SPIS TREŚCI
nr 1

TECHNICAL PAPERS
1  Use of a Hybrid Algorithm for Modeling Coordinated Feeder Bus Route Network at Suburban Railway Station / Prabhat Shrivastava, Margaret O’Mahony
9  Simulation-Based Study on a Lane-Based Signal System for Merge Control at Freeway Work Zones / Ning Yang, Gang-Len Chang, Kyeong-Pyo Kang
18 Crash Injury Severity Analysis Using Bayesian Ordered Probit Models / Yuanchang Xie, Yunlong Zhang, Faming Liang
26 Improved Flow-Based Travel Time Estimation Method from Point Detector Data for Freeways / Lelitha D. Vanajakshi, Billy M. Williams, Laurence R. Rilett

TECHNICAL NOTES
37 Effects of Varying Functional Classification on Cost of Roadways / Steven Vander Giessen, James R. Kladianos, Rhonda Kae Young

BOOK REVIEWS
TECHNICAL PAPERS
45 Dynamic Tolling Strategies for Managed Lanes / Yafeng Yin, Yingyan Lou
53 Finite-Element Modeling of Instrumented Flexible Pavements under Stationary Transient Loading / Isaac L. Howard, Kimberly A. Warren
74 Validation of Perspective-View Concept for Estimating Road Horizontal Curvature / Fujian Wang, Said M. Easa

BOOK REVIEWS
81 Review of The Horse in the City by Clay McShane and Joel A. Tarr / Lester A. Hoel
TECHNICAL PAPERS
83  Methodology SHAKER and the Capacity Analysis of Five Toll Plazas / Marguerite L. Zarrillo, A. Essam Radwan
94  Synthesis of Sign Deterioration Rates across the United States / Venkata Pavan K. Immaneni, Joseph E. Hummer, William J. Rasdorf, Elizabeth A. Harris, Chunho Yeom
104 Disaggregate Propensity Study on Red Light Running Crashes Using Quasi-Induced Exposure Method / Helai Huang, Hoong Chor Chin
112 Effects of Design and Site Factors on Roughness Development in Flexible Pavements / Syed Waqar Haider, Karim Chatti
121 Finite-Element Modeling and Analysis of Reinforced Concrete Box Culverts / Anil K. Garg, AH Abolmaali
129 Application of Shackle's Model and System Optimization for Highway Investment Decision Making under Uncertainty / Zongzhi Li, Kumares C. Sinha
140 Examining $k$-$E$ Relationship of Pavement Subgrade Based on Load-Deflection Consideration / B. H. Setiadji, T. F. Fwa

DISCUSSIONS AND CLOSURES
149 Discussion of "Video-Capture-Based Approach to Extract Multiple Vehicular Trajectory Data for Traffic Modeling" by Heng Wei, Chuen Feng, Eric Meyer, and Joe Lee / Alfredo Garcia, Mario Romero
151 Closure / Heng Wei, Chuen Feng, Eric Meyer, Joe Lee
TECHNICAL PAPERS
153 Right Turns on Green and Pedestrian Level of Service: Statistical Assessment / Sarah M. L. Hubbard, Darcy M. Bullock, Fred L. Mannering
160 Advances in Genetic Algorithm Optimization of Traffic Signals / Khewal Bhupendra Kesur
183 Sampling Protocol for Condition Assessment of Selected Assets / Ricardo A. Medina, Ali Haghani, Nicholas Harris
197 Operational Performance Assessment for Two-Lane Highway Facilities / Qingyong Yu, Scott S. Washburn
206 Modeling Airport Operations Affected by a Large-Scale Disruption / Milan Janic
217 Optimization Method for Highway Horizontal Alignment Design / Yusin Lee, You-Ren Tsou, Hsiao-Liang Liu
225 Evaluation of Current Repair Criteria for Longitudinal Barrier with Crash Damage / Douglas J. Gabauer, Hampton C. Gabler
240 Repeated Creep Behavior of Polypropylene Fiber-Reinforced Bituminous Mixtures / Serkan Tapkm, On Uşar, Ahmet Tuncan, Mustafa Tuncan

BOOK REVIEWS
TECHNICAL PAPERS

253 Influence of Intersection Geometries on the Operation of Triple Left-Turn Lanes / Thobias Sando, Ren Moses

260 Optimization of Speed Control Hump Profiles / S. Caglar Baslamisli, Y. Samim Unlusoy


279 Numerical and Experimental Assessment of Advanced Concepts to Reduce Noise and Vibration on Urban Railway Turnouts / Joannis Anastasopoulos, Stefano Alfi, George Gazetas, Stefano Bruni, Andre Van Leuven

288 Impacts of Intercycle Demand Fluctuations on Delay / Lee D. Han, Jan-Mou Li, Tom Urbanik

297 Effect of Mixture Characteristics on Cooling Rate of Asphalt Pavements / Chieh-Min Chang, Yen-Jui Chang, Jian-Shiuh Chen

305 Pavement Preservation Optimization Considering Multiple Objectives and Budget Variability / Zheng Wu, Gerardo W. Flintsch

TECHNICAL NOTES

316 Potential Freeway Congestion Severity Measure: Impact of Continuous Congestion Patterns / Jungwook Jun, In-Kyu Lim
TECHNICAL PAPERS

323 Microscopic Analysis of Service Delay at Uncontrolled Intersections in Mixed Traffic Conditions / Satish Chandra, Abhishek Agrawal, Ashalatha Rajamma

330 Valuing Travel Attributes of Rural Feeder Service to Bus Stop: Comparison of Different Logit Model Specifications / Sudhanshu Sekhar Das, Bhargab Maitra, Manfred Boltze

338 Pedestrian and Vehicle Flow Calibration in Multimodal Traffic Microsimulation / Muhammad Moazzam Ishaque, Robert B. Noland

349 Fuzzy Data Mining Approach for Quantifying Signalized Intersection Level of Services Based on User Perceptions / Fang Clara Fang, Kelly Klaver Pecheux

359 Lane-Based Dynamic Merge Control Strategy Based on Optimal Thresholds for Highway Work Zone Operations / Kyeong-Pyo Kang, Gang-Len Chang

371 Stochastic Optimization Model and CH/V^2 Solution Algorithm for Highway Investment Decision Making under Budget Uncertainty / Zongzhi Li

380 Theoretical and Empirical Relationships for the Quality of Flow and for a New Level of Service on Two-Lane Highways / Abishai Polus, Moshe Cohen

386 Microscopic Dual-Regime Model for Single-Lane Roundabouts / Estelle Chevallier, Ludovic Leclercq
IN MEMORIAM
395  Edward C. Sullivan: Nov. 21, 1944-Feb. 16, 2009 / Kimberley Mastako

TECHNICAL PAPERS
397  Train-Induced Vibrations on Urban Metro and Tram Turnouts / Stefano Bruni, Ioannis Anastasopoulos, Stefano Alfi, Andre Van Leuven, Marios Apostolou, George Gazetas
406  Capacity Expansion Problem for Large Urban Transportation Networks / Tom V. Mathew, Sushant Sharma
416  Differences in Freeway Capacity by Day of the Week, Time of Day, and Segment Type / Jiyoun Yeon, Sarah Hernandez, Lily Elefteriadou
427  Harnessing the Power of Microscopic Simulation to Evaluate Freeway Service Patrols / Yongchang Ma, Mashrur Chowdhury, Ryan Fries, Kaan Ozbay
440  Statistical Model for Forecasting Link Travel Time Variability / Keemin Sohn, Daehyun Kim
454  Comparison of Methods for Defining Geographical Connectivity for Variables of Trip Generation Models / Valerian Kwigizile, Hualiang (Harry) Teng
467  Comparison of Cyclic Triaxial Behavior of Unbound Granular Material under Constant and Variable Confining Pressure / H. A. Rondon, T. Wichmann, T. Triantafyllidis, A. Lizcano

BOOK REVIEWS
489  Review of Environmentally Conscious Transportation by Myer Kutz / Rod E. Turochy
TECHNICAL PAPERS
491 Transit Route Network Design Problem: Review / Konstantinos Kepaptsoglou, Matthew Karlaftis
506 Segmentation Analysis of Commuters Accessing Transit: Mumbai Study / Rajat Rastogi, K. V. Krishna Rao
516 Highway Project Level Life-Cycle Benefit/Cost Analysis under Certainty, Risk, and Uncertainty: Methodology with Case Study / Zongzhi Li, Sunil Madanu
527 Using M/M/^ Queueing Model in On-Street Parking Maneuvers / Angel Ibeas Portilla, Borja Alonso Orena, Jose Luis Moura Berodia, Francisco Jose Ruisanchez Diaz
536 Long-Term Speed Compliance and Safety Impacts of Rational Speed Limits / Hojun "Daniel" Son, Michael D. Fontaine, Byungkyu "Brian" Park
545 Framework Development of Performance Prediction Models for Concrete Bridges / Y. N. Yang, H. J. Pam, M. M. Kumaraswamy
572 Selecting Construction Measures for Mitigating Early-Age Delamination in CRC Pavements Made with Gravel Aggregates / Juanyu Liu, Dan G. Zollinger
580 Artificial Neural Network Approach to Estimating Stiffness Behavior of Rubberized Asphalt Concrete Containing Reclaimed Asphalt Pavement / Feipeng Xiao, Serji N. Amirkhanian
nr 9

TECHNICAL PAPERS
591 Illustrative Field Configuration and Evaluation of Traffic-Responsive Control / Montasir M. Abbas, Geza Pesti, A/adeem A. Chaudhary, Pengfei Li
600 Normalized Resilient Modulus Model for Subbase and Subgrade Based on Stress-Dependent Modulus Degradation / Junhwan Lee, Jihwan Kim, Beongjoon Kang
611 Aggregate Fuel Consumption Model of Light-Duty Vehicles for Evaluating Effectiveness of Traffic Management Strategies on Fuels / Guohua Song, Lei Yu, Ziqianli Wang
632 Population Synthesis with Subregion-Level Control Variable Aggregation / Joshua A. Auld, Abolfazl (Kouroos) Mohammadian, and Kermit Wies
640 Multiobjective Approach to Long-Term Interurban Multilevel Road Network Planning / Bruno Santos, Antonio Antunes, Eric Miller
650 Stop-Controlled Intersection Sight Distance: Minor Road on Tangent of Horizontal / Curve M. Z. A. Ali, Said M. Easa, M. Hamed
658 Multivariate Traffic Forecasting Technique Using Cell Transmission Model and SARIMA Model / W. Y, Szeto, Bidisha Ghosh, Biswajit Basu, Margaret O'Mahony

TECHNICAL NOTES
668 Correction to the Infinite Mode for Lateral Buckling of Pipelines / Half Peek
670 Estimating Highway Capacity Considering Two-Regime Models / Jun Yao, Hesham Rakha, Hualiang (Harry) Teng, Valerian Kwigizile, Mohamed Kaseko
TECHNICAL PAPERS

677 Simulation-Based Investigation on High-Occupancy Toll Lane Operations for Washington State Route 167 / Guohui Zhang, Shuming Yan, Yinhai Wang

687 Desired Time Gap and Time Headway in Steady-State Car-Following on Two-Lane Roads / Partha Pratim Dey, Satish Chandra

694 Highway Work Zone Risk Factors and Their Impact on Crash Severity / Yingfeng Li, Yong Bai

702 Annualized Road Works Cost Estimates for Unpaved Roads / George Huntington, Khaled Ksaibati


721 Determinants of Speeding Behavior of Drivers in Al Ain (United Arab Emirates) / Arif Mehmood

730 Pullout Resistance Characteristics of Cast Iron Pipe / Omer Bilgin, Harry E. Stewart

736 Simulation of Dynamic Effects of Vehicles on Pavement Using a 3D Interaction Model / X. M. Shi, C. S. Cai

745 Estimation of Temperature Stress and Low-Temperature Crack Spacing in Asphalt Pavements / Pabitra Rajbongshi, Animesh Das

753 Evaluating the Cost Effectiveness of Flexible Rehabilitation Treatments Using Different Performance Criteria / Muhammad Irfan, Muhammad Bilal Khurshid, Samuel Labi, William Flora

764 Potential Applications of Nanotechnology in Pavement Engineering / Wynand JvdM Steyn

773 Climate Change Implications for Flexible Pavement Design and Performance in Southern Canada / Brian N. Mills, Susan L. Tighe, Jean Andrey, James T. Smith, Ken Huen

783 Upgrading Arc Median Shortest Path Problem for an Urban Transportation Network / Kali P. Nepal, Dongjoo Park, Chang-Ho Choi
TECHNICAL PAPERS

PAVEMENT ENGINEERING
791 Use of Soft Computing Applications to Model Pervious Concrete Pavement Condition in Cold Climates / Amir Golroo, Susan Tighe
801 Estimation of Waviness of the Longitudinal Road Profile from Straightedge Measurement / Oldfich Kropdc, Peter Mucka
813 Load Transfer Characteristics of Dowel Bar System in Jointed Concrete Pavement / Swati Roy Maitra, K. S. Reddy, L. S. Ramachandra
822 Data Envelopment Analysis as a Decision-Making Tool for Transportation Professionals / Mehmet Egemen Ozbek, Jesus M. de la Garza, Konstantinos Triantis
832 Cleaning Porous Pavements Using a Reverse Flush Process / Nilesh Arjun Shirke, Scott Shuler
839 Effect of Compaction Mode on the Mechanical Performance and Variability of Asphalt Mixtures / Alistair E. Hunter, Liam McGreavy, Gordon D. Airey
852 Integration of Moisture Sensitivity Testing with Gyratory Mix Design and Mechanistic-Empirical Pavement Design / Tamer M. Breakah, Jason P. Bausano, R. Christopher Williams

TRANSPORTATION SYSTEMS
858 Pilot Car Wait-Time Notification System / Margaret J. Rys, Romal S. Jacob
864 Self-Similar Characteristics of Vehicle Arrival Pattern on Highways / Qiang Meng, Hooi Ling Khoo
873 Concept and Spatial Analysis Method of Urban Environmental Traffic Capacity / Tie-zhu Li, Jin-shan Lin, Meng-ting Wu, Xi-wei Wang
880 Integrated Short-Term and Long-Term MCDM Model for Solving Location Selection Problems / Chien-Chang Chou
894 Traffic Interactions between Motorized Vehicles and Nonmotorized Vehicles near a Bus Stop / Xiao-Mei Zhao, Bin Jia, Zi-You Gao, Rui Jiang

CASE STUDIES
907 Saskatchewan Field Case Study of Triaxial Frequency Sweep Characterization to Predict Failure of a Granular Base across Increasing Fines Content and Traffic Speed Applications / Curtis Berthelot, Diana Podborochynski, Brent Marjeron, Ron Gerbrandt
**TECHNICAL PAPERS**

**TRANSPORTATION SYSTEMS**

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>915</td>
<td>Validated Mechanistic Model for Geogrid Base Reinforced Flexible Pavements</td>
<td>Jayhyun Kwon, Erol Tutumluer, Imad L. Al-Qadi</td>
</tr>
<tr>
<td>927</td>
<td>Kalman Filter Approach to Speed Estimation Using Single Loop Detector Measurements under Congested Conditions</td>
<td>Jianhua Guo, Jingxin Xia, Brian L. Smith</td>
</tr>
<tr>
<td>935</td>
<td>Including Minor Modes of Transport in a Tour-Based Mode Choice Model with Household Interactions</td>
<td>Matthew J. Roorda, Dylan Passmore, Eric J. Miller</td>
</tr>
<tr>
<td>946</td>
<td>Zero-Radius Bend Method to Trigger Lateral Buckles</td>
<td>Ralf Peek, Nils O. Kristiansen</td>
</tr>
<tr>
<td>953</td>
<td>Impact of Phase Scheme on Development and Performance of a Logic Rule-Based Bus Rapid Transit Signal Priority</td>
<td>Hongfeng Xu, Mingming Zheng</td>
</tr>
<tr>
<td>966</td>
<td>Effects of Controlling Parameters on Performance of a Decision-Rule Map-Matching Algorithm</td>
<td>Carola A. Blazquez and Alan P. Vonderohe</td>
</tr>
</tbody>
</table>

**PAVEMENT ENGINEERING**

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>974</td>
<td>Closed-Form Solutions for Bimodal Axle Load Spectra and Relative Pavement Damage Estimation</td>
<td>Syed Waqar Haider, Ronald S. Harichandran, Monther B. Dwaikat</td>
</tr>
<tr>
<td>984</td>
<td>Investigation of Violation Reduction at Intersection Approaches with Automated Red Light Running Enforcement Cameras in Clive, Iowa, Using a Cross-Sectional Analysis</td>
<td>Eric J. Fitzsimmons, Shauna L. Hallmark, Massiel Orellana, Thomas McDonald, David Matulac</td>
</tr>
<tr>
<td>990</td>
<td>Modeling the Effects of Socioeconomic Factors in Highway Construction and Expansion</td>
<td>Coray Davis, Manoj K. Jha</td>
</tr>
</tbody>
</table>

**CASE STUDIES**

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>999</td>
<td>Roads Performance Modeling and Management System from Two Condition Data Points: Case Study of Costa Rica</td>
<td>Luis Esteban Amador-Jimenez, Donath Mrawira</td>
</tr>
</tbody>
</table>

1008 Reviewers

1013 2009 Annual Index