

Transportation Research Record: Journal of the Transportation Research Board

Volume 2677, Issue 6

June 2023

ISBN: 978-1-7138-7490-4

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.

Published by Sage Publications USA

Copyright© (2023) by Transportation Research Board of the National Academies
All rights reserved.

ISBN (Print) 978-1-7138-7490-4

Printed with permission by Curran Associates, Inc. (2023)

For permission requests, please contact sagepub.com/journals-permissions

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

Framework for Economic Potential Analysis of Marine Transportation: A Case Study for Route Choice Between the Suez Canal Route and the Northern Sea Route	1
<i>Yangjun Wang, Ren Zhang, Kefeng Liu, Delong Fu, Yingqian Zhu</i>	
Simulation Study of Passing Drivers' Responses to the Autonomous Truck-Mounted Attenuator System in Road Maintenance	17
<i>Yu Li, Bill Wang, William Li, Ruwen Qin</i>	
Analysis and MASH TL-5 Crash Testing of a 6 ft-Tall Constant-Slope Barrier with Attached Noise Abatement Wall	33
<i>Akram Abu-Odeh, Ahmad Hammad</i>	
Population Synthesis Accommodating Heterogeneity: A Bayesian Network and Generalized Raking Technique	41
<i>Md. Nobinur Rahman, Mahmudur Rahman Fatmi</i>	
Proximal Policy Optimization-Based Driving Control Strategy of Connected Cruise Vehicle Platoons to Improve Traffic Efficiency and Safety.....	58
<i>Zhanrui Xu, Xiaohong Jiao, Shuangkun Ru</i>	
Sample Size Study of Driving Simulator Experiment for Freeway Design Safety Evaluations.....	73
<i>Xuesong Wang, Shuang Liu, Bowen Cai, David Hurwitz, Qiming Guo, Xiaomeng Wang</i>	
Effect of Motion Cues on Highway Driving Performance in Simulated Driving.....	93
<i>Xuesong Wang, Xincheng Ye, David Hurwitz, Xiaomeng Wang, Christian Schost, David Noyce</i>	
Repositioning Game for Ambulance Services	113
<i>T Rudramoorthi, R. K. Amit</i>	
User Comprehension of Bicycle Signal Countdown Timers	129
<i>Douglas P. Cobb, Christopher Monsere, David S. Hurwitz, Sirisha Kothuri, Hisham Jashami</i>	
Will the Order Be Canceled? Order Cancellation Probability Prediction Based on Deep Residual Model	142
<i>Haokai Sun, Zhiqiang Lv, Jianbo Li, Zhihao Xu, Zhaoyu Sheng</i>	
Age and Technology Readiness Influences on Adults' Experiences with Highly Automated Vehicles	161
<i>Justin Mason, Sherrilene Classen, Seung Woo Hwangbo, Virginia P. Sisiopiku</i>	
Community-Designed Participation: Lessons for Equitable Engagement in Transportation Planning	172
<i>Orly Linovski, Dwayne Marshall Baker</i>	
Exploring Factors Associated with Crossing Assertiveness of Pedestrians at Unsignalized Intersections.....	182
<i>Zihao Li, Xiaoqiang Kong, Yunlong Zhang</i>	
Identifying the Determinants of Anticipated Post-Pandemic Mode Choices in the Greater Toronto Area: A Stated Preference Study	199
<i>Patrick Loa, Khandker Nurul Habib</i>	
Influential Factors of Household Car and Vehicle Ownership in Urban Areas of Turkey	218
<i>Ali Kemal Çelik, Nuriye Kabaku^o, Ahmet Tortum</i>	

Joint Optimization of Facility Layout and Spatially Differential Parking Pricing for Parking Lots	241
<i>Yuwei Yang, Jiayi Chen, Jiao Ye, Jun Chen, Yinjie Luo</i>	
LiDAR Perception and Evaluation Method for Road Traffic Marking Retroreflection	258
<i>Huayang He, Andi Xu, Xiaokun Han, Hufeng Wang, Luwan Wang, Wenyi Su</i>	
Modeling Exhaust-Generated Aerodynamic Pressure Loads on Airfield Matting Repair Systems.....	280
<i>Brandon M. Rittelmeyer, David B. Roueche, Alessandra Bianchini, James S. Davidson</i>	
Effects of Pavement Characteristics on Rolling Resistance of Heavy Vehicles: A Literature Review	296
<i>William Levesque, André Bégin-Drolet, Julien Lépine</i>	
Data Fusion Approach to Identify Distribution Chain Segments in Freight Shipment Databases.....	310
<i>Raeed Ali Mohammed, Ali Nadi, Lórant Tavasszy, Michiel de Bok</i>	
Total-Delay-Based Max Pressure: A Max Pressure Algorithm Considering Delay Equity	324
<i>Hao Liu, Vikash V. Gayah</i>	
Factors Contributing to Crashes on Low-Volume Unpaved Roads	340
<i>Hemin J. Mohammed, Sumon Mojumder, Steven D. Schrock</i>	
Relation Between Seated Person Vibrations and the International Roughness Index	351
<i>Peter Múèka</i>	
Solution for the Problem of Sustainable Staff Scheduling in Semi-Automated Dock Container Terminals in Ports.....	365
<i>Emir Hüseyin Özder, Mehmet Gümüº</i>	
Evaluating Accessibility Based on the Combined High-Speed Rail and Air Transportation Network in China	376
<i>Shuyan Ma, Pei Zhang, Jiaoe Wang, Ziwei Zhao</i>	
Driver and Bicyclist Comprehension of Blue Light Detection Confirmation Systems	395
<i>Douglas P. Cobb, Hisham Jashami, Christopher Monsere, Sirisha Kothuri, David S. Hurwitz</i>	
Exploration of Some Key Issues in Developing and Applying Crash–Conflict Models for Signalized Intersections.....	409
<i>Thanushan Rajeswaran, Bhagwant Persaud, Alireza Jafari Anarkooli</i>	
Identifying Factors Related to Crash Injury Levels Involving Bicyclists at Different Locations Through Crash Data Analysis.....	418
<i>Dania Ammar, Aditi Misra, Fred Feng, Shan Bao</i>	
Linkage Problem in Location Optimization of Dedicated Bus Lanes on a Network.....	433
<i>Murat Bayrak, S. Ilgin Guler</i>	
Sparse Data Traffic Speed Prediction on a Road Network with Varying Speed Levels	448
<i>Moritz Beekking, Markus Steinmaßl, Melanie Urban, Karl Rehrl</i>	
Effect of Wheel Polygonization on Vehicle-Track Coupling System with Different Track Structures	466
<i>Jiaqi Shi, Hongmei Shi, Jianbo Li</i>	
Fuzzy Decision Systems for Sustainable Transport: Mapping the Future	485
<i>Zeynab Yadegar, Moslem Alimohammadalou</i>	

Modeling of Parking Violations Using Zero-Inflated Negative Binomial Regression: A Case Study for Berlin	498
<i>Tobias Hagen, Nicole Reinfeld, Siavash Saki</i>	
Nonlinear Complementarity Model for Mixed-User Equilibrium Traffic Assignment and Mode Choice of Electric and Gasoline Vehicles.....	513
<i>Behnam Davazdah Emami, Alireza Khani</i>	
Novel Decomposition and Ensemble Model with Attention Mechanism for Container Throughput Forecasting at Four Ports in Asia.....	530
<i>Yi Xiao, Xiaofei Xue, Yi Hu, Ming Yi</i>	
Perception-Based Analysis of the Perspectives of Users and Non-Users of Different Shared Mobility Services	548
<i>Ehsan Amirmazmashar, Marco Diana</i>	
Assessment of Several Interpretation Criteria for Tensile Axial Load Tests on Deep Foundations.....	559
<i>Antonio Kodsy, Baturalp Öztürk, Youssef Bazi, Magued G. Iskander</i>	
Early Friction and Texture Evolution After an Asphalt Overlay.....	573
<i>Boris Goenaga, B. Shane Underwood, Cassie Castorena, Paul Rogers</i>	
Enhancing the Performance of Roller-Compacted Concrete Pavement by Synergetic Improvement of Packing Density, Lubrication, and Moisture State of Recycled Concrete Aggregate.....	594
<i>M. Selvam, Surender Singh, A. G. Anjana</i>	
Safety Evaluation for Conversion from Protected-Only Left-Turn Phasing to Time-Of-Day Protected-Permissive Left-Turn Phasing Using Flashing Yellow Arrows	609
<i>Taehun Lee, Christopher Cunningham, Carrie L. Simpson</i>	
Strategic Multi-Echelon and Cross-Modal CO ₂ Emissions Calculation in Parcel Distribution Networks: First Step Toward a Common Language.....	620
<i>Arevalo-Ascanio Rafael, Gevaers Roel, Dewulf Wouter</i>	
“Tram Wrong Way” International Experience and Mitigation of Track Switch Errors	631
<i>Graham Currie, James Reynolds, David Logan, Kristie L. Young</i>	
Design Method of Worn Rail Grinding Profile for the Curve Section.....	644
<i>Fengtao Lin, Wu Chen, Huafei Pang, Rongkai Tan, Taotao Weng, Qin Fang, Zhe Jia, Zihao Zhang, Xin Qian</i>	
Optimal Placement of Battery Electric Bus Charging Stations Considering Energy Storage Technology: Queuing Modeling Approach.....	663
<i>Mohsen Momenitabar, Zhila Dehdari Ebrahimi, Kelly Bengtson</i>	
Quantifying the Impact of Light Rail Transit on Commercial Property Values: New Evidence from Greater Kuala Lumpur, Malaysia	673
<i>Mohd Faris Dziauddin</i>	
Effect of Geological Uncertainty on the Shaft Resistance Prediction and Reliability of Piles Driven in Multi-Layered Geomaterials	687
<i>Opeyemi E. Oluwatuyi, Kam W. Ng, Shaun S. Wulff, Nafis Bin Masud</i>	
Approach for Estimating Inspection Staffing Needs for Highway Construction Projects.....	697
<i>Mamdouh Mohamed, Dai Q. Tran</i>	

Developing and Extending Status Prediction Models for Railway Tracks Based on On-Board Monitoring Data	708
<i>Tzu-Hao Yan, Mariana De Almeida Costa, Francesco Corman</i>	
Impact of Device Type and Specimen Preparation on the Variability of the Indirect Tensile Cracking Test (IDT-CT) at Intermediate Temperatures	720
<i>Jhony Habbouche, Ilker Boz, Stacey D. Diefenderfer</i>	
MatFEA: Efficient Finite Element Framework for Analyzing Pavement Structures with Nonlinear Unbound Materials	732
<i>Seyed Farhad Abdollahi, M. Emin Kutay, Mahdi Ghazavi</i>	
Understanding Flex-Route Transit Adoption from a Stage of Change Perspective	743
<i>Jingcai Yu, Yue Zheng, Wenquan Li, Jin Zhang, Rongrong Guo, Lei Wu</i>	
Detailed Analysis of Aircraft Fuel Flow Using Data from Flight Data Recorder.....	759
<i>Vehbi Emrah Atasoy</i>	
Effect of Model Accuracy on Maintenance and Rehabilitation Benefits.....	773
<i>Hongbin Xu, Jorge A. Prozzi</i>	
Effects of Reduced Speed on the Benefits and Pollution of Yangtze River Ships	783
<i>Kaisen Wang, Ming Yin, Amoah Daniel Ayisi</i>	
Estimation of Arrivals on Green at Signalized Intersections Using Stop-Bar Video Detection	797
<i>Slavica Gavric, Nemanja Dobrota, Ismet Goksad Erdagi, Aleksandar Stevanovic, Osama A. Osman</i>	
Exploring the Nonlinearity of Commute-Time Utility Considering Individual Ideal Preferences and Tolerance ThresholdsC: Ase Study in Kunming.....	812
<i>Jiankun Yang, Min He, Mingwei He, Zhuangbin Shi, Yang Liu, Jianbo Li</i>	
Mass Concrete Mixtures Optimized for Temperature Control and High Workability	827
<i>H. Celik Ozyildirim, Mary Sharifi, M. Shabbir Hossain</i>	
Performance Comparison of Break and Seat and Rubblization Rehabilitation Techniques for Reflection-Crack Mitigation: Case Study in Louisiana	837
<i>Moses Akentuna, Qiming Chen, Zhongjie Zhang</i>	
Performance of Recycled Plastic Pins for Improving Unsuitable Foundation Soil	852
<i>Faria Fahim Badhon, Md Azijul Islam, Prabesh Bhandari, MD Sahadat Hossain</i>	
Vibration and Noise Assessment of Prefabricated Crush Rubber Sinusoidal Rumble Strips	866
<i>Hamid Reza Behnood, Amir Alamdari, Majid Ghadiri</i>	
Bibliometric Review of Route Optimization in Maritime Transportation: Environmental Sustainability and Operational Efficiency	879
<i>Mahmut Mollaoglu, Burak Can Altay, Abit Balin</i>	

Author Index