

Cong Chen, Ph.D., P.E., M.ASCE

Research Associate

Manager, Florida Local Technical Assistance Program (LTAP)

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1. PERSONAL DATA

RESEARCH AREAS

- Transportation Safety
- Advanced Statistical Model Development
- Pedestrian and Bicycle Safety
- Big Data Analysis
- Traffic Congestion and Operation Efficiency
- Connected and Automated Vehicles
- Smart Cities and Intelligent Transportation Systems
- 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

- Florida Board of Professional Engineers (License No.: 88588), December 2019, Active

2. PROJECT EXPERIENCE, RESEARCH PUBLICATIONS AND PRESENTATIONS

SUPERVISED PROJECTS

- Pedestrian and Bicycle Crash Typing and Analysis, Funded by Florida Department of Transportation (**Principal Investigator**, \$185,876, May 2020-September 2022)
- 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)
- Operations of Sunshine Skyway Bridge in High Wind Conditions, Funded by Florida Department of Transportation (**Co-Principal Investigator**, \$30,000, May 2020-October 2020)
- NCHRP 03-135 Wrong-Way Driving Solutions, Policy, and Guidance, Funded by Auburn University (**Co-Principal Investigator**, \$40,000, July 2019-September December 2021)
- 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)
- Florida Local Technical Assistance Program, Funded by Federal Highway Administration and Florida Department of Transportation (**Co-Principal Investigator**, \$600,000, July 2018-September 2020)
- 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. **Implications of Accessible Automated Vehicles and Mobility Services for People with Disabilities** (Sponsoring Agency: U.S. Department of Transportation, Total Proposed Budget: \$324,678, Project Duration: 18 months, Leading Institution: Oregon State University, Role: Co-Principal Investigator)
2. **Pedestrian and Bicycle Crash Typing and Analysis, Funded by Florida Department of Transportation** (Sponsoring Agency: Florida Department of Transportation, Total Proposed Budget: \$185,876, Project Duration: 29 months, Leading Institution: USF Center for Urban Transportation Research, Role: Principal Investigator)
3. **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)
4. **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)
5. **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)
6. **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)
7. **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)
8. **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)
9. **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)
10. **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)

11. **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)
12. **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)
13. **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)
14. **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)
15. **MPO and SHSO Coordination on Behavioral Traffic Safety** (Sponsoring Agency: Behavioral Traffic Safety Cooperative Research Program, BTSCR P 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)

PEER-REVIEWED JOURNAL PUBLICATIONS (* indicates corresponding author)

1. Yanyan Chen, **Cong Chen**, Qiong Wu, Jianming Ma, Guohui Zhang*, and John Milton. Spatial-Temporal Traffic Congestion Identification and Correlation Extraction Using Floating Car Data. *Journal of Intelligent Transportation Systems: Technology, Planning, and Operations*, 2020, pp.1-18. <https://doi.org/10.1080/15472450.2020.1790364>
2. 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>
3. 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>
4. Zhenning Li, Qiong Wu, Hao Yu, **Cong Chen**, Guohui Zhang*, Zong Z. Tian, Panos D. Prevedorou. 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>
5. 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>

6. 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>
7. Zhenning Li, Yusheng Ci, **Cong Chen**, Guohui Zhang*, Qiong Wu, Zhen(Sean) Qian, Panos D. Prevedouros, 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>
8. Zhenning Li, **Cong Chen**, Qiong Wu, Guohui Zhang*, Cathy Liu, Panos D Prevedouros, 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>
9. 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>
10. 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>
11. 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>
12. 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>.
13. 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>
14. **Cong Chen**, Qiong Wu, Guohui Zhang*, Xiaoyue Cathy Liu, and Panos D. Prevedouros. 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>
15. **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*, Volume 22, Issue 4, 2018, pp.311-324. <https://doi.org/10.1080/15472450.2017.1350921>

16. **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>
17. **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>
18. 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>
19. **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>
20. **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>
21. **Cong Chen**, Guohui Zhang*, Xiaolei Ma, and Yinhai Wang. Big data analysis and knowledge discovery for smart city development enhancement. *Big Data Research*, Issue 3, 2016, pp.39-47.(Chinese Edition)
22. 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>
23. **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>
24. **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>
25. **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>
26. **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>

27. 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).
28. 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).
29. 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. Rakesh Rangaswamy, Elzbieta Bialkowska-Jelinska, **Cong Chen***, Pei-Sung Lin, and Athanasios Theofilatos. Comparison of Non-Motorist Injury Severities in Rural and Urban Areas in Florida. Presented at the 99th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2020.
2. Nikhil Menon*, Pei-Sung Lin, Rakesh Rangaswamy, Achilleas Kourtellis, **Cong Chen**, and Robert L. Bertini. A Statistical Analysis of Public Opinions from a Low-Speed Automated Shuttle Demonstration. Presented at the 99th Transportation Research Board Annual Meeting, Washington, D.C., Jan. 2020.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.

9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. **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.
17. **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.
18. 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.
19. **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.

20. **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.
21. **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.
22. 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.
23. 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.
24. 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.
25. **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.
26. 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.
27. **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.
28. **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.
29. **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.
30. **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.

31. 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.
32. **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.
33. 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.
34. **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.
35. **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. PROFESSIONAL SERVICES

ACTIVE MEMBERSHIP

- Panel Member, NCHRP 17-71A: Proposed AASHTO Highway Safety Manual, Second Edition
- Member, TRB Standing Committee on Safety Performance Analysis (ACS20)
- Younger Member, ASCE Transportation & Development Institute (T&DI) Board of Governors
- Chair, ASCE T&DI Younger Member Committee
- Corresponding Member, ASCE Committee on Student Conferences and Competitions
- 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)

HONORS AND AWARDS

- Nov.2019 **Keith Crawford Young Transportation Professional of the Year**, awarded by Tampa Bay Institute of Transportation Engineers (TBITE)