

# Nathan Huynh

*Professor*

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## Education

- 2005 **Ph.D. Transportation Engineering**, *University of Texas at Austin*, Austin, TX.  
Advisor: Dr. C. Michael Walton
- 1999 **M.S. Transportation Engineering**, *University of Texas at Austin*, Austin, TX.  
Advisor: Dr. Hani S. Mahmassani
- 1996 **B.S. Civil Engineering**, *Temple University*, Philadelphia, PA.  
Graduated first in class

## Industry/Academic Experience

- 2023 - present **Director**, *Nebraska Transportation Center*.
- 2023 - present **Keith W. Klaasmeyer Professor**, *University of Nebraska-Lincoln*.  
Department of Civil & Environmental Engineering, Lincoln, NE
- 2020 - 2022 **Professor**, *University of South Carolina*.  
Department of Civil & Environmental Engineering, Columbia, SC
- 2014 - 2020 **Associate Professor**, *University of South Carolina*.  
Department of Civil & Environmental Engineering, Columbia, SC
- 2008 - 2014 **Assistant Professor**, *University of South Carolina*.  
Department of Civil & Environmental Engineering, Columbia, SC
- 2007 - 2008 **Assistant Professor**, *North Carolina A&T State University*.  
Department of Civil & Environmental Engineering, Greensboro, NC
- 2003 - 2007 **Special Projects Manager/Systems Analyst**, *Port of Houston Authority*.  
Division of Operations, Houston, TX
- 1996 - 2003 **Graduate Research Assistant**, *University of Texas at Austin*.  
Department of Civil & Environmental Engineering, Austin, TX
- Summer 1996 **Consultant**, *Kencon Environmental, Inc.*.  
Cherry Hill, NJ
- 1992 - 1995 **Computer Engineer (co-op)**, *Naval Warfare Surface Center*.  
Carderock Division, Philadelphia, PA
- Summer 1995 **Undergraduate Research Assistant**, *University of Maine*.  
Department of Civil & Environmental Engineering, Orono, ME

## Honors and Awards

- 2023 Federal Highway Administration, South Carolina winner of Build a Better Mousetrap for SCDOT project entitled "Improving SCDOT Project Delivery through Identifying Potentially Suitable Locations for Mitigation and Standardizing Section 401/404 Permit Application Process."

- 2022 American Association of State and Highway Transportation Officials (AASHTO), Sweet Sixteen High Value Research Award for SCDOT project entitled "Improving SCDOT Project Delivery through Identifying Potentially Suitable Locations for Mitigation and Standardizing Section 401/404 Permit Application Process."
- 2022 ASCE South Carolina Section, Technical Contribution of the Year Award in recognition of "Improving SCDOT Project Delivery through Identifying Potentially Suitable Locations for Mitigation and Standardizing Section 401/404 Permit Application Process."
- 2021 ASCE South Carolina Section, Outstanding Leadership Award.
- 2021 International Journal of Transportation Science and Technology Editorial Board, Most Cited Article Award for paper entitled "Factors influencing injury severity of crashes involving HAZMAT trucks" by M. Uddin and N. Huynh.
- 2020 American Association of State and Highway Transportation Officials (AASHTO), Supplemental High Value Research Award for SCDOT project entitled "Sign Life Expectancy."
- 2020 Institute of Industrial and Systems Engineers (IISE) Modeling and Simulation Division, Best Paper Award for paper entitled "Prediction Model for Energy Consumption in Heavy-Duty Vehicle Formation" by M. Schmid, D. Liu, B. Eksioglu, N. Huynh, and G. Comert.
- 2020 TRB's Intermodal Freight Terminal Design and Operations Committee (AT050), Certificate of Appreciation for service as Chair.
- 2019 University of South Carolina Breakthrough Graduate Scholars Award presented to Majbah Uddin, Ph.D. student under Dr. Nathan Huynh's supervision, at the Office of Research Awards Dinner, April 16, 2019.
- 2018 TRB's Fifth Biennial Marine Transportation System Conference Organization Committee, Student Honor Panel for paper entitled "Assessing the Impact of Collaboration among Truck Carriers in Intermodal Freight Transportation" by M. Uddin and N. Huynh.
- 2017 TRB's Intermodal Freight Committee, Private Sector Applicability Paper Award for paper entitled "The Implications of U.S. Chassis Supply Models for Chassis Stakeholders" by S. Shiri and N. Huynh.
- 2016 TRB's Intermodal Freight Committee, Private Sector Applicability Paper Award for paper entitled "Truck Appointment Systems: Where We Are and Where to Go From Here" by N. Huynh, D. Smith and F. Harder.
- 2014 TRB's Intermodal Freight Terminal Design and Operations Committee (AT050), Appointed as Chair.
- 2007 NC A&T, Division of Research & Economic Development, Summer Faculty Fellowship.
- 2007 ASCE, ExCEED Teaching Fellow.
- 2002 University of Texas at Austin, Robert Herman Endowed Scholarship.
- 2002 Southwest Region University Transportation Center, Ph.D. Student of the Year.
- 1999-2000 University of Texas at Austin, Mary Kate Collins Memorial Endowed Presidential Scholarship in Engineering.
- 1998-1999 University of Texas at Austin, Bruton Fellowship.
- 1996-2002 University of Texas at Austin, Advanced Institute for Transportation Engineering and Infrastructure Management Fellowship.
- 1996 Temple University, Highest Scholastic Average in the Bachelor of Science in Engineering Program.
- 1995 Philadelphia Naval Warfare Surface Center, Co-op of the year.
- 1995 American Society of Civil Engineers Scholarship.
- 1992-1996 Philadelphia City Scholarship.
- 1992 -1996 Temple University's Outstanding Achievement Scholarship.

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## Media Coverage and Recognition

- 2022 "SCDOT Environmental Research Project", SCDOT YouTube Video, May 9, 2022. <https://youtu.be/13YtVjKElsk>
- 2022 "Huynh's web apps save time and money for SCDOT" by Chris Woodley, College of Engineering and Computing News and Events, March 23, 2022. [https://www.sc.edu/study/colleges\\_schools/engineering\\_and\\_computing/news\\_events/news/2022/huynh\\_web\\_app\\_scdot.php?utm\\_medium=email&utm\\_source=innovate\\_list&utm\\_campaign=march\\_cec\\_news\\_2022&utm\\_content=ii\\_huynh](https://www.sc.edu/study/colleges_schools/engineering_and_computing/news_events/news/2022/huynh_web_app_scdot.php?utm_medium=email&utm_source=innovate_list&utm_campaign=march_cec_news_2022&utm_content=ii_huynh)
- 2022 "Utilization of Traffic Speed Deflectometer for Pavement Management", SCDOT YouTube Video, March 4, 2022. <https://www.youtube.com/watch?v=HzJTUXZKLb8&t=4s>
- 2021 "South Carolina's Roads Need Serious Attention" by Raymond Escoto, Daily Gamecock, October 3, 2021. <https://www.dailygamecock.com/article/2021/10/column-south-carolinas-roads-need-serious-attention-opinion-escoto>
- 2020 "Huynh receives High Value Research award for research on road signs" by Grace Farrar, College of Engineering and Computing News and Events, October 14, 2020. [https://sc.edu/study/colleges\\_schools/engineering\\_and\\_computing/news\\_events/news/2020/huynh\\_high\\_value\\_research\\_award.php](https://sc.edu/study/colleges_schools/engineering_and_computing/news_events/news/2020/huynh_high_value_research_award.php)
- 2019 "Plotting a Pothole-Free Future" by Chris Horn, University of South Carolina Times, October 21, 2019. [https://sc.edu/uofsc/posts/2019/10/asphalt\\_modeling.php#.YdCEr2jMJas](https://sc.edu/uofsc/posts/2019/10/asphalt_modeling.php#.YdCEr2jMJas)
- 2014 "Building Better Shipping Networks With Ants" by Mary Hoff, Discover Magazine, August 28, 2014. <https://www.discovermagazine.com/planet-earth/building-better-shipping-networks-with-ants>

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## Theses

- Dissertation *Methodologies for Reducing Truck Turn Time at Marine Container Terminals*  
Committee C. Michael Walton (Supervisor), Robert Harrison, Randy B. Machemehl, Douglas J. Morrice, and John L. Tassoulas
- Thesis *Development of a Graphical User Interface Framework for DYNASMART-X Real-Time Dynamic Traffic Assignment System*  
Committee Hani S. Mahmassani (Supervisor) and Randy B. Machemehl

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## Post-Publication Peer-Reviewed Journal Publications

(\* denotes Corresponding Author)

- 1 Uddin, M., R. Allen, N. Huynh\*, J.M. Vidal, K.M. Taaffe, L.D. Fredendall, J.S. Greenstein. Operating Room Turnover Time Autocorrelation while Using Mobile Applications. *mHealth*, 2018, Letter to the Editor, Vol. 4, No. 38, pp. 1 - 2. <http://mhealth.amegroups.com/article/view/21231/20722>.

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## Peer-Reviewed Journal Publications

(\* denotes Corresponding Author)

- 1 Wegmet, J., N. Huynh\*, L.V. Le, H.N. Duong, M.C. Chu, M. Madarshahian, and C. Siddiqui. Investigation of Discrepancies in South Carolina Traffic Collision Forms. *Transportation Research Interdisciplinary Perspectives*, 2024, Vol. 25, 101088. <https://doi.org/10.1016/j.trip.2024.101088>.
- 2 Wang, J., G. Comert, N. Begashaw, N. Huynh\*, A. Kouyate, R. Mullen, S. Gassman, and C. Pierce. A Comparative Analysis of Three Modeling Approaches for Predicting Pavement Conditions. *Transportation Research Record: Journal of the Transportation Research Board*, 2024, 0(0). <https://doi.org/10.1177/03611981241234924>.

- 3 Liu, D., B. Eksioglu, M. Schmid, N. Huynh, and Gurcan Comert. Decentralized Platoon Formation for a Fleet of Connected and Autonomous Trucks. *Expert Systems with Applications*, 2024, Volume 249, Part B, 123650. <https://doi.org/10.1016/j.eswa.2024.123650>.
- 4 Wang, J., R. DeVine, N. Huynh\*, W. Jin, G. Comert, and M. Chowdhury. Comparison of Models with and without Roadway Features to Estimate Annual Average Daily Traffic at Non-Coverage Locations. *International Journal of Transportation Science and Technology*, 2023. <https://doi.org/10.1016/j.ijtst.2023.10.001>.
- 5 Ahmed, F, N. Huynh, W.G. Ferrell, V. Badyal, and B. Padmanabhan. Vehicle Re-routing under Disruption in Cross-Dock Network with Time Constraints. *Expert Systems with Applications*, 2024, Vol. 237, Part B, 121517. <https://doi.org/10.1016/j.eswa.2023.121517>.
- 6 Uddin, M., N. Huynh, and F. Ahmed. Assignment of Freight Traffic in a Large-scale Intermodal Network under Uncertainty. *Highlights of Sustainability*, 2024, Vol. 3, Issue 1, pp. 1–15. <https://doi.org/10.54175/hsustain3010001>.
- 7 Duong, H.N., M.C. Chu, and N. Huynh. Meta-Analysis of Driving Behavior Studies and Assessment of Factors using Structural Equation Modeling. *International Journal of Transportation Science and Technology*, 2023. <https://doi.org/10.1016/j.ijtst.2023.05.002>.
- 8 Madarshahian, M., A. Balaram, F. Ahmed, N. Huynh, C.K.A. Siddiqui, and M. Ferguson. Analysis of Injury Severity of Work Zone Truck-Involved Crashes in South Carolina for Interstates and Non-Interstates. *Sustainability*, 2023, Vol. 15, Issue 9, pp. 7188. <https://doi.org/10.3390/su15097188>.
- 9 Badyal, V. W.G. Ferrell, N. Huynh, and B. Padmanabhan. A Two-stage Stochastic Model for Intermodal Terminal Location and Freight Distribution under Facility Disruptions. *International Journal of Systems Science: Operations & Logistics*, 2023, Vol. 10, No. 1, 2169055. <https://doi.org/10.1080/23302674.2023.2169055>.
- 10 Padmanabhan, B., N. Huynh\*, W.G. Ferrell, and V. Badyal. Evaluation of Three Collaboration and Profit Sharing Methods for Carriers in Pickup-and-Delivery Problems. *Multimodal Transportation*, 2023, Vol. 2, No. 2, 100066. <https://doi.org/10.1016/j.multra.2022.100066>.
- 11 Jahangard, M., M. Madarshahian, H. Sabur, R. Rezvani, A.M. Mohammadzadeh, and N. Huynh. Illegal Maneuver Effect on Traffic Operations at Signalized Intersections: An Observational Simulation-Based Before-After Study Using Response Surface Methodology. *Journal of Advanced Transportation*, Vol. 2023, Article ID 2038167. <https://doi.org/10.1155/2023/2038167>.
- 12 Wang, J, N. Huynh\*, and E. Peña. Land Side Truck Traffic Modeling at Container Terminals by Stationary Two-Class Queuing Strategy with Switching. *Journal of International Logistics and Trade*, 2022, Vol. 20, No. 3 pp. 118-134. <https://doi.org/10.1108/JILT-05-2022-0003>.
- 13 An, M.N., M.C Chu, N.T. Nguyen, H. Nishiuchi, and N. Huynh. Influence of the Human Development Index, Motorcycle Growth and Policy Intervention on Road Traffic Fatalities – A Case Study of Vietnam. *International Journal of Transportation Science and Technology*, 2022. <https://doi.org/10.1016/j.ijtst.2022.09.004>.
- 14 Shiri, S., N. Huynh\*, D. Smith, and F. Harder. Impact of Second-Tier Container Port Facilities on Drayage Operation. *Logistics*, 2022, Vol. 6, No. 68. <https://doi.org/10.3390/logistics6040068>.
- 15 Ahmed, F., C.K.A., Siddiqui, and N. Huynh\*. Analysis of Temporal Stability of Contributing Factors to Truck-Involved Crashes at Work Zones in South Carolina. *Transportation Research Record: Journal of the Transportation Research Board*, 2022. <https://doi.org/10.1177/03611981221112097>.

- 16 Torkjazi, M., N. Huynh\*, and A. Asadabadi. Modeling the Truck Appointment System as a Multi-Player Game. *Logistics*, 2022, Vol. 6, No. 53. <https://doi.org/10.3390/logistics6030053>.
- 17 Ahmed, N.S., N. Huynh\*, S. Gassman, R. Mullen, C. Pierce, and Y. Chen. Predicting Pavement Structural Condition Using Machine Learning Methods. *Sustainability*, 2022, Vol. 14, No. 14:8627. <https://doi.org/10.3390/su14148627>.
- 18 Ahmed, F., J. Thompson, D. Kim, N. Huynh\*, and E. Carroll. Evaluation of pavement service life using AASHTO 1972 and mechanistic-empirical pavement design guides. *International Journal of Transportation Science and Technology*, available online, 2021. <https://doi.org/10.1016/j.ijtst.2021.11.004>.
- 19 Shirley, T., B. Padmanabhan, P. Murray-Tuite, N. Huynh, G. Comert, and J. Shen. Exploring the Potential of Using Privately-Owned, Self-Driving Autonomous Vehicles for Evacuation Assistance. *Journal of Advanced Transportation*, Vol. 2021, Article ID 2156964, 2021. <https://doi.org/10.1155/2021/2156964>.
- 20 Torkjazi, M. and N. Huynh\*. Design of a Truck Appointment System Considering Drayage Scheduling and Stochastic Turn Time. *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2675, No. 12, 2021, pp. 342-354. <https://doi.org/10.1177/03611981211029643>.
- 21 Jin, W., M.S. Salek, M. Chowdhury, M. Torkjazi, N. Huynh, and P. Gerard. Assessment of Operational Effectiveness of SynchroGreen Adaptive Signal Control System in South Carolina. In *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2675, No. 11, 2021, pp. 714-728. <https://doi.org/10.1177/03611981211019745>.
- 22 Zhang, Y., Y. Chen, R. Sun, N. Huynh, and G. Comert. A Surrogate Approach for Estimating Vehicle-Related Emissions Under Heterogenous Traffic Conditions. *Journal of the Air & Waste Management Association*, Vol. 71, No. 6, 2021, pp. 778-789.
- 23 Liu, D., B. Eksioglu, M.J. Schmid, N. Huynh, and G. Comert. Optimizing Energy Savings for a Fleet of Commercial Autonomous Trucks. *IEEE Transactions on Intelligent Transportation Systems*, 2021. <https://doi:10.1109/TITS.2021.3071442>.
- 24 Salek, M.S, W. Jin, S.M. Khan, M. Chowdhury, P. Gerrard, S.B. Basnet, M. Torkjazi, and N. Huynh. Assessing the Likelihood of Secondary Crashes on Freeways with Adaptive Signal Control System Deployed on Alternate Routes. *Journal of Safety Research*, Vol. 76, 2021, pp. 314-326.
- 25 Padmanabhan, B., N. Huynh\*, W. Ferrell and V. Badyal. Potential Benefits of Carrier Collaboration in Vehicle Routing Problem with Pickup and Delivery. *Transportation Letters*, 2020, Vol. 14, No. 3, pp. 258-273. <https://doi:10.1080/19427867.2020.1852506>.
- 26 Uddin, M and N. Huynh. Model for Collaboration among Carriers to Reduce Empty Container Truck Trips. *Information*, Vol. 11, No. 8, Article ID 377, 2020. <https://doi.org/10.3390/info11080377>.
- 27 Ahmed, F., J. Thompson, D. Kim, E. Carroll, and N. Huynh\*. Cost-effectiveness of Performing Field Investigation for Pavement Rehabilitation Design of Non-Interstate Routes. *International Journal of Transportation Science and Technology*, 2020, <https://doi.org/10.1016/j.ijtst.2020.06.001>.
- 28 Badyal, V., W. Ferrell, N. Huynh and B. Padmanabhan. A Multi-Period Optimization Model for Siting Capacitated Intermodal Facilities. In *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2674, No. 7, 2020, pp. 135 - 147. <https://doi.org/10.1177/036119812092116>.
- 29 Uddin, M. and N. Huynh\*. Injury Severity Analysis of Truck-Involved Crashes under Different Weather Conditions. *Accident Analysis & Prevention*, Vol. 141, 2020. <https://doi.org/10.1016/j.aap.2020.105529>.

- 30 Comert, G. S. Darko, N. huynh, B. Elijah, and Q. Eloise. Evaluating the Impact of Traffic Volume on Air Quality in South Carolina. *International Journal of Transportation Science and Technology*, Vol. 9, No. 1, 2020, pp. 29-41. <https://doi.org/10.1016/j.ijtst.2019.05.008>.
- 31 Torkjazi, M. and N. Huynh\*. Effectiveness of Dynamic Insertion Scheduling Strategy for Demand-Responsive Paratransit Vehicles using Agent-Based Simulation. *Sustainability*, Vol. 11, No. 19, Article ID 5391, 2019. <https://doi.org/10.3390/su11195391>.
- 32 Chu, M.C., L.X. Nguyen, T.T. Ton, and N. Huynh. Assessment of Motorcycle Ownership, Use, and Potential Changes due to Transportation Policies in Ho Chi Minh City, Vietnam. *Journal of Transportation Engineering, Part A: Systems*, Vol. 145, No. 12, Article ID 05019007, 2019, pp. 1 - 11.
- 33 Uddin, M. and N. Huynh\*. Reliable Routing of Road-Rail Intermodal Freight under Uncertainty. *Networks and Spatial Economics*, Vol. 19, 2019, pp. 929 - 952. <https://doi.org/10.1007/s11067-018-9438-6>.
- 34 Shiri, S., M. Ng, and N. Huynh\*. Integrated Drayage Scheduling Problem with Stochastic Container Packing and Unpacking Times. *Journal of the Operational Research Society*, Vol. 70, No. 5, 2019, pp. 793-806. <https://doi.org/10.1080/01605682.2018.1457487>.
- 35 Uddin, M., R. Allen, N. Huynh\*, J.M. Vidal, K.M. Taaffe, L.D. Fredendall, and J.S. Greenstein. Operating Room Turnover Time Autocorrelation while Using Mobile Applications. *mHealth, Letter to the Editor*, Vol. 4, No. 38, 2018, pp. 1 - 2. <http://mhealth.amegroups.com/article/view/21231/20722>.
- 36 Venkataraman, S., L.D. Fredendall, K.M. Taaffe, N. Huynh, and G. Ritchie. An Empirical Examination of Surgeon Experience, Block Scheduling, and Costs in Peri-Operative Services. *Journal of Operations Management*, Vol. 61, 2018, pp. 68 - 81.
- 37 Khan, S.M., S. Islam, M.Z. Khan, K. Dey, M. Chowdhury, N. Huynh, M. Torkjazi. Development of Statewide AADT Estimation Model from Short-Term Counts: A Comparative Study for South Carolina. In *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2672, No. 43, 2018, pp. 55-64.
- 38 Torkjazi, M., N. Huynh\* and S. Shiri. Truck Appointment Systems Considering Impact to Drayage Truck Tours. *Transportation Research Part E: Logistics and Transportation Review*, Vol. 116, 2018, pp. 208 - 228.
- 39 Uddin, M., R. Allen, N. Huynh\*, J.M. Vidal, K.M. Taaffe, L.D. Fredendall, and J.S. Greenstein. Assessing Operating Room Turnover Time via the Use of Mobile Application. *Journal of mHealth*, Vol. 4., No. 12, 2018, pp. 1 - 9. <http://mhealth.amegroups.com/article/view/19513>.
- 40 Shiri, S. and N. Huynh\*. Assessment of U.S. Chassis Supply Models on Drayage Productivity and Air Emissions. *Transportation Research Part D: Transport and Environment*, Vol. 61, Part A, 2018, pp. 174 - 203. <https://doi.org/10.1016/j.trd.2017.04.024>.
- 41 Fotuhi, F. and N. Huynh\*. A Reliable Multi-Period Intermodal Freight Network Expansion Problem. *Computers and Industrial Engineering*, Vol. 115, 2018, pp. 138 - 150.
- 42 Uddin, M., R. Allen, N. Huynh\*, J.M. Vidal, K.M. Taaffe, L.D. Fredendall, and J.S. Greenstein. Effectiveness of a Countdown Timer in Reducing OR Turnover Time. *Journal of Mobile Technology in Medicine*, Vol. 6, No. 3, 2017, pp. 25 - 33.
- 43 Uddin, M. and N. Huynh\*. Truck-Involved Crashes Injury Severity Analysis for Different Lighting Conditions on Rural and Urban Roadways. *Accident Analysis and Prevention*, Vol. 108, 2017, pp. 44 - 55.
- 44 Uddin, M. and N. Huynh\*. Factors Influencing Injury Severity of Crashes Involving HAZMAT Trucks. *International Journal of Transportation Science and Technology*, Vol. 7, No. 1, 2017, pp. 1 - 9. <https://doi.org/10.1016/j.ijtst.2017.06.004>.

- 45 Chu, M. and N. Huynh. Optimal Design of Container Terminal Gate Layout. *International Journal of Shipping and Transport Logistics*, Vol. 9, No. 5, 2017, pp. 640 - 650.
- 46 Fotuhi, F. and N. Huynh\*. Reliable Intermodal Freight Network Expansion with Demand Uncertainties and Network Disruptions. *Networks and Spatial Economics*, Vol. 17, No. 2, 2017, pp. 405 - 433.
- 47 Huynh\*, N. R. Snyder, J.M. Vidal, O. Sharif, B. Cai, B. Parsons, and K. Bennett. Assessment of the Nurse Medication Administration Workflow Process. *Journal of Healthcare Engineering*, Vol. 2016, Article ID 6823185, 2016, 14 pages. <http://dx.doi.org/10.1155/2016/6823185>.
- 48 Huynh\*, N., D. Smith and F. Harder. Truck Appointment Systems: Where We Are and Where to Go From Here. In *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2548, No. 1, 2016, pp. 1 - 9.
- 49 Uddin, M. and N. Huynh\*. Routing Model for Multicommodity Freight in an Intermodal Network Under Disruptions. In *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2548, No. 1, 2016, pp. 71 - 80.
- 50 Shiri, S. and N. Huynh\*. Optimization of Drayage Operations with Time-Window Constraints. *International Journal of Production Economics*, Vol. 176, 2016, pp. 7 - 20.
- 51 Snyder, R., J.M. Vidal, Bo. Cai and N. Huynh. The Edit Distance Approach: An Alternate Method for Assessing Multi-Observer Agreement in Process Studies. *Health Systems*, Vol. 5, No. 1, 2016, pp. 6 - 12.
- 52 Uddin, M., N. Huynh\*, J.M. Vidal, K. Taaffe, L. Fredendall, and J. Greenstein. Evaluation of Google's Voice Recognition and Sentence Classification for Health Care Applications. *Engineering Management Journal*, Vol. 27, No. 3, 2015, pp. 152 - 162.
- 53 Uddin, M. and N. Huynh\*. Freight Traffic Assignment Methodology for Large-Scale Road-Rail Intermodal Networks. In *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2477, No. 1, 2015, pp. 50 - 57.
- 54 Fotuhi, F. and N. Huynh\*. Intermodal Network Expansion in a Competitive Environment with Uncertain Demands. *International Journal of Industrial Engineering Computations*, Vol. 6, No. 2, 2015, pp. 285 - 304.
- 55 Kaveshgar, N. and N. Huynh\*. Integrated Quay Crane and Yard Truck Scheduling for Unloading Inbound Containers. *International Journal of Production Economics*, Vol. 159, 2015, pp. 168 - 177.
- 56 Taaffe, K., L. Fredendall, N. Huynh, and J. Franklin. The Impact of Communication on Day of Surgery Patient Flow. *AORN Journal*, Vol. 102, No. 1, 2015, pp. 60.e1 - 60.e14.
- 57 Kaveshgar, N. and N. Huynh\*. A Genetic Algorithm Heuristic for Solving the Quay Crane Scheduling Problem with Time Windows. *Maritime Economics and Logistics*, Vol. 17, No. 4, 2015, pp. 515 - 537.
- 58 Goodall, J., A. Castronova, N. Huynh, J. Caicedo, and R. Hall. Simulation of Integrated Urban Infrastructure Systems: A Service-Oriented Approach. *ASCE's Journal of Computing in Civil Engineering*, Vol., 29, No. 5, 2015, pp. 1-12. [http://dx.doi.org/10.1061/\(ASCE\)CP.1943-5487.0000364](http://dx.doi.org/10.1061/(ASCE)CP.1943-5487.0000364).
- 59 Chu, M., N. Huynh\*, M. Chowdhury, J. Ogle, W. Sarasua, and W. Davis. Impact of Minimum Driveway Spacing Policies on Safety Performance: An Integrated Traffic Micro-Simulation and Automated Conflict Analysis. *International Journal of Transportation Science and Technology*, Vol. 3, No. 3, 2014, pp. 249 - 264.
- 60 Chu, M. and N. Huynh\*. Planning-Level Tool for Assessing and Optimizing Marine Container Terminal Gate Layout. In *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2409, No. 1, 2014, pp. 31 - 39.

- 61 Fleming, M., N. Huynh\*, and Y. Xie. An Agent-based Simulation Tool for Evaluating Pooled Queue Performance at Marine Container Terminals. In *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2330, No. 1, 2013, pp. 103 - 112.
- 62 Fotuhi, F. and N. Huynh\*. A New Planning Model to Support Logistics Service Providers in Selecting Mode, Route, and Terminal Location. *Polish Maritime Research, Special Issue (79)*, Vol 20, 2013, pp. 67 - 73.
- 63 Sharif, O. and N. Huynh\*. Storage Space Allocation at Marine Container Terminals Using Ant-Based Control. *Expert Systems With Applications*, Vol. 40, No. 6, 2013, pp. 2323 - 2330.
- 64 Fotuhi, F., N. Huynh\*, J.M. Vidal, and Y. Xie. Modeling Yard Crane Operators as Reinforcement Learning Agents. *Research in Transportation Economics*, Vol. 42, No. 1, 2013, pp. 3 - 12.
- 65 Huynh\*, N., R. Snyder, J.M. Vidal, A.S. Tavakoli, and B. Cai. Application of Computer Simulation Modeling to Medication Administration Process Redesign. *Journal of Healthcare Engineering*, Vol. 3, No. 4, 2012, pp. 649 - 662.
- 66 Smith, D., F. Harder, N. Huynh\*, N. Hutson, and R. Harrison. Analysis of Current and Emerging Drayage Practices. In *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2273, No. 1, 2012, pp. 69 - 78.
- 67 Kaveshgar, N., N. Huynh\*, and S.K. Rahimian. An Efficient Genetic Algorithm for Solving the Quay Crane Scheduling Problem. *Expert Systems with Applications*, Vol. 39, 2012, pp. 13108 - 13117.
- 68 Sharif, O., N. Huynh\*, M. Chowdhury, and J.M. Vidal. An Agent-Based Solution Framework for Inter-Block Yard Crane Scheduling Problems. *International Journal of Transportation Science and Technology*, Vol. 1, No. 2, 2012, pp. 109 - 130.
- 69 Sharif, O. and N. Huynh\*. Yard crane scheduling at container terminals: A comparative study of centralized and decentralized approaches. *Maritime Economics & Logistics*, Vol. 14, No. 2, 2012, pp. 139 - 161.
- 70 Xie, Y., K. Zhao, and N. Huynh. Analysis of Driver Injury Severity in Rural Single-Vehicle Crashes. *Accident Analysis & Prevention*, Vol. 47, 2012, pp. 36 - 44.
- 71 Huynh\*, N. and J.M. Vidal. A Novel Methodology for Modeling Yard Cranes at Seaport Terminals to Support Planning and Real-Time Decision Making. *International Journal of Six Sigma and Competitive Advantage*, Vol. 7, No. 1, 2012, pp. 62 - 91.
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- 88 Mahmassani, H.S., N. Huynh, K. Srinivasan, and M. Kraan. Tripmaker Choice Behavior for Shopping Trips under Real-Time Information: Model Formulation and Results of Stated-Preference Internet-Based Interactive Experiments. *Journal of Retailing and Consumer Services*, Vol. 10, No. 6, 2003, pp. 311 - 321.
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## Book Chapters

- 1 Huynh, N., M. Uddin and C. C. Minh. Data Analytics for Intermodal Freight Transportation Applications. Chapter 10 of *Data Analytics For Intelligent Transportation Systems*, M. Chowdhury, A. Apon, and K. Dey (Editors). Elsevier, 2017, pp. 241 - 261.

- Huynh N. and C.M. Walton. Improving Efficiency of Drayage Operations at Seaport Container Terminals Through the Use of an Appointment System. Chapter 16 of Handbook of Terminal Planning, Jurgen W. Bose (Editor). Operations Research/Computer Science Interfaces, Springer Verlag, Vol. 49, 2011, pp. 323 - 343.

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## Peer-Reviewed Conference Proceedings

(\* denotes Corresponding Author)

- Duong, H.N, M.C. Chu, and N. Huynh. An Application of the Theory of Planned Behavior to Study Red-Light Running Behavior of Adolescent Riders in Ho Chi Minh City, Vietnam. In Proceedings of the Third International Conference on Sustainable Civil Engineering and Architecture, Da Nang City, Vietnam, July 2023.
- Thomas, R.W., N. Huynh, and J. Vidal. Network-Impact of Platoon Size and Penetration at City-Scale. In Proceedings of 2021 IEEE Green Energy and Smart Systems Conference, Long Beach, CA, November, 2021.
- Schmid, M., D. Liu, B. Eksioglu, N. Huynh and G. Comert. Prediction Model for Energy Consumption in Heavy-Duty Vehicle Formations. In Proceedings of 2020 Institute of Industrial and Systems Engineers (IISE) Annual Conference, Orlando, FL, May, 2020.
- Liu, D., B. Eksioglu, M. Schmid, N. Huynh and G. Comert. Simulation-Optimization Platooning Model for of a Fleet of Commercial Autonomous Trucks. In Proceedings of 2020 Institute of Industrial and Systems Engineers (IISE) Annual Conference, Orlando, FL, May, 2020.
- Uddin, M. and N. Huynh\*. Factors Influencing Injury Severity of Crashes Involving HAZMAT Trucks. In Proceedings of 97th Transportation Research Board Meeting, Washington, D.C., January 2018.
- Uddin, M. and N. Huynh\*. Reliable Routing of Road-Rail Intermodal Freight Under Uncertainty. In Proceedings of 97th Transportation Research Board Meeting, Washington, D.C., January 2018.
- Shiri, S., D. Smith, N. Huynh\* and F. Harder. Emergence and Impacts of Second-Tier Container Port Facilities. In Proceedings of 97th Transportation Research Board Meeting, Washington, D.C., January 2018.
- Shiri, S., M. Ng, and N. Huynh\*. Distribution-Free Scheduling of Drayage Operation under Uncertainty. In Proceedings of 97th Transportation Research Board Meeting, Washington, D.C., January 2018.
- Shiri, S., N. Huynh\*, M. Torkjazi and M. Chowdhury. Economic Impact of Raised Median on Businesses in South Carolina. In Proceedings of 97th Transportation Research Board Meeting, Washington, D.C., January 2018.
- Padmanabhan, B., R.L. Mullen, N. Huynh\* and F. Ahmed. Probability of Delay in Transportation Construction Projects. In Proceedings of 97th Transportation Research Board Meeting, Washington, D.C., January 2018.
- Khan, S.M., M. Chowdhury, K. Brunk, S. Shiri, N. Huynh and J. Mitchell. Operational and Economic Impacts of Access Management – Recent Perspectives of State DOTs. In Proceedings of 97th Transportation Research Board Meeting, Washington, D.C., January 2018.
- Pulver, Z., N. Huynh\* and R.L. Mullen. Evaluation of Expected Traffic Sign Life in South Carolina. In Proceedings of 97th Transportation Research Board Meeting, Washington, D.C., January 2018.
- Khan, S.M., S. Islam, M.Z. Khan, K. Dey, M. Chowdhury, N. Huynh and M. Torkjazi. Development of Statewide AADT Estimation Model from Short-Term Counts: A Comparative Study for South Carolina. In Proceedings of 97th Transportation Research Board Meeting, Washington, D.C., January 2018.

- 14 Khan, S.M., M.Z. Khan, K. Dey, M. Chowdhury, S. Shiri and N. Huynh. Augmenting Safety and Economic Considerations with Operational Impacts in Access Management Policy Development—a South Carolina Case Study. In Proceedings of 97th Transportation Research Board Meeting, Washington, D.C., January 2018.
- 15 Kaveshgar, N. Huynh\* and J.V. Nessen. New Measures for Quantifying Importance of Links in a Transportation Network. In Proceedings of 96th Transportation Research Board Meeting, Washington, D.C., January 2017.
- 16 Uddin, M. and N. Huynh\*. A Routing Model for Multicommodity Freight in an Intermodal Network under Disruptions. In Proceedings of 95th Transportation Research Board Meeting, Washington, D.C., January 2016.
- 17 A. Stokes, W.A. Sarasua, N. Huynh, K. Brown, J.H. Ogle, A. Mammadrahiml, W.J. Davis, and M. Chowdhury. Safety Analysis of Driveway Characteristics Along Major Urban Arterial Corridors in South Carolina. In Proceedings of 95th Transportation Research Board Meeting, Washington, D.C., January 2016.
- 18 M. Rahman, S.M. Khan, M. Chowdhury, N. Huynh, J.H. Ogle, K.C. Dey, and P. Bhavsar. Incident Command System Strategies for Incident Management on Freeways: A Simulation Analysis. In Proceedings of 94th Transportation Research Board Meeting, Washington, D.C., January 2015.
- 19 K. Brown, W.A. Sarasua, J.H. Ogle, A. Mammadrahimli, M. Chowdhury, W.J. Davis, and N. Huynh. Assessment of Crash Location Improvements in Map-Based Geocoding Systems and Subsequent Benefits to Geospatial Crash Analysis. In Proceedings of 94th Transportation Research Board Meeting, Washington, D.C., January 2015.
- 20 B. Parsons, J.M. Vidal, N. Huynh, and R. Snyder. Automatic Generation of Agent Behavior Models from Raw Observational Data. In Proceedings of the 15th International Workshop on Multi-Agent-Based Simulation, Paris, France, May 2014.
- 21 F.C. Cordova and N. Huynh\*. Using Economic Indicators to Forecast Truck Traffic: Time Series and Truck Traffic Analysis Framework. In Proceedings of 93rd Transportation Research Board Meeting, Washington, D.C., January 2014.
- 22 A.S. Tavakoli, B. Cai, R. Snyder, and N. Huynh. Calculating Multi-Rater Observation Agreement in Health Care Research Using the SAS Kappa Statistic. In Proceedings of the SAS Global Forum Conference, Orlando, FL, April 2012.
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- 24 C. Pierce, N. Huynh, and R. Brown. Effects of Calculation Method and Price Index on Steel Price Adjustment Clauses. In Proceedings of 91st Transportation Research Board Meeting, Washington, D.C., January 2012.
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- 26 N. Kaveshgar and N. Huynh\*. A Decentralized Multi-Agent Systems Approach to Ramp Metering. In Proceedings of 90th Transportation Research Board Meeting, Washington, D.C., January 2011.
- 27 R. Brown, C. Pierce, N. Huynh, R. Starcher, and P. Guimaraes. Price Escalation and Adjustment: How reimbursements differ among US DOTs. In Proceedings of 90th Transportation Research Board Meeting, Washington, D.C., January 2011.
- 28 B. Pearce, K. Taaffe, N. Hosseini, N. Huynh, and S. Harris. Modeling Interruptions and Patient Flow in a Preoperative Hospital Environment. In Proceedings of the Winter Simulation Conference, Baltimore, MD, December 2010.

- 29 J.M. Vidal, and N. Huynh\*. Building Agent-Based Models of Seaport Container Terminals. In Proceedings of 6th Workshop on Agents in Traffic and Transportation, Toronto, Canada, May 2010.
- 30 N. Huynh\* and J. M. Vidal. An Agent-Based Approach to Modeling Yard Cranes at Seaport Container Terminals. In Proceedings of the Symposium on Theory of Modeling and Simulation, Orlando, FL, April 2010.
- 31 N. Huynh\*. Boosting Marine Container Terminals Throughput – A Survey of Strategies. In Proceedings of 85th Transportation Research Board Meeting, Washington, D.C., January 2006.
- 32 M. Kraan, H.S. Mahmassani, and N. Huynh. Interactive Survey Approach to Study Traveler Responses To ATIS For Shopping Trips. Proceedings of 79th Transportation Research Board Meeting, Washington, D.C., January 2000.

## Grant Awards

- 1 Development of Accurate and Reliable Annual Average Daily Traffic Factoring Methods
  - Sponsor: Nebraska Department of Transportation
  - Role: Co-PI
  - Total funding: \$150,732
  - Share of funding: \$30,146
  - Start year: 2024
  - End year: 2026
  - Investigators: Nathan Huynh (PI)
- 1 Nebraska Clean Cities Coalition Seeking Full Designation
  - Sponsor: National Renewable Energy Lab (US DOE)
  - Role: PI
  - Total funding: \$20,000
  - Share of funding: \$20,000
  - Start year: 2023
  - End year: 2024
  - Investigators: Li Zhao (PI), Nathan Huynh
- 2 Multi Sensor Fusion for Proactive Commercial Motor Vehicle Safety at Work Zone
  - Sponsor: Federal Motor Carrier Safety Administration
  - Role: PI
  - Total funding: \$1,126,672
  - Share of funding: \$119,923
  - Start year: 2023
  - End year: 2025
  - Investigators: Nathan Huynh (PI), Li Zhao, Jason Hawkins, Cody Stolle, Sakib Khan (MITRE), Mizanur Rahman (Univ. of Alabama), and Eren Ozguven (FAMU-FSU)
- 3 Assessing Transportation Infrastructure Segments for Bike Suitability
  - Sponsor: C2M2 UTC
  - Role: Co-PI
  - Total funding: \$75,000
  - Share of funding: \$50,000
  - Start year: 2023
  - End year: 2024
  - Investigators: Dimitra Michalaka (Citadel, PI), Kweku Brown (Citadel), Nathan Huynh, William Davis (Citadel), and Yuche Chen (USC)
- 4 RII Track-1: Nebraska Testbed for Integrated Research on Climate, Health and Infrastructure (Planning Grant)
  - Sponsor: NE EPSCoR
  - Role: Co-PI
  - Total funding: \$20,000
  - Share of funding: \$0
  - Start year: 2023
  - End year: 2024
  - Investigators: Shannon Bartelt-Hunt (PI), Nathan Huynh, and Xu Li.
- 5 Assessment of Truck Parking Demand and Safety During Normal and Severe Weather Conditions in Nebraska

- Sponsor: NDOT
  - Total funding: \$188,885
  - Start year: 2023
  - Investigators: Nathan Huynh (PI), Zhenghong Tang, and Li Zhao.
  - Role: PI
  - Share of funding: \$112,711
  - End year: 2025
- 6 Framework for Quantifying Benefits to Disadvantaged Communities: Application to Nebraska's National Electric Vehicle Infrastructure (NEVI) Plan
- Sponsor: NDOT
  - Total funding: \$179,055
  - Start year: 2023
  - Investigators: Li Zhao (PI), Nathan Huynh, and Jason Hawkins.
  - Role: Co-PI
  - Share of funding: \$22,130
  - End year: 2025
- 7 Development, Assessment and Simulation of Enabling Fuels for Naval Decarbonization
- Sponsor: ONR
  - Total funding: \$3,000,000
  - Start year: 2022
  - Investigators: Bill Mustain (PI), Roger Dougal, Nathan Huynh, San Hee Won, Jochen Lauterbach, Kevin Huang, Jim, Tanvir Farouk, Vatch Shimpalee, Fred Dryer, Armin Ebner, Rod Leonard, Paul Kohl (Georgia Tech), and Jeff McCutcheon (Univ. of Connecticut).
  - Role: Co-PI
  - Share of funding: \$216,000
  - End year: 2025
- 8 Streamlining Permitting and Mitigation Processes to Improve SCDOT Project Delivery
- Sponsor: SCDOT/FHWA
  - Total funding: \$442,281
  - Start year: 2022
  - Investigators: Nathan Huynh (PI), Erfan Goharian, and Jose Vidal
  - Role: PI
  - Share of funding: \$198,848
  - End year: 2025
- 9 Reducing Crash Risk at Work Zones in South Carolina
- Sponsor: SCDOT/FHWA
  - Total funding: \$250,879
  - Start year: 2022
  - Investigators: Nathan Huynh (PI) and Mark Ferguson
  - Role: PI
  - Share of funding: \$198,058
  - End year: 2024
- 10 Safe and Cost-Effective Reduction of Load Postings for South Carolina Bridges
- Sponsor: SCDOT/FHWA
  - Total funding: \$487,882
  - Start year: 2022
  - Investigators: Paul Ziehl (PI), Brandon Ross (Clemson), Tommy Cousins (Clemson), and Nathan Huynh
  - Role: Co-PI
  - Share of funding: \$64,077
  - End year: 2024
- 11 Real-time Decentralized Framework for Technology-Enabled Intermodal Freight Transport
- Sponsor: C2M2 UTC
  - Total funding: \$100,721
  - Start year: 2021
  - Investigators: Nathan Huynh (PI), William Ferrell (Clemson), Negash Begashaw (Benedict College), and Gurcan Comert (Benedict College)
  - Role: PI
  - Share of funding: \$50,000
  - End year: 2022
- 12 Quantum Computing Based Real-Time Dynamic Traffic Assignment Strategy in a Connected Vehicle environment
- Sponsor: C2M2 UTC
  - Total funding: \$194,955
  - Start year: 2021
  - Role: Co-PI
  - Share of funding: \$50,000
  - End year: 2022

- Investigators: Mashrur “Ronnie” Chowdhury (Clemson University, PI), Gurcan Comert (Benedict College), Dimitra Michalaka (The Citadel), Judith Mwakalonge (SCSU), Nathan Huynh, William J. Davis (The Citadel), and Kweku Brown (The Citadel)
- 13 Improving Freight Transport Mobility and Efficiency via Synchronization
- Sponsor: C2M2 UTC
  - Total funding: \$78,000
  - Start year: 2020
  - Investigators: Nathan Huynh (PI), William Ferrell (Clemson), and Scott Mason (Clemson)
  - Role: PI
  - Share of funding: \$50,000
  - End year: 2022
- 14 Estimating AADT on Non-Coverage Roads
- Sponsor: SCDOT/FHWA
  - Total funding: \$139,287
  - Start year: 2020
  - Investigators: Nathan Huynh (PI), Mashrur “Ronnie” Chowdhury (Clemson), and Gurcan Comert (Benedict College)
  - Role: PI
  - Share of funding: \$84,682
  - End year: 2021
- 15 Utilization of Traffic Speed Deflectometer for Pavement Management
- Sponsor: SCDOT/FHWA
  - Total funding: \$106,071
  - Start year: 2019
  - Investigators: Nathan Huynh (PI), Sarah Gassman, Robert Mullen, Charles Pierce, and Yuche Chen
  - Role: PI
  - Share of funding: \$49,797
  - End year: 2021
- 16 Pavement Performance Curves: Modeling Pavement Deterioration for SCDOT
- Sponsor: SCDOT/FHWA
  - Total funding: \$251,371
  - Start year: 2018
  - Investigators: Nathan Huynh (PI), Sarah Gassman, Robert Mullen, and Charles Pierce
  - Role: PI
  - Share of funding: \$184,500
  - End year: 2022
- 17 Automatic Extraction of Vehicle, Bicycle, and Pedestrian Traffic from Video Data
- Sponsor: SCDOT/FHWA
  - Total funding: \$148,890
  - Start year: 2018
  - Investigators: Nathan Huynh (PI), Robert Mullen, John Rose, and Paul Ziehl
  - Role: PI
  - Share of funding: \$107,750
  - End year: 2021
- 18 Improving SCDOT Project Delivery Through Identifying Potentially Suitable Locations for Mitigation and Standardizing Section 401/404 Permit Application Process
- Sponsor: SCDOT/FHWA
  - Total funding: \$596,916
  - Start year: 2018
  - Investigators: Nathan Huynh (PI), Vidya Samadi, Robert Mullen, Michael Meadows, and Jose Vidal
  - Role: PI
  - Share of funding: \$210,000
  - End year: 2021
- 19 Assessment of Structural Degradation for Bridges and Culverts
- Sponsor: SCDOT
  - Total funding: \$294,476
  - Start year: 2018
  - Investigators: Paul Ziehl (PI), Tommy Cousins (Clemson), Nathan Huynh, and Brandon Ross (Clemson)
  - Role: Co-PI
  - Share of funding: \$15,000
  - End year: 2020
- 20 Adaptive Signal System Safety Impacts
- Sponsor: Clemson/SCDOT
  - Role: USC PI

- Total funding: \$373,672
  - Start year: 2018
  - Investigators: Mashrur “Ronnie” Chowdhury (Clemson, PI), Patrick Gerard (Clemson), and Nathan Huynh
  - Share of funding: \$105,000
  - End year: 2020
- 21 Data-driven Multimodal Transportation Energy Consumption Prediction and Analysis Framework for Sustainable Transit and Transportation Planning
- Sponsor: C2M2 UTC
  - Total funding: \$64,000
  - Start year: 2018
  - Investigators: Yuche Chen (PI), Gurcan Comert (Benedict College), and Nathan Huynh
  - Role: Co-PI
  - Share of funding: \$25,000
  - End year: 2020
- 22 Data Fusion to Improve the Accuracy of Multi-Modal Traffic Counts
- Sponsor: C2M2 UTC
  - Total funding: \$72,200
  - Start year: 2018
  - Investigators: Robert Mullen (PI), Gurcan Comert (Benedict College), Nathan Huynh, and Balaji Iyengar (Benedict College)
  - Role: Co-PI
  - Share of funding: \$25,000
  - End year: 2020
- 23 Assessing Potential of Bike Share Networks and Active Transportation to Improve Urban Mobility, Physical Activity and Public Health Outcomes in South Carolina
- Sponsor: C2M2 UTC
  - Total funding: \$93,547
  - Start year: 2018
  - Investigators: William Davis (The Citadel, PI), Kweku Brown (The Citadel), Daniel Bornstein (The Citadel), Morgan Hughey (College of Charleston), Dimitra Michalaka (The Citadel), Nathan Huynh, and Andrew Kaczynski
  - Role: Co-PI
  - Share of funding: \$50,000
  - End year: 2020
- 24 Framework for Accommodating Emerging Autonomous Vehicles
- Sponsor: C2M2 UTC
  - Total funding: \$106,534
  - Start year: 2018
  - Investigators: Burak Eksioğlu (Clemson, PI), Matthias Josef Al Schmid (Clemson), Gurcan Comert (Benedict College) and Nathan Huynh
  - Role: Co-PI
  - Share of funding: \$50,000
  - End year: 2020
- 25 Assessment of Autonomous Vehicle Sharing for Evacuation and Disaster Relief
- Sponsor: C2M2 UTC
  - Total funding: \$119,957
  - Start year: 2018
  - Investigators: Pamela Murray-Tuite (Clemson, PI), Nathan Huynh, and Gurcan Comert (Benefit College)
  - Role: Co-PI
  - Share of funding: \$50,000
  - End year: 2020
- 26 Impact of Transportation on Air Quality at Elementary and Middle Schools in South Carolina
- Sponsor: C2M2 UTC
  - Total funding: \$76,293
  - Start year: 2017
  - Investigators: Gurcan Comert (Benedict College, PI), Samuel Darko (Benedict College) and Nathan Huynh
  - Role: Co-PI
  - Share of funding: \$50,000
  - End year: 2018
- 27 Development of Tool to Assess Effectiveness of Intermodal Facility Locations and Designs
- Sponsor: C2M2 UTC
  - Total funding: \$100,000
  - Role: PI
  - Share of funding: \$50,000

- Start year: 2017
  - End year: 2018
  - Investigators: Nathan Huynh (PI) and William Ferrell (Clemson)
- 28 Development of Pavement Design and Investigation Strategies for Non-Interstate Routes
- Sponsor: SCDOT
  - Role: PI
  - Total funding: \$86,677
  - Share of funding: \$53,261
  - Start year: 2017
  - End year: 2019
  - Investigators: Nathan Huynh (PI), Robert Mullen, Sarah Gassman, and Paul Ziehl
- 29 Targeted Infusion Project: Infusion of Active and Problem-Based Learning for Teaching and Research in the Context of Transportation Disruptive Technologies
- Sponsor: Benedict College/NSF
  - Role: USC PI
  - Total funding: \$400,000
  - Share of funding: \$104,632
  - Start year: 2017
  - End year: 2020
  - Investigators: Gurcan Comert (Benedict College, PI), Samuel Darko (Benedict College), Nathan Huynh, Balaji Iyengar (Benedict College), and Charles Pierce
- 30 Center for Connected Multimodal Mobility
- Sponsor: Clemson/US DOT
  - Role: USC PI
  - Total funding: \$1,402,200 per year
  - Share of funding: \$392,616 per year
  - Start year: 2017
  - End year: 2023
  - Investigators: Mashrur “Ronnie” Chowdhury (Clemson University, PI), James Martin (Clemson), Nathan Huynh, Amy Apon (Clemson), Gurcan Comert (Benedict College), Judith Mwakalonge (SCSU), and Dimitra Michalaka (The Citadel)
- 31 Sign Life Expectancy
- Sponsor: SCDOT/FHWA
  - Role: PI
  - Total funding: \$180,686
  - Share of funding: \$165,794
  - Start year: 2016
  - End year: 2018
  - Investigators: Nathan Huynh (PI) and Robert Mullen
- 32 Collection of Perishable Data from Failed Geosystems During a 1000-yr Flood Event: Pipe Culverts
- Sponsor: USC VPR
  - Role: Co-PI
  - Total funding: \$24,600
  - Share of funding: \$0
  - Start year: 2015
  - End year: 2016
  - Investigators: Sarah Gassman (PI), Juan Caicedo, Nathan Huynh, Charles Pierce, Inthuorn Sasanakul, and Enrica Viparelli
- 33 Leveraging Perishable Impact Data into Long Term Recovery Forecasting
- Sponsor: USC VPR
  - Role: Co-PI
  - Total funding: \$26,550
  - Share of funding: \$5,000
  - Start year: 2015
  - End year: 2016
  - Investigators: Christopher Emrich (PI), Nathan Huynh, and Melanie Gall
- 34 Transportation Network Fragility and Economic Losses
- Sponsor: USC VPR
  - Role: PI
  - Total funding: \$26,185
  - Share of funding: \$23,685
  - Start year: 2015
  - End year: 2016
  - Investigators: Nathan Huynh (PI), Narges Kaveshgar, and Joseph Von Nessen
- 35 Feasibility Study for Rapid Condition Assessment of Bridge Decks
- Sponsor: SCDOT/FHWA
  - Role: Co-PI

- Total funding: \$247,500
  - Share of funding: \$123,750
  - Start year: 2016
  - End year: 2018
  - Investigators: Paul Ziehl (PI) and Nathan Huynh
- 36 Better Construction Project Management through Better Scheduling
- Sponsor: SCDOT/FHWA
  - Role: Co-PI
  - Total funding: \$200,988
  - Share of funding: \$100,494
  - Start year: 2015
  - End year: 2017
  - Investigators: Robert Mullen (PI) and Nathan Huynh
- 37 SCDOT Asset Collection
- Sponsor: Clemson/SCDOT
  - Role: USC PI
  - Total funding: \$473,803
  - Share of funding: \$120,000
  - Start year: 2014
  - End year: 2016
  - Investigators: Jennifer Ogle (Clemson, PI), Wayne Sarasua (Clemson), Mashrur 'Ronnie' Chowdhury (Clemson), Brad Putnam (Clemson), William Davis (The Citadel), Nathan Huynh, and Paul Ziehl
- 38 Study of Cost Effective Strategies for Estimating Statewide AADT
- Sponsor: Clemson/SCDOT
  - Role: USC PI
  - Total funding: \$370,027
  - Share of funding: \$100,000
  - Start year: 2014
  - End year: 2016
  - Investigators: Mashrur 'Ronnie' Chowdhury (Clemson, PI), Wayne Sarasua (Clemson), Jennifer Ogle (Clemson), and Nathan Huynh
- 39 Operational and Economic Analysis of Access Management
- Sponsor: Clemson/SCDOT
  - Role: USC PI
  - Total funding: \$345,301
  - Share of funding: \$50,000
  - Start year: 2014
  - End year: 2016
  - Investigators: Mashrur 'Ronnie' Chowdhury (Clemson, PI), Wayne Sarasua (Clemson), Jennifer Ogle (Clemson), and Nathan Huynh
- 40 Applying Successfully Proven Measures in Roadway Safety to Reduce Harmful Collisions in South Carolina
- Sponsor: Clemson/SCDOT
  - Role: USC PI
  - Total funding: \$309,991
  - Share of funding: \$33,365
  - Start year: 2013
  - End year: 2015
  - Investigators: Jennifer Ogle (Clemson, PI), Wayne Sarasua (Clemson), Mashrur 'Ronnie' Chowdhury (Clemson), and Nathan Huynh
- 41 Support for the Development and Implementation of an Access Management Program through Research and Analysis of Collision Data
- Sponsor: Clemson/SCDOT
  - Role: USC PI
  - Total funding: \$272,887
  - Share of funding: \$45,000
  - Start year: 2013
  - End year: 2015
  - Investigators: Wayne Sarasua (Clemson, PI), Mashrur 'Ronnie' Chowdhury (Clemson), Jennifer Ogle (Clemson), Nathan Huynh, and William Davis (The Citadel)
- 42 Collaborative Research: Creating Learning Systems with Mobile Technology to Improve Coordination in Perioperative Services
- Sponsor: NSF
  - Role: PI
  - Total funding: \$1,366,982
  - Share of funding: \$286,066
  - Start year: 2012
  - End year: 2016

- Investigators: Kevin Taaffe (Clemson, PI), Lawrence Fredendall (Clemson), Joel Greenstein (Clemson), Nathan Huynh (PI), and Jose Vidal
- 43 South Carolina Statewide Multimodal Transportation Plan
- Sponsor: CDM Smith/SCDOT
  - Role: USC PI
  - Total funding: \$1,771,875
  - Share of funding: \$50,000
  - Start year: 2012
  - End year: 2014
  - Investigators: Mark Berndt (CDM Smith, PI), Scott Mason (Clemson), and Nathan Huynh
- 44 Integration of the Incident Command System (ICS) Protocol for Effective Coordination of Multi-Agency Response to Traffic Incidents
- Sponsor: Clemson/SCDOT
  - Role: USC PI
  - Total funding: \$449,942
  - Share of funding: \$98,705
  - Start year: 2012
  - End year: 2014
  - Investigators: Jennifer Ogle (Clemson, PI), Mashrur 'Ronnie' Chowdhury (Clemson), William Davis (The Citadel), Nathan Huynh, and Yuanchang Xie (SCSU)
- 45 Simulation of Integrated Urban Infrastructure Systems using Component-based Modeling
- Sponsor: NSF
  - Role: PI
  - Total funding: \$279,908
  - Share of funding: ≈\$111,963
  - Start year: 2011
  - End year: 2014
  - Investigators: Jon Goodall (former PI), Nathan Huynh (PI), and Juan Caicedo
- 46 Medication Administration Process (MAP) Computer Simulation Pilot Study
- Sponsor: USC (internal)
  - Role: PI
  - Total funding: \$65,000
  - Share of funding: ≈\$22,500
  - Start year: 2012
  - End year: 2013
  - Investigators: Nathan Huynh (PI), and Rita Snyder
- 47 Implementing and Assessing Strategies for Environments for Fostering Effective Critical Thinking Development and Implementation
- Sponsor: NSF
  - Role: Senior Investigator
  - Total funding: \$390,758
  - Share of funding: ≈\$8,472
  - Start year: 2010
  - End year: 2013
  - Investigators: Juan Caicedo (PI), Joseph Flora, Charles Pierce, Briana Timmerman, Andrew Nichols (Marshall), Richard, McCormick (Marshall), Isaac Wait (Marshall), Nathan Huynh, and Nicole Berge
- 48 Medication Administration Process (MAP) Analysis Pilot Study
- Sponsor: USC (internal)
  - Role: Co-PI
  - Total funding: \$5,000
  - Share of funding: ≈\$4,000
  - Start year: 2010
  - End year: 2010
  - Investigators: Nathan Huynh (PI), and Rita Snyder
- 49 An Agent-Based Ramp Metering Approach to Improve Highway Safety and Efficiency using a Dynamic Traffic Assignment Framework
- Sponsor: SCSU/FHWA
  - Role: USC PI
  - Total funding: \$49,915
  - Share of funding: \$25,000
  - Start year: 2009
  - End year: 2010
  - Investigators: Yuanchang Xie (SCSU, PI) and Nathan Huynh
- 50 From Simulation to Operation: Engineering Management Interventions for Perioperative Services

- Sponsor: Clemson/HSSC
  - Total funding: \$300,000
  - Start year: 2009
  - Investigators: Kevin Taaffe (Clemson, PI), Lawrence Fredendall (Clemson), Nathan Huynh, and John Welton (MUSC)
  - Role: USC PI
  - Share of funding: \$85,817
  - End year: 2011
- 51 Cost indexing and unit price adjustments for construction materials
- Sponsor: SCDOT/FHWA
  - Total funding: \$136,022
  - Start year: 2009
  - Investigators: Charles Pierce (PI), Nathan Huynh, and Paulo Guimarães
  - Role: Co-PI
  - Share of funding: ≈\$54,400
  - End year: 2011
- 52 Self Powered Wireless Sensor Network For Structural Bridge Health Prognosis
- Sponsor: NIST
  - Total funding: \$13,899,000
  - Start year: 2009
  - Investigators: Physical Acoustics Corporation (leading organization, Didem Ozevin, Gabriel Billington, Michael Delamere, Christos Fotopoulos, Valery Godinez, Richard Gostautas, and Sepand Momeni), Virginia Tech (Dan Inman and Shashank Priya), University of Miami (Antonio Nanni, James Giancaspro, Fabio Matta, and Brian Metrovich), University of South Carolina (Paul Ziehl, Juan Caicedo, Sarah Gassman, Victor Giurgiutiu, and Nathan Huynh)
  - Role: Co-PI
  - Share of funding: ≈\$224,000
  - End year: 2013
- 53 Development of Truck Trip Generation Models
- Sponsor: SCSU/FHWA
  - Total funding: \$49,997
  - Start year: 2008
  - Investigators: Nathan Huynh (PI) and Yuanchang Xie
  - Role: PI
  - Share of funding: \$19,200
  - End year: 2010
- 54 Truck Drayage Practices
- Sponsor: Tioga/NCFRP
  - Total funding: \$389,125
  - Start year: 2008
  - Investigators: Tioga Group (leading organization, Daniel Smith and Frank Harder), University of Texas at Austin (Robert Harrison and Nathan Hutson), and University of South Carolina (Nathan Huynh)
  - Role: USC PI
  - Share of funding: \$29,800
  - End year: 2010
- 55 Assessing Operational, Pricing, and Intelligent Transportation System Strategies for the I-40 Corridor Using DYNASMART-P
- Sponsor: NCSU/NCDOT
  - Total funding: \$198,973
  - Start year: 2008
  - Investigators: NCSU (leading organization, Billy Williams and Nagui Roupail), University of South Carolina (Nathan Huynh), and Old Dominion University (Asad Khattak)
  - Role: USC PI
  - Share of funding: \$21,000
  - End year: 2011
- 56 Lower Savannah Council of Governments Regional Freight Mobility Study
- Sponsor: WSA/LSCOG
  - Total funding: \$26,904
  - Start year: 2008
  - Investigators: Wilbur Smith Associates (Eulois Cleckley) and University of South Carolina (Nathan Huynh)
  - Role: USC PI
  - Share of funding: \$14,400
  - End year: 2009

- 57 Developing Expertise of Minority Students in Managing Threats and Response to Emergency Situations through Interdisciplinary Research and Education
- Sponsor: DHS
  - Total funding: \$332,809
  - Start year: 2008
  - Investigators: Nathan Huynh (NCAT, PI), Lauren Davis (NCAT), and Funda Samanlioglu (NCAT)
  - Role: PI
  - Share of funding: ≈\$166,405
  - End year: 2011
- 58 National Nuclear Security Administration Fleet Study
- Sponsor: NNSA
  - Total funding: \$230,000
  - Start year: 2008
  - Investigators: Shoou-Yuh Chang (NCAT, PI) and Nathan Huynh (NCAT)
  - Role: Co-PI
  - Share of funding: ≈\$115,000
  - End year: 2011

## Presentations

- 1 Wang, J., G. Comert, N. Begashaw, N. Huynh, A. Kouyate, R. Mullen, S. Gassman, and C. Pierce. A Comparative Analysis of Three Modeling Approaches for Predicting Pavement Conditions. Transportation Research Board Meeting, Washington, D.C., January 2024.
- 2 Wegmet, J., N. Huynh, L.V. Le, H.N. Duong, M.C. Chu, M. Madarshahian, and C. Siddiqui. Investigation of Discrepancies in South Carolina Traffic Collision Forms. Transportation Research Board Meeting, Washington, D.C., January 2024.
- 3 Madarshahian, M., R. Howard, N. Huynh, J. Wegmet, and C.K.A. Siddiqui. Assessing Effectiveness of Law Enforcement at South Carolina Work Zones using Split Plot Treatment Design with Blocking. Transportation Research Board Meeting, Washington, D.C., January 2024.
- 4 Duong, H.N, M.C. Chu, and N. Huynh. Understanding Psychological Factors Behind Motorcyclists Crossing Behavior on Undivided Roads in Mixed Traffic Conditions: A Case Study of Hau Giang, Vietnam. Transportation Research Board Meeting, Washington, D.C., January 2024.
- 5 Wang, J., R. DeVine, N. Huynh, W. Jin, G. Comert, and M. Chowdhury. Estimation of Annual Average Daily Traffic at Non-Coverage Locations. Transportation Research Board Meeting, Washington, D.C., January 2023.
- 6 Madarshahian, M., A. Balaram, F. Ahmed, N. Huynh, C. Siddiqui, and M. Ferguson. Analysis of Injury Severity of Truck-Involved Crashes in Work Zones in South Carolina for Different Speed Limits. Transportation Research Board Meeting, Washington, D.C., January 2023.
- 7 Padmanabhan, B., N. Huynh, W. Ferrell, V. Badyal, and F. Ahmed. Multiple Bundles Combinatorial Auction for Job Exchange in Dynamic Pickup and Delivery Problem. Transportation Research Board Meeting, Washington, D.C., January 2023.
- 8 Wang, J., and N. Huynh. A Novel Truck Scheduling Approach for Reducing Truck Turn Time at Container Terminals via Use of Waiting Lot. Transportation Research Board Meeting, Washington, D.C., January 2023.
- 9 Jahangard, M., M. Madarshahian, H. Sabur, R. Rezvani, A.M. Mohammadzadeh, and N. Huynh. Effect of Illegal Maneuvers on Traffic Operations at Signalized Intersections. Transportation Research Board Meeting, Washington, D.C., January 2023.
- 10 Huynh, N. Improving SCDOT Project Delivery through Identifying Potentially Suitable Locations for Mitigation and Standardizing Section 401/404 Permit Application Process (South Carolina DOT). Transportation Research Board Meeting, Washington, D.C., January 2023.

- 11 Wang, J., N. Huynh, and E. Pena. Analysis of a Novel Stationary Two-Class Queuing Model with Switching for Marine Container Terminal Application. Transportation Research Board Meeting, Washington, D.C., January 2022.
- 12 Ahmed, F., C.K.A. Siddiqui, and N. Huynh. Analysis of Contributing Factors of Truck-Involved Crashes at Work Zones in South Carolina and Their Temporal Stability. Transportation Research Board Meeting, Washington, D.C., January 2022.
- 13 Padmanabhan, B., N. Huynh, W.G. Ferrell, and V. Badyal. Evaluation And Comparison of Three Alternative Collaboration and Profit Sharing Methods for Less Than Truckload Carriers. INFORMS Annual Meeting, Anaheim, CA, October 2021.
- 14 Badyal, V., W.G. Ferrell, N. Huynh, and B. Padmanabhan. A Holistic Approach For Intermodal Facility Location And Freight Distribution Under Hurricane Disruptions. INFORMS Annual Meeting, Anaheim, CA, October 2021.
- 15 N. Huynh and T. Swygert. Sign Life Expectancy. Transportation Research Board Meeting, Washington, D.C., January 2021.
- 16 Torkjazi, M. and N. Huynh. Design of a Truck Appointment System Considering Drayage Scheduling and Stochastic Turn Time. Transportation Research Board Meeting, Washington, D.C., January 2021.
- 17 Padmanabhan, B., N. Huynh, W. Ferrell and V. Badyal. Comparison of Two Alternative Collaboration and Profit-Sharing Methods for Less-than-Truckload Carriers. Transportation Research Board Meeting, Washington, D.C., January 2021.
- 18 Jin, W., M.S. Salek, M. Chowdhury, M. Torkjazi, N. Huynh and P. Gerard. Assessment of South Carolina Adaptive Signal Control System Operational Effectiveness. Transportation Research Board Meeting, Washington, D.C., January 2021.
- 19 Zhang, Y., Y. Chen, N. Huynh and G. Comert. A Surrogate Approach for Estimating Vehicle-Related Emissions under Heterogenous Traffic Patterns. Transportation Research Board Meeting, Washington, D.C., January 2021.
- 20 Uddin, M. and N. Huynh. Model for Collaboration among Freight Carriers in Domestic Intermodal Freight Transportation. Transportation Research Board Meeting, Washington, D.C., January 2020.
- 21 Padmanabhan, B., N. Huynh, W. Ferrell and V. Badyal. Assessment of Horizontal Collaboration Benefits in Vehicle Routing Problems with Pickup and Delivery. Transportation Research Board Meeting, Washington, D.C., January 2020.
- 22 Torkjazi, M., N. Huynh, and A. Asadabadi. Modeling the Truck Appointment System as a Multi-Player Game. Transportation Research Board Meeting, Washington, D.C., January 2020.
- 23 Ahmed, F., J. Thompson, D. Kim, E. Carroll, and N. Huynh. Cost-Effectiveness of Performing Field Investigation for Rehabilitation Design. Transportation Research Board Meeting, Washington, D.C., January 2020.
- 24 Uddin, M. and N. Huynh. Injury Severity Analysis of Truck-Involved Crashes under Different Weather Conditions. Transportation Research Board Meeting, Washington, D.C., January 2020.
- 25 Badyal, V., W. Ferrell, N. Huynh, and B. Padmanabhan. A Multi-Period Optimization Model for Siting Capacitated Intermodal Facilities. Transportation Research Board Meeting, Washington, D.C., January 2020.
- 26 Torkjazi, M., N. Huynh, and A. Asadabadi. Stochastic Truck Appointment Systems. INFORMS Annual Meeting, Seattle, WA, October 2019.
- 27 Torkjazi, M., N. Huynh, S. Shiri, M. Chowdhury, and K.C. Dey. Estimation of Average Annual Daily Traffic Using Fuzzy Regression Methods. Transportation Research Board Meeting, Washington, D.C., January 2019.

- 28 Ahmed, F. and N. Huynh. Multi-Period Inland Depot for Empty Container Expansion Problem. Transportation Research Board Meeting, Washington, D.C., January 2019.
- 29 Uddin, M., N. Huynh, and F. Ahmed. Assignment of Freight Traffic in a Large-Scale Intermodal Network Under Uncertainty. Transportation Research Board Meeting, Washington, D.C., January 2019.
- 30 Shiri, S., N. Huynh, and M. Ng. Stochastic Drayage Scheduling Considering Uncertainty in All Processes of Drayage Operations. Transportation Research Board Meeting, Washington, D.C., January 2019.
- 31 Shiri, S., N. Huynh and M. Ng. Stochastic Drayage Scheduling Problem With Time Windows. INFORMS Annual Meeting, Phoenix, AZ, November 2018.
- 32 Torkjazi M, and N. Huynh. Truck Appointment Systems Considering Impact to Drayage Truck Tours. INFORMS Annual Meeting, Phoenix, AZ, November 2018.
- 33 Torkjazi M, M. Prince, S.S. Veluchamy, P. Dewan and N. Huynh. Intra-Hub Transportation Simulation. INFORMS Annual Meeting, Phoenix, AZ, November 2018.
- 34 Shiri, S., D. Smith, N. Huynh and F. Harder. Emergence and Impacts of Second-Tier Container Port Facilities. Transportation Research Board Meeting, Washington, D.C., January 2018.
- 35 Shiri, S., M. Ng and N. Huynh. Distribution-Free Scheduling of Drayage Operation Under Uncertainty. Transportation Research Board Meeting, Washington, D.C., January 2018.
- 36 Torkjazi, M., N. Huynh and S. Shiri. Truck Appointment Systems Considering Impact to Drayage Truck Tours. Transportation Research Board Meeting, Washington, D.C., January 2018.
- 37 Uddin, M. and N. Huynh. Reliable Routing of Road–Rail Intermodal Freight Under Uncertainty. Transportation Research Board Meeting, Washington, D.C., January 2018.
- 38 Shiri, S., N. Huynh, M. Torkjazi and M. Chowdhury. Economic Impact of Raised Median on Businesses in South Carolina. Transportation Research Board Meeting, Washington, D.C., January 2018.
- 39 Uddin, M. and N. Huynh. Factors Influencing Injury Severity of Crashes Involving HAZMAT Trucks. Transportation Research Board Meeting, Washington, D.C., January 2018.
- 40 Khan, S., S. Islam, M.Z. Khan, K. Dey, M.A. Chowdhury and N. Huynh. Development of Statewide AADT Estimation Model from Short-Term Counts: A Comparative Study for South Carolina. Transportation Research Board Meeting, Washington, D.C., January 2018.
- 41 Shiri, S. and N. Huynh. Impact of Free-flow Operation on Drayage Productivity. INFORMS Annual Meeting, Houston, TX, November 2017.
- 42 Shiri, S., N. Huynh and M. Torkjazi. Economic Impact of Raised Medians on Businesses in South Carolina. INFORMS Annual Meeting, Houston, TX, November 2017 .
- 43 Shiri, S. and N. Huynh. Implications of U.S. Chassis Supply Models for Chassis Stakeholders. Transportation Research Board Meeting, Washington, D.C., January 2017.
- 44 Kaveshgar, N., N. Huynh and M. Ng. Distribution-Free Scheduling of Quay Cranes and Yard Trucks at Container Terminals Under Uncertainty. Transportation Research Board Meeting, Washington, D.C., January 2017.
- 45 Kaveshgar, N., N. Huynh and J.V. Nessen. New Measures for Quantifying Importance of Links in a Transportation Network. Transportation Research Board Meeting, Washington, D.C., January 2017.
- 46 Shiri, S., N. Huynh, M. Torkjazi and M.A. Chowdhury. Economic Impact of Access Management on Businesses in South Carolina. Transportation Research Board Meeting, Washington, D.C., January 2017.

- 47 Uddin, M. and N. Huynh. Truck-Involved Crash Injury Severity Analysis for Different Lighting Conditions on Rural and Urban Roadways. Transportation Research Board Meeting, Washington, D.C., January 2017.
- 48 Khan, S., K.C. Dey., M.A. Chowdhury and N. Huynh. Traffic Access Decision for Multilane Urban Arterial Considering Both Business and Operational Interests. Transportation Research Board Meeting, Washington, D.C., January 2017.
- 49 Shiri, S. and N. Huynh. The Impact of U. S. Chassis Supply Models On Drayage Productivity. INFORMS Annual Meeting, Nashville, TN, November 2016.
- 50 Torkjazi, M. and N. Huynh. Design of Truck Appointment System. INFORMS Annual Meeting, Nashville, TN, November 2016.
- 51 Uddin, M., N. Huynh, J. Vidal, K. Taaffe, L. Fredendall, and J. Greenstein. Evaluation of Google's Voice Recognition and Sentence Classification for Health Care Applications. INFORMS Annual Meeting, Nashville, TN, November 2016.
- 52 Uddin, M. and N. Huynh. Reliable Routing of Multicommodity Road-Rail Intermodal Freight under Uncertainty. INFORMS Annual Meeting, Nashville, TN, November 2016.
- 53 Kaveshgar, N., N. Huynh, and Joseph Von Nessen. Transportation Network Fragility and Economic Losses. INFORMS Annual Meeting, Nashville, TN, November 2016.
- 54 N. Huynh, D. Smith and F. Harder. Truck Appointment Systems: Where We Are and Where to Go From Here. Transportation Research Board Meeting, Washington, D.C., January 2016.
- 55 M. Uddin and N. Huynh. Routing Model for Multicommodity Freight in an Intermodal Network Under Disruptions. Transportation Research Board Meeting, Washington, D.C., January 2016.
- 56 S. Shiri and N. Huynh. Drayage Scheduling with Time Window Constraints at Customer Locations and Marine Container Terminal. Transportation Research Board Meeting, Washington, D.C., January 2016.
- 57 A. Stokes, W. Sarasua, N. Huynh, J. Ogle, K. Brown, W. Davis, and M. Chowdhury. Safety Analysis of Driveway Characteristics Along Major Urban Arterial Corridors in South Carolina. Transportation Research Board Meeting, Washington, D.C., January 2016.
- 58 Shiri, S. and N. Huynh. Planning of Container Movement by Trucks in Metropolitan Area. INFORMS Annual Meeting, Philadelphia, November 2015.
- 59 Torkjazi, M. and N. Huynh. How Truck Arrivals Affect Trucking Companies and Container Terminal. INFORMS Annual Meeting, Philadelphia, November 2015.
- 60 Uddin, M. and N. Huynh. A Routing Model for Multicommodity Freight in an Intermodal Network under Disruptions. INFORMS Annual Meeting, Philadelphia, November 2015.
- 61 Shiri, S. and N. Huynh. An Agent-Based Approach to Solve the Daily Drayage Problem. 19th Annual Meeting on Agent-Based Modeling and Simulation, Columbia, June 2015.
- 62 N. Kaveshgar and N. Huynh. Robust Integrated Scheduling of Container Handling Systems in Marine Container Terminals. Transportation Research Board Meeting, Washington, D.C., January 2015.
- 63 M. Uddin and N. Huynh. Freight Traffic Assignment Methodology for Large-Scale Road-Rail Intermodal Networks. Transportation Research Board Meeting, Washington, D.C., January 2015.
- 64 F. Fotuhi and N. Huynh. Reliable Intermodal Freight Network Expansion Considering Demand and Network Uncertainties. Transportation Research Board Meeting, Washington, D.C., January 2015.
- 65 Kaveshgar, N. and N. Huynh. Robust Integrated Scheduling of Crane Handling and Truck Transportation in Container Terminals. INFORMS Annual Meeting, San Francisco, CA, November 2014.

- 66 Fredendall, L., K. Taaffe, J. Greenstein, N. Huynh and J. Vidal. Ramp Up Management in Hospitals. RAMP-UP Management, 2nd International Conference, Aachen, Germany, June 2014.
- 67 Lee, B., L. Fredendall, K. Taaffe, J. Greenstein, N. Huynh and J. Vidal. Use of QFD (Quality Function Deployment) in Mobile Application Design and Development for Perioperative Services. The 25th Annual Production & Operations Management (POMS) Conference, Atlanta, GA, May 2014.
- 68 Allen, R., K. Taaffe, L. Fredendall, J. Greenstein, N. Huynh and J. Vidal. Communicating Accurate Case Start Times for Surgeries. The 25th Annual Production & Operations Management (POMS) Conference, Atlanta, GA, May 2014.
- 69 F. Fotuhi and N. Huynh. Intermodal Network Design with New Terminals in a Competitive Environment with Uncertain Demand. Transportation Research Board Meeting, Washington, D.C., January 2014.
- 70 F.C. Cordova and N. Huynh. Using Economic Indicators to Forecast Truck Traffic: Time Series and Truck Traffic Analysis Framework. Transportation Research Board Meeting, Washington, D.C., January 2014.
- 71 N. Kaveshgar and N. Huynh. Integrated Quay Crane and Yard Truck Scheduling for Unloading Inbound Containers. Transportation Research Board Meeting, Washington, D.C., January 2014.
- 72 M.C. Chu and N. Huynh. Planning-Level Tool for Assessing and Optimizing Marine Container Terminal Gate Layout. Transportation Research Board Meeting, Washington, D.C., January 2014.
- 73 L. Fredendall, K. Taaffe, J. Greenstein, N. Huynh and J.M Vidal. Requirements for the Use of Mobile Computing Devices Within Perioperative Services. Decision Sciences Institute Annual Meeting, Baltimore, MD, November 2013.
- 74 Huynh, N. J. Caicedo, C. Pierce and J. Gantt. Combining In-Class Design Problems and EFFECTs to Stimulate Critical Thinking Skills. American Society for Engineering Education Conference, Atlanta, GA, June 2013.
- 75 Felton, B, J. Ogle, R. Chowdhury, N. Huynh, J. Davis and Y. Xie. Integration of the Incident Command System (ICS) Protocol for Effective Coordination of Multi-Agency Response to Traffic Incidents. University Transportation Centers (UTC) Conference for the Southeastern Region, Orlando, FL, April, 2013.
- 76 N. Huynh, R. Snyder, J.M. Vidal, O. Sharif, B. Cai, and Kevin Bennett. Unbundled versus Bundled Nurse Medication Administration Process:Preliminary Findings of a Pilot Field Study. Institute of Mathematics with its Applications Conference on Quantitative Modelling in the Management of Health and Social Care, London, UK, March 2013.
- 77 M. Fleming, N. Huynh, and Y. Xie. Agent-Based Simulation Tool for Evaluating Pooled Queue Performance at Marine Container Terminals. Transportation Research Board Meeting, Washington, D.C., January 2013.
- 78 O. Sharif and N. Huynh. Storage Space Allocation at Marine Container Terminals Using Ant-Based Control. Transportation Research Board Meeting, Washington, D.C., January 2013.
- 79 F. Fotuhi, N. Huynh, J.M. Vidal, and Y. Xie. Modeling Yard Crane Operators as Reinforcement Learning Agents. Transportation Research Board Meeting, Washington, D.C., January 2013.
- 80 N. Kaveshgar and N. Huynh. Solving the Quay Crane Scheduling Problem with Time Windows . Transportation Research Board Meeting, Washington, D.C., January 2013.
- 81 S. Venkataraman, L. Fredendall, K. Taaffe, and N. Huynh. An Empirical Examination of Scheduling Decisions in Peri-operative Services. Production and Operations Management Society Annual Conference, Chicago, IL, April 2012.

- 82 A.S. Tavakoli, B. Cai, R. Snyder, and N. Huynh. Calculating Multi-Rater Observation Agreement in Health Care Research Using the SAS Kappa Statistic. SAS Global Forum Conference, Orlando, FL, April 2012.
- 83 D. Smith, F. Harder, N. Huynh, N. Hutson, and R. Harrison. Analysis of Current and Emerging Drayage Practices. Transportation Research Board Meeting, Washington, D.C., January 2012.
- 84 N. Kaveshgar, N. Huynh, and S.K. Rahimian. Solving the Quay Crane Scheduling Problem Using Genetic Algorithm in MATLAB. Transportation Research Board Meeting, Washington, D.C., January 2012.
- 85 Pearce, B., L. Fredendall, N. Huynh, and K. Taaffe. Education and Responses of Perioperative Staff to Simulation Modeling of Process Flow. INFORMS Annual Meeting, Charlotte, NC, November 2011.
- 86 Venkataraman, S., L. Fredendall, N. Huynh, and K. Taaffe. Use of Variability Buffers in Peri-operative Services. INFORMS Annual Meeting, Charlotte, NC, November 2011.
- 87 A. Nair and N. Huynh. Intra-Port Container Terminals - A Comparative Investigation of Their Role in Global Supply Chain Management. Supply Chain Management Educators Conference, Philadelphia, PA, October 2011.
- 88 Huynh, N., F. Harder, D. Smith, O. Sharif, and Q. Pham. An Assessment of Truck Delays at Seaports Using Terminal Webcams. Transportation Research Board Meeting, Washington, D.C., January 2011.
- 89 Sharif, O. and N. Huynh. Yard Crane Scheduling at Seaport Container Terminals: A Comparative Study of Centralized and Decentralized Approaches. Transportation Research Board Meeting, Washington, D.C., January 2011.
- 90 Kaveshgar, N. and N. Huynh. A Decentralized Multi-Agent Systems Approach to Ramp Metering. Transportation Research Board Meeting, Washington, D.C., January 2011.
- 91 Pham, Q., N. Huynh, and Y. Xie. Estimating Truck Queuing Time at Marine Terminal Gates. Transportation Research Board Meeting, Washington, D.C., January 2011.
- 92 Brown, R., C. Pierce, N. Huynh, R. Starcher, and P. Guimaraes. Price Escalation and Adjustment: How reimbursements differ among US DOTs. Transportation Research Board Meeting, Washington, D.C., January 2011.
- 93 Pearce, B., K. Taaffe, N. Hosseini, N. Huynh, and S. Harris. Modeling Interruptions and Patient Flow in a Preoperative Hospital Environment. Winter Simulation Conference, Baltimore, Maryland, December 2010.
- 94 Fredendall, L. D., K. Taaffe, K., N. Huynh, S. Venkataraman, B. Pearce, N. Hosseini, A. Childers, and M. Hyman. Coordination Mechanisms within Perioperative Services. Production and Operations Management Society Annual Conference, Vancouver, Canada, May 2010.
- 95 Huynh, N. and J. M. Vidal. An Agent-Based Approach to Modeling Yard Cranes at Seaport Container Terminals. Symposium on Theory of Modeling and Simulation as part of the 2010 Spring Simulation Multiconference, Orlando, FL, April 2010.
- 96 Xie, Y. and N. Huynh. Kernel-Based Machine Learning Models for Predicting Daily Truck Volume at Seaport Terminals. Transportation Research Forum, Arlington, VA, March 2010.
- 97 Taaffe, K., L. Fredendall, N. Huynh, and J. Welton. From Simulation to Operation: Engineering Interventions in Perioperative Services. The Society for Health Systems and the American Society for Quality Joint Conference, Atlanta, GA, February 2010.
- 98 Huynh, N. and J. Zumerchik. Analysis of Stacking Priority Rules to Improve Drayage Operations Using Existing and Emerging Technologies. Transportation Research Board Meeting, Washington D.C., January 2010.

- 99 Huynh, N. and J. M. Vidal. An Agent-Based Approach to Modeling Yard Cranes at Seaport Container Terminals. University of South Carolina, Graduate Seminar, November 2009.
- 100 Huynh, N. Reducing Truck Turn Times at Marine Terminals with Appointment Scheduling. Transportation Research Board Meeting, Washington D.C., January 2009.
- 101 Huynh, N. and N. Hutson. Mining the Sources of Delay for Dray Trucks at Container Terminals. Transportation Research Board Meeting, Washington D.C., January 2008.
- 102 Huynh, N. Analysis of Container Dwell Time on Marine Terminal Throughput and Rehandling Productivity. Transportation Research Board Meeting, Washington D.C., January 2008.
- 103 Huynh, N. Boosting Marine Container Terminals Throughput - A Survey of Strategies. Transportation Research Board Meeting, Washington, D.C., January 2006.
- 104 Huynh, N. and C. M. Walton. Robust Scheduling of Truck Arrivals at Marine Container Terminals. Transportation Research Board Meeting, Washington, D.C., January 2005.
- 105 Huynh, N., C. M. Walton, and J. Davis. Finding The Number Of Yard Cranes Needed To Achieve Desired Truck Turn Time At Marine Container Terminals. Transportation Research Board Meeting, Washington, D.C., January 2004.
- 106 Huynh, N., Y-C Chiu, and H.S. Mahmassani. Finding Near-Optimal Locations for Portable Variable Message Signs for Real-Time Network Traffic Management. Transportation Research Board Meeting, Washington, D.C., January 2003.
- 107 Huynh, N., H. S. Mahmassani and H. Tavana. Adaptive Speed Estimation Using Transfer Function Models for Real-Time Dynamic Traffic Assignment Operation. Transportation Research Board Meeting, Washington, D.C., January 2002.
- 108 Huynh, N. and H.S. Mahmassani. Finding Near-Optimal Locations for Portable Variable Message Signs for Real-Time Network Traffic Management. Optimization Days, Montreal, Canada, May 2002.
- 109 Huynh, N., H. S. Mahmassani and H. Tavana. Adaptive Speed Estimation Using Transfer Function Models for Real-Time Dynamic Traffic Assignment Operation. Transportation Research Board Meeting, Washington, D.C., January 2002.
- 110 Chiu, Y-C., N. Huynh and H. S. Mahmassani. Integrated Corridor Management and Optimal Variable Message Sign Location. Transportation Research Board Meeting, Washington, D.C., January 2002.
- 111 Huynh, N., Y-C. Chiu and H. S. Mahmassani. The Application of Online Adaptive Control of Speed-VMS for Effective Congestion Management. INFORMS Conference, Miami Beach, FL, November 2001.
- 112 Huynh, N., Y-C. Chiu and H. S. Mahmassani. Designing Optimal VMS Locations Under Stochastic Incidents and Information Provision Scenarios. INFORMS Conference, Miami Beach, FL, November 2001.
- 113 Huynh, N and Y-C. Chiu. DYNASMART-X Real-Time Dynamic Traffic Assignment System. ATMS Field Demonstration, Houston, TX, October 2001.
- 114 Y-C. Chiu, N. Huynh and H. S. Mahmassani. Determining Optimal Locations for Variable Message Signs Under Stochastic Incident Scenarios. Transportation Research Board Meeting, Washington, D.C., January 2001.
- 115 Mahmassani, H. S., N. Huynh, K. Srinivasan and M. Kraan. Tripmaker Choice Behavior for Shopping Trips Under Real-Time Information: Model Formulation and Results of Stated-Preference Internet-Based Interactive Experiments. Transportation Research Board Meeting, Washington, D.C., January 2001.

- 116 Mahmassani, H. S., N. Huynh, K. Srinivasan, A. Abdelghany and M. Kraan. Tripmaker Choice Behavior for Shopping Trips under Real-Time Information: Results of Stated-Preference Internet-Based Interactive Experiments. IATBR Conference, Gold Coast, Australia, July 2000.
- 117 Kraan, M., H. S. Mahmassani and N. Huynh. Interactive Survey Approach to Study Traveler Responses to ATIS for Shopping Trips. Transportation Research Board Meeting, Washington, D.C., January 2000.
- 118 Huynh, N. and H. S. Mahmassani. Real-Time Schedulability of a Distributed Dynamic Traffic Assignment System. INFORMS Conference, Philadelphia, PA, November 1999.

## Invited Talks and Seminars

- 1 Huynh, N. Design and Analysis of Collaborative Logistics. Northwestern University Transportation Center Seminar Series, Evanston, IL, October 2023.
- 2 Huynh, N. What, Why, and How of Transportation Equity. Nebraska ITE Student-Industry Meet & Greet, Lincoln, NE, September 2023.
- 3 Huynh, N. Intermodal Freight Logistics Modeling. University of Nebraska-Lincoln School of Computing Colloquium, Lincoln, NE, April 2023.
- 4 Huynh, N. Application of Agent-Based Approaches to Enhance Marine Container Terminal Operations. Institute of Transportation Engineers UNL Student Chapter Meeting, Lincoln, NE, March 2023.
- 5 Huynh, N. Developing Nebraska Workforce in Transportation and Logistics. Nebraska Department of Transportation Freight Advisory Committee Meeting, Lincoln, NE, December 2022.
- 6 Huynh, N. Transportation Workforce of the Future. American Council of Engineering Companies Nebraska Transportation Conference, virtual, November 2022.
- 7 Huynh, N. Transportation Research at the University of South Carolina. ASCE Midlands Branch (South Carolina Section) Meeting, April 2022.
- 8 Connolly S. and N. Huynh. Innovation in Permitting. South Carolina Highway Engineers Conference, Columbia, SC, April 2022.
- 9 Huynh, N. Undergraduate Curriculum and Transportation Engineering. Introduction to Civil Engineering, University of South Carolina, August 2021.
- 10 Huynh, N. and W. Ferrell. Freight Logistics and Intermodal Network Design. Center for Connected Multimodal Mobility Seminar, virtual, April 2021.
- 11 Huynh, N. Intermodal Freight Terminal Design and Operations Research Trends and Needs. Transportation Research Board Meeting, Washington DC (virtual), January 2021.
- 12 Huynh, N. Tool to Assess Effectiveness of Intermodal Facility Location and Carrier Collaboration. Center for Connected Multimodal Mobility Annual Conference, Clemson University (virtual), November 2020.
- 13 Huynh, N. Transportation Engineering. Introduction to Civil Engineering, University of South Carolina, September 2020.
- 14 Huynh, N. Design and Analysis of Freight Networks with Capacitated Intermodal Facilities and Horizontal Carrier Collaboration. Center for Connected Multimodal Mobility Annual Conference, Clemson University, October 2019.
- 15 Huynh, N. Advances in Intermodal Freight Terminal Design and Operations. Ports Tourism Conference, University of South Carolina, November 2017.
- 16 Huynh, N. Overview of Port Operations and Freight Logistics, Benedict College Summer Transportation Institute, Benedict College, June 2017.

- 17 Huynh, N. Overview of Ports. Ocean Leadership Meeting, University of South Carolina, December 2016.
- 18 Huynh, N. An Agent-Based Approach to Modeling Marine Container Terminals. Third Annual Transportation Summit, Benedict College, March 2012.
- 19 Huynh, N. Simulation and Optimization of Port Operations. Department of Industrial Engineering, Clemson University, March 2011.
- 20 Huynh, N. and J. M. Vidal. An Agent-Based Approach to Modeling Yard Cranes at Seaport Container Terminals. Department of Civil and Environmental Engineering, University of South Carolina, November 2009.
- 21 Huynh, N. Transportation and Logistics. Department of Industrial Engineering, North Carolina A&T State University, March, 2007.
- 22 Huynh, N. How Marine Container Terminals Operate and What Terminal Operators are Doing to Boost Throughput. Department of Civil and Environmental Engineering, University of Texas at Austin, November, 2005.

## Reports

- 1 Huynh, N., S. Gassman, R. Mullen, C. Pierce, and A. Kouyate. Pavement Performance Curves: Modeling Pavement Deterioration for SCDOT. South Carolina Department of Transportation Project Report, FHWA-SC-22-01, 2022.
- 2 Huynh, N., E. Goharian, J. Vidal, R. Mullen, M. Meadows, J. Wang, A.H. Tanim, and L. Baez. Improving SCDOT Project Delivery Through Identifying Potentially Suitable Locations for Mitigation and Standardizing Section 401/404 Permit Application Process. South Carolina Department of Transportation Project Report, FHWA-SC-21-06, 2021.
- 3 Huynh, N., R. Mullen, J. Rose, and Q. Eloise. Automatic Extraction of Vehicle, Bicycle and Pedestrian Traffic from Video Data. South Carolina Department of Transportation Project Report, FHWA-SC-21-09, 2021.
- 4 Huynh, N., J. Wang, R. DeVine, M. Chowdhury, W. Jin, P. Biswas, and G. Comert. Estimating AADT on Non-Coverage Roads. South Carolina Department of Transportation Project Report, FHWA-SC-21-07, 2021.
- 5 Huynh, N., S. Gassman, R. Mullen, C. Pierce, Y. Chen, and N. Ahmed. Utilization of Traffic Speed Deflectometer for Pavement Management. South Carolina Department of Transportation Project Report, FHWA-SC-21-04, 2021.
- 6 Chowdhury, M., W. Jin, M.S. Salek, S.M. Khan, K. Brunk, P. Gerrard, N. Huynh, and M. Torkjazi. Adaptive Signal System Impacts. South Carolina Department of Transportation Project Report, FHWA-SC-21-02, 2021.
- 7 Huynh, N., W. Ferrell, B. Padmanabhan, and V. Badyal. Tool to Assess Effectiveness of Intermodal Facility Location and Carrier Collaboration. Center for Connected Multimodal Mobility Project Report, 2021.
- 8 Shirley, T., B. Padmanabhan, P. Murray-Tuite, N. Huynh, G. Comert, J. Shen, H. Tadesse, and T. Wofford. Assessment of Autonomous Vehicle Sharing for Evacuation and Disaster Relief. Center for Connected Multimodal Mobility Project Report, 2021.
- 9 Huynh, N., R. Mullen, S. Gassman, P. Ziehl, and F. Ahmed. Development of Pavement Design and Investigation Strategies for Non-Interstate Routes. South Carolina Department of Transportation Project Report, FHWA-SC-20-04, 2020.
- 10 Ziehl, P., T. Cousins, B. Ross, and N. Huynh. Assessment of Structural Degradation for Bridges and Culverts. South Carolina Department of Transportation Project Report, FHWA-SC-20-03, 2020.

- 11 Chen, Y., N. Huynh, G. Comert, and Y. Zhang. Data-driven Multimodal Transportation Energy Consumption Prediction and Analysis Framework for Sustainable Transit and Transportation Planning. Center for Connected Multimodal Mobility Project Report, 2020.
- 12 Ogle, J.H., W. Sarasua, M. Chowdhury, B. Putnam, J. Davis, N. Huynh, and P. Ziehl. SCDOT Asset Data Collection Assessment. South Carolina Department of Transportation Project Report, FHWA-SC-19-02, 2019.
- 13 Chowdhury, M., N. Huynh, S.M. Khan, Z. Khan, K. Brunk, M. Torkjazi, S. Islam, M. Keehan, and S. Shiri. Cost Effective Strategies for Estimating Statewide AADT. South Carolina Department of Transportation Project Report, FHWA-SC-18-10, 2019.
- 14 Comert, G., S. Darko, N. Huynh, J. Mwakalongo, B. Elijah, and Q. Eloise. Impact of Transportation on Air Quality at Elementary and Middle Schools in South Carolina. Center for Connected Multimodal Mobility Project Report, 2019.
- 15 Huynh, N., W. Ferrell, B. Padmanabhan, and V. Badyal. Development of a Tool to Assess Effectiveness of Intermodal Facility Locations and Designs. Center for Connected Multimodal Mobility Project Report, 2019.
- 16 Huynh, N., R. Mullen, and Yohanna Meja. Real Time Classification of Vehicle Types and Modes using Image Analysis and Data Fusion. Center for Connected Multimodal Mobility Project Report, 2019.
- 17 Chowdhury, M., N. Huynh, S.M. Khan, S. Shiri, K. Brunk, J. Mitchell, M. Torkjazi, and Z. Khan. Operational and Economical Analysis of Access Management. South Carolina Department of Transportation Project Report, FHWA-SC-18-08, 2018.
- 18 Ziehl, P., N. Huynh, R. Anay, R. Abdujabbar, B. Padmanabhan, and V. Soltangharai. Feasibility Study for Rapid Evaluation of Bridge Decks. South Carolina Department of Transportation Project Report, FHWA-SC-18-09, 2018.
- 19 Huynh, N., R. Mullen, Z. Pulver, and S. Shiri. Sign Life Expectacy. South Carolina Department of Transportation Project Report, FHWA-SC-18-06, 2018.
- 20 Mullen, R., N. Huynh, F. Ahmed, and B. Padmanabhan. Better Construction Project Management through Better Scheduling South Carolina Department of Transportation Project Report, FHWA-SC-18-03, 2018.
- 21 Ogle, J. W. Sarasua, M. Chowdhury, K. Brown, N. Huynh, and J. Davis. Applying Successfully Proven Measures in Roadway Safety to Reduce Harmful Collisions in SC. South Carolina Department of Transportation Project Report, FHWA-SC-17-08, 2017.
- 22 Ogle, J., M. Chowdhury, N. Huynh, J. Davis, and Y. Xie. Integration of the Incident Command System (ICS) Protocol for Effective Coordination of Multi-Agency Response to Traffic Incidents. South Carolina Department of Transportation Project Report, FHWA-SC-17-07, 2017.
- 23 Sarasua, W., W. Davis, J. Ogle, N. Huynh, and R. Chowdhury. Support for the Development and Implementation of an Access Management Program through Research and Analysis of Collision Data. South Carolina Department of Transportation Project Report, FHWA-SC-15-02, 2015.
- 24 Pierce, C., N. Huynh, and P. Guimarães. Cost Indexing and Unit Price Adjustments for Construction Materials. South Carolina Department of Transportation Project Report, FHWA-SC-12-06, 2012.
- 25 National Academies of Sciences, Engineering, and Medicine. 2011. Truck Drayage Productivity Guide. Washington, DC: The National Academies Press. <https://doi.org/10.17226/14536>.
- 26 Xie, Y., N. Huynh, M. Cetin, and R. Warren. Development of Truck Trip Generation Models. James E. Clyburn University Transportation Center Project Report, R-08-JECUTC-DTTGM, 2009.

- 27 Chang, S-Y., N. Huynh, A. Jin, and J. Joyner. National Nuclear Security Administration Fleet Study. Final Report Submitted to South Carolina State University under Subgrant Agreement No. 07-731003-UTC-NCA&T-NC Research Conducted for National Nuclear Security Administration for the Project Entitled "Environmental Policy Institute", 2008
- 28 Huynh, N. and C. M. Walton. Methodologies for Reducing Truck Turn Time at Marine Container Terminals. Southwest Region University Transportation Center Project report, SWUTC/05/167830-1, 2005.
- 29 Huynh, N. and C. M. Walton. Identification of Equipment Needs at Barbours Cut Container Terminal. Report Prepared for Barbours Cut Container Terminal's General Manager, 2002.
- 30 Mahmassani, H.S, N. Huynh, X. Qin, and Y-C. Chiu. TMC Evaluation Plan for a Real-Time DTA System Prototype: Phase 1.5B. Center for Transportation Research Project Report, ST067-85-XI, 2002.
- 31 Mahmassani, H.S., N. Huynh, A. Abdelghany, Y-C. Chiu, X. Zhou and H. Sbayti. DYNASMART-P User's Guide. Center for Transportation Research Project Report, ST067-85-PIII, 2001.
- 32 Mahmassani, H. S., N. Huynh, Y-C. Chiu, K. Abdelghany, A. Abdelghany, and X. Zhou. DYNASMART-X Programmer's Guide. Center for Transportation Research Project Report, ST067-85-XI, 2000.
- 33 Mahmassani, H. S., N. Huynh, X. Zhou, A. Abdelghany, Y-C. Chiu, and K. Abdelghany. DYNASMART-X User's Guide. Center for Transportation Research Project Report ST067-85-XII, 2000.
- 34 Mahmassani, H.S., A. Abdelghany, Y-C. Chiu, K. Abdelghany, N. Huynh, and X. Zhou. DYNASMART-P Capabilities, Algorithmic Aspects, Software Design and Implementation. Center for Transportation Research Project Report ST067-85-PI, 2000.
- 35 Mahmassani, H.S., A. Abdelghany, Y-C. Chiu, K. Abdelghany, N. Huynh, and X. Zhou. DYNASMART-P User's Guide. Center for Transportation Research Project Report, ST067-85-PII, 2000.
- 36 Mahmassani, H.S., Y.E. Hawas, K. Abdelghany, Y-C. Chiu, A. Abdelfatah, N. Huynh, and Y. Kang. Development of a Deployable Real-Time Dynamic Traffic Assignment System - System Implementation and Software Design. Center for Transportation Research Project Report ST067-85-Volume III, 1998.
- 37 Mahmassani, H.S., N. Huynh, A. Abdelfatah, K. Abdelghany, Y-C. Chiu, Y. Kang, T.Y. Hu, and Y.E. Hawas. Development of a Deployable Real-Time Dynamic Traffic Assignment System - Real-Time DTA System User's Guide. Center for Transportation Research Project Report ST067-85-Volume V, 1998.
- 38 Kraan M., H.S. Mahmassani, N. Huynh, A. Abdelghany, P. Chen, K. Srinivasan, and Y.L. Luz. Tripmaker Choice Behavior for Non-Commuting Trips: Experiments with Shopping Trips. Center for Transportation Research Project Report, DTFH61-95-C-00017-F, 1998.

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## Professional Services

- 2020 - present Member, Transportation Research Board (TRB) Intermodal Freight Transport Committee (AT045).
- 2016 - present Editorial Member, International Journal of Transportation Science and Technology.
- 2014 - 2019 Chair, TRB Intermodal Freight Terminal Design and Operations Committee (AT050).
- 2009 - 2019 Member, TRB Intermodal Freight Transport Committee (AT045).
- 2016 - 2017 Member, National Cooperative Freight Research Program (NCFRP) Synthesis Topic 48-15, "Determine the Value of Multimodal Projects versus Added Capacity Highway Projects."
- 2013 - 2014 Vice-Chair, TRB Intermodal Freight Terminal Design and Operations Committee (AT050).

- 2005 - 2013 Member and Paper Review Coordinator, TRB Intermodal Freight Terminal Design and Operations Committee (AT050).
- 2010 - 2013 Research Development Subcommittee Chair, TRB Intermodal Freight Transport Committee (AT045).
- 2009 - 2012 Panel Chair, National Cooperative Freight Research Program (NCFRP) Project 27, "Promoting Environmental Goals in Freight Transportation through Industry Benchmarking."
- 2007 - 2008 Vice-President, North Carolina ASCE Section, Northern Branch.

## Other Selected Professional Services

- 2021 External doctoral committee member of Vishal Badyal, Department of Industrial Engineering, Clemson University, December 9, 2021.
- 2021 External doctoral committee member of Xianshan Qu, Department of Computer and Science Engineering, University of South Carolina, February 12, 2021.
- 2019 Invited participant, NSF Symposium on Big Data and AI-Driven Disaster Management for Planning, Response, Recovery, and Resiliency, December 3-4, 2019.
- 2018 Invited participant, South Carolina Department of Transportation Research Peer Exchange, August 28-30, 2018.
- 2014 External reader and examiner of Thesis of Enrique Martin, Department of Civil Engineering, Polytechnic University of Catalonia-BarcelonaTech, June 15, 2014.

## University/Department Services

### University of Nebraska-Lincoln

- 2024 - 2024 Chair, Research Assistant Professor search committee
- 2023 - 2024 Chair, Assistant Professor in Transportation search committee
- 2023 - present Member, Diversity, Equity, and Inclusion Committee

### University of South Carolina

- 2022 - 2022 Chair, Faculty Senate Committee on Admissions
- 2020 - 2022 Faculty Advisor, American Society of Civil Engineers Student Chapter
- 2018 - 2022 Director, undergraduate studies
- 2008 - 2022 Coordinator, transportation program
- 2020 - 2022 Member, Faculty Senate Committee on Admissions
- 2018 - 2021 Faculty Senator
- 2009 - 2019 Member, graduate program committee
- 2008 - 2019 Faculty advisor, ITE student chapter
- 2012 - 2018 Member, undergraduate program committee
- 2018 Member, transportation engineering faculty search committee
- 2008 - 2017 Instructor, FE exam review (transportation and surveying)
- 2017 Member, transportation engineering faculty search committee
- 2013 - 2016 Faculty Senator
- 2015 Member, Dean search committee
- 2010 Member, geotechnical engineering faculty search committee

## Reviewer

- 2007 - Present Multiple transportation and industrial engineering journals
- 2023 National Science Foundation Mid-Scale Research Infrastructure Proposals
- 2023 National Science Foundation Cyber-Physical Systems Proposals

- 2023 Department of Homeland Security proposals
- 2022 Puerto Rico Science, Technology & Research Trust proposals
- 2021 National Science Foundation IIP division proposals
- 2021 Department of Homeland Security proposals
- 2020 Department of Homeland Security proposals
- 2019 Chilean National Science and Technology Commission proposals
- 2019 Southeastern Transportation Research, Innovation, Development and Education Center proposals
- 2018 Department of Homeland Security proposals
- 2016 Mid-Atlantic Transportation Sustainability Center proposals
- 2016 Department of Homeland Security proposals
- 2015 Mid-Atlantic Transportation Sustainability Center proposals
- 2015 National Transportation Center at Maryland proposals
- 2015 National Science Foundation IIP division proposals
- 2014 National Transportation Center at Maryland proposals
- 2013 State University of New York (SUNY) 4E Network of Excellence proposals
- 2013 National Center for Transportation Systems Productivity and Management proposals
- 2012 Department of Homeland Security proposals
- 2009 Oregon Transportation Research and Education Consortium proposals
- 2007 Oregon Transportation Research and Education Consortium proposals

## **Courses Taught**

### [University of Nebraska-Lincoln](#)

- CIVE 991 Optimization Methods for Transportation Problems
  - o Spring 2024

### [University of South Carolina](#)

- ECIV 340 Introduction to Transportation Engineering (required undergraduate course)
  - o Fall 2008 - 2018, Fall & Spring 2019 - 2022
- ECIV 542 Traffic Engineering (undergraduate/graduate course)
  - o Spring 2009, Spring 2012, Spring 2017, Spring 2018
- ECIV 705 Deterministic Civil and Environmental Systems Engineering (graduate course)
  - o Spring 2010, Fall 2011, Fall 2012, Fall 2014, Fall 2016, Fall 2019, Fall 2022
- ECIV 748 Traffic Flow Theory (graduate course)
  - o Fall 2010, Fall 2013, Fall 2015, Spring 2019, Fall 2021
- ECIV 790B Analysis and Design of Transportation Systems (graduate course)
  - o Spring 2011, Spring 2014, Spring 2016
- ECIV 790U Intermodal Freight Transport (graduate course)
  - o Spring 2013, Spring 2015, Fall 2017, Fall 2020

### [North Carolina A&T State University](#)

- CIEN 550 Advanced Transportation Engineering (undergraduate course)
  - o Fall 2007
- CIEN 350 Introduction to Transportation Engineering (required undergraduate course)
  - o Spring 2008

## **Student Supervision**

### Post-Doctoral Students

- 2018 - 2020 Zulfikar Berk
- 2018 - 2020 Yohanna Mejia Cruz
- 2019 Majbah Uddin
- 2015 - 2017 Narges Kaveshgar
- 2012 - 2013 Minh Chu (visiting scholar)

### Doctoral Students (*in progress*)

- 2023 - Present Aida Riahifar
- 2021 - Present Seyedmahyar Madarshahian
- 2018 - Present Jing Wang
- 2015 - Present Fahim Ahmed
- 2018 - Present Robert Thomas (co-advisee)

### Doctoral Students (*completed*)

- 2016 - 2023 Bhavya Padmanabhan
- 2014 - 2020 Mohammad Torkjazi
- 2015 - 2019 Majbah Uddin
- 2012 - 2018 Samaneh Shiri
- 2011 - 2017 Fateme Fotuhi
- 2010 - 2015 Narges Kaveshgar
- 2011 - 2013 Omor Sharif

### Masters Students (*completed*)

- 2022 - 2023 Jackson Wegmet
- 2018 - 2021 Amara Kouyate
- 2020 - 2021 Nazmus Ahmed
- 2020 - 2020 Ryan DeVine
- 2018 - 2020 Vince McCarron
- 2015 - 2017 Zane Pulver
- 2015 - 2016 Sherrian Ellis
- 2015 - 2015 Fahim Ahmed
- 2013 - 2015 Majbah Uddin
- 2010 - 2012 Matthew Fleming
- 2009 - 2011 Quyen Pham
- 2009 - 2011 Omor Sharif

### Undergraduate Students

- 2022 - 2023 Logan Soto (research assistant)
- 2022 - 2023 Ryan Sieradzki (research assistant)
- Fall 2022 Edgar Hernandez-Cardenas (recitation instructor)
- Spring 2022 Jonathan Britt (recitation instructor)
- Fall 2021 Maggie Kemp (recitation instructor)
- 2020 - 2021 Brittany Stinson (research assistant)
- 2020 - 2021 William Hogarth (research assistant)
- Spring 2020 Richard Fahey (research assistant)
- Fall 2018 Rami Al Cheikh (research assistant)
- 2016 - 2017 William Campbell (research assistant)

2016 - 2017 Tanya Thompson (research assistant)  
2016 - 2017 Zach Perry (research assistant)  
2016 - 2017 Matt Coggins (research assistant)  
2016 - 2017 Davis Peacock (research assistant)  
2016 - 2017 Kathryn Corasaniti (Magellan Scholar)  
2013 - 2014 Mark Morgan (research assistant)  
2013 - 2014 Gaston Jenkins (research assistant)  
Summer 2013 Bradley Huffman (research assistant)  
Spring 2013 Brett McCutchan (independent study)  
2012 - 2013 Benjamin Felton (research assistant)  
2010 - 2011 Jack McFadden (Magellan Scholar)  
2009 - 2011 Robert Burris (research assistant)  
2009 - 2010 Adam Payne (research assistant)  
Fall 2010 Adam Payne (independent study)  
Spring 2010 Jack McFadden (independent study)  
Spring 2010 Matthew Kelly (independent study)  
Spring 2009 Matthew Fleming (independent study)