simulation of Car-following Behavior in Autonomous Driving Test Scenarios..... | 6 |
| <i>Ruixue Zong, Weiwen Deng, Xuesong Bai, Ying Wang, Juan Ding</i> | |
| Enhancing Self-Driving Capabilities: A Design Architecture Leveraging Sensor Systems and Cloud Computing. | 12 |
| <i>Ruitong Xiao, Yueyin Jiang</i> | |

❖ Intelligent Transportation System Construction and Planning

| | |
|--|----|
| Research on the location of shared bicycle parking points based on the combination of NSGA-II and entropy weight TOPSIS..... | 17 |
| <i>Zhang Siqu, Zhang Xinyu, Xia Jinyue</i> | |
| Optimizing Dynamic Warehouse Location Problems Using a Stochastic Search | 22 |
| <i>Choosak Pornsing, Choat Inthawongse, Noppakun Sangkhiew</i> | |
| Measuring the TOD level of rail transit stations based on the "node-place-activity" dimension..... | 30 |
| <i>Ping Zhang, Yao Yuan, Hongmei Zhang</i> | |

❖ Digital Traffic and Management Services

| | |
|--|----|
| Research on Matching Method of Expressway Emergency Plan Based on CBR and Rough Set..... | 36 |
| <i>YanJun Jin, Zhaohui Lin, Shuangjing Ni, Neili Wang</i> | |

| | |
|--|-----|
| Research on Evaluation Index System of Informatization Service Level of Comprehensive Transportation Hub | 42 |
| <i>Shengqiang Yuan, Liming Cao</i> | |
| Road Traffic Retrograde Monitoring and Warning System..... | 49 |
| <i>Weiqi Chen, Tong Zhang, Xinyun Zheng, Chuanzhong Yin</i> | |
| Forecasting Commercial Vehicle Demand Using a Multiple Linear Regression Model..... | 54 |
| <i>Pasura Aungkulanon, Anucha Hirunwat, Walailak Atthirawong, Pongchanun Luangpaiboon</i> | |
| Conception of a Holistic System Model for Effective Technical Innovations Integration Applied to 5G Positioning Feasibility Analysis..... | 59 |
| <i>Steffen Bindel, Christoph Küpper, Herwig Winkler, Rainer Alt</i> | |
| ❖ Low Carbon Based Transportation and Path Optimization | |
| The Vehicle-based Service Routing Problem | 66 |
| <i>Clemens Pizzinini, Theresa Wettig, David Ziegler</i> | |
| Construction and analysis of evolutionary game model between government and cold chain logistics enterprises based on carbon trading | 73 |
| <i>Wu XiaoPing, Chen KangYin, Li MengQi</i> | |
| Efficient allocation of CO2 allowance in liner companies based on a zero sum gains data envelopment model.. | 77 |
| <i>Zhenhao Tang, Mo Zhu, Zhongkai Wang</i> | |
| Life cycle assessment of emission reduction potential of private electric vehicles | 84 |
| <i>Zhu Changzheng, Liu Pengbo</i> | |
| Carbon price prediction based on EMD-BiLSTMATTENTION model..... | 90 |
| <i>Tong Li, Shilun Li, Feng Lin, Xingxuan Zhuo</i> | |
| A game study on low-carbon transportation behavior considering government subsidies | 95 |
| <i>Jiangtao Wang, Yang Liu, Yongfei Li</i> | |
| ❖ Urban Transportation Mode and Transportation Ability Assessment | |
| Measuring Transport Accessibility in Urban Cities: A Literature Review | 100 |
| <i>Orlean G. Dela Cruz, Alexis M. Fillone</i> | |

| | |
|---|-----|
| Parking Situation Analysis and Hotspots Identification of Shared Bicycles | 107 |
| <i>Yanli Cui, Xia Liu, Jiawen Zhao</i> | |
| Determining Employees Preference on Employee Shuttle Bus Attributes: A Conjoint Analysis Approach..... | 113 |
| <i>Gerlyn Calica Altes, Yogi Tri Prasetyo, Jui-Hao Liao, Irene Dyah Ayuwati, Michael Nayat Young, Satria Fadil Persada</i> | |
| Influence of track irregularity on train hunting motion at speeds of 300~400km/h | 118 |
| <i>Wang Min, Zhao Fei, Li Yanping, Chen Chunjun</i> | |
| Changes in Travel Trends and Preferences of Filipinos due to the COVID-19-19 Pandemic: A Conjoint Analysis Approach | 124 |
| <i>Yogi Tri Prasetyo, Clarnda Joanne Ellorn Gros, Omar Paolo Benito, Michael Nayat Young, Satria Fadil Persada, Irene Dyah Ayuwati</i> | |
| Mobility patterns before, during and after the COVID-19 pandemic in Singapore | 129 |
| <i>Jiazu Zhou, Shannon Xinyi Tan, Seanglidet Yean, Markus Schlapfer, Bu Sung Lee</i> | |
| ❖ Modern Logistics System and Transportation Services | |
| Newsvendor Model-based Vehicle Renting Strategy for Logistics Companies during Online Shopping Promotion Seasons..... | 135 |
| <i>Pengyi Zhao, Yue Gao</i> | |
| Optimizing Freight Transport Modelling and Supply Chain Logistics for Efficient Goods Transportation from China to North America: A Case Study of Viva Robotics | 140 |
| <i>Zhuofei Zhang</i> | |
| Comparative Study on the Input of Transportation Logistics Land and the Performance Output of Different Logistics Hubs Based on DEA | 147 |
| <i>Zhe Wang, Juan Huang, Han Yang, Lijuan Xu, Nan Xu, Yuanhan Shang, Lan Wang</i> | |
| Design of Intermodal Logistics Network Structure Under Different Hub Failure Scenarios by Rail and Public Transport..... | 158 |
| <i>Wang Ruhui, Song Liying</i> | |
| Optimization decision of multi-agent collaborative combination scheme of emergency logistics based on NSGA-II and TOPSIS algorithms | 163 |
| <i>Fangmei Yan, Hongmei Shan, Jinjin Fei, Yingnan Li</i> | |

| | |
|--|--------------|
| Application of MBSE in the Construction of Smart Factory Logistics System..... | 171 |
| <i>Fusheng Qiu, Tang Tang, Liang Wang, Ming Chen</i> | |
| Research on Spatial Distribution Characteristics and Influencing Factors of Logistics Enterprises in Shaanxi Province Based on GIS and GeoDetector | 177 |
| <i>Changzheng Zhu, Sen Dong, Yijie Su</i> | |
| Robust optimization of multi-objective and multiperiod emergency materials scheduling considering fairness and timeliness | 183 |
| <i>Zhao Shichao, Shen Pengju</i> | |
| ❖ Modern Supply Chain Technology and Application | |
| Optimization research on closed-loop supply chain network under carbon trading..... | 187 |
| <i>Wenwen Zhang, Pan Fang, Yuxiang Yang, Shuang Yao</i> | |
| Research on supply chain quality coordination based on blockchain concept under deterministic demand..... | 192 |
| <i>Kaiqi Xu, Yongfei Li, Yuzhi Wei</i> | |
| Research on the intelligent technological innovation path of the international ecological maritime cluster of Hainan Free Trade Port..... | 198 |
| <i>Maosheng Li, Linxi Li, Yueli Tang</i> | |
| Soft Drink Business in Thailand: Supply Chain Analysis and Recommendations for Operational Efficiency..... | 205 |
| <i>Thirapong Uarjin, Pornthipa Ongkunaruk</i> | |
| Predicting Maintenance Contract Service Renewals using the Internet of Things and Customer Behaviors: A Supplier Perspective..... | 211 |
| <i>Yogi Tri Prasetyo, Paul Dominic Ilagan Completado, Krisna Chandra Susanto, Michael Nayat Young, Satria Fadil Persada, Irene Dyah Ayuwati</i> | |
| Study on the path of improving the supply chain performance of Chinese aviation manufacturing industry in the context of Industry 4.0 technology | 216 |
| <i>Yongqiang Zhao, Ruidi Wang, Xiaoyi Chang</i> | |
| | Author Index |