

Cong Chen, Ph.D., E.I.

Research Associate Faculty
Manager, Florida Local Technical Assistance Program (LTAP)
Center for Urban Transportation Research, University of South Florida
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1. PERSONAL DATA

RESEARCH AREAS

- Traffic Safety Analyses
- Advanced Statistical Model Development
- Traffic Congestion and Operation Analysis
- Pedestrian and Bicycle Safety
- Connected and Automated Vehicles
- Smart Cities and Intelligent Transportation Systems
- Travel Demand and Behavior Analysis
- Transportation Geospatial and Temporal Data Analysis
- GIS-based Transportation Infrastructure Management

EDUCATION

- 2012-2015 **Ph.D. in Transportation and Traffic Engineering**
Department of Civil Engineering, University of New Mexico, Albuquerque, New Mexico, USA
Dissertation: Data-Driven Bayesian Method-based Traffic Crash Driver Injury Severity Formulation, Analysis and Inference
- 2008-2011 **M.S. Highway and Railway Engineering**
School of Transportation Engineering, Tongji University, Shanghai, China
Thesis: Research of Evaluation Indexes of Highway Tunnel Safety Based on Visual Information
- 2004-2008 **B.S. in Transportation and Traffic Engineering**
School of Transportation Engineering, Tongji University, Shanghai, China
Thesis: Discovering Greening Patterns of Highways in Shanghai Suburban Area

PROFESSIONAL WORK EXPERIENCE

- *December 2018 - Present* **Instructor/Adjunct Professor**, Department of Civil Engineering, University of South Florida
- *January 2018 - Present* **Research Associate (Faculty)**, Center for Urban Transportation Research, University of South Florida
- *January 2017 - January 2018* **Postdoctoral Scholar**, Center for Urban Transportation Research, University of South Florida
- *September 2016 - January 2017* **Postdoctoral Fellow** at University of Hawaii at Manoa
- *February 2016 - July 2016* **Postdoctoral Fellow** at University of New Mexico

- *May 2014 - August 2014* **Summer Intern** in New Mexico Department of Transportation (New Mexico Governor's Fellowship Intern Program)

PROFESSIONAL LICENSE AND CERTIFICATE

- State of New Mexico Engineer Intern (EI) Certificate (Certificate No.: 7180), April 2016

2. PROJECT EXPERIENCE, RESEARCH PUBLICATIONS AND PRESENTATIONS

SUPERVISED PROJECTS

- Accelerating Safety Activities Program: Intersection Control Evaluation Workshop-Roundabouts, Funded by Federal Highway Administration and Florida Department of Transportation (**Principal Investigator**, \$19,734, October 2019-July 2020)
- Accelerating Safety Activities Program: Pedestrian and Bicycle Safety Best Practices Symposium, Funded by Federal Highway Administration and Florida Department of Transportation (**Principal Investigator**, \$16,445, October 2019-July 2020)
- Accelerating Safety Activities Program: Roadway Departure Safety Workshops, Funded by Federal Highway Administration and Florida Department of Transportation (**Principal Investigator**, \$19,734, October 2019-July 2020)
- Florida Local Technical Assistance Program, Funded by Federal Highway Administration and Florida Department of Transportation (**Co-Principal Investigator**, \$600,000, July 2018-June 2020)
- Testing and Evaluation of FLIR Thermal Camera-Based System on Wrong-Way Driving and Stalled Vehicles, Funded by Johnson, Mirmiran & Thompson, Inc. (**Co-Principal Investigator**, \$38,555, April 2019-October 2019)
- Development of Low Voltage/Extended Runtime Signalized Intersection Using Backup Power after the Loss of Utility Power Due to Hurricanes, Funded by Florida Department of Transportation (**Co-Principal Investigator**, \$329,835, February 2019-January 2021)
- Creative Utilization of Urban Roadway Facilities with Predictive Safety Assessment Tool – Phase 1, Funded by Center for Transportation Equity, Decisions and Dollars (C-TEDD), USDOT Tier 1 University Transportation Center (**Co-Principal Investigator**, \$30,000, February 2018-January 2019)

PROPOSAL DEVELOPMENT EXPERIENCE

1. **Teen Driver Safety Awareness Data collection and Evaluation** (Sponsoring Agency: Florida Department of Transportation, Total Proposed Budget: \$75,000, Project Duration: 12 months, Leading Institution: USF Center for Urban Transportation Research, Role: Principal Investigator)
2. **Testing and Evaluation of FLIR Thermal Camera-Based System on Wrong-Way Driving and Stalled Vehicles** (Sponsoring Agency: Johnson, Mirmiran & Thompson, Inc., Total Proposed Budget: \$38,554.88, Project Duration: 6 months, Leading Institution: USF Center for Urban Transportation Research, Role: Co-Principal Investigator)

3. **Demonstration of Campus Multimodal Automated Driving Systems** (Sponsoring Agency: United States Department of Transportation, Total Proposed Budget: \$1,810,916, Project Duration: 36 months, Leading Institution: USF Center for Urban Transportation Research, Role: Co-Principal Investigator)
4. **Synthesis on the Contributing Factors and Effective Countermeasures for Low-volume Roadway Fatality Rates in the Southeast** (Sponsoring Agency: Louisiana Transportation Research Center, Total Proposed Budget: \$40,000, Project Duration: 9 months, Leading Institution: USF Center for Urban Transportation Research, Role: Principal Investigator)
5. **Florida Local Technical Assistance Program** (Sponsoring Agency: Federal Highway Administration and Florida Department of Transportation, RFRP-17/18-003, Total Proposed Budget: \$600,000, Project Duration: 24 months, Leading Institution: USF Center for Urban Transportation Research, Role: Co-Principal Investigator)
6. **Florida's Comprehensive Pedestrian and Bicycle Safety Program** (Sponsoring Agency: Florida Department of Transportation, Total Proposed Budget: \$500,000, Project Duration: 12 months, Leading Institution: USF Center for Urban Transportation Research, Role: Co-Principal Investigator)
7. **Demonstration of Campus Multimodal Automated Driving Systems** (Sponsoring Agency: U.S. Department of Transportation, Total Proposed Budget: \$1,810,915.45, Project Duration: 36 months, Leading Institution: USF Center for Urban Transportation Research, Role: Co-Principal Investigator)
8. **Development of Low Voltage/Extended Runtime Signalized Intersection Using Backup Power after the Loss of Utility Power Due to Hurricanes** (Sponsoring Agency: Florida Department of Transportation, DOT-RFP-19-9033-GH, Total Proposed Budget: \$329,835, Project Duration: 30 months, Leading Institution: USF Center for Urban Transportation Research, Role: Co-Principal Investigator)
9. **Moving from Simple Traffic Safety Education to Behavior Change** (Sponsoring Agency: AAA Foundation for Traffic Safety, Total Proposed Budget: \$179,803, Project Duration: 15 months, Leading Institution: USF Center for Urban Transportation Research, Role: Co-Principal Investigator)
10. **Creative Utilization of Urban Roadway Facilities with Predictive Safety Assessment Tool – Phase 1** (Sponsoring Agency: University Transportation Center SEED Grant, Total Proposed Budget: \$30,000, Project Duration: 12 months, Leading Institution: USF Center for Urban Transportation Research, Co-Principal Investigator)
11. **Wrong-Way Driving Solutions, Policy, and Guidance** (Sponsoring Agency: NCHRP, NCHRP 03-135, Total Proposed Budget: \$600,000, Project Duration: 30 months, Leading Institution: Auburn University, Role: Proposal Writer on Technical Approach and Subcontract Budget)
12. **Application of Dynamic Crash Prediction Methodologies to FDOT Safety and Transportation System Management and Operational (TSM&O) Programs** (Sponsoring Agency: Florida Department of Transportation, RFP-DOT-17/18-9050-CA, Total Proposed Budget: \$171,646, Project Duration: 19 months, Leading Institution: USF Center for Urban Transportation Research, Role: Proposal Writer on Technical Approach)

13. **MPO and SHSO Coordination on Behavioral Traffic Safety** (Sponsoring Agency: Behavioral Traffic Safety Cooperative Research Program, BTSCRCP BTS-06, Total Proposed Budget: \$325,000, Project Duration: 20 months, Leading Institution: USF Center for Urban Transportation Research, Role: Proposal Writer on Technical Approach and Senior Researcher)

PROJECT PARTICIPATED

1. *Florida Comprehensive Pedestrian and Bicycle Safety Program*, Funded by Florida Department of Transportation (October 2018-September 2019)
2. *Florida Comprehensive Pedestrian and Bicycle Safety Program*, Funded by Florida Department of Transportation (October 2017-September 2018)
3. *Campus Automated Shuttle Service Deployment Initiative*, Funded by National Center for Transit Research, University of South Florida (October 2017-June 2019)
4. *Integration of a Robust Automated Pedestrian Detection System for Signalized Intersections*, Funded by Florida Department of Transportation (October 2017-June 2019)
5. *Testing and Evaluation of Freeway Wrong-way Driving Detection Systems*, Funded by Florida Department of Transportation (April 2017-November 2018)
6. *Understanding Interactions between Drivers and Pedestrian Features at Signalized Intersections, Phase 3*, Funded by Federal Highway Administration and Florida Department of Transportation (August 2017-November 2019)
7. *Understanding Interactions between Drivers and Pedestrian Features at Signalized Intersections, Phase 2*, Funded by Federal Highway Administration and Florida Department of Transportation (March 2016-August 2017)
8. *Development of Statewide Guidelines for Implementing Leading Pedestrian Intervals in Florida*, Funded by Florida Department of Transportation (November 2015-December 2017)
9. *Naturalistic Bicycling Behavior Pilot Study*, Funded by Florida Department of Transportation (August 2014-November 2017)
10. *Crash Risk and Severity Analyses Considering Various Access Densities Along Major Arterials in New Mexico*, Funded by New Mexico Department of Transportation (July 2015-June 2016)
11. *SPTC Research, Education and Outreach Support*, Funded by Southern Plains Transportation Center (June 2015---June 2017).
12. *Pedestrian and Bicycle-Involved Crash Analysis and Safety Performance Enhancement at High-Traffic Intersections*, Funded by City of Albuquerque (May 2015-May 2016).
13. *Safety Performance Enhancement Analysis of Rumble Stripes with Elements: A Case Study on Rural Highway US 285 in New Mexico*, Funded by University of New Mexico University Transportation Center and New Mexico Department of Transportation (September 2014-August 2016)
14. *New Mexico Department of Transportation Pavement Evaluation Program 2012*, Funded by New Mexico Department of Transportation (January 2012-December 2012)

15. *Research on Visual Stimulus and Visual Environment Improvement for Drivers in Freeway Tunnels*, China Natural Science Foundation Project (2008-2011)
16. *Study on Key Traffic Safety Technique and Its Application on Expressway Tunnels in Zhejiang Province*, Funded by Ministry of Transportation of Zhejiang Province, China (2008-2010)
17. *Research on Accident-Prone Analysis and Countermeasures about Management Safety of Tunnel Group*, Funded by Ministry of Transportation of Zhejiang Province, China (2008-2011)

RESEARCH PROJECT REPORT

1. Pei-Sung Lin, **Cong Chen**, and Seckin Ozkul. Testing and Evaluation of Freeway Wrong-way Driving Detection Systems. Florida Department of Transportation, Tallahassee, Florida, 2018.
2. Pei-Sung Lin, Zhenyu Wang, **Cong Chen**, Rui Guo, and Zhao Zhang. Development of Statewide Guidelines for Implementing Leading Pedestrian Intervals in Florida. Florida Department of Transportation, Tallahassee, Florida, 2017.
3. Pei-Sung Lin, Achilleas Kourtellis, Srinivas Katkoori, **Cong Chen**, and Lucas Cruse. Naturalistic Bicycling Behavior Pilot Study. Florida Department of Transportation, Tallahassee, Florida, 2017.
4. Pei-Sung Lin, Achilleas Kourtellis, Zhenyu Wang, **Cong Chen**, and Rui Guo. Understanding Interactions between Drivers and Pedestrian Features at Signalized Intersections, Phase 2. Florida Department of Transportation, Tallahassee, Florida, 2017.
5. Guohui Zhang, **Cong Chen**, and Qiong Wu. Crash Risk and Severity Analyses Considering Various Access Densities along Major Arterials in New Mexico. New Mexico Department of Transportation, Santa Fe, New Mexico. 2016.
6. Adélar "Dely" Alcántara, Guohui Zhang, Qiong Wu, **Cong Chen**, and David Jacobs. Pedestrian and Bicycle-Involved Crash Analysis and Safety Performance Enhancement at High-Traffic Intersections. City of Albuquerque, Albuquerque, New Mexico. 2016.
7. Guohui Zhang, Rafiqul A. Tarefder, **Cong Chen**, and Qiong Wu. Safety Performance Enhancement Analysis of Rumble Stripes with Elements: A Case Study on Rural Highway US 285 in New Mexico. SOLARIS Consortium, Tier 1 University Transportation Center, University of Nevada, Reno. 2016.
8. Susan Bogus Halter, Vanessa Valentin, Guohui Zhang, David Barboza, **Cong Chen** and Su Zhang. 2012 Pavement Evaluation Report Northern New Mexico. New Mexico Department of Transportation. State Maintenance Bureau SB-2, Santa Fe, New Mexico. 2012.

PEER-REVIEWED JOURNAL PUBLICATIONS (* indicates corresponding author)

1. Haozhe Cong, Xiaomeng Shi, Jill Cooper, Zhi Ye, Zijian Suo, Xinwei Zhao, Zhirui Ye, and **Cong Chen**. Road Rage in China: An Exploratory Study. *Journal of Transportation Safety & Security*, 2019. <https://doi.org/10.1080/19439962.2019.1645776>
2. Zhenning Li, Qiong Wu, Yusheng Ci, **Cong Chen**, Xiaofeng Chen, and Guohui Zhang*. Using Latent Class Analysis and Mixed Logit Model to Explore Risk Factors on Driver Injury Severity in Single-Vehicle Crashes. *Accident Analysis and Prevention*, Volume 129, 2019, pp. 230-240. <https://doi.org/10.1016/j.aap.2019.04.001>

3. Zhenning Li, Qiong Wu, Hao Yu, **Cong Chen**, Guohui Zhang*, Zong Z. Tian, Panos D. Prevedourous. Temporal-Spatial Dimension Extension-based Intersection Control Formulation for Connected and Autonomous Vehicle Systems. *Transportation Research Part C: Emerging Technologies*, Volume 104, 2019, pp. 234-248. <https://doi.org/10.1016/j.trc.2019.05.003>
4. Athanasios Theofilatos*, **Cong Chen**, and Constantinos Antoniou. Comparing Machine Learning and Deep Learning Methods for Real-Time Crash Prediction. *Transportation Research Record: Journal of the Transportation Research Board*, April 2019, pp. 1-10. <https://doi.org/10.1177/0361198119841571>
5. Zhenning Li, Yusheng Ci, **Cong Chen**, Xiaofeng Chen, Guohui Zhang*. A Hierarchical Bayesian Spatiotemporal Random Parameters Approach for Alcohol/Drug Impaired-Driving Crash Frequency Analysis. Accepted by *Analytic Methods in Accident Research*, Volume 21, 2019, pp. 44-61. <https://doi.org/10.1016/j.amar.2019.01.002>
6. Zhenning Li, Yusheng Ci, **Cong Chen**, Guohui Zhang*, Qiong Wu, Zhen(Sean) Qian, Panos D. Prevedourous, and David T. Ma. Investigation of Driver Injury Severities in Rural Single-Vehicle Crashes under Rain Conditions Using Mixed Logit and Latent Class Models. Accepted by *Accident Analysis and Prevention*, Volume 124, 2019, pp.219-229. <https://doi.org/10.1016/j.aap.2018.12.020>
7. Zhenning Li, **Cong Chen**, Qiong Wu, Guohui Zhang*, Cathy Liu, Panos D Prevedourous, and David T. Ma. Exploring Driver Injury Severity Patterns and Causes in Low Visibility Related Single-Vehicle Crashes Using a Finite Mixture Random Parameters Model. *Analytic Methods in Accident Research*, Volume 20, 2018, pp. 1-14. <https://doi.org/10.1016/j.amar.2018.08.001>
8. Zhenning Li, **Cong Chen**, Yusheng Ci, Guohui Zhang*, Qiong Wu, Xiaoyue Cathy Liu, and Zhen(Sean) Qian. Examining Driver Injury Severity in Intersection-Related Crashes Using Cluster Analysis and Hierarchical Bayesian Models. *Accident Analysis & Prevention*, Volume 120, 2018, pp.139-151. <https://doi.org/10.1016/j.aap.2018.08.009>
9. Yuming Zhang, **Cong Chen**, Qiong Wu, Qi Lu, Su Zhang, Guohui Zhang*, and Yin Yang*. A Kinect-Based Approach for 3D Pavement Surface Reconstruction and Cracking Recognition. *IEEE Transactions on Intelligent Transportation Systems*, 2018, pp. 1-12. <https://doi.org/10.1109/TITS.2018.2791476>
10. Haozhe Cong, **Cong Chen***, Pei-Sung Lin, Guohui Zhang, John Milton, and Ye Zhi. Traffic Incident Duration Estimation Based on a Dual-learning Bayesian Network Model. *Transportation Research Record: Journal of the Transportation Research Board*, 2018, 0361198118796938, 14p. <https://dx.doi.org/10.1177/0361198118796938>
11. Jun Liu*, Asad Khattak, **Cong Chen**, Dan Wan, Jiaqi Ma, and Jia Hu. Revisiting Hit-and-Run Crashes: A Geospatial Modeling Method. *Transportation Research Record: Journal of the Transportation Research Board*, 2018. <https://doi.org/10.1177/0361198118773889>.
12. Pei-Sung Lin, Seckin Ozkul*, Rui Guo, and **Cong Chen**. Assessment of Countermeasure Effectiveness and Informativeness in Mitigating Wrong-Way Entries onto Limited Access Facilities. *Accident Analysis & Prevention*, 2018, pii: S0001-4575(17)30423-2. <https://doi.org/10.1016/j.aap.2017.11.027>
13. **Cong Chen**, Qiong Wu, Guohui Zhang*, Xiaoyue Cathy Liu, and Panos D. Prevedourous.

Extracting Arterial Access Density Impacts on Safety Performance Based on Clustering and Computational Analysis. *Journal of Transportation Engineering, Part A: Systems*, Volume 144, Issue 4, 2018, pp. 04018008(1-10). <https://doi.org/10.1061/JTEPBS.0000127>

14. **Cong Chen**, Yanyan Chen, Jianming Ma, Guohui Zhang*, and C. Michael Walton. Driver Behavior Formulation in Intersection Dilemma Zones with Phone Use Distraction via a Logit-Bayesian Network Hybrid Approach. *Journal of Intelligent Transportation Systems: Technology, Planning, and Operations*, 2017, pp.1-14. <https://doi.org/10.1080/15472450.2017.1350921>
15. **Cong Chen**, Guohui Zhang*, Xiaoyue Cathy Liu, Yusheng Ci, Helai Huang, Jianming Ma, Yanyan Chen, and Hongzhi Guan. Driver Injury Severity Outcome Analysis in Rural Interstate Highway Crashes: A Two-Level Bayesian Logistic Regression Interpretation. *Accident Analysis & Prevention*, Volume 97, 2016, pp. 69-78. <https://doi.org/10.1016/j.aap.2016.07.031>
16. **Cong Chen**, Guohui Zhang*, and Helai Huang, Jiangfeng Wang, and Rafiqul A. Tarefder. Examining Driver Injury Severity Outcomes in Rural Non-interstate Roadway Crashes Using a Hierarchical Ordered Logit Model. *Accident Analysis & Prevention*, Volume 96, 2016, pp. 79-87. <https://doi.org/10.1016/j.aap.2016.06.015>
17. Qiong Wu, Guohui Zhang*, **Cong Chen**, Haizhong Wang, Heng Wei. Heterogeneous Impacts of Gender-Interpreted Contributing Factors on Driver Injury Severities in Single-Vehicle Rollover Crashes. *Accident Analysis & Prevention*, Volume 94, 2016, pp. 28-34. <https://doi.org/10.1016/j.aap.2016.04.005>
18. **Cong Chen**, Guohui Zhang*, Zhen Qian, Rafiqul A. Tarefder, and Zong Tian. Investigating Driver Injury Severity Patterns in Rollover Crashes Using a Support Vector Machine Model. *Accident Analysis & Prevention*, Volume 90, 2016, pp. 128-139. <https://doi.org/10.1016/j.aap.2016.02.011>
19. **Cong Chen**, Guohui Zhang*, Jinfu Yang, John C. Milton, and Adélar "Dely" Alcántara. An Explanatory Analysis of Driver Injury Severity in Rear-End Crashes Using a Decision Table Naïve Bayes (DTNB) Hybrid Classifier. *Accident Analysis & Prevention*, Volume 90, 2016, pp. 95-107. <https://doi.org/10.1016/j.aap.2016.02.002>
20. **Cong Chen**, Guohui Zhang*, Xiaolei Ma, and Yin Hai Wang. Big data analysis and knowledge discovery for smart city development enhancement. *Big Data Research*, Issue 3, 2016, pp.39-47.(Chinese Edition)
21. Su Zhang, Susan M. Bogus, Chris Lippitt*, Paul R. H. Neville, **Cong Chen**, Guohui Zhang, and Vanessa Valentin. Extracting Pavement Distress Condition Patterns based on High Spatial Resolution Multispectral Digital Aerial Photography. *Photogrammetric Engineering and Remote Sensing*, Volume 81, No. 9, 2015, pp. 709-720. <https://doi.org/10.14358/PERS.81.9.709>
22. **Cong Chen**, Guohui Zhang*, Hua Wang, Jinfu Yang, Peter J. Jin, and C. Michael Walton. Bayesian Network-based Formulation and Analysis for Toll Road Utilization Supported by Traffic Information Provision. *Transportation Research: Part C: Emerging Technologies*, Volume 60, 2015, pp. 339-359. <https://doi.org/10.1016/j.trc.2015.09.005>
23. **Cong Chen**, Guohui Zhang*, Zong Tian, Susan M. Bogus, and Yin Yang. Hierarchical Bayesian Random Intercept Model-based Cross-level Interaction Decomposition for Truck Driver Injury Severity Investigations. *Accident Analysis & Prevention*, Volume 85, 2015, pp. 186-198.

<https://doi.org/10.1016/j.aap.2015.09.005>

24. **Cong Chen**, Guohui Zhang*, Rafiqul Tarefder, Jianming Ma, Heng Wei, and Hongzhi Guan. A Multinomial Logit Model-Bayesian Network Hybrid Approach for Driver Injury Severity Analyses in Rear-end Crashes. *Accident Analysis & Prevention*, Volume 80, 2015, pp. 76-88.
<https://doi.org/10.1016/j.aap.2015.03.036>
25. **Cong Chen**, Su Zhang, Guohui Zhang*, Susan M. Bogus, and Vanessa Valentin. Discovering Temporal and Spatial Patterns and Characteristics of Pavement Distress Condition Data on Major Corridors in New Mexico. *Journal of Transport Geography*, Volume 38, 2014, pp. 148-158.
<https://doi.org/10.1016/j.jtrangeo.2014.06.005>
26. Qiong Wu, Xiaodong Pan*, Hui Yang, and **Cong Chen**. Research on Driving Safety Experiment of Tunnel Based on Sidewall Effect. *Highway Engineering*, Vol. 38, No. 5, 2013, pp 99-102 (Chinese Edition).
27. Yongchao Song, Xiaodong Pan*, **Cong Chen**, and Zewen Yu. Study of Connectivity of Traffic Nodes on Mountainous Highway for Emergency Evacuation. *China Journal of Highway and Transport*, 23(8), 2010, pp. 102-106 (Chinese Edition).
28. Xiaodong Pan*, **Cong Chen**, Tao Lin, and Yongchao Song. Research on the Dimension of Crosswalk-notice Mark on Highways. *Highway Engineering*, Volume. 34, No. 6, 2009, pp.144-148 (Chinese Edition).

CONFERENCE PRESENTATIONS (* indicates corresponding author)

1. Zhenning Li, Yusheng Ci, **Cong Chen**, Guohui Zhang, David T. Ma. A Spatio-Temporal Bayesian Hierarchical Approach to Analyze Alcohol/Drug Impaired-Driving Related Traffic Crashes by Severity. Presented at the 98th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2019.
2. Athanasios Theofilatos*, **Cong Chen**, and Constantinos Antoniou. Comparing Machine Learning and Deep Learning Methods for Real-Time Crash Prediction. Presented at the 98th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2019.
3. Pei-Sung Lin, **Cong Chen***, Zhenyu Wang, and Rui Guo. Assessment of Leading Pedestrian Interval Suitability and Effectiveness: Before-after Pilot Study in Florida. Presented at 12th Asia Pacific Transportation Development Conference & ICTPA 31st Annual Conference, 2018, Guangzhou, China.
4. Pei-Sung Lin, Achilleas Kourtellis*, **Cong Chen**, Trena McPherson, and Peter Hsu. Naturalistic Bicycling Behavior Pilot Study. Presented at Presented at 12th Asia Pacific Transportation Development Conference & ICTPA 31st Annual Conference, 2018, Guangzhou, China.
5. Pei-Sung Lin, **Cong Chen***, Achilleas Kourtellis, Zhenyu Wang, Rui Guo, and Zhao Zhang. Investigating Driver Compliance with Pedestrian Features at Signalized Intersections: SHRP2 Naturalistic Driving Study Data Analysis. Presented at the 97th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2018.
6. Pei-Sung Lin*, Achilleas Kourtellis, Zhenyu Wang, and **Cong Chen**. Understanding Interactions Between Drivers and Pedestrian Features at Signalized Intersections Using NDS and RID and

Databases. Presented at the 97th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2018.

7. Haozhe Cong, **Cong Chen***, Pei-Sung Lin, Guohui Zhang, John Milton, and Ye Zhi. Traffic Incident Duration Prediction Based on a Dual-Learning Bayesian Network Model. Presented at the 97th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2018.
8. Jun Liu*, Asad Khattak, **Cong Chen**, Dan Wan, Jiaqi Ma, and Jia Hu. Revisiting Hit-and-Run Crashes: A Geo-Spatial Modeling Method. Presented at the 97th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2018.
9. Zhenning Li, **Cong Chen**, Guohui Zhang*, Qiong Wu, Xiaoyue Cathy Liu, Panos D. Prevedouros, and David Ma. A Finite Mixture Random Parameters Model for Exploring the Risk Factors on Driver Injury Severity of Low Visibility Related Crashes. Presented at the 97th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2018.
10. Zhenning Li, **Cong Chen**, Yusheng Ci, Guohui Zhang*, Qiong Wu, Xiaoyue Cathy Liu, and Zhen Qian. An Empirical Assessment and Investigation of the Driver Injury Severities in Rain-Related Rural Single-Vehicle Crashes Using Mixed and Latent-Class Logit Models. Presented at the 97th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2018.
11. Qiong Wu, Yusheng Ci, **Cong Chen**, and Guohui Zhang*. Examining Driver Injury Severity in Single-Vehicle Crashes: A Two-Step Study Using Cluster Analysis and Mixed Logit Model. Presented at the 97th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2018.
12. Peng Hu* and **Cong Chen**. Equivalent Standard Axle Load Analysis Considering Dynamic Load Based on Vehicle Axle-tire Vertical Acceleration Field Test. Presented at World Transport Convention, Beijing, China, Jun. 2017.
13. Zhenning Li, **Cong Chen**, Qiong Wu, Guohui Zhang, Haizhong Wang, Panos D. Prevedouros, and Tianwei Ma. Critical Path Identification for Traffic Infrastructure Resilience Enhancement Impacted by Natural Hazards. Presented at 2017 PRiMO Conference-Navigating Towards Security and Sustainability, Honolulu, Hawaii, Mar. 2017.
14. **Cong Chen**, Guohui Zhang*, Zhen Qian, Rafiqul A. Tarefder, and Zong Tian. Analyzing Driver Injury Severity Outcomes in Rollover Crashes Based on A Support Vector Machine Model. Presented at the 96th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2017.
15. **Cong Chen**, Guohui Zhang*, Helai Huang, Jiangfeng Wang, and Rafiqul A. Tarefder. Identifying Significant Factors for Driver Injury Severities in Rural Non-Interstate Crashes: A Hierarchical Ordered Logit Analysis. Presented at the 96th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2017.
16. Yanyan Chen, **Cong Chen**, Qiong Wu, Jianming Ma, Guohui Zhang*, and John Milton. Urban Expressway Traffic Status Assessment Based on Floating Car Data Analysis. Presented at the 96th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2017.
17. **Cong Chen**, Qiong Wu, Guohui Zhang*, Rafiqul A. Tarefder, Zong Tian, and Panos D. Prevedouros. Bayesian Network-based Pedestrian/Bicyclist Behavioral Analysis Impacted by Age, Gender, Sobriety Heterogeneity in Non-Motorist-Involved Intersection-Related Crashes. Presented at the 10th UTC Spotlight Conference: Pedestrian and Bicycle Safety, Washington D.C., Dec. 2016.

18. **Cong Chen***. Data-Driven Bayesian Method-based Traffic Crash Driver Injury Severity Formulation, Analysis and Inference (Dissertation). Presented at the Doctoral Student Workshop in Transportation Safety at the 2016 Transportation Research Board (TRB) Annual Meeting, Washington, D.C., Jan. 2016.
19. **Cong Chen**, Guohui Zhang*, Zong Tian, Susan M. Bogus, and Yin Yang. Investigating Truck Driver Injury Severity Using a Hierarchical Bayesian Random Intercept Model with Cross-Level Interactions. Presented at the 95th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2016.
20. Sikai Xie, **Cong Chen**, Qiong Wu, Qi Lu, Su Zhang, Kelly R. Montoya, Guohui Zhang*, and Yin Yang. 3D Pavement Surface Reconstruction and Cracking Detection Based on Kinect Fusion Techniques. Presented at the 95th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2016.
21. Stephen Lujan, **Cong Chen**, Guohui Zhang*, Rafiqul A. Tarefder, Timothy Parker, and Francisco Sanchez. Enhancing Safety Performance of Rumble Strips through the Use of Reflective Striping: An Empirical Study on U.S. 285 in New Mexico. Presented at the 95th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2016.
22. Qiong Wu, Guohui Zhang*, **Cong Chen**, Haizhong Wang, and Adélar "Dely" Alcántara. Heterogeneous Analysis of Gender on Driver Injury Severities in Single-Vehicle Rollover Crashes. Presented at the 95th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2016.
23. **Cong Chen**, Qiong Wu, Rafiqul A. Tarefder, Timothy Parker, Francisco Sanchez, and Guohui Zhang*. Safety Performance Evaluation of Rumble Stripes with Elements: An Empirical Study on U.S. 285 in New Mexico. Presented at the 53rd Paving and Transportation Conference, Albuquerque, New Mexico, Jan. 2016.
24. Qiong Wu, Cheng Wang, **Cong Chen**, and Guohui Zhang*. Developing a VISSIM-Based Simulation Platform for Connected Autonomous Vehicle Control Optimization at Intersections. Presented at the UTC Spotlight Conference, Washington, D.C., Nov. 2015.
25. **Cong Chen**, Guohui Zhang*, Hua Wang, Peter J. Jin, and C. Michael Walton. Examining Toll Road Utilization Supported by Traffic Information Provision Using a Nest-logit-based Bayesian Network Approach. Presented at the 94th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2015.
26. **Cong Chen**, Guohui Zhang*, Jinfu Yang, John C. Milton, Adélar "Dely" Alcántara. Prediction of Driver Injury Severity in Rear-end Crashes: A Decision Table/Naïve Bayes (DTNB) Classification Approach. Presented at the 94th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2015.
27. **Cong Chen**, Guohui Zhang*, Helai Huang, Jianming Ma, Yanyan Chen, and Hongzhi Guan. Examining Driver Injury Severity on Rural Interstate Highways Using a Hierarchical Bayesian Approach. Presented at the 94th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2015.
28. **Cong Chen**, Qiong Wu, Guohui Zhang*, Jianming Ma, Heng Wei, and Hongzhi Guan. Rear-end Crash Casualty Severity Analysis using Multinomial Logit Model and Bayesian Network. Presented at the 93rd Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2014.

29. Qiong Wu, **Cong Chen** and Guohui Zhang*. Formulating Alcohol-Impaired Driver Injury Severities in Intersection-Related Crashes in New Mexico. Presented at the 51st Paving and Transportation Conference, Albuquerque, New Mexico, Jan. 2014.
30. **Cong Chen**, Su Zhang, Guohui Zhang*, Susan M. Bogus, and Vanessa Valentin. Analysis of Pavement Surface Distress Condition on Major Corridors in New Mexico. Presented at the 92nd Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2013.
31. Su Zhang, Susan M. Bogus, Paul Neville*, Guohui Zhang, **Cong Chen**, and Vanessa Valentin. Aerial Photography-based Pavement Surface Distress Detection and Assessment. Presented at the 92nd Annual Meeting of Transportation Research Board, Washington, D.C., Jan. 2013.
32. **Cong Chen**, David Barboza, Susan M. Bogus, Guohui Zhang*, and Vanessa Valentin. Pavement Distress Condition Data Collection, Process, Analysis, and Interpretation on Major Corridors in New Mexico. Presented at the 50th Paving and Transportation Conference, Albuquerque, New Mexico, Jan. 2013.
33. **Cong Chen** and Xiaodong Pan*. Determining the Sight-Insufficient Locations in Tunnel Entrances: Based on a Driving Visibility Experimental Study in Zhejiang Province, China. Accepted for presentation at the 91st Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2012.

3. TEACHING SERVICE AND PROFESSIONAL ACTIVITIES

TEACHING EXPERIENCE

- Fall 2012 CE 372 Principles of Construction, University of New Mexico
- Fall 2015 CE 382 Transportation Engineering, University of New Mexico
- Spring 2019 TTE4005 Transportation Engineering II, University of South Florida

ACTIVE MEMBERSHIP

- Younger Member, ASCE Transportation & Development Institute (T&DI) Board of Governors
- Member, TRB Standing Committee on Highway Safety Performance (ANB25)
- Member, TRB Standing Committee on Safety Data, Analysis and Evaluation (ANB20)
- Member, Tampa Bay Institute of Transportation Engineers (ITE)

EDITORIAL BOARD SERVICE AND OTHER BOARD SERVICE

- Editorial Board Member for the Annals of Civil and Environmental Engineering
- Steering Committee and Young Member Committee Chair, ASCE's International Conference on Transportation & Development 2020 (ICTD 2020, Seattle, VA, May 26-29, 2020)
- Steering Committee and Young Member Committee Chair, ASCE's International Conference on Transportation & Development 2019 (ICTD 2019, Alexandria, VA, June 9-12, 2019)
- Co-presiding Chair, Traffic Simulation and Network Control Session, 1st World Transport Convention, 2018 (Beijing, China)

- Co-chair, Technical Committee on Road Operations and Management, Smart Road Section, Highway Engineering Division, World Transport Convention (Term: August 2017-August 2019, Beijing, China)
- Publicity Co-chair (North America Region), The 5th International Conference on Information and Communication Technologies for Disaster Management (Sendai, Japan, 2018)

EXTRACURRICULAR ACTIVITIES

- January 2015-December 2015 Vice President of New Mexico ITE Student Chapter
- 2016 Lecturer at the University of Hawaii Engineering Day, Honolulu, Hawaii
- 2016 Volunteer at the 53rd Paving and Transportation Conference, Albuquerque, New Mexico
- 2015 Lecturer at Transportation Session in UNM Civil Engineering Open House
- 2015 Volunteer at the 52nd Paving and Transportation Conference, Albuquerque, New Mexico
- 2014 Lecturer at Transportation Session in UNM Civil Engineering Open House
- 2014 Volunteer at the 51st Paving and Transportation Conference, Albuquerque, New Mexico
- 2013 Lecturer of UNM Civil Engineering Brycon Career Expo Day
- 2013 Lecturer at Transportation Session in UNM Civil Engineering Open House
- 2013 Volunteer at 50th Paving and Transportation Conference, Albuquerque, New Mexico
- 2012 Lecturer on UNM Civil Engineering Brycon Career Expo Day
- 2012 Lecturer at Transportation Session in UNM Civil Engineering Open House

HONORS AND AWARDS

- Nov. 2019 **Keith Crawford Young Transportation Professional of the Year**, awarded by Tampa Bay Institute of Transportation Engineers (TBITE)
- Jan. 2018 **2017 Outstanding Postdoc Award**, awarded by USF Center for Urban Transportation Research ITS Traffic Operations and Safety Program
- Dec. 2015 **Doctoral Dissertation Defense Passed with Distinction**, awarded by UNM Civil Engineering Department
- Nov. 2015 **Research Travel Grant** (\$500), awarded by UNM Civil Engineering Department
- Feb. 2015 **Doctoral Conference Presentation Award** (\$1000), awarded by UNM Office of Graduate Studies
- Nov. 2014 **Research Travel Grant** (\$500), awarded by UNM Civil Engineering Department
- Mar. 2014 **Student Conference Award Program** (\$600), awarded by UNM Career Service
- Mar. 2014 **Graduate Research and Travel Grant** (\$530), awarded by Office of Graduate Studies, UNM
- Mar. 2013 **Student Conference Award Program** (\$600), awarded by UNM Career Service
- Mar. 2013 **Graduate Research and Travel Grant** (\$700), awarded by Office of Graduate Studies, UNM

PEER-REVIEW EXPERIENCE

- Accident Analysis & Prevention
- Transportation Research Part C: Emerging Technologies
- Traffic Injury Prevention
- Safety Science

- Journal of Transport Geography
- Journal of Traffic and Transportation Engineering (English Edition)
- Journal of Transportation Safety & Security
- ASCE-Journal of Computing in Civil Engineering
- ASCE-Journal of Transportation Engineering
- Chinese Journal of Traumatology
- Case Studies on Transport Policy
- PLOS ONE
- The TRB Annual Meeting (2016, 2017, 2018, 2019, 2020) and Transportation Research Record
- The 2016 IEEE Intelligent Transportation Systems Society Conference
- COTA International Conference for Transportation Professionals (CICTP) (2015, 2016)
- Managing Fatigue 2017 Conference