

CURRICULUM VITAE

ANSHU BAMNEY, PH.D.

BIOGRAPHY

Dr. Bamney is an Assistant Research Professor at the Civil and Environmental Engineering Department at the University of Connecticut (UConn). Dr. Bamney is involved in multiple national and state-level projects. He has explored crashes related to vulnerable road users such as motorcyclists, pedestrians, and bicyclists for the Connecticut Department of Transportation (CTDOT). Besides this, he has explored crashes related to impaired driving and teenage drivers as well. He is also working with real-time data obtained from Wejo to analyze the relationship between harsh decelerations and crashes in the state of Connecticut. He completed his Ph.D. from Michigan State University in 2022 with a primary focus on traffic safety. He has 5+ years of experience in highway safety, multimodal transportation, context-sensitive design/solutions, naturalistic driving (SHRP 2), distracted driving, and field data collection. He has led multiple research projects and worked in a team for various projects of the Michigan Department of Transportation (MDOT), the Federal Highway Administration (FHWA), the National Cooperative Highway Research Program (NCHRP), and the National Safety Council (NSC). He has co-authored multiple research papers in highly reputed journals including Accident Analysis and Prevention (AAP), American Society of Civil Engineers- part A systems (ASCE), and Transportation Research Record (TRR); and serves as a reviewer in these journals.

EDUCATION

Ph.D. Civil Engineering, 2022, Michigan State University, Lansing, Michigan, United States
Examining the Relationship Between Driver Distraction, Crash, and Near-Crash Risk using Naturalistic Driving Data

MTech. Civil Engineering, 2015, Indian Institute of Technology, Roorkee, India
Study on Willingness to use Non-motorized Transport in Urban Areas

B.E. Civil Engineering, 2013, University Institute of Technology, Bhopal, India
Analyzing the Compressive Strength of Pavement Blocks by Replacing Cement with Red Mud

PROFESSIONAL APPOINTMENTS

Civil and Environmental Engineering Department, University of Connecticut, United States
Assistant Research Professor, August 2023 – Present

Connecticut Transportation Institute, University of Connecticut, United States
Human Behavior/Factors Researcher and Data Scientist, October 2022 – August 2023

Michigan State University, United States
Technical aide, August 2022 – July 2023

Michigan State University, United States
Graduate Research Assistant, August 2018 – August 2022

Rewa Engineering College, Rewa, India
Assistant Professor, June 2016 – July 2018

HONORS AND AWARDS

- Traffic Safety Scholar, Lifesavers, 2022
- Traffic Control Device challenge (first place), Transportation Research Board Annual Meeting, 2021
- Outstanding Paper Award, Transportation Research Board Highway Traffic Monitoring committee (ACP 70), 2021
- Scholarship Award, Institute of Transportation Engineers, Michigan section, 2020
- Best poster awards, Michigan Transportation Planning Association, 2019
- Scholarship Award, Ministry of Human Resource and Development, India, 2013-15

TEACHING EXPERIENCE

Assistant Professor, Rewa Engineering College, Rewa, India June 2016 – July 2018

- Transportation Engineering, 50 students
- Traffic Engineering, 50 students
- Environmental Engineering- I, 50 students
- Environmental Engineering- II, 50 students

SERVICE TO PROFESSION

- Transportation Research Board, Standing Committee on Safety Performance and Analysis, Reviewer 2020 – present
- Transportation Research Board, Standing Committee on Statistical Methods, Reviewer, 2020 – present
- Transportation Research Board, Standing Committee on Accessible Transportation and Mobility, Reviewer, 2020 – present
- Transportation Research Board, Standing Committee on Transportation in the Developing Countries, Reviewer, 2020 – present
- American Society of Civil Engineers, part A systems, Reviewer, 2022 – present

INVITED SPEAKER

- A Workshop on Using Tableau for Data exploration, National Institute of Technology, Nagpur, Maharashtra, India, 2022
- A Talk on Career Guidance for Undergraduate Students, Government Engineering College, Rewa, Madhya Pradesh, India, 2021
- Study on Willingness to Use Non-motorized Transport in Urban Areas, Sagar Institute of Research and Technology, Bhopal, Madhya Pradesh, India

RESEARCH EXPERIENCE

Assistant Research Professor, Civil and Environmental Engineering, August 2023 – present

- Relationship of Speed, Roadway Geometrics, and Crashes on High-Speed Rural Highways. *National Cooperative Highway Research Program 15-82*

Human Behavior/Factors Researcher and Data Scientist, Connecticut Transportation Safety Research Center, October 2022 – August 2023

- Analyzing the Factors Affecting Injury Severity of Motorcyclists in Connecticut: A Multinomial Logit Approach for Single-Vehicle and Multi-Vehicle Crashes, *Connecticut Department of Transportation*
- Examining the effect of Roadway, Weather, and Traffic characteristics on the Pedestrian Injury Severity, *Connecticut Department of Transportation*

Graduate Research Assistant, Michigan State University, August 2018 – August 2022

- Incorporating Impacts of Driver Distraction into Highway Design and Traffic Engineering. *Federal Highway Administration, SHRP2 NDS Pooled Fund Study*
- Develop Consistent Data-Driven Methodology to Multimodal, Performance-Based, and Context Sensitive Design, *Michigan Department of Transportation*
- Analyzing the Impacts of COVID-19 on Transportation, *MSU in-house research*
- Update of the Policy on Geometric Design of Highways and Streets Guidance on Acceleration/Deceleration and Stopping Sight Distance Criteria. *National Cooperative Highway Research Program 15-75*
- Corridor and Systemwide Application of Performance Based Practical Design. *Michigan Department of Transportation*
- Evaluation of Dynamic Speed Feedback Signs on Freeway Interchange Ramps. *Michigan Department of Transportation*

PROJECT REPORTS

1. Savolainen, P. T., Gates, T. J., Qu, T. T., Bamney, A., & Jashami, H. (2022). Developing a Consistent Data Driven Methodology to Multimodal, Performance Based and Context Sensitive Design (No. SPR-1719). Michigan Department of Transportation.
2. Savolainen, P. T., Gates, T. J., Bamney, A., Sunday, I., Hagel, E., Jashami, H. Corridor and Systemwide Application of Performance Based Practical Design. Michigan Department of Transportation (*under review*).
3. Savolainen, P. T., Gates, T. J., Donnell, E., Smaglik, E., Gooch, J., Hallmark, S., Megat-Johari, M.U., Bamney, A., Jashami, H., Gupta, N., Abatan, A. (2023). Acceleration, Deceleration and Stopping Sight Distance Criteria for Geometric Design of Highways and Streets. National Cooperative Highway Research Program 15-75.

4. Savolainen, P. T., Gates, T. J. Kersavage, K., Bamney, A., Gupta, N., Cai, Q., Pantangi, S. (2023) Incorporating Impacts of Driver Distraction into Highway Design and Traffic Engineering. Federal Highway Administration. Washington D.C.

REFEREED JOURNAL PUBLICATIONS

1. Gupta, N., Bamney, A., Rostami, A., Kamjoo, E., & Savolainen, P. T. (2023). How did the COVID-19 pandemic affect driver speed selection and crash risk on rural freeways? *Transportation research part F*, 97, 181-206.
2. Bamney, A., Shirani, N. Song, Y., & Jackson, E. (2023). Analyzing the Factors Affecting Injury Severity of Motorcyclists in Connecticut: A Multinomial Logit Approach for Single-Vehicle and Multi-Vehicle Crashes. Under review, Transportation research Board Annual Meeting 2023.
3. Rostami, A., Kamjoo, E., Bamney, A., Gupta, N., & Savolainen, P. (2023). Investigating Changes in Travel Behavior Over Time in Response to the COVID-19 Pandemic. *Transportation Research Part F*.
4. Bamney, A., Cai, Q., Gupta, N., & Savolainen, P.T. (2023). Analyzing the Effects of Driver Distraction on Reaction Time and Deceleration Rates using Naturalistic Driving Data. (Working paper)
5. Bamney, A., Cai, Q., Gupta, N., & Savolainen, P.T. (2023). How the Likelihood of Getting Engaged in Distraction varies by Driving Environment? An Analysis Using Naturalistic Driving Data. (Working paper)
6. Bamney, A., Pantangi, S., Jashami, H., & Savolainen, P.T. (2022). How do the Type and Duration of Distraction Affect Speed Selection and Crash Risk? An Evaluation Using Naturalistic Driving Data. *Accident Analysis and Prevention*, 178, 106854. <https://doi.org/10.1016/j.aap.2022.106854>
7. Mahmud, M. S., Jashami, H., Gates, T. J., Megat Johari, M. U., Bamney, A., & Savolainen, P. T. (2022). Effects of Speed Feedback Trailer Positioning and Presence of Law Enforcement on Driver Behavior in Freeway Work Zone Lane Closures. In press, *Transportation Research Record*.
8. Mahmud, M. S., Jashami, H., Gates, T. J., Megat Johari, M. U., Bamney, A., & Savolainen, P. T. (2022). Do Dynamic Speed Feedback Signs Impact Drivers Differently Based on Speeding Tendencies? Insights from Applications at Select Critical Roadway Contexts. In press, *Transportation Research Record*.
9. Bamney, A., Megat-Johari, N., Kirsch, T., & Savolainen, P.T (2022). Differences in near-crash risk by types of distraction: a comparison of trends between freeways and two-lane highways using naturalistic driving data. *Transportation research record*, 2676(2), 407-417. <https://doi.org/10.1177/036119812111043817>
10. Bamney, A., Jashami, H., Sonduru Pantangi, S., Ambabo, J., Megat-Johari, M. U., Cai, Q., Gupta, N. & Savolainen, P. T. (2021). Examining Impacts of COVID-19-Related Stay-At-Home Orders through a Two-Way Random Effects Model. *Transportation Research Record*, 03611981211046921. <https://doi.org/10.1177/036119812111046921>
11. Mahmud, M. S., Megat Johari, M. U., Bamney, A., Jashami, H., Gates, T. J., & Savolainen, P. T. (2022). Driver Response to a Dynamic Speed Feedback Sign at Speed Transition Zones Along High-Speed Rural Highways. *Transportation Research Record*, 03611981221112942. <https://doi.org/10.1177/03611981221112942>
12. Mahmud, M. S., Bamney, A., Megat Johari, M. U., Jashami, H., Gates, T. J., & Savolainen, P. T. (2022). Evaluating Driver Response to a Dynamic Speed Feedback Sign at Rural Highway Curves. *Transportation Research Record*, 03611981221112401. <https://doi.org/10.1177/03611981221112401>
13. Bamney, A., Gupta, N., Jashami, H., Megat-Johari, M. U., & Savolainen, P.T (2022). An Analysis of Changes in County-Level Travel Behavior Considering COVID-19-Related Travel Restrictions, Immunization Patterns, and Political Leanings. *Journal of Transportation Engineering, Part A: Systems*, 148(11), 04022096. <https://doi.org/10.1061/JTEPBS.0000748>
14. Bamney, A., & Tiwari, D. Study on willingness to use Non-motorized modes in a tier 3 city: A case study in India. *Transportation Research Procedia*. 2020. 48, 2280-2295
15. Bamney, A., & Rastogi, R. Studies on Importance and Design Needs for Non-motorized Trips-A Review. *Transportation Research Lecture Notes 201-2012*. 2020. <https://doi.org/10.1007/978-981-32-9042-6>

PRESENTATIONS AT TECHNICAL CONFERENCES

1. Bamney, A., Shirani, N. Song, Y., & Jackson, E. (2023). Analyzing the Factors Affecting Injury Severity of Motorcyclists in Connecticut: A Multinomial Logit Approach for Single-Vehicle and Multi-Vehicle Crashes. Association of Transportation Safety Information Professionals, Nashville July 8 – 13, 2023.
2. Mahmud, Md., Jashami, H., Megat Johari, M.U., Gupta, N., Bamney, A., Gates, T. and Savolainen, P.T. Do Dynamic Speed Feedback Signs Impact Drivers Differently Based on Speeding Tendencies? Insights

- from Applications at Select Critical Roadway Contexts. Transportation Research Board Annual Meeting Jan 8-11, 2023. Washington, D.C.
3. Mahmud, Md., Gates, T., Megat Johari, M.U., Jashami, H., Bamney, A., Savolainen, P.T. Effects of Speed Feedback Trailer Positioning and Presence of Law Enforcement on Driver Behavior in Freeway Work Zone Lane Closures. Transportation Research Board Annual Meeting Jan 8-11, 2023. Washington, D.C.
 4. Mahmud, M. S., Bamney, A., Megat Johari, M. U., Jashami, H., Gates, T. J., & Savolainen, P. T. Evaluating Driver Response to a Dynamic Speed Feedback Sign on Rural Highways Curves. ASCE, International Conference on Transportation & Development, Seattle, WA, May 31-June 3, 2022.
 5. Bamney, A., Pantangi, S. S., Jashami, H., & Savolainen, P. T. (accepted). How do the type and duration of distraction affect speed selection and crash risk? An evaluation using naturalistic driving data. The Transportation Research Board (TRB) 101st Annual Meeting, Washington D.C., U.S.
 6. Mahmud, M. S., Bamney, A., Megat Johari, M. U., Jashami, H., Gates, T. J., & Savolainen, P. T. (accepted). Evaluating Driver Response to a Dynamic Speed Feedback Sign on Rural Highways Curves. The Transportation Research Board (TRB) 101st Annual Meeting, Washington D.C., U.S.
 7. Mahmud, M. S., Megat Johari, M. U., Bamney, A., Jashami, H., Gates, T. J., & Savolainen, P. T. (accepted). Driver Response to a Dynamic Speed Feedback Sign at Speed Transition Zones along Rural Highways. The Transportation Research Board (TRB) 101st Annual Meeting, Washington D.C., U.S.
 8. Gupta, N., Megat-Johari, N., Mahmud, M. S., Bamney, A., & Hagel, E. C. Active Traffic Management Using Combined Dynamic Speed Limit Display and Speed Feedback Sign. The Transportation Research Board (TRB) 101st Annual Meeting, Washington D.C., U.S.
 9. Bamney, A., Jashami, H., Pantangi, S., S., Ambabo, J., Megat Johari, M. U., Cai, Q., Gupta, N., & Savolainen, P. T. (2021). Examining Impacts of COVID-19 Related Stay-at-Home Orders through a Two-way Random Effects Model. The Transportation Research Board (TRB) 100th Annual Meeting, Washington D.C., U.S.
 10. Bamney, A., Jashami, H., Pantangi, S., S., Ambabo, J., Megat Johari, M. U., Cai, Q., Gupta, N., & Savolainen, P. T. (2021). Examining Impacts of COVID-19 Related Stay-at-Home Orders through a Two-way Random Effects Model. ITS Michigan, Ann Arbor, MI, U. S.
 11. Bamney, A., Megat-Johari, N., Kirsch, T., & Savolainen, P. Differences in Near-Crash Risk by Types of Distraction: A Comparison of Trends between Freeways and Two-Lane Highways using Naturalistic Driving Data. Transportation Research Board 99th Annual Meeting.
 12. Bamney, A., Megat-Johari, N., Kirsch, T., & Savolainen, P. Differences in Near-Crash Risk by Types of Distraction: A Comparison of Trends between Freeways and Two-Lane Highways using Naturalistic Driving Data. Michigan Traffic Safety Summit 2020.
 13. Bamney, A., & Savolainen, P.T. (2019). Evaluating the Impacts of the 2017 Legislative Mandated Speed Limit Increases. Big ten ALP conference. Department of Civil and Environmental Engineering School of Planning, Design and Construction.
 14. Bamney, A., & Savolainen, P.T. (2019). Impact of Demographic and Traffic Characteristics on Cell Phone Distraction using Naturalistic Driving Data. Michigan Transportation Planning Association, Lansing Michigan.
 15. Bamney, A., Megat-Johari, N., Kirsch, T., & Savolainen, P. Differences in Near-Crash Risk by Types of Distraction: A Comparison of Trends between Freeways and Two-Lane Highways using Naturalistic Driving Data. ITE MSU transportation seminar series 2019.
 16. Bamney, A., & Tiwari, D. (2020). Study on willingness to use Non-motorized modes in a tier 3 city: A case study in India. World Conference on Transport Research Society, Mumbai, India.
 17. Bamney, A., & Rastogi, R. (2017). Studies on Importance and Design Needs for Non-motorized Trips- A Review. Conference of Transportation Research Group of India, Mumbai, India.
 18. Bamney, A., & Rastogi, R. (2017). Modelling Willingness to Use Non-Motorized Modes for Urban Trips: A Case Study. Hong Kong Society for Transportation Studies, Hong Kong.
 19. Bamney, A., & Rastogi, R. (2016). Willingness to use non-motorized trips in urban areas. Transportation planning and implementation methodologies for developing countries. Mumbai, India.