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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

2022-current	Assistant Professor, Civil Engineering Program, Ingram School of Engineering, Texas State University, San Marcos, TX
2022-2023	Associate Research Scientist (part time), Texas A&M Transportation Institute, College Station, TX
2021-2030	Graduate Committee Faculty, Texas A&M University, College Station, TX
2021-2022	TTI Associate Research Scientist, Texas A&M Transportation Institute, 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

2023	Research Millionaire Award, Texas State University
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

2023-2025 Panel Member, NCHRP 23-39: Strategies for Construction Inspector Career Paths in State Transportation Agencies (STAs) for Retaining and Advancing Capabilities
2023-2025 Panel Member, NCHRP 19-24: Guide for Implementing Price Escalation to Balance Risk Sharing in DOT Construction Projects
2023-2025 Panel Member, NCHRP 08-177: Digitizing Bicycle and Pedestrian Treatments for Promoting Active Transportation Equity and Safety
2022-2024 Chair, Liaison and Technology Transfer sub-committee, Data Driven Safety Analysis Committee, ITE
2022-2024 Panel Member, ACRP 03-69: Identifying Congestion and Safety Risks Due to Heterogeneous Airport Curbside Activity and Remedial Solutions
2022-2024 Panel Member, NCHRP 05-26: Development of an Updated Warranting System for Roadway Lighting
2022-2024 Panel Member, NCHRP 08-172: Benefit Analysis of Private Health Sector Investments in Public/Human Transportation
2022-2023 Panel Member, NCHRP 08-141: Guidance for Local Truck Parking Regulations
2021-2023 Panel Member, ACRP 11-03/Topic S03-16: State Aviation Funding: Project Prioritization and Selection Processes
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

- Search Committee Member for Tenure-Track Assistant Professor (Fall 2023), Electrical Engineering Program, Texas State University.
- Member, FY23 Research Committee, Ingram School of Engineering, Texas State University.
- Member, FY23 Personnel Committee, Ingram School of Engineering, Texas State University.
- Member, FY23 Undergraduate Scholarship Committee, College of Science and Engineering, Texas State University.
- ASCE Faculty Advisor, Civil Engineering Program, Ingram School of Engineering, Texas State University.
- Coordinator of opening ITE and ITS Student Chapters at Texas State University.
- 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)

2025-2027 **(PI-TXST)** Refining the Understanding of Parking Space Requirements and Its Impact on Vehicle Miles Travelled, MnDOT ($44,999).
2024-2025 **(PI)** Big data Leveraged Intersection Safety System (BLISS), FIAP, TXST ($11,000).

2024-2028 **(PI-TXST)** TxDOT 0-7215: Predicting Field Performance of Pavement Markings Statewide in Texas. TxDOT ($85,178.75).

2024-2027 **(PI-TXST)** TxDOT 0-7230: Improve Safety and Decrease Vehicle Fatalities by Improving Pavement Markings. TxDOT ($74,292.5).

2024-2026 **(PI-TXST)** TxDOT 0-7226: Analyze Operational and Safety Improvements Associated with Implemented Innovative Intersections in Texas, TxDOT ($36,000).

2024-2026 **(PI-TXST)** TxDOT 0-7222: Develop Crash Predictive Methods for Frontage Roads Including Ramp Terminals, and Intersections with Crossroads in Texas, TxDOT ($70,000).

2024-2025 **(Co-PI)** Identification of Unprecedented Coastal Flooding Hotspots for Highway Network Durability and Social Justice, CREATE UTC, USDOT ($151,448).

2024-2026 **(PI-TXST)** Social and Community Factors Contributing to Pedestrian Trespass Behaviors (and Motorist Incursions) on Railroad Systems, FRA ($264,000).

2024-2026 **(PI-TXST)** Roadside Feature Placement and Pedestrian Safety on Low and Intermediate Speed Road, Minnesota DOT ($58,891).

2023-2024 **(PI)** SafeR: Safe Routing Tool. NSF I-Corps ($61,000).

2023-2025 **(PI-TXST)** TxDOT 0-7183: Develop Crash Modification Factors for Super 2 Highways. TxDOT. Sub-contractor to Texas A&M Transportation Institute [TXST Budget: $68,695].

2023-2025 **(PI-TXST)** TxDOT 0-7187: Exploring and Developing Innovative Methods for Estimating VMT on Local Roads in Texas. TxDOT. Sub-contractor to Texas A&M Transportation Institute [TXST Budget: $40,166].

2023-2025 **(PI-TXST)** TxDOT 0-7189: Safety Assessment of Shared use Paths at Roadway Crossings using Exposure-based Models. TxDOT. Sub-contractor to Texas A&M Transportation Institute [TXST Budget: $54,314].

2023-2025 **(PI-TXST)** TxDOT 0-7171: Barrier Striping for the reduction of accidents. TxDOT. Sub-contractor to Texas A&M Transportation Institute [TXST Budget: $67,932].

2023-2025 **(PI-TXST)** Increasing Equity in Traffic Safety, AAA Foundation. Sub-contractor to University of Washington Tacoma [TXST Budget: $60,000].

2023-2025 **(PI)** Run to R1 Postdoctoral Researcher Catalyst Program Award. TXST ($160,000).

2023-2025 **(PI)** NCHRP 17-113: Incorporating Safe System Approach into the NCHRP Report 500 Series. National Academies ($700,000) [with VHB and Rowan University].

2023-2025 **(PI-TXST)** Evaluation of NJDOT Hardened Traffic Paint Markings and Stripes Performance. New Jersey Department of Transportation (NJDOT) Project ($350,000). Sub-contractor of Rowan University. [TXST Budget: $83,000].

2022-2024 **(PI)** Develop a Real-Time Decision Support Tool for Urban Roadway Safety Improvements. TxDOT Project. ($465,010.00).

2022-2024 **(Co-PI)** Using Vehicle Probe Data to Evaluate Speed Limits on Texas Highways. TxDOT Project. ($400,000.00).

2021-2023 **(PI)** Developing AI-driven Safe Navigation Tool. SafeD UTC. ($330,000.00).

2021-2023 **(PI)** Leveraging Artificial Intelligence (AI) Techniques to Detect, Forecast, and Manage Freeway Congestion ($310,000.00) [with Texas Southern University. Budget: $25,000].

2020-2022 **(PI)** 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 **(PI)** Safety Enhancements at Short-Storage-Space Railroad Crossings, Michigan DOT Project. ($110,000.00).

2020-2021 **(PI) TCRP Synthesis** SB-33: Uses of Social Media in Public Transportation. National Academies *($45,000.00).*

2019-2021 **(PI)** Develop a Real-Time Decision Support Tool for Rural Roadway Safety Improvements. TxDOT Project. ($300,000.00).

2019-2021 **(PI)** Develop Speed Crash Modification Factors (CMFs) from SHRP-2 Data. FHWA Project. ($189,891.00).

2019-2021 **(Co-PI)** 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 **(PI)** Innovative Data Sources for Real-time Crash Prediction. SafeD UTC Project. *($20,000.00).*

2019-2020 **(Co-PI) NCHRP 20-07 (Task 384):** Core Competencies for Key Safety Training. National Academies Project. *Role: Co-Principal Investigator ($75,000.00).*

2018-2019 **(PI)** Transportation Safety Planning Noteworthy Practices. FHWA Project. *($30,000.00).*

2018-2019 **(PI)** Rural Speed Safety Project for USDOT Safety Data Initiative. FHWA Project. *($240,000.00).*

2018-2020 **(Co-PI)** 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 Leaning 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

45	2024	**Das, S.,** Dadvar, S., Wu, L., Dimaiuta, M., and Weng, Y. Development of Speed Crash Modification Factors (CMFs)Using SHRP2 Roadway Information Database (RID),Volume I. FHWA Report. Final Report.
44	2024	**Das, S.,** Dadvar, S., Wu, L., Dimaiuta, M., and Weng, Y. Development of Speed Crash Modification Factors (CMFs)Using SHRP2 Roadway Information Database (RID),Volume II. FHWA Report. Appendices.
43	2024	Fitzpatrick, K., Venglar, S., **Das, S.,** Pratt, M., Park E., Avelar, R., and Le, M. Speed Limits in Texas. TxDOT Project. Final Report.
42	2023	Le, M., Pratt, M. P., Oliaee, A. H., **Das, S.,** Ramezani, M., Wu, J., and Guo, S. Applying Advanced Techniques to Datamine Pedestrian Crash Data. Texas A&M Transportation Institute's Center for Transportation Safety.
41	2023	**Das, S.,** Tsapakis, I., Khan, M., Liu, J., Mills, D., Miller, M., Balke, K., Wu, J., Azimi, M., and Qi, Y. Leveraging Artificial Intelligence (AI) Techniques to Detect, Forecast, and Manage Freeway Congestion. TxDOT Project. Final Report.
40	2023	Pratt, M., Geedipally, S., Le, M., Wu, L., Avelar, R., **Das, S.,** and Lord, D., Enhancing Freeway Safety Prediction Models. TxDOT Project. Final Report.
39	2023	Dobrovolny, C., Dadashova, B., Tabesh, M., **Das, S.,** Kwon, H., Bligh, R., Riexinger, L., Smith, C., Gabler, H., and Hallmark, S. Addressing Encroachment-Related Safety Issues in Work Zones: A Guide. NCHRP Research Report, Issue 1055, 43p.
38	2023	Dobrovolny, C., Dadashova, B., Tabesh, M., **Das, S.,** Kwon, H., Bligh, R., Riexinger, L., Smith, C., Gabler, H., and Hallmark, S. Determination of Work Zone Encroachments. NCHRP Web-Only Report Issue 361, 168p
37	2023	McFalls, J., B. Storey, **S, Das,** J. Habermann, and L. Bullard. Long-Term Vegetation Management Strategies for Roadsides and Roadside Appurtenances. NCHRP Web-Only Report, Issue 350, 121p.
36	2023	Das, S., I. Tsapakis, D. Torbic, S. Li, and Y. Wang. Developing AI-driven Safe Navigation Tool. SafeD UTC Report.
35	2023	**Das, S.,** Lavrenz, S., Warner, J., and Khanal, B. Safety Enhancements at Short-Storage-Space Railroad Crossings. Michigan DOT Report.
34	2022	Habermann, J., W. Holik, W. Huang, **S. Das**, and D. Clonch. NCHRP 06-18 Report: Guide for Snow and Ice Control Operations. NCHRP Report.
33	2022	Geedipally, S., Dixon, K., Wu, L., Pratt, M., Avelar, R., **Das, S.**, Tsapakis, I., Lord, D., and Saini, G. Calibrating the Highway Safety Manual Predictive Methods for Texas Highways. TxDOT Project. Final Report.

32 2022 **Das, S.,** Wei, Z., and Ravuri, V. Safety and Operations of Automated Delivery Vehicles. SafeD. Final Report.

31 2022 Dixon, S., Park, E., Brewer, M., Wu, L., Geedipally, S., Srinivasan, R., Lan, B., Zegeer, C., **S. Das,** and Rista, E. NCHRP Report 995: Guidelines for Treatments to Mitigate Opposite Direction Crashes. National Academies.

30 2022 **Das, S.,** N. Trisha, I. Sener, and M. Walk. TCRP Synthesis 156: Uses of Social Media in Public Transportation. National Academies.

29 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.

28 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. 146p.

27 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.

26 2021 C. Dobrovolny, 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.

25 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.

24 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. 136p.

23 2021 Fitzpatrick, K., **S. Das**, M. P. Pratt, K.K. Dixon, and T. J. Gates. Posted Speed Limit Setting Procedure and Tool: User Guide. NCHRP Research Report, Issue 966, 71p.

22 2020 Storey, B., S. Das, J. McFalls, R. Avelar, and B. Dadashova. Comparison of Cost, Safety, and Environmental Benefits of Routine Mowing and Managed Succession of Roadside Vegetation. NCHRP 14-40 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. NCHRP Web-Only Report, Issue 291, 190p.

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. Vol 90(9).

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., Sener, I., Marin, M., White, L., **S. Das**, Hampshire, R., Colety, M., Fitzpatrick, K., and Wijesundera, R. 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**. MCCS 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., Sener, I., Marin, M., **S. Das,** Shipp, E., Hampshire, R., Fitzpatrick, K., Molnar, L., Wijesundera, R., Colety, M., and Robinson, S. 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.
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)

204 2025 Liu, J., Antariksa, G., Somvanshi, S., and **Das, S.** Revealing equity gaps in pedestrian crash data through explainable artificial intelligence clustering. *Transportation Research Part D: Transport and Environment*.
203 2025 Hossain, A., **Das, S.**, Sun, X., Hasan, A. S., and Jalayer, M. A Hybrid Data Mining Framework to Investigate Roadway Departure Crashes on Rural Two-Lane Highways: Applying Fast and Frugal Tree with Association Rules Mining. *SSRN (pre-print)*.
202 2025 Jafari, M. **Das, S.,** Starewich, M., and Barua, S. SUV-pedestrian crash severity modelling considering unobserved heterogeneity in means and variances. *Transportmetrica A: Transport Science.*
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200 2025 Dzinyela, R., Dadashova, B., Westfall, G., **Das, S.**, Silvestri-Dobrovolny, C., Adanu, K. E., and Lord, D. Analysis of Motorcyclists Crash Severity using Cluster Correspondence and Hierarchical Binary Logit Models. *Multimodal Transportation*.
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19 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.

18 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.

17 2019 Jalayer, M., M. O'Conell, 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.

16 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.

15 2019 **Das, S.,** and A. Dutta. Data Curation using Deep Learning. The 98th Transportation Research Board Annual Meeting, Washington D.C., Jan 13-17.

14 2018 **Das, S.**, L. Minjares-Kyle, R. Avelar, and B. Bommanayakanahalli*. Improper Passing related Crashes: Identifying Patterns using Negative Binomial Precise Rules. The 7th International Symposium on Naturalistic Driving Research (NDRS 2018), Blacksburg, VA, Aug 28-30.

13 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.

12 2018 **Das, S.**, and A. Dutta. Knowledge Extraction from Transportation Research Thesaurus. The 97th Transportation Research Board Annual Meeting, Washington D.C., Jan 7-11.

11 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 97th Transportation Research Board Annual Meeting, Washington D.C., Jan 7-11.

10 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.

9 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).***

8 2017 **Das, S.,** K. Dixon, R. Avelar, and K. Fitzpatrick. Using Machine Learning Techniques to estimate non-motorized trips for rural roadways. The 96th Transportation Research Board Annual Meeting, Washington D.C., Jan 8-12.

7 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 96th Transportation Research Board Annual Meeting, Washington D.C., Jan 8-12.

6 2016 X. Sun, **S. Das**, and N. Broussard. Developing crash models with supporting vector machine for urban transportation planning. The 17th Road Safety on Five Continents (RS5C) Conference, Rio de Janeiro, Brazil, May 17-19.

5 2016 **Das, S.,** and X. Sun. Estimating Traffic Volume of Non-state Roadways with Support Vector Regression. The 95th Transportation Research Board Annual Meeting, Washington D.C., Jan 10-14.

4 2016 **Das, S.** Effectiveness of Inexpensive Crash Countermeasures to Improve Traffic Safety. The 95th Transportation Research Board Annual Meeting, Washington D.C., Jan 10-14.

3 2015 **Das, S.,** and X. Sun. Zero-Inflated Models for Different Severity Types in Rural Two-Lane Crashes. The 94th Transportation Research Board Annual Meeting, Washington D.C., Jan 10-14.

2 2015 **Das, S.,** and X. Sun. Determining the Knowledge Gap in Performance Based Analysis of Geometric Design and Condition Incorporating Safety. The 94th Transportation Research Board Annual Meeting, Washington D.C., Jan 10-14.

1 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***).

TALKS/WORKSHOPS

22 2022 Autonomous Delivery Vehicle as a Disruptive Technology: How to Shape the Future with a Focus on Safety? SafeD Virtual Webinar. October 22.

21 2022 Texas based Safety Research Projects. Virtual Webinar, UTSA. April 21.

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

2025 Interview on Motor Vehicle Safety Inspection. Marketplace. https://www.marketplace.org/2025/02/10/do-safety-inspections-make-your-car-safer-or-put-your-wallet-at-risk/
2022 TTI News feature 'TTI's Das Publishes Book on Artificial Intelligence in Highway Safety.' https://tti.tamu.edu/news/ttis-das-publishes-book-on-artificial-intelligence-in-highway-safety/
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/TAUGHT

6 2024 CE 7393: AI in Civil Engineering
5 2024 CE 4362: Traffic Engineering
4 2022 ENGR 5363: Infrastructure Safety Engineering, Fall 2023, Texas State University
3 2022-25 CE 4361: Highway Engineering, Fall 2022, Texas State University
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

Dissertation Supervision

1. Committee Member, Using Real-Time Ground Truth Data to Assess Estimated Air Pollution on Transportation Routes in the Greater Austin, Texas Area. Ph.D. Dissertation of David Mills, Geography, TXST, 2022.

Thesis Supervision

10. Committee Member, Investigating the Impact of Covid-19 on Mobility Condition. M.S. Thesis of Sandip Acharya, Transportation Engineering, Texas Southern University, 2022.
9. Committee Member, Geo-informed Deep Learning for Spatial Downscaling of Solute Transport in Heterogeneous Porous Media. M.S. Thesis of Nikhil Pawar, Civil Engineering, TXST, 2022.

8. Committee Member, Predicting Critical Shear Stress of Riverbed Soils with Plasticity. M.S. Thesis of Muhammad Tasnim Alam, Civil Engineering, TXST, 2022.
7. 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, Civil Engineering, TAMU, 2021
6. Committee Member, *Vehicle Category Classification based on GPS Trajectory Data*, M.S. Thesis of R. Wang, Computer Science, TAMU, 2020.
5. 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, Civil Engineering, UL Lafayette, 2016.
4. Mentor, *Development of Crash Prediction Models for Transportation Planning Analysis*, M.S. Thesis of N. Broussard, Civil Engineering, UL Lafayette, 2015.
3. Mentor, *Estimating Annual Average Daily Traffic for Non-State Roads in Louisiana,* M.S. Thesis of C. W. LeBoeuf, Civil Engineering, UL Lafayette, 2014.
2. Mentor, *Analyzing the Safety Impact of Crash-Prone Drivers in Louisiana,* M.S. Thesis of F. Wang, Civil Engineering, UL Lafayette, 2013.
1. Mentor, *Safety Effectiveness of Raised Pavement Markers,* M.S. Thesis of S. Rasel, Civil Engineering, UL Lafayette, 2012.

Postdoctoral Research Associates
Jinli Liu, TXST (Jan 2025- June 2025)
Ahmed Hossain, TXST (2024- February 2025)
Gian Antariksa, TXST (Jan 2023- December 2024)
Md. Nasim Khan, TXST (2022-2023)

PhD Students
Shriyank Somvanshi, MSEC, TXST (2023-current)
M M Mahabubur Rahman, Computer Science, TXST (2023)
Jinli Liu, Geography, TXST (2022-current)
David Mills, Geography, TXST (2022-current)
Amir Hossein Oliaee, Architecture, TAMU (2022)
Nuzhat Kabir, Civil Engineering, TAMU (2022)
Musfira Rahman, Civil Engineering, TAMU (2021)
Yanmo Wang, Civil Engineering, TAMU (2021-2022)
Zihang Wei, Civil Engineering, TAMU (2020-2022)
Ali Khodadadi, Civil Engineering, TAMU (2019-2021)
Shruti Ashraf, Civil Engineering, TAMU (2018-2019)
Chaolun Ma, Civil Engineering, TAMU (2018-2019)
Songjukta Datta, Civil Engineering, TAMU (2017-2018)

M.S. Students
Tausif Islam Chowdhury, Civil Engineering, TXST (2025-current)
Sazzad Bin Bashar Polock, Civil Engineering, TXST (2024-current)
Anannya Ghosh Tusti, Civil Engineering, TXST (2024-current)
Md Monzurul Islam, Civil Engineering, TXST (2024-current)
Rawand Almadi, Civil Engineering, TXST (August 2024-December 2024)
Michael Starewich, Mathematics, TXST (2024-current)
Rohit Chakraborty, Civil Engineering, TXST (2023-current)
Mahmuda Sultana Mimi, Civil Engineering, TXST (2023-current)
Syed Aaqib Javed, Civil Engineering, TXST (2023-current)
Swastika Barua, Civil Engineering, TXST (2023-current)
Monire Jafari, Data Analytics and Information Systems, TXST (2023-Jan, 2025)
Catalina Gonzalez, Civil Engineering, TXST (2023)
Chandrika Reddy Kamjula, Data Analytics and Information Systems, TXST (2022)
Janakiram Saripalli, Computer Science, TXST (2022)
Vikram Agarwal, Civil Engineering, TAMU (2020-2021)
Ruihong Wang, Electrical and Computer Engineering, TAMU (2019-2020)
Nabila Nazneen, Chemical Engineering, TAMU (2019-2020)
Samia Tasnim, Public Health, TAMU (2018-2019)

Nusrat Trisha, Public Health, TAMU (2019-2021)
Tahmida Shimu, Civil Engineering, TAMU (2018-2019)
Bita Maraghehpour, Public Health, TAMU (2017-2019)
Apoorba Bibeka, Civil Engineering, TAMU (2016-2019)
Yucong Du, Civil Engineering, TAMU (2016-2017)
Sadia Najneen, Public Health, TAMU (2018-2019)
Isha Narsaria, Civil Engineering, TAMU (2018-2019)
Noor-A Nazia, Computer Science, TAMI (2018-2019)
Condor Manaswini, Civil Engineering, TAMU (2018-2019)
Alence Poudel, Civil Engineering, TAMU (2018-2019)
Bharadwaj Bommanayakanahalli, Civil Engineering, TAMU (2016-2017)
Tamanna Tasnum, Construction Science, TAMU (2016)

Undergraduate Students
Nick Hardin, Computer Science, TXST (2024)
Jett Tipsword, Computer Science, TXST (2023-current)
Darrel Anderson, Civil Engineering, TXST (2023-current)
Khaled Aly Abousabaa, Civil Engineering, TXST (2023-current)
Diana Mendez Garcia, Civil Engineering, TXST (2023-current)
Manan Patel, Civil Engineering, TXST (2023)
Juan Gonzalez, Civil Engineering, TAMU (2022-2023)
Valerie Vierkant, Psychology, TAMU (2019-2023)
Jaxson Murray, Civil Engineering, TAMU (2022)
Ashley Trujillo, Civil Engineering, TAMU (2021-2022)
Vinesh Ravuri, Computer Science, TAMU (2021)
Magdalena Theel, Psychology, TAMU (2017-2020)
Turzo Bose, Chemical Engineering, HUST, (2018)
Jared Wheeler, Computer Science, TAMU (2018)
Tyler Sizemore, Mechanical Engineering, TAMU (2018-2019)
Matthew Foley, Civil Engineering, TAMU (2018-2019)
Christopher Lira, Civil Engineering, TAMU (2017-2018)
Ly-Na Tran, Biomedical Science, TAMU (2017-2019)
Jacob Bruce, Civil Engineering, TAMU (2019-)
Elizabeth Clark, Civil Engineering, Virginia Tech (2017)
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)

(last updated: 10 February, 2025)