Section 19 – Publications and Presentations, 2024-2025

Publications

1. Khasib, I., and Abu-Farsakh, M., 2024 "Assessment of Axial Resistance of Piles Considering Consolidation Setup and Aging Setup Using Direct Pile-CPT Methods," Journal of Transportation Research Record, 03611981241236789.
2. Abu-Farsakh, M., Rahman, M. H., and Jafari, N., 2024 "Assessment of Different Spatial Interpolation Techniques for Generating Synthetic Soil Boring Data," Journal of Transportation Research Record, Vol. 2678, No. 6, pp. 1020-1035
3. Haque, Md. N., and Abu-Farsakh, M., 2024 "Evaluation of Design Parameters (α and β) for Analysis and Design of Piles on Soft Clays," Journal of Transportation Research Record, 03611981241236484.
4. Nobahar, M., Abu-Farsakh, M., and Izadifar, M., 2024 "Evaluating the mechanisms and performance of Geosynthetic-Reinforced Load Transfer Platform of pile-supported embankments design methods Geotextiles and Geomembranes Journal, Vol. 52, No. 6, pp. 1112-1133.
5. Khasib, I., Amirmojahedi, M. and Abu-Farsakh, M., 2024 "Evaluating the Direct CPT-Based Design Methods for Estimating the End Bearing and Side Resistance of Instrumented Test Piles," Geotechnical and Geological Engineering Journal, Vol. 42, No. 7, pp. 5871-5890.
6. Shoaib, M., and Abu-Farsakh, M., 2024 "Developing Tree-Based Machine Learning Models for Estimating the Pile Setup Parameter for Clay Soils," Journal of Transportation Research Record, Vol. 2678, No. 1, pp. 136-149
7. Mojunder, M. A., Abu-Farsakh, M., Rosti, F., and Chen S., 2024 "Assessment of Driven Pile's Ultimate Capacity through Artificial Neural Network Analysis of CPT Data," Journal of Transportation Research Record, 03611981241257407.
8. Izadifar, M., Abu-Farsakh, M., and Chen, S., 2024 "Case Study on Instrumenting and Monitoring Geosynthetic-Reinforced Pile-Supported MSE Wall Built over Soft Soil," Journal of Transportation Research Record.
9. Abu-Farsakh, M., and Shoaib, M., 2024 "Machine Learning Models to Evaluate the Load-Settlement Behavior of Piles from Cone Penetration Test Data," Journal of Geotechnical and Geological Engineering, Vol. 42, pp. 3433–3449.
10. Rosti, F., and Abu-Farsakh, M., 2024 "An Elastoplastic Model to Simulate Pile Installation and Setup in Clay Soils," Geotechnical and Geological Engineering Journal, Vol. 42, No. 5, pp. 1-15.
11. Abu-Farsakh, M., Rahman, M. H., and Titi, H., 2024 "Evaluate and Incorporate Site Variability into LRFD Design of Pile Foundations," Proceedings of the 49th Annual Conference on Deep Foundations, Oct 7-10, 2024, Aurora, CO.

12. Abu-Farsakh, M., and Shoaib, M., 2024 "Develop Machine Learning Models to Generate the Load-Settlement Curves of Piles from Cone Penetration Test Data," Proceedings of the 49th Annual Conference on Deep Foundations, Oct 7-10, 2024, Aurora, CO.
13. Abu-Farsakh, M., and Rahman, M. H., 2024 "Incorporating site variability into LRFD design of piles," Proceedings of the XVIII European Conference on Soil Mechanics and Geotechnical Engineering, Aug. 26-30, Lisbon, Portugal.
14. Abu-Farsakh, M., and Izadifar, M., 2024 "Evaluation of design methods for geosynthetic-reinforced pile-supported embankments based on case studies," Proceedings of the XVIII European Conference on Soil Mechanics and Geotechnical Engineering, Aug. 26-30, Lisbon, Portugal.
15. Liu, Z., Rupnow, T., Milla, J., Cooper, S., 2025 "Aggregate alkali–silica reactivity and mitigation effectiveness evaluation with miniature concrete prism test," Magazine of Concrete Research, https://doi.org/10.1680/jmacr.25.00095.
16. Chen, Q., and Zhang, Z. (2025). Feasibility Study on Use of Drone-Based Infrared Thermography for Soil Moisture Detection in Highway Embankment and Dam Inspection. Journal of Infrastructure Systems, ASCE, Vol. 31, No.1.
17. Chen, Q., Tao, M., Mallick, R. B., and Zhang, Z. (2024). Holistic and Practical Approach for Assessing Flood Risks of Low Volume Asphalt Roads. Transportation Research Record, 2678(12), 1511-1522.
18. The data-driven approach future-proofing Louisiana's transportation, Seequent (a Bentley Company), June 17, 2025
19. Peng, X., Rauser, J., Gautreau, G., Enhancing Deep Foundation Practices in DOT Projects, Nov/Dec 2024, Deep Foundations Magazine, Deep Foundation Institute (DFI), pp 99
20. Dasenbrock, D., Nodine, M., Steen, J., Fair, P., James, M., Jang, D., Heil, L., Mavandadi, S., Shen, B., Rauser, J., Gautreau, G., Contract Documents of The Future, Nov/Dec 2024, Deep Foundations Magazine, Deep Foundation Institute (DFI), pp 109-114 .
21. Rauser, J., Gautreau, G., Nobahar, M., Rupnow, T., Technical Assistance Report Forensic Investigation of a Cracked Highway Embankment Pavement in Louisiana: A Case Study, 2024, Transportation Infrastructure Geotechnology 11 (6), 3726-3752 LTRC Technical Assistance Report, https://doi.org/10.1007/s40515-024-00452-0
22. Gautreau G.P., Nobahar M.*, and Rahimi A. "Long-Term Performance Evaluation of Reinforced Embankment Test Sections Over Extremely, Soft Compressible Soil: A Case Study in Louisiana." Transportation Research Record (TRR): Journal of the Transportation Research Board, SAGE Publishing Journals, 2025

23. Gautreau G. P., Ferguson N., and Nobahar M.* "Evaluation of Lightweight Aggregate with the Dynamic Cone Penetrometer (DCP)." Journal of Transportation Infrastructure Geotechnology, 2025. https://doi.org/10.1007/s40515-025-00571-2
24. Abualia, A., Liu, J., Mohammad, L. N., Cooper, III, S., and Cooper, Jr, S., "Effect of High Polymer, Crumb Rubber, and Epoxy Modified Asphalt Binders on Laboratory Performance of OGFC Mixtures" The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol 2670 (1), 2025, pp. 1206-1222.
25. Elnaml, I., Heather, D., Liu, J., Mohammad, L. N., Cooper, III, S., and Cooper, Jr, S., "Incorporating Environmental Impact Analysis into Louisiana's Balanced Asphalt Mixture Design." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol. 2679 (1), 2025, pp. 1078-1090.
26. Shirzad, S., Idris, I., Hassan, M., and Mohammad, L. N. "Self-Healing Capability and Mechanical Properties of Asphalt Mixtures Prepared with Light-Activated Polyurethane Prepolymer Modified Asphalt Binder." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol. 2679(1), 2025, pp. 710-728.
27. Elnaml, I., Mohammad, L. N., Baumgardner, G. L., Cooper, III, S., and Cooper, Jr, S., "Sustainability of Asphalt Mixtures Containing 50% RAP and Recycling Agents." Recycling 9 (85), https://doi.org/10.3390/recycling9050085, 2024, pp. 1-22.
28. Ma, Y., Mohammad, L. N., Liu, J., Asghar, M., Elnaml, I., Cooper, III, S., and Cooper, Jr, S., "Development of a Cyclic Semi-Circular Bending Test Protocol to Characterize Fatigue Cracking of Asphalt Mixture at Intermediate Temperature." Construction and Building Materials, Vol 433 137669, 2024, pp. 1-11.
29. Abualia, A., Akentuna, M., Mohammad, L. N., Cooper, III, S., and Cooper, Jr, S., "Improving Asphalt Binder Durability Using Sustainable Materials: A Rheological and Chemical Analysis of Polymer-, Rubber-, and Epoxy-Modified Asphalt Binders, Sustainability 16(13), 5379, 2024, pp.1-19
30. Elnaml, I., Liu, J., Mohammad, L. N., Dylla, H., Cooper, III, S., and Cooper, Jr, S., "Recycling Waste Plastics in Asphalt Mixture: Engineering Performance and Environmental Assessment." Journal of Cleaner Production, Vol. 453, 142180, 2024, pp. 1-13.
31. Pant, S., Akentuna, M., Mohammad, L. N., Cooper, III, S., and Cooper, Jr, S., "Field Performance Validation of the Louisiana Balanced Asphalt Mix Design Framework." Construction and Building Materials, Vol 428 136251, 2024, pp. 1-8.

32. Pant, S., Akentuna, M., Mohammad, L. N., Cooper, III, S., and Cooper, Jr, S., "Long-Term Performance of Flexible Pavements Containing Crumb Rubber Modified Asphalt in Louisiana." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol. 2678(10), 2024, pp. 1610-1623.
33. Elnaml, I., Mohammad, L. N., Baumgardner, G. L., Liu, J., Cooper, III, S., and Cooper, Jr, S., "Influence of Petroleum-Based and Bio-Derived Recycling Agents on High-RAP Asphalt Mixtures Performance." Buildings, 14(3), 567, doi.org/10.3390/buildings14030567, 2024, pp. 1-16.
34. Elnaml, I., Liu, J., Mohammad, L. N., Cooper, III, S., and Cooper, Jr, S., "Use of the Iron Chloride Type of Lewis Acid Catalyst in High Reclaimed Asphalt Pavement Content Asphalt Mixtures." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol. 2678 (2), 2024, pp. 430-440.
35. Ma, Y., Liu, J., Mohammad, L. N., Cooper, III, S., Cooper, Jr, S., and Duvvuru, M., "Use of Random Forest to Predict Intermediate Temperature SCB Jc Parameter of Long-Term Aged Asphalt Mixtures." The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record, Vol. 2678(3), 2024, pp. 177-189.
36. W. A. Khan, M. Moomen, M. A. Rahman, K. A. Terkper, J. Codjoe, and V. Gopu, "Predicting crash-related incident clearance time on Louisiana's rural interstate using ensemble tree-based learning methods," Applied Science, vol. 14, no. 23, p. 10964, Jan. 2024, doi: 10.3390/app142310964.
37. M. A. Rahman, R. Chakraborty, S. Das, N.-H. Mohammed, M. M. Hossain, and S. Junaed, "Identifying attribute associations in fatal speeding crashes using latent class clustering and association rule mining," Journal of Transportation Safety Security. pp. 1–40, 2024.
38. S. Das, M. A. Rahman, J. Liu, X. Ye, and B. Kutela, "Association patterns of work zone crashes using Bayesian network," Transportation Research Record, 03611981241270161, 2024.
39. Hossain, S. Das, X. Sun, A. S. Hasan, M. Jalayer, and M. A. Rahman, "A hybrid data mining framework to investigate roadway departure crashes on rural two-lane highways: Applying fast and frugal tree with association rules mining," Accident Analysis and Prevention, Vol. 217, p. 108066, 2025.
40. Rana Bhat, M., R. Bian, T. Tolford, and H. Hassan. Understanding Social Impacts of Major Disruptions from the Perspective of Destination Access. Data Science for Transportation, Vol. 7, No. 2, 2025. (https://doi.org/10.1007/s42421-025-00122-8)

41. Bian, R., P. Murray-Tuite, K. Wernstedt, and S. Guikema. Out-of-Home Activity Adaptations of Commuters and Non-Workers to the Power Outage at Home Induced by Hurricane Irma. Travel Behaviour and Society, Vol. 40, 2025. (https://doi.org/10.1016/j.tbs.2025.101017)
42. Tian, G., Danton, B., Li, B., Gopu, V., & Codjoe, J. A. (2024). Understanding household VMT generation: A comparative analysis with traditional statistical models and a machine-learning approach. Journal of Transport and Land Use, 17(1), 881–901. https://doi.org/10.5198/jtlu.2024.2531
43. Ashifur Rahman and Elisabeta Mitran. Researchers Explore Crash Characteristics and Speed Limits on Elevated Interstate Sections. Technology Today (A publication of the Louisiana Transportation Research Center), Volume 37, Issue 2, 2024.
44. Elshoura, A., and Okeil, A. M.* (2024) "Simplified Method for Estimating Restraint Moment Induced by Vertical Temperature Gradient in Continuous Prestressed Concrete Bridges and Verification using AASHTO BDS," Structure and Infrastructure Engineering, Taylor & Francis, 20(6): 944-956. DOI:10.1080/15732479.2022.2132518.
45. Gavilanes, Andrea, Noorvand, Hassan, Hassan, Marwa, Arce, Gabriel, and Rupnow, Tyson. "Incorporation of Cellulose Nanocrystals Synthesized from Rice Husk in Engineered Cementitious Composites." Transportation Research Record: Journal of the Transportation Research Board, Sage Publications, Inc., https://doi.org/10.1177/03611981241258749, 2024.
46. Giwa, Ilerioluwa, Kazeman, Ali, Gopu, Vijaya, and Rupnow, Tyson. "A Compressive Load Bearing Analysis of 3D-Printed Circular Elements." Buildings 2024: Special Issue 3D Printing and Low-Carbon Technologies in Cementitious Composites, Vol. 14, Issue 7, 2170, 2024. https://doi.org/10.3390/buildings14072170
47. Hungria, R., Arce, G., Hassan, M., Mohammad, L. N., Mahdi, M., and Rupnow, T. "Interface Bond Strength of Engineered Cementitious Composites (ECC) in Pavement Applications." International Journal of Pavement Research and Technology, Volume 17, 2024, pp. 952-966.
48. Sheida, K.; Seyedi, M.; Afridi, M.A.; Ferdowski, F.; Khattak, M.J.; Gopu, V.K.; Rupnow, T. "Resilient Reinforcement Learning for Voltage Control in an Islanded DC Microgrid Integrating Data-Driven Piezoelectric." Machines, 12, 694, https://doi.org/10.3390/machines12100694, 2024.
49. Wheeler, Dara, May, Todd, Rupnow, Tyson, Walker, Katie, Kergaye, Cameron, Zaharewicz, Jeffrey, Gilman-Bogie, Amanda, Hastings, Shante, Tamer, Alyson, Freeman, Anne, Su, Linda, Page, Glenn, and Peabody, Dale. "Developing and

Maintaining a Culture of Innovation within DOTs." Final Report: NCHRP Project 20-68, Scan 23-04, AAASHT, TRB, NCHRP, August, 2024.

Presentations

1. Moradi, P., Al-Harahsheh, Y., Nobahar, M., and Abu-Farsakh, M. Y., G., 2025. Evaluation of Artificial CPT Prediction Techniques for Geotechnical Site Variability Analysis, presented at the 2025 Louisiana Transportation Conference, March 16-19, 2025.
2. Abu-Farsakh, M. Y., 2025. Performance Evaluation of the Geosynthetic-Reinforced Pile-Supported Embankments Design Methods, presented at the 2025 Louisiana Transportation Conference, March 16-19, 2025.
3. Abu-Farsakh, M. Y., Khasib, I., and Voyiadjis, G., 2025. Effect of General Scour on the Axial Capacity of Piles Driven in Mixed Soil Layers Considering Pile Installation, presented at the TRB 104th Annual Meeting, Washington, D.C., January 4-9, 2025.
4. Moradi, P., Al-Harahsheh, Y., Nobahar, M., and Abu-Farsakh, M. Y., 2025. Evaluation of Artificial CPT Prediction Techniques in Sparse, Unsampled Soil between CPTs for Site Variability Analysis, presented at the TRB 104th Annual Meeting, Washington, D.C., January 4-9, 2025.
5. Abu-Farsakh, M. Y., and Izadifar, M., 2025. Static Truck Load Tests on Instrumented Geosynthetic-Reinforced Pile-Supported MSE Wall Built over Soft Soil, presented at the TRB 104th Annual Meeting, Washington, D.C., January 4-9, 2025.
6. Nobahar, M., Abu-Farsakh, M. Y., and Rauser, J., 2025. Bridging the Gap Between Soil Borings and/or Cone Penetration Tests Using Electric Resistivity Imaging to Improve Site Investigations, presented at the TRB 104th Annual Meeting, Washington, D.C., January 4-9, 2025.
7. Gautreau, G. P., Nobahar, M., and Rahimi, A., 2025. Long-Term Performance Evaluation of Reinforced Embankment Test Sections Over Extremely, Soft Compressible Soil: A Case Study in Louisiana, presented at the TRB 104th Annual Meeting, Washington, D.C., January 4-9, 2025.
8. Haque, M. N. and Abu-Farsakh, M. Y., 2025. Development of Axial Load Transfer Curves of Prestressed Concrete Piles in Clayey Soil, presented at the TRB 104th Annual Meeting, Washington, D.C., January 4-9, 2025.
9. Abu-Farsakh, M. Y., and Izadifar, M., 2024 "Performance Evaluation of Geosynthetic-Reinforced Pile-Supported Embankments Built Over Soft Soil." Presented at the Geo-Structures 2024 conference, November 17-20, Pittsburgh, PA.

10. Abu-Farsakh, M. Y., 2024 "Accelerated Load Testing to Evaluate the Performance of Geosynthetics in Reinforced Flexible Pavement Built Over Weak Subgrade." Invited speaker at the ASCE Seattle Section Geotechnical Group / Seattle Geo-Institute Chapter Seminar, Oct. 17-21, Seattle, WA.
11. Abu-Farsakh, M. Y., and Rahman, M., H., and Titi, H. H.,2025. Evaluate and Incorporate Site Variability into LRFD Design of Pile Foundations, presented at 9th Annual Conference on Deep Foundations, Aurora, CO, Oct 7-10, 2024.
12. Abu-Farsakh, M., and Rahman, M. H., 2024 "Incorporating site variability into LRFD design of piles," Presented at the XVIII European Conference on Soil Mechanics and Geotechnical Engineering, Aug. 26-30, Lisbon, Portugal.
13. Abu-Farsakh, M., and Izadifar, M., 2024 "Evaluation of design methods for geosynthetic-reinforced pile-supported embankments based on case studies," presented at the XVIII European Conference on Soil Mechanics and Geotechnical Engineering, Aug. 26-30, Lisbon, Portugal.
14. I. Elnaml, L.N. Mohammad, M. Akentuna, M.K.R. Duvvuru, S. Parajuli, S.B. Cooper III, and S.B. Cooper Jr. Effect of Amine-Based and Chemical Warm Mix Additives on Moisture Damage Resistance of Asphalt Mixtures at Different Conditioning Protocols." Presented at the 104th Annual Meeting of the Transportation Research Board, January 5-9, 2025, Washington DC.
15. M. Akentuna. "Non-destructive Technique for Continuous Density Measurement: Louisiana's Experience." Presented at the 2025 Louisiana Transportation Conference, March 16-19, 2025, Baton Rouge, LA
16. M. Akentuna, C. Mayeux, S. Salari, and S. Cooper III. "Non-destructive Testing (NDT) For Asphalt Density Measurement: Evaluation of the PQI-380 Gauge In Louisiana." Presented at the 2024 SEAUPG Annual Meeting & Exhibits, November 19-21, 2024, Mobile, AL.
17. Hungria R., Wu Z., 2025. Evaluation of Friction Performance of Selected Aggregate Sources using a Three-Wheel Polishing Device, presented at the 2025 Louisiana Transportation Conference, March 16-19, 2025.
18. Liu, Z., 2025. Evaluation of the Miniature Concrete Prism Test (MCPT) for Use in LADOTD, presented at the 2025 Louisiana Transportation Conference, March 16-19, 2025.
19. Liu, Z., Rupnow, T., Milla, J., Cooper, S., 2025. Comparative Study of the Testing Methods for Aggregate Alkali-Silica Reactivity and Mitigation Effectiveness Evaluation, presented at the TRB 104th Annual Meeting, Washington, D.C., January 4-9, 2025.

20. Chen, Q., Liu, J., and Zhang, Z. (2025). Performance of Stone Interlayers for Reflective Cracking Mitigation: The Louisiana Experience. 2024 TRB Annual Meeting (lectern)
21. Liu, J. and Chen, Q. (2025). Enhanced Low-Temperature Indirect Tensile Strength Prediction for Asphalt Mixtures with RAP. 2025 TRB Annual Meeting. (poster)
22. Chen, Q. (2025). A Holistic and Practical Approach for Assessing Flood Risks of Low Volume Roads. 2025 Louisiana Transportation Conference presentation.
23. Liu, J. (2025). Implementing Stop-and-Go Inertial Profiler for Pavement Smoothness Assessment in Louisiana. 2025 Louisiana Transportation Conference presentation
24. Liu, J. and Chen, Q. (2025). Development of a Database for Successfully Performing Pavement Sections in Louisiana. PRC meeting
25. Liu, J. (2025). Performance Index Rating and Maintenance Cost Assignment for Ramps, Acceleration Lanes, and Deceleration Lanes in Louisiana. PRC meeting
26. Gautreau G.P., Nobahar M.*, and Rahimi A. "Long-Term Performance Evaluation of Reinforced Embankment Test Sections Over Extremely, Soft Compressible Soil: A Case Study in Louisiana." Presented at the 104th Annual Meeting of Transportation Research Board (TRB), Jan 5-9th, 2025, Washington, D.C, USA
27. Gavin Gautreau. "Geotechnical Asset Management for DOTD – Phase II (Culverts)." Presented at the 104th Annual Meeting of Transportation Research Board (TRB), Jan 5-9th, 2025, Washington, D.C, USA
28. Gavin Gautreau. "Louisiana DOTD Geotechnical Database" 2024 Southeast Transportation Geotechnical Engineering Conference, Baton Rouge, LA, November, 18-22, 2024
29. Nick Ferguson. "Geophysical Applications for Louisiana" 2025 Southwest Geotechnical Engineering Conference (SWGEC), Sacramento, CA
30. Mohammad, L. N. "Leveraging Advanced technologies to Improve Asphalt Pavement Performance." Presented at the 3rd International Conference of Engineering Sciences, June 1-2, 2025, Mustansiriyah University, Baghdad, Iraq (Keynote Presentation).
31. Mohammad, L. N. "Innovation in the Design of Durable Open-Graded Friction Course (OGFC) Mixtures." Presented at the Louisiana Transportation Conference, March 16-19, 2025, Baton Rouge, Louisiana, (Invited Presentation).
32. Mohammad, L. N. "The Pursue of Sustainable Pavements." Presented at the Louisiana Transportation Conference, March 16-19, 2025, Baton Rouge, Louisiana, (Invited Presentation).
33. Abualia, A., Mohammad, L. N., Hemida, A., Cooper, III, S., and Cooper, Jr., "Assessing Moisture Susceptibility of OGFC Mixes Containing SBS and Epoxy

Modified Asphalt Binders under Varied Aging and Moisture Conditioning Levels." Poster presentation at 104th TRB Annual Meeting, Washington, D.C., January 5-9, 2025.

34. Elnaml, I., Mohammad, L. N., Baumgardner, G, Cooper, III, S., and Cooper, Jr., "Sustainable Engineering vs. Environmental Stewardship of Asphalt Mixtures Containing 50% RAP and Recycling Agents." Poster presentation at 104th TRB Annual Meeting, Washington, D.C., January 5-9, 2025.
35. Elnaml, I., Mohammad, L. N., Akentuna, M, Duvvuru, M., Parajuli, S., Cooper, III, S., and Cooper, Jr., "Effect of Amine-based and Chemical WMA Additives on Moisture Damage Resistance of Asphalt Mixtures at Different Conditioning Protocols." Poster presentation at 104th TRB Annual Meeting, Washington, D.C., January 5-9, 2025.
36. Aditi, U., Saadeh, S., Kazemi, M., Fini, E., Khoudessian, R., and Mohammad, L.N. "Achieving Sustainable Moisture Resistance in Asphalt Binder Modified with Amine-1 Impregnated Zeolite and Plastic." Poster presentation at 104th TRB Annual Meeting, Washington, D.C., January 5-9, 2025.
37. Mohammad, L. N. "Advancements in Asphalt Mixture Design: From Tradition to Innovation for a Greener Future." Presented at the 2024 AMAP Annual Meeting & Workshop, October 15-17, 2024, Salt Lake City, Utah. (Invited Presentation).
38. Mohammad, L. N. and Elnam, I, "Environmental Stewardship vs. Sustainable Engineering." Presented at the 2024 AAPT Centennial Meeting, September 9-12, 2024, Chicago, Illinois, (Invited Presentation).
39. Mohammad, L. N. and Abualia, A, "Durability and Moisture Susceptibility Evaluation for OGFC Mixtures." Presented at the 2024 AAPT Centennial Meeting, September 9-12, 2024, Chicago, Illinois, (Invited Presentation).
40. Wu, Z. "Accelerated Pavement Testing (APT) Research in Louisiana". Presented at the 2024 ATLaS Users Group Meeting, Laval University, Quebec, Canada, August 28-29, 2024.
41. Lu, H. and Wu, Z. "Calibration of Rutting and Fatigue Cracking Models for Flexible Pavement Design in Louisiana using AASHTOWare Pavement ME Design". Presented (Poster) at 104th Transportation Research Board Annual Meeting, Washington, DC, January 6-10, 2025.
42. Omar, O., Noorvand, H., Dhasmana, H., Hassan, M., Subedi, S., and Rupnow, Tyson. "Enhancing Self-Healing Performance of Bio-concrete: Impregnating Bacillus Pseudofirmus into Coarse Lightweight Aggregate via Vacuum Impregnation." Presented at the 104th Transportation Research Board Meeting, Washington, D.C., January 5-9, 2025.

43. Rupnow, Tyson. "Designing with Long-Life in Mind Using Surface Resistivity and High Portland Cement Replacement Contents." Presented at the 104th Transportation Research Board Meeting, Washington, D.C., January 5-9, 2025.
44. Rupnow, Tyson. "LTRC Resiliency Efforts." Presented at the DOTD Resiliency Working Group Meeting, April 30, 2025, Baton Rouge, LA.
45. Rupnow, Tyson and Coco, Mary Leah. "2024-2025 Work Program." Presented to the LTRC Policy Committee, Baton Rouge, LA, July 9, 2024.
46. Rupnow, Tyson. "Bentley / LTRC Grant." Presented to the LTRC Foundation, Baton Rouge, LA, July 9, 2024.
47. Rupnow, Tyson. "Concrete 101: A Day of Concrete." Baton Rouge, LA, October 23, 2024.
48. Rupnow, Tyson and Chew, Mark. "Iowa DOT Slide Bridge with MCE & Pavix." Presented at the National Bridge Preservation Conference 2024, Salt Lake City, UT, September 10, 2024.

Dissertations/theses

1. Mohammad Izadifar, Dissertation: "Field Investigation, Numerical Modeling, and Analytical Analysis of Geosynthetic Reinforced Pile Supported Embankments," LTRC Project No. 20-2GT.
2. Anas AbuAlia, Innovative Design Methodology for Durable Open-graded Friction Course Asphalt Mixtures. Ph.D. Dissertation, Louisiana State University, Baton Rouge, Louisiana, May 2025.
3. Ya Ma, Development of Cyclic SCB Test Protocol for Evaluating Fatigue Cracking Resistance of Asphalt Mixture at Intermediate Temperature, Ph.D. Dissertation, Louisiana State University, Baton Rouge, Louisiana, August 2024.
4. Ibrahim Elnaml, Assessment of Engineering Performance and Environmental Impacts of High Reclaimed Asphalt Pavement (RAP) Asphalt Mixtures in Flexible Pavements, Ph.D. Dissertation, Louisiana State University, Baton Rouge, Louisiana, May 2024.
5. Mahesh Duvvuru, Assessing Moisture Damage Performance of Asphalt Mixtures Utilizing Different Additives and Conditioning Techniques, M.S. Report, Louisiana State University, Baton Rouge, Louisiana, August 2024.
6. Waseem A. Khan. Investigating Factors Influencing Crash-Related Incident Clearance Time on Louisiana's Urban and Rural Interstates (Thesis-Fall 2024; LTRC Project 23-5SS)
7. David Appiah. Best Maintenance Practices and Safety Effectiveness of Control of Access Fencing in Louisiana (Thesis-Fall 2024; LTRC Project 23-8SS)

8. Kelvin Asamoah Terkper. An Investigation of the Practical Applications of Unmanned Aerial Vehicles in Traffic Incident Management and Optimizing a Facility Location Framework for Efficient Deployment. (Thesis-Spring 2025; LTRC Project 24-3SS)
9. Nurul-Haq Mohammed. Investigating the Effects of Equity Factors on Pedestrian Safety in Louisiana. (Thesis-Spring 2025; LTRC Project 23-5SS)
10. Siam Junaed. Estimating and Predicting Intersection Capacity Parameters Specific to Louisiana. (Thesis-Spring 2025; LTRC Project 23-3SS).
11. Taniya Sultana, Ph.D. in Civil Engineering (Transportation), completed Fall 2024, Title: Examining drivers' preferences & challenges towards V2I & V2V warnings, and CAVs platoons. Project LTRC 22-1TIRE.
12. Nischal Khadka, Master of Science in Civil Engineering (MSCE), completed Fall 2024, Title: Exploring the Effects of Connected and Autonomous Vehicles on Traffic Safety and Operation at Full-Cloverleaf Interchanges. Project LTRC 23-1SS.
13. Anish KC, Master of Science in Civil Engineering (MSCE), completed Fall 2024, Title: Towards Improving Pedestrian Safety on High-Speed Arterials. Project LTRC 22-3SS.
14. Manjula Ramancha. Masters of Science. Characterization of Ultra-High Performance Concrete with Self-Sensing Capability. LTRC 24-1ST
15. Sudhir Bharati. Masters of Science. Assessment of LADOTD's Friction Aggregate Sources through Laboratory and Accelerated Testing. LTRC 20-4P.

Major Staff Accomplishments/Awards

- Frank G. Erskine Award. Tyson Rupnow