

## Subasish Das, Ph.D.

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## EDUCATION

- Ph.D. Systems Engineering (Civil Engineering Focus), University of Louisiana at Lafayette, LA (2015)  
Dissertation: *"Effectiveness of Inexpensive Crash Countermeasures to Improve Traffic Safety"*
- M.S. Mathematics (Major in Statistics), University of Louisiana at Lafayette, Lafayette, LA (2015)  
(completed required 36 semester hour course works)
- M.S. Civil Engineering, University of Louisiana at Lafayette, Lafayette, LA (2012)  
Thesis: *"Evaluating Safety Improvement from Edge Lines on Rural Two-lane Highways"*
- B.Sc. Civil Engineering, Bangladesh University of Engineering & technology, Dhaka (2007)  
Thesis: *"Scope of Intelligent Transportation Systems in the Developing Countries"*

## EXPERIENCE

- 2021- TTI Associate Research Scientist, Texas A&M Transportation Institute, College Station, TX
- 2021- Graduate Committee Faculty, Texas A&M University, College Station, TX
- 2020-2021 TTI Assistant Research Scientist, Texas A&M Transportation Institute, College Station, TX
- 2015-2020 Associate Transportation Researcher, Texas A&M Transportation Institute, College Station, TX
- 2014-2015 Research Associate, University of Louisiana at Lafayette, LA
- 2013-2014 Teaching Assistant, University of Louisiana at Lafayette, LA
- 2010-2012 Research Assistant, University of Louisiana at Lafayette, LA
- 2008-2009 Quantity Surveyor, Hennessey LLC, Dubai, U.A. E.
- 2007-2008 Project Engineer, Mak Estate Developments, Dhaka, Bangladesh

## AWARDS

- 2018 Texas A&M Transportation Institute (TTI) Young Researcher Award
- 2017 Best of Urban Street Symposium Award: TRB 5th Urban Street Symposium
- 2016 Atlas/TTI Competitive Research Program Award
- 2015 Eno Leadership Development Fellow
- 2015 Gulf Region ITS (GRITS) Scholarship
- 2015 Best Paper Award (2nd Place) in University of Louisiana Graduate Research STEM Core
- 2015 Data Incubator Data Science Fellowship Semi-finalist
- 2014 2014 SASHTO Outstanding Graduate Research Award
- 2014 2014 AASHTO High Value Research Sweet Sixteen Award
- 2013 2013 Gulf Region ITS (GRITS) Scholarship First Place Award
- 2012 Travel award for 9th Postgraduate Academic Forum of Beihang University, China
- 2012 University of Louisiana Engineering Designing Leader
- 2011-2014 Deep South Institute of Transportation Engineers Scholarship

## LICENSES/CERTIFICATES

- 2016 Reasoning, Data Analysis, and Writing Specialization Certificate, Duke University
- 2014 Data Science Specialization Certificate, John Hopkins University

## PROFESSIONAL SERVICE ACTIVITIES

- 2019-2020 Member, Association of Pedestrian and Bicycle Professionals (APBP)
- 2015-2016 Vice Chair for Membership, Young Professionals in Transportation (YPT) Houston Chapter
- 2014- Member, Gulf Region Intelligent Transportation Society
- 2012- Associate Member, American Society of Civil Engineers (ASCE)
- 2011- Member, Institute of Transportation Engineers (ITE)

## COMMITTEE MEMBERSHIPS

**Transportation Research Board**

2021-2023	Panel Member, ACRP 11-03/Topic S03-16: State Aviation Funding: Project Prioritization and Selection Processes
2021-2023	Panel Member, NCHRP 08-141: Guidance for Local Truck Parking Regulations
2020-2023	Member, Information and Knowledge Management (AJE45)
2020-2023	Member, Artificial Intelligence and Advanced Computing Applications (AED50)
2019-2021	Member, Impairment in Transportation (ACS50)
2016-2020	Member, Library and Information Science for Transportation (ABG40)
2019-2021	Member, Data-Driven Safety Analysis (DDSA) Sub-committee
2019-2021	Panel Member, NCHRP 23-03: Targeted Guidance and Information Support to State DOT CEOs on Cybersecurity Issues and Protection Strategies
2018-2021	Panel Member, NCHRP 08-120: Initiating the Systems Engineering Process for Rural Connected Vehicle Corridors

## SERVICE

- Editor, *IATSS Research*, Elsevier.
- Handling Editor, *Transportation Research Record: Journal of the Transportation Research Board*, Sage Journals.
- Academic Editor, *PLOS One*
- Associate Editor, *Frontiers in Future Transportation*
- Area Editor (Highway Safety & Crash Data Analysis), *Journal of Transportation Safety & Security*, Taylor & Francis.
- Editorial Board Member, *Transportation Research Interdisciplinary Perspectives*, Elsevier.
- Committee Member, The 7th International Conference on Geology Resource Management and Sustainable Development (ICGRMSD2019), December 28-29, 2019, Beijing, China
- Reviewer: *Accident Analysis and Prevention*; *Nature Energy*; *Transportation Research Part C: Emerging Technologies*; *Journal of Safety Research*; *Cities*; *Transportmetrica A: Transportation Science*.
- Treasurer, ITE Student Chapter, University of Louisiana at Lafayette

## RESEARCH PROJECTS (As PI/Co-PI) [As PI: \$2.1 million; As Co-PI=\$2.0 million]

2022-2024	<b>(PI)</b> Develop a Real-Time Decision Support Tool for Urban Roadway Safety Improvements. TxDOT Project. (\$470,000.00) [with Texas Southern University. Budget: \$25,000]
2022-2024	<b>(PI)</b> Developing SPFs for Arizona. ADOT Project. (\$400,000.00)
2022-2024	<b>(Co-PI)</b> Using Vehicle Probe Data to Evaluate Speed Limits on Texas Highways. TxDOT Project. (\$400,000.00)
2021-2023	<b>(PI)</b> Developing AI-driven Safe Navigation Tool. SafeD UTC. (\$330,000.00)
2021-2023	<b>(PI)</b> Leveraging Artificial Intelligence (AI) Techniques to Detect, Forecast, and Manage Freeway Congestion (\$310,000.00) [with Texas Southern University. Budget: \$25,000]
2020-2022	<b>(PI)</b> Autonomous Delivery Vehicle as a Disruptive Technology: How to Shape the Future with a Focus on Safety? SafeD UTC. (\$2,300,000.00 [Matching fund: \$2,000,000.00])
2019-2023	<b>(PI)</b> Safety Enhancements at Short-Storage-Space Railroad Crossings, Michigan DOT Project. (\$110,000.00)
2020-2021	<b>(PI) TCRP Synthesis SB-33:</b> Uses of Social Media in Public Transportation. National Academies (\$45,000.00).
2019-2021	<b>(PI)</b> Develop a Real-Time Decision Support Tool for Rural Roadway Safety Improvements. TxDOT Project. (\$300,000.00)
2019-2021	<b>(PI)</b> Develop Speed Crash Modification Factors (CMFs) from SHRP-2 Data. FHWA Project. (\$189,891.00)
2019-2021	<b>(Co-PI)</b> Use of Disruptive Technologies to Support Safety Analysis and Meet New Federal Requirements, SafeD UTC. (\$1,601,000.00 [Matching fund from StreetLight Data: \$1,425,000.00])
2019	<b>(PI)</b> Innovative Data Sources for Real-time Crash Prediction. SafeD UTC Project. (\$20,000.00).
2019-2020	<b>(Co-PI) NCHRP 20-07 (Task 384):</b> Core Competencies for Key Safety Training. National Academies Project. <i>Role: Co-Principal Investigator</i> (\$75,000.00).
2018-2019	<b>(PI)</b> Transportation Safety Planning Noteworthy Practices. FHWA Project. (\$30,000.00)
2018-2019	<b>(PI)</b> Rural Speed Safety Project for USDOT Safety Data Initiative. FHWA Project. (\$240,000.00).
2018-2020	<b>(Co-PI)</b> Louisiana's Alcohol-Impaired Driving Problem: An Analysis of Crash and Cultural Factors. LADOTD Project. (\$175,000.00).

- 2017-2019 **(Co-PI) NCHRP 14-40:** Comparison of Cost, Safety, and Environmental Benefits of Routine Mowing and Managed Succession of Roadside Vegetation. National Academies Project. (\$300,000.00).
- 2016 **(PI)** Safety Impacts of Reduced Visibility in Inclement Weather. Atlas TTI Competitive Research Project; (\$44,000.00).
- 2016 **(PI)** Improper Passing-Related Crashes on Rural Roadways. TTI Strategic Research Project; (\$21,000.00).
- 2016 **(Co-PI)** Urban Roadway Fatality Analysis. TTI Research Project; (\$30,000.00).
- 2015 **(Co-PI)** User Sentiment Analysis with Louisiana Social Media Data for Better and Effective Crash Countermeasures. LTRC TIRE Project; (\$30,000.00).

#### Key Researcher

- 48 2021-2023 **NCHRP 07-30:** Methods for Assigning Short-Duration Traffic Volume Counts to Adjustment Factor Groups for Estimating AADT
- 47 2021-2022 **NCHRP 17-71A:** Proposed AASHTO Highway Safety Manual, Second Edition, National Academies.
- 46 2020-2023 **NCHRP 15-76:** Designing for Target Speed, National Academies.
- 45 2020-2022 Develop Highway Safety Manual (HSM) Safety Performance Functions (SPFs) and Calibration Factors for Texas, TxDOT Project.
- 44 2019-2022 Enhancing Freeway Safety Prediction Models. TxDOT Project.
- 43 2019-2022 Improving and Communicating Speed Management Practices. TxDOT Project.
- 42 2019-2022 Quantifying the value of Right of Way. TxDOT Project.
- 41 2019-2022 Implementation of Automated Traffic Signal Performance Measures. TxDOT Project.
- 40 2019-2022 Examine Trade-off between Centerline Separation and Shoulder Width Allotment. TxDOT Project.
- 39 2019-2022 **NCHRP 03-134:** Determination of Encroachment Conditions in Work Zones
- 38 2019-2024 **NCHRP 17-92:** Developing Safety Performance Functions for Rural Two-Lane Highways that Incorporate Speed Measures.
- 37 2019-2023 ELCSI-PFS, Phase XI, Safety Evaluations of Mini-Roundabouts and Wrong Way Driving Improvements, FHWA.
- 36 2019 Using Machine Learning Tools to Identify Pedestrian Crash Types. TTI
- 35 2019 Winter-Related Performance Analysis, PennDOT
- 34 2019-2022 **NCHRP 06-18:** Guide for Snow and Ice Control Operations
- 33 2019-2022 Transportation Pooled Fund Study # TPF-5(361): SHRP2 Naturalistic Driving Study Pooled Fund: Advancing Implementable Solutions
- 32 2019-2023 Pre-Crash Modification Factors Study for Curb Extensions and Bicycle Specific Intersection Markings, FHWA
- 31 2018-2020 Traffic Safety Improvements at Low Water Crossings, TxDOT.
- 30 2018-2020 Evaluation of Roadside Treatments to Mitigate Roadway Departure Crashes, TxDOT.
- 29 2018-2021 Development of Pedestrian Intersection Crash Modification Factors, FHWA project.
- 28 2018-2020 **NCHRP 05-24:** Guidelines for Vehicle and Equipment Color, Marking, and Lighting.
- 27 2018-2020 **NCHRP 14-41:** Permanent Vegetation Control Treatments for Roadsides.
- 26 2018 Evaluation of Bicycle and Pedestrian Monitoring Equipment to Establish Collection Database/Methodologies for Estimating Non-Motorized Transportation. TxDOT project.
- 25 2017-2019 Collection and Estimation of Annual Average Daily Traffic (AADT) on Lower-Volume Roads. FHWA Project.
- 24 2017-2019 A Data-Driven Safety Analysis Framework for the Beaumont District. TxDOT project.
- 23 2017-2019 Identifying Infrastructure-Based Motorcycle Crash Countermeasures – Phase I. FHWA project.
- 22 2017-2019 Evaluation of Safety Improvement Projects and Countermeasures. TxDOT project.
- 21 2017-2019 Knowledge Extraction using Natural Language Processing from Farm Equipment related Crash Narratives. NIOSH project.
- 20 2017-2019 Development of Crash Modification Factors for Different Separated Bike Lane (SBL) Configurations. FHWA project.
- 19 2017-2019 CV Pilot Deployment and Program Evaluation– Planning for SMEE Assessment of Smart Columbus Program. FHWA project.
- 18 2017-2018 Influences on Bicyclists and Motor Vehicle Operating Speed within a Corridor. UTC Project.
- 17 2017 Measuring Automated Vehicle Safety. TTI project
- 16 2017 Transit Automation Tech Reviews. Volpe.

- 15 2016-2020 Field Evaluation of At-Grade Alternative Intersection Designs. FHWA project.
- 14 2016-2019 Technical Support for Focus Approach to Roadway Departure (RwD) Safety. FHWA project.
- 13 2016-2019 Pedestrian and Bike Scalable Risk Assessment Methodology (ScRAM). FHWA project.
- 12 2016-2018 **NCHRP 17-76**: Guidance for the Setting of Speed Limits.
- 11 2016-2018 **NCHRP 17-71**: Proposed AASHTO Highway Safety Manual, Second Edition.
- 10 2016 Safety Performance of Truck Lane Restrictions in Dallas-Fort Worth. TTI Research project.
- 9 2016 Analysis of the Shoulder Widening need on the State Highway System. TxDOT project.
- 8 2016 Is Age a Factor in Crashes at Channelized Right-Turn Lanes? An Exploration of Potential Relationships. Atlas Research project.
- 7 2015 User Sentiment Analysis with Louisiana Social Media Data for Better and Effective Crash Countermeasures. LTRC 2014 TIRE Award project.
- 6 2015 Developing a method for estimating AADT on all Louisiana roads. Louisiana DOT project.
- 5 2013-2014 A Comprehensive Study on Pavement Edge Line Implementation. Louisiana DOT project.
- 4 2012 Safety Improvement from Edge Lines on Rural Two-Lane Highways. Louisiana DOT project.
- 3 2012 Developing Inexpensive Crash Countermeasures for Louisiana Local Roads. Louisiana DOT project.
- 2 2011 Mining Potentially Interesting Positive and Negative Association Patterns from Traffic Safety Data. LTRC 2011 TIRE Award project.

## PUBLICATIONS

### Research Reports

- 29 2022 Dixon, K. NCHRP Report 995: Opposite Direction Crashes. National Academies.
- 28 2022 **Das, S.,** N. Trisha, I. Sener, and M. Walk. TCRP Synthesis 156: Uses of Social Media in Public Transportation. National Academies.
- 27 2022 **Das, S.,** K. Fitzpatrick, L. Wu, Z. Wei, I. Tsapakis, S. Paal, S. Geedipally, and E. Park. Develop a Real-Time Decision Support Tool for Rural Roadway Safety Improvements. TxDOT Project. Final Report.
- 26 2022 Geedipally, S., M. Brewer, R. Wunderlich, M. P. Pratt, L. Wu, **S. Das,** and D. Florence. Examine Trade-Offs between Center Separation and Shoulder Width Allotment for a Given Roadway Width. TxDOT Project Report.
- 25 2021 I. Tsapakis, W. Holik, S. Das, E. Kraus, and P. Anderson. Informational Guide on Data Collection and Annual Average Daily Traffic (AADT) Estimation for Non-Federal Aid-System (NFAS) Roads
- 24 2021 C. Dobrovolsky, K. Balke, R. Bligh, S. Hurlebaus, S. Shi, A. Pike, **S. Das,** H. Charara, and C. Mott. Evaluation of Traffic Safety Improvements at Low Water Crossings. TxDOT Project Report.
- 23 2021 Dixon, K., **S. Das,** and I. Potts. National Cooperative Highway Research Program (NCHRP) 20-07 (384): Core Competencies for Key Safety Analysis. National Academies.
- 22 2021 Fitzpatrick, K., R. Avelar, M. Pratt, **S. Das,** and D. Lord. Crash Modification Factor for Corner Radius, Right-Turn Speed, and Prediction of Pedestrian Crashes at Signalized Intersections. FHWA Report.
- 21 2020 Fitzpatrick, K., **S. Das,** T. J. Gates, E. S. Park, M. P. Pratt, K.K. Dixon, J. Kay, M. Chakraborty. Development of the Posted Speed Limit Setting Procedure and Tool, Web-Only **NCHRP 17-76 Report**.
- 20 2020 McFalls, J., B. Storey, S. Das, and J. Haberman. Permanent Vegetation Control Treatments for Roadsides. Web-Only **NCHRP 14-41 Report** (in press).
- 20 2020 Dixon, K., S. Geedipally, E. Park, R. Srinivasan, B. Lan, M. Brewer, **S. Das,** L. Wu, C. Zegeer, and E. Rista. Guidance for Selection of Appropriate Countermeasures for Opposite Direction Crashes. **NCHRP 17-66 Report**.
- 19 2020 Avelar, R., S. Geedipally, **S. Das,** L. Wu, and B. Kutela. Evaluation of Roadside Treatments to Mitigate Roadway Departure Crashes, TxDOT Report.
- 18 2020 **Das, S.,** R. Avelar, S. Geedipally, L. Wu, D. Lord, and M. Banihashemi. Rural Speed Safety Project for USDOT Safety Data Initiative (SDI), USDOT Report.
- 17 2019 Tsapakis, I., S. Sharma, S. Geedipally, B. Dadashova, and **S. Das.** Evaluation of Highway Safety Improvement Projects and Countermeasures. TxDOT Report.
- 16 2018 Turner, S., .... **S. Das,** .... Guide for Scalable Risk Assessment Methods for Pedestrians and Bicyclists. FHWA Report.
- 15 2018 Turner, S., B. Dadashova, G. Griffin, and **S. Das.** Improving the Amount and Availability of Pedestrian and Bicyclist Count Data in Texas. TxDOT Report.
- 14 2018 Fitzpatrick, K., and S. Das. Influences on Bicyclists and Motor Vehicle Operating Speed within a Corridor. SafeD UTC Project Report.

- 13 2018 Pratt, M., S. Geedipally, **S. Das**, and D. Lord. Pavement Safety-based Guidelines for Horizontal Curve Safety. TxDOT Report.
- 12 2018 Mensar, M., Trueblood, A., Shipp, E., and **S. Das**. MCCA Data Analysis and Literature Review. FHWA Project Report.
- 11 2017 **Das, S.**, B. Brimley, and A. Pant. Safety Impacts of Reduced Visibility in Inclement Weather. Report No.: ATLAS-2017-19.
- 10 2017 Turner, S., .... **S. Das**, .... Synthesis of Methods for Estimating Pedestrian and Bicyclist Exposure to Risk at Area wide levels and on Specific Transportation Facilities. Publication No. FHWA-SA-17-041.
- 9 2017 Le, M., **S. Das**, and M. Pratt. Safety Performance of Truck Lane Restrictions in Dallas-Fort Worth. TTI. Report.
- 8 2017 Dixon, K., and S. Das. Measuring and Benchmarking Automated Vehicle Safety. TTI Report.
- 7 2016 Dixon, K., K. Fitzpatrick, R. Avelar, and **S. Das**. Analysis of the Shoulder Widening need on the State Highway System. Report No. 0-6840-1.
- 6 2016 Fitzpatrick, K., and **S. Das**. Is Age a Factor in Crashes at Channelized Right-Turn Lanes? An Exploration of Potential Relationships. Report No.: ATLAS-2016-14.
- 5 2015 Sun, X., **S. Das**, V. Ragbhan, and R. Benton. User Sentiment Analysis with Louisiana Social Media Data for Better and Effective Crash Countermeasures. Report No. 14-4TIRE.
- 4 2015 Sun, X., and **S. Das**. Developing a method for estimating AADT on all Louisiana roads. Report No. FHWA/LA.15/14-3SA.
- 3 2014 Sun, X., and **S. Das**. A Comprehensive Study on Pavement Edge Line Implementation. Report No. FHWA/LA.13/508. (2014 AASHTO High Value Research Sweet Sixteen Award)
- 2 2013 Sun, X., and **S. Das**. Developing Crash Modification Factor for Louisiana. Report No. FHWA/LA.12/506.
- 1 2011 Sun, X., and **S. Das**. Safety Improvement from Edge Lines on Rural Two-Lane Highways. Report No. FHWA/LA.11/487.

#### Book

- 2022 **Das, S.** *Artificial Intelligence in Highway Safety*. CRC Press, Boca Raton, FL.

#### Book Chapter

6. 2022 **Das, S.**, Chapter 10: Impact of COVID-19 on industries. COVID-19 and the Environment Impact, Concerns & Management, Elsevier (in press).
- 5 2020 **Das, S.**, S. Chatterjee, and S. Mitra. Improper Passing and Lane-Change related Crashes: Pattern Recognition using Association Rules Negative Binomial Mining. Springer.
- 4 2020 Dutta, A., and **S. Das**. Tweets about Self Driving Cars: Deep Sentiment Analysis using Long Short-Term Memory network (LSTM). Springer.
- 3 2020 **Das, S.**, Dutta, A., Mudgal, A., and Datta, S. Non-fear-based Road Safety Campaign as a Community Service: Contexts from Social Media. Communication in Computer and Information Science. Conference Proceeding Book of 20th International Conference on Innovations for Community Services (I4CS), 12-14 January 2020, Bhubaneswar, India. Volume 717. Springer, Hessen, Germany.
- 2 2020 **Das, S.** Automobile Safety Inspection. *International Encyclopedia of Transportation*, Elsevier. Amsterdam, Netherlands.
- 1 2018 Jalayer, M, Zhou, H., and **S. Das**. Exploratory Analysis of Run-Off-Road Crash Patterns. *Data Analytics for Smart Cities*. CRC Press, Boca Raton, FL.

#### Peer Reviewed Journal Articles (\* indicates Student) [Google Scholar Citations: 1463; h-index=19; i10-index=40]

- 96 2022 Wei, Z.\*, **S. Das**, and Y. Zhang. Short Duration Crash Prediction for Rural Two-lane Roadways: Applying Explainable Artificial Intelligence. Transportation Research Record (in press).
- 95 2022 **Das, S.**, M. Le, K. Fitzpatrick, and D. Wu. Did Operating Speeds During COVID-19 Result in More Fatal and Injury Crashes on Urban Freeways? Transportation Research Record (in press).
- 94 2022 Khodadadi, A.\*, D. Lord, I. Tsapakis, A. Shirazi, and **S. Das**. Derivation of the Empirical Bayesian method for the Negative Binomial-Lindley generalized linear model: Application in various safety analyses. Accident Analysis & Prevention.
- 93 2022 Tamakloe, R., Park, D., and **S. Das**. Factors affecting motorcycle crash casualty severity at signalized and non-signalized intersections in Ghana: insights from a data mining and binary logit regression approach. Accident Analysis & Prevention.

- 92 2021 **Das, S.**, R. Tamakloe, H. Zubaidi, I. Obaid, and A. Alnedawi. Fatal pedestrian crashes at intersections: Trend mining using association rules. *Accident Analysis & Prevention*.
- 91 2021 Kutela, B., B. Dadashova, and **S. Das**. Mining patterns of autonomous vehicle crashes involving vulnerable road users to understand the associated factors. *Accident Analysis & Prevention*.
- 90 2021 Kong, X. \*, **S. Das**, H. Zhou, and Y. Zhang. Patterns of near-crash events in a naturalistic driving dataset: applying rules mining. *Accident Analysis & Prevention*.
- 89 2021 **Das, S.**, A. Dutta, and M. Rahman. Pattern recognition from light delivery vehicle crash characteristics. *Journal of Transportation Safety & Security*.
- 88 2021 **Das, S.**, K. Dey, and M. Rahman. Pattern Recognition from Cyclist Under Influence (CUI) Crash Events. *Journal of Substance Use*.
- 87 2021 Kong, X. \*, **S. Das**, and Y. Zhang. Mining patterns of near-crash events with and without secondary tasks. *Accident Analysis & Prevention*.
- 86 2021 Das, S. Autonomous Vehicle Safety: Understanding Perceptions of Pedestrians and Bicyclists. *Transportation Research Part F: Traffic Psychology and Behaviour*.
- 85 2021 Das, S., Z. Wei\*, X. Kong\*, and X. Xiao\*. Mining crowdsourced data on bicycle safety critical events. *Transportation Research Interdisciplinary Perspectives*.
- 84 2021 Zubaidi, H.\*, I. Obaid\*, A. Alnedawi, **S. Das**, and MM Haque. Temporal instability assessment of injury severities of motor vehicle drivers at give-way controlled unsignalized intersections: A random parameters approach with heterogeneity in means and variances. *Accident Analysis & Prevention*.
- 83 2021 Kong, X. \*, **S. Das**, H. Zhou, and Y. Zhang. Lessons learned from pedestrian-driver communication and yielding patterns. *Transportation Research Part F: Traffic Psychology and Behaviour*.
- 82 2021 Khodadadi, A. \*, I. Tsapakis, **S. Das**, and D. Lord. Application of Different Negative Binomial Parameterizations to Develop Safety Performance Function for Non-Federal Aid System Roads. *Accident Analysis & Prevention*.
- 81 2021 Rahman, M. K. Dey, **S. Das**, and M. Sherfinski. Sharing the Road with Autonomous Vehicles: A Qualitative Analysis of the Perceptions of Pedestrians and Bicyclists. *Transportation Research Part F: Traffic Psychology and Behaviour*.
- 80 2021 **Das, S.**, and H. Zubaidi\*. City Transit Rider Tweets: Understanding Sentiments and Politeness. *Journal of Urban Technology*.
- 79 2021 Kong, X. \*, **S. Das**, H. Zhou, and Y. Zhang. Patterns of near-crash events in naturalistic driving dataset: applying rules mining. *Accident Analysis & Prevention*.
- 78 2021 Park, E., K. Fitzpatrick, **S. Das**, and R. Avelar. Exploration of the relationship among roadway characteristics, operating speed, and crashes for city streets using path analysis. *Accident Analysis & Prevention*.
- 77 2021 Zubaidi, H.\*, I. Obaid, I.\*, A. Alnedawi, and **S. Das**. Motor Vehicle Driver Injury Severity Analysis Utilizing A Random Parameter Binary Probit Model Considering Different Types of Driving Licenses in 4-Legs Roundabouts in South Australia. *Safety Science*.
- 76 2021 **Das, S.**, and H. Zubaidi\*. Last Forty Years of ITE Journal Articles: A Scientometric Overview. *ITE Journal Online Exclusive*.
- 75 2021 **Das, S.**, S. Datta\*, H. Zubaidi\*, and I. Obaid\*. Injury Severity Analysis from Crash Narratives of Tree and Utility Pole associated Crashes: An Interpretable Machine Learning Approach. *IATSS Research*.
- 74 2021 **Das, S.**, Mousavi, M.\*, and Shirinzad, M\*. Speeding Related Motorcycle Injuries: Findings from Cluster Correspondence Analysis. *Journal of Traffic Safety and Security*.
- 73 2021 **Das, S.**, X. Kong\*, S. Lavrenz, M. Jalayer, and L. Wu. Pattern Recognition from Rail Grade Crossing Fatal Crashes. *International Journal of Transportation Science and Technology*.
- 72 2021 Rahman, M., X. Sun, **S. Das**, and S. Khanal. Exploring the Influential Factors of Roadway Departure Crashes on Rural Two-Lane Highways with Logit Model and Association Rules Mining. *International Journal of Transportation Science and Technology*.
- 71 2021 **Das, S.**, I. Tsapakis, and A. Khodadadi\*. Safety Performance Functions for Low-Volume Rural Minor Collector Two-lane Roadways. *IATSS Research*.
- 70 2021 **Das, S.** An Exploratory Analysis of Unmanned Aircraft Sightings using Text Mining. *Transportation Research Record: Journal of the Transportation Research Board*.
- 69 2021 **Das, S.**, and Dutta, A. Twelve Years of Transportation Annual Meeting Hashtag: Implications for Networking and Research Trends. *Transportation Research Record: Journal of the Transportation Research Board*.

- 68 2021 **Das, S.**, X. Sun, B. Dadashova, M. Rahman, and M. Sun. Sun Glare and Traffic Crashes: Identifying Patterns of Key Factors. Transportation Research Record: Journal of the Transportation Research Board.
- 67 2021 **Das, S.**, Dutta, A., and Tsapakakis, I. Motorcycle Crash Causation Study: Exploratory Topic Models from Crash Narrative Reports. Transportation Research Record: Journal of the Transportation Research Board.
- 66 2021 **Das, S.**, and Dutta, A. Light Delivery Vehicles Crashes: Identifying Insights using Joint Dimension Reduction and Clustering. Transportation Research Record: Journal of the Transportation Research Board.
- 65 2021 **Das, S.** Fatal Crash Reporting in Media: A Case Study on Bangladesh. Transportation Research Record: Journal of the Transportation Research Board.
- 64 2021 Tsapakakis, I., **S. Das**, S. Jessberger, W. Holik, and P. Anderson. Improving Stratification Procedures to Estimate Annual Average Daily Traffic (AADT) for Non-Federal Aid-System (NFAS) Roads. Transportation Research Record: Journal of the Transportation Research Board.
- 63 2021 Fitzpatrick, K., **S. Das**, T. Gates, K. Dixon, and E. Park. Considering Roadway Context in Setting Posted Speed Limits. Transportation Research Record: Journal of the Transportation Research Board.
- 62 2020 Jalayer, M., M. Pour-Rouholamin, D. Patel, **S. Das**, and H. Parvardeh, H. A Penalized-likelihood Approach to Characterizing Bridge related Crashes in New Jersey. Traffic Injury Prevention.
- 61 2020 **Das, S.** Traffic Volume Prediction in Low-Volume Roadways: Cubist Approach. Transportation Planning and Technology.
- 60 2020 **Das, S.**, X.Sun, and M. Sun. Rule-based safety prediction models for rural two-lane run-off-road crashes. International Journal of Transportation Science and Technology.
- 59 2020 **Das, S.**, Dutta, A., Dey, K., Jalayer, M., and Mudgal, A. Single and Multiple Vehicle Crashes due to Hydroplaning: A Case Study of Interpretable Machine Learning. Transportation Research Interdisciplinary Perspectives (TRIP).
- 58 2020 **Das, S.**, and A. Dutta. Characterizing Public Emotions and Sentiments in COVID-19 Environment: A Case Study of India. Journal of Human Behavior in the Social Environment.
- 57 2020 Kong, X., **S. Das**, K. Jha, and Y. Zhang. Understanding Speeding Behavior from Naturalistic Driving Data: Applying Classification Based Association Mining. Accident Analysis and Prevention.
- 56 2020 **Das, S.**, A. Dutta, and K. Fitzpatrick. Technological Perception on Autonomous Vehicles: Perspectives of the Non-motorists. Technology Analysis & Strategic Management.
- 55 2020 **Das, S.** Identifying key patterns in motorcycle crashes: findings from taxicab correspondence analysis. Transportmetrica A: Transport Science.
- 54 2020 **Das, S.**, M. Le, and B. Dai. Application of Machine Learning Tools in Classifying Pedestrian Crash Types: A Case Study. Transportation Safety and Environment.
- 53 2020 **Das, S.**, S. Geedipally, and K. Fitzpatrick. Inclusion of Speed and Weather Measures in Safety Performance Functions for Rural Roadways. IATSS Research.
- 52 2020 **Das, S.**, S. Ashraf\*, L. Tran\*, and A. Dutta. Pedestrians Under Influence (PUI) Crashes: Patterns from Correspondence Regression Analysis. Journal of Safety Research.
- 51 2020 **Das, S.**, L. Tran\*, and M. Theel\*. Understanding Patterns in Marijuana Impaired Traffic Crashes: A Case Study. Journal of Substance Use.
- 50 2020 **Das, S.** A Short Review of Transportation Research Record Articles: Focusing on Authors, Co-authorships, and Research Trends. TR News. Nov-December Issue (*in press*).
- 49 2020 **Das, S.**, and S. Geedipally. Rural Speed Safety Project for USDOT Safety Data Initiative: Findings and Outcomes. ITE Journal. September Issue.
- 48 2020 **Das, S.**, and A. Dutta. Extremely serious crashes on urban roadway networks: Patterns and trends. IATSS Research.
- 47 2020 **Das, S.**, X. Sun, S. Goel\*, M. Sun, A. Rahman, and A. Dutta. Flooding related Traffic Crashes: Findings from Association Rules. Journal of Transportation Safety and Security.
- 46 2020 **Das, S.**, and L. White. RuralSpeedSafetyX: Interactive Decision Support Tool to Improve Safety, SoftwareX.
- 45 2020 Rahman, M., X. Sun, and **S. Das**. Reconfiguring Urban Undivided Four-Lane Highways to Five-Lane: An Unideal but Very Effective Solution for Crash Reduction. ASCE Journal of Transportation Engineering, Part A: Systems.
- 44 2020 **Das, S.**, and G. Griffin. Big Data and Transportation Safety: Connecting the Dots. Transportation Research Record: Journal of the Transportation Research Board.

- 43 2020 **Das, S.,** Dutta, A., Tsapakis, I. Automated vehicle collisions in California: Applying Bayesian latent class model. IATSS Research.
- 42 2020 **Das, S.,** Dutta, A., and Brewer, M. Transportation Research Record Articles: A Case Study of Trend Mining. Transportation Research Record: Journal of the Transportation Research Board.
- 41 2020 **Das, S.,** Islam, M., Dutta, A., and Shimu, T.\*. Uncovering Deep Structure of Determinants in Large Truck Fatal Crashes. Transportation Research Record: Journal of the Transportation Research Board.
- 40 2020 Geedipally, S., **Das, S.,** Pratt, M., and Lord D. Determining Skid Resistance Needs on Horizontal Curves for Different Levels of Precipitation. Transportation Research Record: Journal of the Transportation Research Board.
- 39 2020 Dadashova, B., G. Griffin, **S. Das,** S. Turner, and B. Sherman. Estimation of Average Annual Daily Bicycle Counts using Crowdsourced Strava Data. Transportation Research Record: Journal of the Transportation Research Board. (in press).
38. 2019 **Das, S., and I. Tsapakis.** Interpretable Machine Learning Approach in Estimating Traffic Volume on Low-Volume Roadways. International Journal of Transportation Science and Technology. Vol 9(1), pp. 76-88.
- 37 2019 **Das, S.,** and A. Bibeka\*. Understanding Crime and Demographic Influence on Non-motorized Trips: Macro-level Analysis. Journal of Human Behavior in the Social Environment.
- 36 2019 **Das, S.,** B. Storey, T. Shimu\*. S. Mitra, M. Theel\*. and B. Maraghepour\*. Severity Analysis of Tree and Utility Pole Crashes: Applying Fast and Frugal Heuristics. IATSS Research.
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- 34 2019 **Das, S.** #TRBAM: Influence of Twitter Hashtags. TR News, Nov-December Issue.
- 33 2019 **Das, S.,** L. Kyle, L. Wu, and R. Henk. Understanding Crash Potential Associated with Teen Driving: Survey Analysis using Multivariate Graphical Method. Journal of Safety Research.
- 32 2019 **Das, S.,** X. Kong\*. and I. Tsapakis. Hit and Run Crash Analysis using Association Rules Mining. Journal of Transportation Safety and Security.
- 31 2019 McCourt, R., K. Fitzpatrick, P. Koonce, and **S. Das.** Speed Limits: Leading to Change. ITE Journal, pp. 40-45.
- 30 2019 Jalayer, M., and **S. Das.** Application of Unmanned Aerial vehicle to Inspect and Inventory Interchange Assets to Mitigate Wrong-Way Entries. ITE Journal.
- 29 2019 **Das, S.,** A. Dutta, and X. Sun. Patterns of Rainy Weather Crashes: Applying Rules Mining. Journal of Transportation Safety and Security.
- 28 2019 **Das, S.,** M. Le, M. Pratt, and C. Morgan. Safety effectiveness of truck lane restrictions: a case study on Texas urban corridors. International Journal of Urban Sciences.
- 27 2019 Trueblood, A., E. Shipp, A. Pant, and **S. Das.** Farm Equipment Crash Narrative Analysis. Traffic Injury Prevention.
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- 24 2019 **Das, S.,** A. Dutta, T. Lindheimer, M. Jalayer, and Z Elgart. YouTube as a Source of Information in Understanding Autonomous Vehicle Consumers: A Natural Language Processing (NLP) Study. Transportation Research Record: Journal of the Transportation Research Board.
- 23 2019 Fitzpatrick, K., R. McCourt, and **S. Das.** Are Attitudes Changing with Respect to the Setting of Posted Speed Limits? Transportation Research Record: Journal of the Transportation Research Board.
- 22 2019 **Das, S.,** A. Bibeka\*. X. Sun, T. Zhou, and M. Jalayer. Aging Pedestrian Fatal Crash Related Contributing Factors: Applying Empirical Bayes Geometric Mean Method. Transportation Research Record: Journal of the Transportation Research Board.
- 21 2019 **Das, S.,** S. Geedipally, K. Dixon, X. Sun, and C. Ma\*. Measuring the Effectiveness of Vehicle Inspection Regulations in Different States of the U.S. Transportation Research Record: Journal of the Transportation Research Board.
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- 19 2018 **Das, S.,** A. Dutta, Kong, X.\* and Sun, X. Hit and Run Crashes: Knowledge Extraction from Bicycle Involved Crashes using First and Frugal Tree. International Journal of Transportation Science and Technology.



- 18 2018 **Das, S.**, A. Dutta, G. Medina, L. Minjares-Kyle, and Z. Elgart. Extracting patterns from Twitter to promote biking.
- 17 2018 **Das, S.**, A. Dutta, M. Jalayer, A. Bibeka\*, and L. Wu. Factors influencing the patterns of wrong-way driving crashes on freeway exit ramps and median crossovers: exploration using 'Eclat' association rules to promote safety. *International Journal of Transportation Science and Technology*, Vol. 7 Iss. 2, pp. 114-123.
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- 13 2018 **Das, S.**, X. Sun, K. Dixon, and A. Rahman. Safety Effectiveness of Roadway Conversion with a Two Way Left Turn Lane. *Journal of Traffic and Transportation Engineering*. Vol. 5, Iss. 5, pp. 309-317.
- 12 2017 **Das, S.**, B. Brimley, T. Lindheimer, and M. Zupancich\*. Association of Reduced Visibility with Crash Outcomes. *LATSS Research*. Vol. 42, Iss. 3, pp. 143-151.
- 11 2017 **Das, S.**, K. Dixon, X. Sun, A. Dutta, and M. Zupancich\*. Trends in Transportation Research: Exploring Content Analysis in Topics. *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2614, pp. 27-38.
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- 8 2015 **Das, S.**, and X. Sun. Factor Association with Multiple Correspondence Analysis in Vehicle-Pedestrian Crashes. *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2519, pp. 95-103.
- 7 2015 **Das, S.**, X. Sun, F. Wang, and C. Leboeuf. Estimating likelihood of future crashes for crash-prone drivers. *Journal of Traffic and Transportation Engineering*, Vol. 2 Iss. 3, pp. 145-157.
- 6 2015 Khattak, M., A. Khattab, H. Rizvi, **S. Das**, and M. Bhuyan. Imaged-based Discrete Element Modeling of Hot Mix Asphalt Mixtures. *Materials and Structures*, Vol. 48, Iss. 8, pp. 2417-2430.
- 5 2015 **Das, S.**, X. Sun, and A. Dutta. Investigating User Ridership Sentiments for Bike Sharing Programs. *Journal of Transportation Technologies*, Vol. 5, Iss.2, pp. 69-75.
- 4 2014 Sun, X., **S. Das**, Z. Zhang, F. Wang, and C. Leboeuf. Investigating Safety Impact of Edgelines on Narrow, Rural Two-Lane Highways by Empirical Bayes Method. *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2433, pp. 121-128.
- 3 2014 Sun, X., **S. Das**, and Y. He. Analyzing Crash-Prone Drivers in Multiple Crashes for Better Safety Educational and Enforcement Strategies. *Journal of Transportation Technologies*, Vol. 4, Iss.1, pp. 93-100.
- 2 2013 **Das, S.**, X. Sun, Y. He, F. Wang, and C. Leboeuf. Investigating the Safety Impact of Raised Pavement Markers on Freeways in Louisiana. *International Journal of Engineering Research & Innovation*, Vol. 5, Iss. 2, pp. 74-80.
- 1 2013 Sun, X., **S. Das**, N. Fruge, R. Bertinot, and D. Magri. Four-Lane to Five-Lane Urban Roadway Conversions for Safety. *Journal of Transportation Safety & Security*, Vol. 5, Iss. 2, pp. 106-117.

#### Peer Reviewed Computer Science Conference Proceeding Papers (\*indicates Student)

- 2 2020 Wang, R.\*, **S. Das**, and A. Mudgal. Patterns of Origin Destination Distributions: Rules Mining using Massive GPS Trajectory Data. Proceeding in the First International Conference on Urban Data Science, January 20-21, Madras, India.
- 1 2012 He, Y., X. Sun, L. Du, R. Jinmei, and **S. Das**. Level of service for parking facilities. 15th International IEEE Conference on Intelligent Transportation Systems, Anchorage, AK.

#### Peer Reviewed Transportation Engineering Conference Proceeding Papers (\*indicates Student)

- 73 2022 M. Rahman, **S. Das**, and X., Sun. Using Cluster Correspondence Analysis to Explore Rainy Weather Crashes in Louisiana. The 101st Transportation Research Board Annual Meeting, Washington D.C., Jan 9-13.

- 72 2022 Z. Wei\*, **S. Das**, and Y. Zhang. Apply Explainable Machine Learning Techniques in Daily Crash Occurrence and Severity Modeling for Rural Interstates. The 101st Transportation Research Board Annual Meeting, Washington D.C., Jan 9-13.
- 71 2022 R. Tamakloe, **S. Das**, and D. Park. Investigating Chains of Factors Influencing Motorcycle Crash Casualty Severity at Signalized and Non-Signalized Intersections in a Developing Country. The 101st Transportation Research Board Annual Meeting, Washington D.C., Jan 9-13.
- 70 2022 X. Kong\*, Z. Ziao\*, A. Zhang, **S. Das**, and Y. Zhang. In-depth Understanding of Working from Home Patterns in the Post-COVID-19 World. The 101st Transportation Research Board Annual Meeting, Washington D.C., Jan 9-13.
- 69 2022 **Das, S.**, and N. Trisha\*. Understanding social media usage patterns by transit agencies. The 101st Transportation Research Board Annual Meeting, Washington D.C., Jan 9-13.
- 68 2022 **Das, S.**, Z. Wei\*, and A. Dutta. Rules Mining and Narrative Analysis of Consumer Complaints on Hybrid Electric Vehicles. The 101st Transportation Research Board Annual Meeting, Washington D.C., Jan 9-13.
- 68 2022 **Das, S.**, M. Tabesh\*, B. Dadashova, and C. Dobrovolny. Understanding Patterns of Contributing Factors in Encroachment-Related Work Zone Crashes. The 101st Transportation Research Board Annual Meeting, Washington D.C., Jan 9-13.
- 67 2022 **Das, S.**, R. Tamakloe, H. Zubaidi, and V. Vierkant\*. Virtual Public Engagement and Communications in a Transportation Conference during COVID-19. The 101st Transportation Research Board Annual Meeting, Washington D.C., Jan 9-13.
- 66 2021 **Das, S.** Traffic Fatalities by American Generations: Exploratory Evaluation using Person Level Data. The 100th Transportation Research Board Annual Meeting (virtual due to COVID-19).
- 65 2021 **Das, S.**, X. Kong\*, S. Lavrenz, M. Jalayer, and L. Wu. Pattern Recognition from Rail Grade Crossing Fatal Crashes. The 100th Transportation Research Board Annual Meeting (virtual due to COVID-19).
- 64 2021 **Das, S.**, and R. Wang\*. Racism discussed in Transportation Research: Bibliometric Analysis and Topic Modeling. The 100th Transportation Research Board Annual Meeting (virtual due to COVID-19).
- 63 2021 **Das, S.**, and M. Theel\*. Pandemic and Transportation Research: Bibliometric Analysis and Topic Modeling. The 100th Transportation Research Board Annual Meeting (virtual due to COVID-19).
- 62 2021 Kong, X.\*, **S. Das**, H. Zhou, and Y. Zhang. Patterns of near-crash events in naturalistic driving dataset: applying rules mining. The 100th Transportation Research Board Annual Meeting (virtual due to COVID-19).
- 61 2021 Khodadadi, A., I. Tsapakis, **S. Das**, and D. Lord. Application of Different Negative Binomial Parameterizations to Develop Safety Performance Function for Non-Federal Aid System Roads. The 100th Transportation Research Board Annual Meeting (virtual due to COVID-19).
- 60 2021 Rahman, M., K. Dey, **S. Das**, and M. Sherfinski. Sharing the Road with Autonomous Vehicles: A Qualitative Analysis of the Perceptions of Pedestrians and Bicyclists. The 100th Transportation Research Board Annual Meeting (virtual due to COVID-19).
- 59 2021 Sun, M., X. Sun, M. Rahman, and **S. Das**. Calibration and Development of Safety Performance Functions for Rural Two-Lane Two-Way Stop-Controlled Intersections in Louisiana. The 100th Transportation Research Board Annual Meeting (virtual due to COVID-19).
- 58 2021 Hosseini, P., M. Jalayer, and **S. Das**. A Multiple Correspondence Approach to Identify Contributing Factors Related to Work Zone Crashes. The 100th Transportation Research Board Annual Meeting (virtual due to COVID-19).
- 57 2021 Hosseini, P., M. Jalayer, and **S. Das**. Identifying Wrong-Way Driving (WWD) Crashes in Police Reports Using Text Mining Techniques. The 100th Transportation Research Board Annual Meeting (virtual due to COVID-19).
- 56 2020 Mahmoudzadeh, A., Z. Elgart, S. Arezoumand, T. Hansen, and **S. Das**. Designing Transit Agency Job Descriptions for Optimal Roles: An Analytical Text-Mining Approach. ASCE International Conference on Transportation and Development (virtual due to COVID-19).
- 55 2020 **Das, S.**, Dutta, A., Dey, K., Jalayer, M., and Mudgal, A. Single and Multiple Vehicle Crashes due to Hydroplaning: A Case Study of Interpretable Machine Learning. The 99th Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 54 2020 **Das, S.**, K. Fitzpatrick, and A. Dutta. Survey of Bicyclists and Pedestrians towards Autonomous Vehicles. The 99th Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 53 2020 **Das, S.**, and A. Dutta. Co-Author Networks in Transportation Research: Findings from TRID Data. The 99th Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.

- 52 2020 Dutta, A., and **S. Das**. Framework of a Job Lexicon for Future Transportation Workforce. The 99th Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 51 2020 **Das, S., X. Kong\*, R. Wang\*, and A. Mahmoudzadeh\***. Pedestrian Collisions with Bicyclist: Emotion Mining using YouTube Data. The 99th Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 50 2020 **Das, S., K. Jha\***, and A. Dutta. Vision Zero Hashtags in Social Media: Understanding End-User Needs from Natural Language Processing. The 99th Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 49 2020 **Das, S., A. Dutta, and I. Tsapakis**. Traffic Collisions Involving Autonomous Vehicles in California: Bayesian Model Based Clustering. The 99th Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 48 2020 **Das, S., L. Tran\***, and B. Maraghepour\*. Understanding Patterns in Marijuana Impaired Traffic Crashes: A Case Study on Louisiana. The 99th Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 47 2020 **Das, S., S. Ashraf\***, A. Dutta, and L. Tran\*. Pedestrians Under Influence: Findings from Correspondence Regression Analysis. The 99th Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 46 2020 Sun, M., X. Sun, M. Rahman, M. Akter, and **S. Das**. Safety Performance Functions for Rural Two-Way Stop-Controlled Intersections. The 99th Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 45 2020 Jalayer, M., M. Pour-Rouholamin, D. Patel, **S. Das**, and H. Parvardeh. A Penalized-likelihood Approach to Characterizing Bridge-related Crashes in New Jersey. The 99th Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 44 2020 Sun, M., X. Sun, M. Rahman, M. Akter, and **S. Das**. Two-Way Stop-Controlled Intersection Analysis with Zero-inflated Models. The 99th Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 43 2020 **Das, S., X. Sun, S. Goel\***, M. Sun, M. Rahman, and I. Narsaria. Flooding related Traffic Crashes: Findings from Association Rules. The 99th Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 42 2020 **Kong, X.\***, **S. Das**, K. Jha, and Y. Zhang. Understanding Speeding Behavior from Naturalistic Driving Data: Applying Classification Based Association Mining. The 99th Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 41 2020 **Das, S.** Extremely Serious Crashes on Urban Roadway Networks: Patterns and Trends. The 6th International Symposium on Highway Geometric Design, featuring the 6th Urban Street Symposium. Amsterdam, The Netherlands, June 28-July 1.
- 40 2019 Sun, X., and **S. Das**. Estimating Annual Average Daily Traffic for Low-Volume Roadways. The 12th TRB International Conference on Low Volume Roads, being held September 15–18, Kalispell, Montana.
- 39 2019 **Das, S., I. Tsapakis, and S. Datta\***. Safety Performance Functions of Low-Volume Roadways. The 12th TRB International Conference on Low Volume Roads, being held September 15–18, Kalispell, Montana.
- 38 2019 **Das, S., A. Dutta, S. Geedipally, C. Ma\***, and Z. Elgart. Effect of Vehicular Defects on Crash Severity: A Bayesian Data Mining Approach. The 98th Transportation Research Board Annual Meeting, Washington D.C., Jan 13-17.
- 37 2019 **Das, S., I. Tsapakis, W. Holik, S. Datta\***, and **X. Kong\***. Estimation of Traffic Volumes on Low-Volume Roads: Interpretable Machine Learning Approach. The 98th Transportation Research Board Annual Meeting, Washington D.C., Jan 13-17.
- 36 2019 **Das, S., A. Dutta, and S. Datta\***. Injury Severity Analysis from Crash Narratives of Tree and Utility Pole associated Crashes: An Interpretable Machine Learning Approach. The 98th Transportation Research Board Annual Meeting, Washington D.C., Jan 13-17.
- 35 2019 Jalayer, M., M. O'Connell, H. Zhou, P. Szary, and **S. Das**. Application of Unmanned Aerial Vehicle to Inspect and Inventory Interchange Assets to Mitigate Wrong-Way Entries. The 98th Transportation Research Board Annual Meeting, Washington D.C., Jan 13-17.
- 34 2019 Sun, M., X. Sun, D. Shan, D. Armstong, and **S. Das**. Louisiana Pedestrian Crash Analysis with Multinomial Logit Model and Bayesian Network. The 98th Transportation Research Board Annual Meeting, Washington D.C., Jan 13-17.
- 33 2019 **Das, S., and A. Dutta**. Data Curation using Deep Learning. The 98th Transportation Research Board Annual Meeting, Washington D.C., Jan 13-17.

- 32 2018 **Das, S.,** L. Minjares-Kyle, R. Avelar, and B. Bommanayakanahalli\*. Improper Passing related Crashes: Identifying Patterns using Negative Binomial Precise Rules. The 7<sup>th</sup> International Symposium on Naturalistic Driving Research (NDRS 2018), Blacksburg, VA, Aug 28-30.
- 31 2018 **Das, S.,** Fitzpatrick, K., and C. M\*. Vehicle Speeds in Presence of Bicyclists. Joint Western and Texas District Meeting, Keystone, CO, June 24-27.
- 30 2018 **Das, S.,** M. Le, M. Pratt, and C. Morgan. Safety Performance of Truck Lane Restrictions in Texas: Empirical Bayes Observational Before-After Analysis. The 97<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 7-11.
- 29 2018 **Das, S.,** L. Minjares-Kyle, K. Dixon, A. Palanisamy, and A. Dutta. #TRBAM: Understanding Communication Patterns and Research Trends by Twitter Mining. The 97<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 7-11.
- 28 2018 **Das, S.,** G. Medina, L. Minjares-Kyle, Z. Elgart. Social Media Hashtags Associated with Bike Commuting: Applying Natural Language Processing Tools. The 97<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 7-11.
- 27 2018 **Das, S.,** and A. Dutta. Knowledge Extraction from Transportation Research Thesaurus. The 97<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 7-11.
- 26 2018 L. Minjares-Kyle, **Das, S.,** G. Medina, and R. Henk. Knowledge about Crash Risk Factors and Self-Reported Driving Behavior: Exploratory Analysis on Multi-State Teen Driver Survey. The 97<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 7-11.
- 25 2018 Bibeka, A.\* **S. Das,** M. Martin, M. Jalayer, and S. Munira. Macro Level Analysis of Pedestrian and Bike Commuting: Using Self-Organizing Map to Associate Crime, Poverty, and Demographics. The 97<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 7-11.
- 24 2018 Rahman, A., X. Sun, and **S. Das.** Safety Performance Evaluation of Urban Undivided Four-Lane to Five-Lane Conversion in Louisiana. The 97<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 7-11.
- 23 2017 **Das, S.** Exploring SHRP2 NDS for the perspective of Self-Driving Cars in Difficult Driving Condition. Autonomous Vehicle Symposium, San Francisco, CA, Jul 10-14.
- 22 2017 **Das, S.,** X. Sun, and K. Dixon. Converting Four lane roadways into Five lane roadways on Urban structure: Study on Safety Effectiveness. Urban Street Symposium 5, Raleigh, North Carolina, May 21-24 (*2017 Urban Street Symposium Best Paper Award*).
- 21 2017 **Das, S.,** K. Dixon, R. Avelar, and K. Fitzpatrick. Using Machine Learning Techniques to estimate non-motorized trips for rural roadways. The 96<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 8-12.
- 20 2017 **Das, S.,** B. Brimley, T. Lindheimer, and M. Zupancich\*. Safety Impacts of Reduced Visibility in Inclement Weather. The 96<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 8-12.
- 19 2017 **Das, S.,** R. Avelar, K. Dixon, and X. Sun. Pedestrian Crash Analysis Using Association Rules Mining. The 96<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 8-12.
- 18 2017 **Das, S.,** L. Minjares-Kyle, R. Avelar, K. Dixon, and B. Bommanayakanahalli\*. Improper Passing-Related Crashes on Rural Roadways: Using Association Rules Negative Binomial Miner. The 96<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 8-12.
- 17 2017 **Das, S.,** X. Sun, A. Dutta, and M. Zupancich\*. Twitter in Circulating Transportation Information: A Case Study on Two Cities. The 96<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 8-12.
- 16 2017 Avelar, R., T. Lindheimer, K. Dixon, J. Miles, and **S. Das.** Safety Evaluation of the Seasonality of Crashes with Tire Debris on Highways and Freeways. The 96<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 8-12.
- 15 2016 X. Sun, **S. Das,** and N. Broussard. Developing crash models with supporting vector machine for urban transportation planning. The 17<sup>th</sup> Road Safety on Five Continents (RS5C) Conference, Rio de Janeiro, Brazil, May 17-19.
- 14 2016 **Das, S.,** and X. Sun. Estimating Traffic Volume of Non-state Roadways with Support Vector Regression. The 95<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 10-14.
- 13 2016 **Das, S.** Effectiveness of Inexpensive Crash Countermeasures to Improve Traffic Safety. The 95<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 10-14.
- 12 2015 **Das, S.,** and X. Sun. Zero-Inflated Models for Different Severity Types in Rural Two-Lane Crashes. The 94<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 10-14.

- 11 2015 **Das, S.,** and X. Sun. Determining the Knowledge Gap in Performance Based Analysis of Geometric Design and Condition Incorporating Safety. The 94<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 10-14.
- 10 2015 **Das., S.,** X. Sun, D. Magri, N. Fruge, and R. Bertnotane. Conversion for Urban Roadway: An Unideal but Effective Way to Improve Roadway Safety. The 94<sup>th</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 10-14.
- 9 2014 **Das, S.,** and X. Sun. Exploring Clusters of Contributing Factors for Single-Vehicle Fatal Crashes Through Multiple Correspondence Analysis. The 93<sup>rd</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 8 2014 Sun, X., **S. Das,** Z. Zhang, and F. Wang. Investigating Safety Impact of Edge Line on Narrow Rural Two-Lane Highways by Empirical Bayes Method. The 93<sup>rd</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 7 2014 **Das, S.,** and X. Sun. Investigating the Pattern of Traffic Crashes under Rainy Weather by Association Rules in Data Mining. The 93<sup>rd</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 12-16.
- 6 2014 **Das, S.,** X. Sun, and A. Dutta. Sentiment Analysis of the Riders of the Bike Sharing Programs. 55th Annual Transportation Research Forum, San Jose, CA, Mar 13-15.
- 5 2014 **Das, S.** Analyzing At-fault Crash-Prone Drivers of Louisiana associated with Multiple Crashes. SASHTO 2014 Annual Conference, New Orleans, LA, Aug 23-27 (**2014 SASHTO Outstanding Graduate Research Award**).
- 4 2013 Sun, X., and **S. Das.** Converting Divided Urban Four-Lane Roadway to Five-Lane Roadway: Successful Case Study in Louisiana. The 92<sup>nd</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 13-17.
- 3 2013 Sun, X., **S. Das,** S. Rasel, and F. Wang. Analyzing Crash-Prone Drivers in Multiple Crashes for Better Safety Educational and Enforcement Strategies. The 92<sup>nd</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 13-17.
- 2 2013 **Das, S.,** and X. Sun. Investigating the Safety Impact of Raised Pavement Markers. The 92<sup>nd</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 13-17.
- 1 2012 Sun, X., **S. Das,** N. Fruge, R. Bertinot, and D. Magri. Crash Modification Factor for an Inexpensive yet Very Cost-Effective Safety Improvement: Converting Undivided Four-Lane Urban Roadways to Five-Lane Roadways. The 91<sup>st</sup> Transportation Research Board Annual Meeting, Washington D.C., Jan 22-26.

## TALKS/WORKSHOPS

20. 2021 A Real-time Decision Support Tool for Rural Roadways. November 29, Austin.
19. 2021 New Frontiers in Highway Safety Research. UL Lafayette Civil Engineering Department Invited Talk. November 24 (virtual).
18. 2021 Naturalistic Driving Studies with focus on Novice Teenage Drivers—Research Challenges and Opportunities. American Statistical Association Invited Talks. November 3 (virtual).
17. 2021 Application of Big Data in Highway Safety Modeling. Transportation Data Science Seminar Series. Texas A&M University Institute of Data Science, College Station, March 11.
16. 2019 Application of Natural Language Processing (NLP) in Transportation Studies. Texas A&M University ITE General Meeting, College Station, TX, February 2.
15. 2019 TxDOT Roadway Departure Safety Implementation Workshop. Lubbock, TX. November 4.
14. 2019 AADT Estimation Errors in Predicting Safety of Low-volume Roadways. The 98th Transportation Research Board Annual Meeting, Washington D.C., Jan 13.
13. 2019 Youtube as a Source of Information in Understanding Autonomous Vehicle Consumers: A Natural Language Processing (NLP) Study, Washington D.C., Jan 14.
12. 2019 Injury Severity Analysis from Crash Narratives of Tree and Utility Pole associated Crashes: An Interpretable Machine Learning Approach, Washington D.C., Jan 15.
11. 2019 Estimation of Traffic Volumes on Low-Volume Roads: Interpretable Machine Learning Approach, Washington D.C., Jan 16.
10. 2018 Using Deep Learning in Severity Analysis of At-Fault Motorcycle Rider Crashes. The 97th Transportation Research Board Annual Meeting, Washington D.C., Jan 9.
9. 2018 #TRBAM: Understanding Communication Patterns and Research Trends by Twitter Mining. The 97th Transportation Research Board Annual Meeting, Washington D.C., Jan 9.
8. 2017 Developing a Method for Estimating AADT on Local Roads. 2017 TRC Transportation Engineering Conference, Hot Springs, AK, May 17.

- 7 2017 Text mining on 100 years of Air Crash Narratives: Key Findings. The 96th Transportation Research Board Annual Meeting, Washington D.C., Jan 11.
- 6 2017 Workshop on Text Mining in R: Understanding 100 years of Air Crash Narratives. Texas A&M University ITE General Meeting, College Station, TX, February 9.
- 5 2017 Workshop on R in Transportation Safety Research: Case Studies. Texas A&M University ITE General Meeting, College Station, TX, February 7.
- 4 2017 Visualization Lightning Talk: Visual Analytics by using Web GIS Tools in Transportation Decision Making. The 96th Transportation Research Board Annual Meeting, Washington D.C., Jan 11.
- 3 2016 Modeling in Roadway Safety: The Two Cultures. Texas A&M University ITE General Meeting, College Station, TX, May 17.
- 2 2015 Two days' workshop on Interactive Highway Safety Design Model (IHSDM). Civil Engineering Department, University of Louisiana at Lafayette, LA, Mar.
- 1 2014 Two days' workshop on Interactive Highway Safety Design Model (IHSDM). Civil Engineering Department, University of Louisiana at Lafayette, LA, Mar.

## MEDIA

- 2021 TTI News feature 'Das Publishes Transportation Research Record Analysis in TR News.'  
<https://tti.tamu.edu/news/das-publishes-transportation-research-record-analysis-in-tr-news/>
- 2021 Texas Transportation Research Special Issue on 'Big Data Goes Country: Integrating Speed and Weather Measures to Study Rural Roadway Safety'  
<https://tti.tamu.edu/researcher/big-data-goes-country-integrating-speed-and-weather-measures-to-study-rural-roadway-safety/>
- 2020 TTI News feature 'Winfree, Das Featured in Traffic Technology International.'  
<https://tti.tamu.edu/news/winfree-das-featured-in-traffic-technology-international/>
- 2020 A detailed interview is featured in Traffic Technology International September Issue.  
<https://tti.mydigitalpublication.co.uk/publication/?i=672384>
- 2020 An interview is featured in Star Tribune Newspaper (March 21). <https://www.startribune.com/arrests-rare-in-minor-minneapolis-hit-and-run-cases/568965202/>
- 2018 Subasish's #TRBAM analysis were posted by NASEMTRB's official social media handles.
- 2016 TRB Committee ABG40's newsletter Kaleidoscope featured Subasish's text mining paper.
- 2015 Eno Transportation Center's online annual report highlighted Subasish's Eno fellowship.
- 2014 AASHTO newsletter 'Research Makes Difference' featured on Subasish's 2014 AASHTO Sweet Sixteen High Value Research award.
- 2014 AASHTO Research Impact 2014 newsletter featured on Subasish's '4U to 5T' project.
- 2014 LTRC newsletter made a feature on Subasish's 2014 AASHTO Sweet Sixteen High Value Research award.
- 2013 GRITS Newsletter highlighted Subasish's First Place Scholarship for Academic Excellence.

## COURSES DEVELOPED

- 2 2020 Graduate level course on 'Artificial Intelligence in Highway Safety'
- 1 2020 Graduate level course on 'Highway Safety Core Competency' (<https://github.com/subasish/NCHRP-20-07-384-CC-Courses>)

## COURSES TAUGHT/SUPERVISED

- 3 2013 Teaching Assistant of graduate level course 'Highway Safety Fundamental Course' at UL Lafayette.
- 2 2012 Teaching Assistant of graduate level course 'Highway Safety Fundamental Course' at UL Lafayette.
- 1 2011 Teaching Assistant of graduate level course 'Highway Safety Fundamental Course' at UL Lafayette.

## RESEARCH MENTORING

### Thesis Supervision

Committee Member, Investigating the Impact of Roadway Geometry, Speed Distribution, and Weather Condition on Roadway Daily Crash Occurrence and Severity by using Machine Learning Methods, M.S. Thesis of Z. Wei, 2021

Committee Member, *Vehicle Category Classification based on GPS Trajectory Data*, M.S. Thesis of R. Wang, 2020.

Mentor, *Investigating Safety Effectiveness of Centerline Rumble Strips on Rural Two-Lane Roads in Louisiana with Empirical Bayes Method*, M.S. Thesis of M. A. Rahman, 2016.

Mentor, *Development of Crash Prediction Models for Transportation Planning Analysis*, M.S. Thesis of N. Broussard, 2015.

Mentor, *Estimating Annual Average Daily Traffic for Non-State Roads in Louisiana*, M.S. Thesis of C. W. LeBoeuf, 2014.

Mentor, *Analyzing the Safety Impact of Crash-Prone Drivers in Louisiana*, M.S. Thesis of F. Wang, 2013.

Mentor, *Safety Effectiveness of Raised Pavement Markers*, M.S. Thesis of S. Rasel, 2012.

### **PhD Students**

Yanmo Wang, Civil Engineering (2021-), Zihang Wei, Civil Engineering, TAMU (2020-); Ali Khodadadi, Civil Engineering, TAMU (2019-); Xiaoqiang “Jack” Kong, Civil Engineering, TAMU (2018-); Shruti Ashraf, Civil Engineering, TAMU (2018-2019); Chaolun Ma, Civil Engineering, TAMU (2018-2019); Songjukta Datta, Civil Engineering, TAMU (2017-2018);

### **M.S. Students**

Vikram Agarwal, Civil Engineering, TAMU (2020-); Ruihong Wang, Electrical and Computer Engineering, TAMU (2019-2020); Nabila Nazneen, Chemical Engineering, TAMU (2019-); Samia Tasnim, Public Health, TAMU (2019-); Bita Maraghehpour, Public Health, TAMU (2019-); Apoorba Bibeka, Civil Engineering, TAMU (2016-2019); Sadia Najneen, Public Health, TAMU (2018-2019); Isha Narsaria, Civil Engineering, TAMU (2018-2019); Condor Manaswini, Civil Engineering, TAMU (2018-2019); Alence Poudel, Civil Engineering, TAMU (2019-); Tamanna Tasnum, Construction Science, TAMU (2016);

### **Undergraduate Students**

Magdalena Theel, TAMU (2019-); Ly-Na Tran, TAMU (2019-); Jacob Bruce, Civil Engineering, TAMU (2019-); Anthony Teo, Computer Science and Engineering, TAMU (2018-19); Urel Djiogan, Computer Science and Engineering, TAMU (2019); Richard Padilla, Computer Science and Engineering, TAMU (2018-2019); Daxton Davidson, Civil Engineering, TAMU (2018); Michelle Zupancich, Civil Engineering, TAMU (2016);