

2020-2021 Annual Report Supplement

Publications by LTRC Personnel

1. Ardah, A., Abu-Farsakh, M., and Voyiadjis, G., 2021 "Numerical parametric study of Geosynthetic Reinforced Soil Integrated Bridge System (GRS-IBS)," *Journal of Geotextiles and Geomembranes*, Vol. 49, Issue 1, pp. 289-303.
2. Hasan, M., Yu, X., and Abu-Farsakh, M., 2021 "Extrapolation of O-cell drilled shaft tests for load and resistance factor design (LRFD) calibration," *Acta Geotechnica Journal*, Vol. 16, pp. 491-506.
3. Soury A., Abu-Farsakh M., and Voyiadjis G., 2021 "Evaluating the effect of pile spacing and configuration on the lateral resistance of pile groups," *Marine Georesources & Geotechnology Journal*, Volume 39, Issue 2, pp. 150-162.
4. Ghaaowd, A., Faisal, A., Rahman, H., and Abu-Farsakh, M., 2021 "Evaluation of Site Variability Effect on the Geotechnical Data and Its Application," *ASTM Geotechnical Testing Journal*, Volume 44, Issue 4, pp. 971-985 (DOI: 10.1520/GTJ20200040).
5. Abu-Farsakh M., Rahman, M., Ghaaowd, I., and Jafari, N. 2021 "Evaluation of Site Variability and Its Implementation into LRFD Design of Pile Foundations," *Proceedings of the TRB 100th annual meeting*, January 9-13, 2021, Washington, D.C.
6. Ghaaowd, I., Abu-Farsakh M., and Rahman, M., 2021 "Evaluating the Effect of Site Variability on the Bearing Capacity Resistance Factor of Foundations and the Slope Stability Analysis," *Proceedings of the TRB 100th annual meeting*, Online, January 9-13, 2021, Washington, D.C.
7. Mojumder, M., Abu-Farsakh M., and Chen, I., 2021 "Evaluating the Pile Set-up Parameter, 'A', using Artificial Neural Network," *Proceedings of the TRB 100th annual meeting*, January 9-13, 2021, Washington, D.C.
8. Idries, A., Abu-Farsakh M., and Chen, I., 2021 "Interface Behavior of Clay due to Heating-Cooling Cycle," *Proceedings of the TRB 100th annual meeting*, January 9-13, 2021, Washington, D.C.
9. Abu-Farsakh M., and Haque, Md. N., 2020 "Modified Time Factor to Estimate the Duration of Pile Setup," *Journal of Geotechnical and Geological Engineering*, Vol. 38. pp. 5787-5804.
10. Rahman, M., and Abu-Farsakh M., 2021 "Evaluation of Various Spatial Interpolation Techniques for Generating Synthetic CPT Data Profile," *Proceedings of the 4th International Conference on Transportation Geotechnics (ICTG)*, May 24 - 27, 2021.
11. AbuFarsakh R., Arce G., Hassan M., Huang O., Radovic M., Rupnow T., Louay M., Sukhishvili S. (2021) "Effect of Sand Type and PVA Fiber Content on the Properties of Metakaolin Based Engineered Geopolymer Composites" *Transportation Research Record: Journal of the Transportation Research Board*. In Press.
12. Subedi S., Arce G., Noorvand M., Hassan M., Barbato M., Mohammad L.N. (2021) "Properties of Engineered Cementitious Composites with Raw Sugarcane Bagasse Ash used as Sand Replacement." *ASCE Journal of Materials in Civil Engineering*. In Press.
13. Subedi S., Arce G., Hassan M., Barbato M., Louay M. (2021) "Effect of Raw Sugarcane Bagasse Ash as Sand Replacement on the Fiber-Bridging Properties of Engineered Cementitious Composites." *Transportation Research Record: Journal of the Transportation Research Board*. In Press.
14. Arce, G., Noorvand, H., Hassan, M., Rupnow, T., and Dhakal, N. "Feasibility of Low Fiber Content PVA-ECC for Jointless Pavement Application." *Journal of Construction and Building Materials*, V. 268, No. 0, pp. 2021
15. Hungria R., Arce G., Hassan M., Anderson M., Mahdi M., Rupnow T., Bogus S. (2020) "Evaluation of Novel Jointless Engineered Cementitious Composite Ultrathin Whitetopping (ECC-UTW) Overlay." *Construction and*

Building Materials, 265 (120659), 1-14. DOI: <https://doi.org/10.1016/j.conbuildmat.2020.120659>

16. J. Milla, T. Cavalline, T. Rupnow, B. Melugiri-Shankaramurthy, G. Lomboy, and K. Wang, "Methods of Test for Concrete Permeability: A Critical Review," *Advances in Civil Engineering Materials* 10, no. 1 (2021): 172-209. <https://doi.org/10.1520/ACEM20200067>
17. Mahdi, M., Wu, Z., and Rupnow, T. "Evaluation of Bonded Concrete Overlay of Asphalt under Accelerated Loading." *Transportation Research Record* 2675, TRB, National Research Council, Washington D.C., 2020, pp 235-244.
18. Soysal, A., Milla, J., King, G., Hassan, M., and Rupnow, T. "Evaluating the Self-Healing Efficiency of Hydrogel-Encapsulated Bacteria in Concrete." *Transportation Research Record* 2674, TRB, National Research Council, Washington, D.C., 2020, pp. 113-123.
19. Sun, X., Wu, Z., and Rupnow, T. "Impact of Overweight Traffic from Shale Gas Development on Pavement Damage Costs: Case Study in Louisiana." *Journal of Infrastructure Systems*, American Society of Civil Engineers, V. 26, Issue 1, 2019.
20. Hungria R., Arce G., Hassan M., Rupnow T., Mahdi M., and Mohammad, L. "Interface Characterization of a Jointless Engineered Cementitious Composite Ultra-Thin Whitetopping (ECC-UTW)." *TranSET 2020*, American Society of Civil Engineers, Reston, VA, 2020, pp. 258-265.
21. Rahman*, M.N., T.A. Sarkar*, M.A. Elseifi, C. Mayeux, and S.B. Cooper, III. (2020). Effects of Emulsion Types, Application Rates, and Crumb Rubber on the Laboratory Performance of Chip Seal. *Construction and Building Materials*, Elsevier, <https://doi.org/10.1016/j.conbuildmat.2020.119787>.
22. Zihan*, Z., M.A. Elseifi, K. Gaspard, and Z. Zhang. (2020). Asphalt Concrete Stripping Detection Using Deflection Measurements from Traffic Speed Deflection Devices (TSDD). *ASCE, Journal of Transportation Engineering, Part B: Pavements*, Volume 146 Issue 4 - December 2020, DOI: 10.1061/JPEODX.0000220.
23. Mousa*, M., M.A. Elseifi, M.Z. Bashar*, Z. Zhang, and K. Gaspard. (2020). Optimizing the Cost-Effectiveness and Time of Application of Microsurfacing. *ASCE, J. Transp. Eng., Part B: Pavements*, 147(1): 04020078, DOI: 10.1061/JPEODX.0000233.
24. Dhakal*, N., Z. Zihan*, M.A. Elseifi, M. Mousa, K. Gaspard, and C. Fillastre. (2020). Surface Identification of Top-down, Bottom-up, and Cement Treated Reflective Cracks Using Convolutional Neural Network and Artificial Neural Networks. *ASCE, Journal of Transportation Engineering, Part B: Pavements*, 147(1): 04020080, DOI: 10.1061/JPEODX.0000240.
25. Abohamer*, H., M.A. Elseifi, Z.U. Zihan*, Z. Wu, N. Kebede, and Z. Zhang. (2021). Development of an Artificial Neural Network (ANN)-Based Procedure for the Verification of Traffic Speed Deflectometer Measurements. *Transportation Research Record: Journal of Transportation Research Board*, Washington, D.C., <https://doi.org/10.1177/03611981211005774>.
26. Rahman*, M.N., M.T., Sarkar*, M.A. Elseifi, C. Mayeux, S.B. Cooper, III, and K. Free. (2021). Short-term Field Performance and Cost-effectiveness of Crumb-Rubber Modified Asphalt Emulsion in Chip Seal Applications. *Transportation Research Record: Journal of Transportation Research Board*, Washington, D.C., <https://doi.org/10.1177/03611981211005469>.
27. Ma*, Y., M.A. Elseifi, N. Dhakal*, M.Z. Bashar*, and Z. Zhang. (2021). Non-Destructive Detection of Asphalt Concrete Stripping Damage Using Ground Penetrating Radar. *Transportation Research Record: Journal of Transportation Research Board*, Washington, D.C., <https://doi.org/10.1177/03611981211014199>.
28. M. M. Hossain, M. A. Rahman, X. Sun, and E. Mitran, "Investigating Underage Alcohol-Intoxicated Driver Crash Patterns in Louisiana," *Transp. Res. Rec.*, 2021.
29. M. A. Rahman, M. M. Hossain, E. Mitran, X. Sun, "Understanding the Contributing Factors to Young Driver Crashes: A Comparison of Crash Profiles of Three Age Groups," *Transp. Eng.*, vol. 5, 2021, doi: 10.1016/j.treng.2021.100076.

30. Thapa R, Codjoe J, Osafo A. Survey of Work Zone Practices and Validation of Highway Capacity Manual Work Zone Capacity Model. *Transportation Research Record*. May 2021. doi:10.1177/03611981211014524.
31. Codjoe J, Thapa R, Mitran E. Queue analysis at work zones: An analysis from field collected data. *Transportation Research Record*. (Accepted for the publication and currently is IN PRINT).
32. M. A. Rahman, 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," *Int. J. Transp. Sci. Technol.*, vol. 10, no. 2, pp. 167–183, 2021, doi: 10.1016/j.ijtst.2020.12.003.
33. Ming Sun, Xiaoduan Sun, M. Ashifur Rahman, Subasish Das, Calibration and Development of Safety Performance Functions for Two-Way Stop-Control Intersections on Rural Two-Lane Highways in Louisiana, 100th Transportation Research Board (TRB) Annual Meeting, 2021.
34. Tara Tolford. "Partnerships for a Big Jump for Bicycling." American Planning Association Virtual Cross-Chapter Collaborative Conference 2020. October 8, 2020.
35. Bian, R., P. Murray-Tuite, and B. Wolshon. Analyzing and modeling grocery shopping activities during the early outbreak of COVID-19. Transportation Research Board 100th Annual Meeting, (Virtual). 2021.
36. Zaremotekhas, F., Idris, I., Hassan, M., Mohammad, L. N., and Negulescu, I., "Effect of Sodium Alginate Fibers Encapsulating Rejuvenators on the Self-Healing Capability and Cracking Resistance of Asphalt Mixtures." *ASCE Journal of Materials in Civil Engineering*, Vol. 32 (12), 2020, pp. 04020355: 1-12.
37. Salaria, S., Cooper, S., III, Mohammad, L. N., and Barghabany, P., "Development of a 4.75 mm Asphalt Mixture Design for Implementation in Louisiana DOTD Specifications." *International Journal of Pavement Research and Technology*, Vol. 13(6), 2020, pp. 637-644.
38. Cao, W., Mohammad, L. N., Barghabany, P., Samuel Cooper III, and Samuel Cooper Jr., "Laboratory Performance Tests on Intermediate-Temperature Cracking Resistance: A Case Study." *Journal of the Association of Asphalt Paving Technologist*, Vol. 89, 2020, pp. 128-163.
39. Akentuna, M., Mohammad, L. N., Daly, W., Ali, H., Haddadid, F., Balamurugan, S., Negulescu, I., Cooper, III, S., Cooper, Jr., S., Baumgardner, G., "Investigation of the Performance of 100% Reclaimed Asphalt Pavement Mixtures: Molecular, Chemical, and Mechanical Characterization." *Journal of the Association of Asphalt Paving Technologist*, Vol. 89, 2020, pp. 521-560
40. Sufian, A., Swiertz, D., Bahia, H., Mohammad, L. N., and Akentuna, M., "Factors Affecting the Interlayer Shear Strength of Lab and Field Samples." *The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record*, <https://doi.org/10.1177/0361198120975414>, 2020, pp.1-11.
41. Nazzal, M., Mohammad, L. N., Austin, A., and Hosainat A., "Effect of Moisture Content on the Shakedown Limits of Base Course Materials." *The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record*, Vol. 2675 (1), 2020, pp. 192-202.
42. Akentuna, M., Mohammad, L. N., Kim, M., Cooper, S., III, and Cooper, S., Jr., "Improving Durability of Asphalt Pavements in Louisiana through Increased In-Place Field Density." *The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record*, Vol. 2674 (10), 2020, pp. 806-816.
43. Barghabany, P., Cao, W., Mohammad, L. N., Cooper, S., III, and Cooper, S., Jr., "Relationships amongst Chemistry, Rheology, and Fracture/Fatigue Performance of Recovered Asphalt Binders and Asphalt Mixtures Containing RAP." *The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record*, Vol. 2674(10), 2020, pp. 927-938.
44. Saadeh, S., Al-Zubi, Y., Mahmoud, E., Renteria, and Mohammad, L. N., "Sensitivity Analysis On Semi-Circular Bending Tests Using the Plackett-Burman Matrix." *The National Academies of Science, Engineering, and Medicine. Transportation Research Record, Journal of the Transportation Research Record*, Vol. 2674(2),

2020, pp. 302-312.

45. Shirzad, S., Hassan, M., Mohammad, L. N., "Rheological and Mechanical Evaluation of Polyurethane Prepolymer Modified Asphalt Mixture with Self-Healing Abilities." *ASCE Journal of Materials in Civil Engineering*, Vol. 32, No. 8, 2020, pp. 04020231: 1-12
46. Nazzal, M., Mohammad, L. N., and Austin, A., "Evaluating Laboratory Tests for Use In Specifications for Unbound Base Course Materials." *ASCE Journal of Materials in Civil Engineering*, Vol. 32, issue 4, 2020, pp. 04020036:1-8
47. Aguirre, M., Hassan, M, Shirzad, S., Mohammad, L. N., Cooper, S., Jr., and Negulescu, I., "Evaluation of Hollow-Fibers Encapsulating a Rejuvenator in Asphalt Binders with Recycled Asphalt Shingles." *International Journal of Pavement Research and Technology*, Vol. 13, 2020, pp. 108-119.
48. Mohammad, L. N., and Akentuna, M., "Improving Asphalt Pavement Density: Design and Construction." *Proceedings of the 7th Eurasphalt & Eurobitume Congress v1.0*, July 2020, ISBN: 789080288461, pp. 1-7.
49. Mahdi M., Liu, Y., Wu, Z., Rupnow T. (2020). *Experimental Investigation of Wheel-Load Induced Strain Responses in Roller Compacted Concrete Pavements. Accelerated Pavement Testing to Transport Infrastructure Innovation*, Springer. 196–205.
50. Xie, Z., Taylor, A.J., Tran, N. and Kim, S. (2020). Evaluation of Different VMA Estimation Methods for Asphalt Mixtures Containing RAP. *Journal of Materials in Civil Engineering*, 32(7).
51. Elshoura, A., and Okeil, A. M. (2021) "Quantifying Statistical Uncertainties for Temperature Gradient Analysis of Bridges," 100th Annual Meeting of the Transportation Research Board, January 5 – January 29, 2021, Washington, D.C.
52. Canales, M. and Okeil, A. M. (2020) "Parametric Study of Partially Continuous Bridge Spans," 18th LACCEI International Multi-Conference for Engineering, Education, and Technology, July 29-31, 2020, Buenos Aires, Argentina.
53. Z. Zhang, C Sun. Structural Damage Localization via Physics-Guided Machine Learning: A Methodology Integrating Pattern Recognition and Finite Element Model Updating, *Structural Health Monitoring*, DOI: 10.1177/1475921720927488.
54. Z. Zhang, C. Sun. Multi-site Structural Damage Identification Using a Machine Learning Method of Multi-label Classification. *Measurement* 2020, 154: 107473.

Presentations by LTRC Personnel

1. Abu-Farsakh, M., and Mojumder M., 2021 "Evaluating the Ultimate Pile Capacity from Cone Penetration Test (CPT) Data using Artificial Neural Network," presented at the TRB Webinar: The Future of Bridge Foundation Designs with Artificial Intelligence, Virtual, June 22, 2021.
2. Abu-Farsakh, M., and Ikbarieh, A., 2021 "Instrumentation and Modeling of Geosynthetic Load Transfer Platform Performance," presented at the 44th Southwest Geotechnical Engineering Conference, Virtual, June 22-24, 2021.
3. Rahman, M., and Abu-Farsakh M., 2021 "Evaluation of Various Spatial Interpolation Techniques for Generating Synthetic CPT Data Profile," presented at the 4th International Conference on Transportation Geotechnics (ICTG), Virtual, May 24 - 27, 2021.
4. Imseeh, W., Alshibli, K., Abu-Farsakh, M., and Kniazewycz, T., 2021 "Geosynthetic Reinforced Fill Material for Tennessee Bridge Approach Slab Support," presented at the TRB 100th annual meeting, Virtual, January 9-13, 2021.
5. Abu-Farsakh M., Rahman, M., Ghaaowd, I., and Jafari, N. 2021 "Evaluation of Site Variability and Its Implementation into LRFD Design of Pile Foundations," presented at the TRB 100th annual meeting, Virtual, January 9-13, 2021.

6. Ghaaowd, I., Abu-Farsakh M., and Rahman, M., 2021 "Evaluating the Effect of Site Variability on the Bearing Capacity Resistance Factor of Foundations and the Slope Stability Analysis," presented at the TRB 100th annual meeting, Virtual, January 9-13, 2021.
7. Mojumder, M., Abu-Farsakh M., and Chen, I., 2021 "Evaluating the Pile Set-up Parameter, 'A', using Artificial Neural Network," presented at the TRB 100th annual meeting, Virtual, January 9-13, 2021.
8. Idries, A., Abu-Farsakh M., and Chen, I., 2021 "Interface Behavior of Clay due to Heating-Cooling Cycle," presented at the TRB 100th annual meeting, Virtual, January 9-13, 2021.
9. Rupnow, Tyson and Coco, Mary Leah. "Adoption of E-Construction Inspection – Sweet 16 Finalist Presentation." Presented at the AASHTO RAC Virtual Summer Meeting, , July 20-24, 2020.
10. Rupnow, Tyson and Coco, Mary Leah. "DOTD Construction Inspection: Moving in the E-Direction." Presented at the CAAL Webinar, Baton Rouge, LA, January 20, 2021
11. Rupnow, Tyson, Coco, Mary Leah, White, George, and Yamura, Julian. "Evaluation of HeadLight: An E-Construction Inspection Technology." Presented at the 100th Transportation Research Board Meeting, Washington, D.C., January, 2021
12. Rupnow, Tyson, Milla, Jose, and Saunders, William. "Lafayette Consolidated government: Transitioning Internal Curing from the Laboratory to the Field." Presented at the 100th Transportation Research Board Meeting, Washington, D.C., January, 2021
13. Subedi, Sujata, Arce, Gabriel, Hassan, Marwa, Mohammad, Louay, Rupnow, Tyson, and Barbato, Michele. "Feasibility of Engineered Cementitious Composites with High Volumes of Post-Processed Bagasse Ash as Partial Cement Replacement." Presented at the Transportation Research Board 100th Annual Meeting – A Virtual Event, January 2021.
14. AbuFarsakh, Ruwa, Arce, Gabriel, Hassan, Marwa, Huang, Oscar, Radovic, Miladin, Rupnow, Tyson, Mohammad, Louay, Sukhishvili, Svetlana. "Novel Metakaolin Based Engineered Geopolymer Composites." Transportation Research Board 100th Annual Meeting – A Virtual Event, January 2021
15. Hungria, Ricardo, Arce, Gabriel, Hassan, Marwa, Mohammad, Louay, Rupnow, Tyson, and Mahdi, Moinul. "Interface bond Strength of Engineered Cementitious Composites (ECC) in Pavement Applications." Transportation Research Board 100th Annual Meeting – A Virtual Event, January 2021.
16. Noorvand, Hassan, Arce, Gabriel, Hassan, Marwa, Subedi, Sujata, Barbato, Michele, Rupnow, Tyson, and Bigdeli, Yasser. "Properties of Engineered Cementitious Composites with Post-Processed Sugarcane Bagasse Ash as Sand Replacement." Transportation Research Board 100th Annual Meeting – A Virtual Event, January 2021
17. Rupnow, Tyson and Coco, Mary Leah. "2021-2022 Work Program." Presented to the LTRC Policy Committee, Baton Rouge, LA, June 22, 2021.
18. Rupnow, Tyson and Coco, Mary Leah. "DOTD Construction Inspection: Moving in the E-Direction." Presented at the CAAL Annual Meeting, Destin, FL, June 7, 2021.
19. Rupnow, Tyson. "Self-Consolidating Concrete: Best Practices, Use Cases, and Potential Future Uses." Presented at the CAAL Webinar, Baton Rouge, LA, September 16, 2020.
20. Chen, Q, 2021 "Modulus Behavior of Geogrid-Reinforced Clay." Presented at the TRB annual meeting, Virtual, January 25-29, 2021.
21. Zhang, Z, Chen, Q, Key, B., Gorham, T., and Zheng, B., 2021 "Thermal Camera Sensing for Soil Embankment Monitoring: Soil Moisture Content Detection." Presented at the TRB annual meeting, Virtual, January 25-29, 2021.
22. Akentuna M., L. N. Mohammad, S. Sachdeva, S. B. Cooper III, and S. B. Cooper Jr. "Effectiveness of Loaded Wheel Tracking Test to Ascertain Moisture Susceptibility of Asphalt Mixtures." Presented at the TRB annual meeting, Virtual, January 25-29, 2021.

23. Dhakal*, N., M.A. Elseifi, I.L. Al-Qadi, and T. Rupnow. (2021). Fatigue and Reflective Cracking Mechanisms: Modeling and Accelerated Pavement Testing Validation. Paper No. 21-03175 presented at the 100th Transportation Research Board Annual Meeting, Washington, D.C.
24. Abohamer*, H., M.A. Elseifi, Z.U. Zihan*, Z. Wu, N. Kebede, and Z. Zhang. (2021). Development of an Artificial Neural Network (ANN)-Based Procedure for the Verification of Traffic Speed Deflectometer Measurements. Transportation Research Record: Journal of Transportation Research Board, Washington, D.C., <https://doi.org/10.1177/03611981211005774>.
25. Rahman*, M.N., M.T., Sarkar*, M.A. Elseifi, C. Mayeux, S.B. Cooper, III, and K. Free. (2021). Short-term Field Performance and Cost-effectiveness of Crumb-Rubber Modified Asphalt Emulsion in Chip Seal Applications. Transportation Research Record: Journal of Transportation Research Board, Washington, D.C., <https://doi.org/10.1177/03611981211005469>.
26. Ma*, Y., M.A. Elseifi, N. Dhakal*, M.Z. Bashar*, and Z. Zhang. (2021). Non-Destructive Detection of Asphalt Concrete Stripping Damage Using Ground Penetrating Radar. Transportation Research Record: Journal of Transportation Research Board, Washington, D.C., <https://doi.org/10.1177/03611981211014199>.
27. Gautreau, G., and Lee, A., "Louisiana Geotechnical Asset Management (GAM)," Poster Session Presentation at the TRB 100th Annual Meeting, Virtual, January 25, 2021.
28. Gautreau, G., "Soil Cement, Cement Treated & Cement Stabilized Soils....and How to Use Them in our Roadway Construction ", Concrete and Aggregates Association of Louisiana (CAAL), Virtual Meeting, August 12 2020.
29. M. M. Hossain, M. A. Rahman, X. Sun, E. Mitran, "Investigating Underage Alcohol-Intoxicated Driver Crash Patterns," Workshop on Building a Purposeful Structure for Moving Research to Practice, Transportation Research Board 100th Annual Meeting, (Virtual). 2021.
30. Bian, R., P. Murray-Tuite, and B. Wolshon. Analyzing and modeling grocery shopping activities during the early outbreak of COVID-19. Transportation Research Board 100th Annual Meeting, (Virtual). 2021.
31. Thapa R, Codjoe J, Osafo A. Survey of Work Zone Practices and Validation of Highway Capacity Manual Work Zone Capacity Model. Transportation Research Board 100th Annual Meeting, (Virtual).
32. Codjoe J, Thapa R, Mitran E. Queue analysis at work zones: An analysis from field collected data. Transportation Research Board 100th Annual Meeting, (Virtual). 2021.
33. Asaduzzaman M, Thapa R, Codjoe J. Safety Effectiveness of Protected Only over Permitted/Protected Left Turn Phasing in Louisiana - Transportation Research Board 100th Annual Meeting, (Virtual).
34. Yeboah A S, Codjoe J, Thapa R. Estimation of ADT for Low Volume Roadways in Rural Areas of Louisiana - Transportation Research Board 100th Annual Meeting, (Virtual).
35. Thapa R, Codjoe J, Korniyoh P E. TRBAM-21-00950 - Investigating Factors Affecting Pedestrian Crash Severity at High Speed Urban Arterial Roadways: A Case Study of Louisiana - Transportation Research Board 100th Annual Meeting, (Virtual).
36. Mohammad, L.N., "Effect of Tack Coat Materials on Durability of Asphalt Pavement." Presented at the 61st LAPA Annual Convention and Meeting, June 22 - 24, 2020, Baton Rouge, Louisiana.
37. Mohammad, L.N., "Effect of Flexible Pavement Layers Bonding on Durability." Presented at the International Conference on Civil and Environmental Engineering Technologies, June 10 - 12, 2020, Kufa, Iraq. (Keynote Lecture).
38. Mohammad, L.N., "Effect of Laboratory Aging on Asphalt Binders and Intermediate Temperature Cracking of Asphalt Mixtures." Presented at the 2020 Louisiana Transportation Conference, March 1-4, 2020, Baton Rouge, Louisiana.
39. Mohammad, L.N., "Designing and Constructing Flexible Pavement with Long Lasting Performance." Presented at the 2020 ASCE Construction Institute Summit, February 19-22, 2020, Los Angeles, California. (Invited Lecture).

40. Mohammad, L.N., "Relation Between Flexible Pavement Layers Bonding and Durability." Presented at the 21st Annual Conference of the Association of Modified Asphalt Producer, February, 10-13, 2020, Rancho Mirage, California. (Invited Lecture).
41. Mohammad, L.N., "The Future of Highways: Emerging Trends in the Design and Construction of Durable Flexible Pavement." Presented at the Iraqi Forum for Intellectuals and Academics, January 4, 2020, Amman, Jordan, (Invited Lecture).
42. Akentuna, M., Mohammad, L. N., Kim, M., Cooper III, S, and Cooper Jr., "Improving Durability of Asphalt Pavements in Louisiana through Increased In-Place Field Density." Presented at the 99th Annual Meeting of Transportation Research Board, Washington, D.C., January 12-16, 2020.
43. Barghabany, P., Cao, W., Mohammad, L. N., Cooper III, S, and Cooper Jr., "Relationships amongst Chemistry, Rheology, and Fracture/Fatigue Performance of Recovered Asphalt Binder and Asphalt Mixtures Containing RAP." Poster presentation at the 99th Annual Meeting of Transportation Research Board, Washington, D.C., January 12-16, 2020.
44. Zhuo, Z., Xie, Z., Ali, A., Mehta, Y., Zhu, C., Lein, W. and DeCarlo, C. Influence of Insulation Layer on the Thermal Behavior of Subgrade Soils. Presented in IFCEE 2021.
45. Liu, Y., Wu, Z., Sobhani, M. "Optimization of Overweight Truck Impact on Roadway Network with Minimum Cost Method: A Case Study in Louisiana" Poster Presentation at the 100th Transportation Research Board Annual Meeting, Washington, D.C., Jan, 2021.
46. Elshoura, A. "Quantifying Statistical Uncertainties for Temperature Gradient Analysis of Bridges," (January 26, 2021) 100th Annual Meeting of the Transportation Research Board, January 25 – January 29, 2021, Washington, D.C.
47. Okeil, A. "Cast-In-Place Reinforced Concrete Box Culverts: Do They Need To Be Load Posted?," (November 19, 2020) ACI Louisiana Chapters, November 19, 2020, Baton Rouge, LA.
48. Sun, C., "Experimental Study of Stringer Lateral Torsional Resistance Using a Grillage System," Annual Stability Conference, Structural Stability Research Council, April 13, 2021 (virtual conference)
49. Jay Puckett, "Laboratory Testing and Modeling Continuous Stringer Floor Systems", TRB Methods of Analyzing Steel Bridges Subcommittee, Jan. 7, 2021 (virtual conference)
50. "You Can't Escape the Posters," NLTAPA/NTTD: Virtual 2 You (V2U) Annual Conference
51. "Connected and Automated Vehicle Deployment Challenges," ITE 202 Annual Meeting and Exhibition
52. "Intelligent Systems (ITS)." 2020 Tran-SET Conference
53. "Technical Session I," 2020 ALITE/DSITE Fall Meeting
54. "ACP80(1): Simulation Subcommittee Annual Meeting," 2021 TRB Annual Meeting
55. "Current Issues in Public Engagement and Communications," 2021 TRB Annual Meeting
56. "ITE SimCap Committee Meeting," ITE SimCap Committee Meeting
57. "Build a Better Mousetrap for Your Locals," NLTAPA Lunch and Learn Webinar Series
58. "2021 SimSub Spring Liaison Meeting," 2021 SimSub Spring Liaison Meeting
59. "Transportation Management – Response to COVID-19," 2021 SDITE Annual Meeting
60. "Roundabouts," Rules of the Road 101: Driving School Instructor Course
61. "2021 Joint SimSub and SimCap Summer Meeting," 2021 Join SimSub and SimCap Summer Meeting
62. Presented Dissertation "Developing a Competency Model for Highway Safety Engineers: A Delphi Method," at the 2021 TRB Conference.
63. Co-Facilitated the "Cultivating a Rural Road Safety-Focused Workforce to Achieve Zero" network talk during the Rural Road Safety Summit
64. Presented a Poster Session on "Tools for Virtual Learning" at the 2020 NLTAPA Conference

Presentations by LTRC Personnel

1. Abedalqader Idries, Thesis: Study the Effect of Heating - Cooling Cycles on the Clay - Concrete Pile Interface Characteristics," LTRC Project No. 17-2GT.
2. Nirmal Dhakal – PhD Dissertation Title: Identification of Top-down, Bottom-up, and Cement Treated Reflective Cracks using Convolutional Neural Network and Artificial Neural Network – August 2019 – 18-4P.
3. Nafiur Rahman – Thesis: Laboratory and Short-Term Field Performance of Crumb Rubber Modified Asphalt Emulsion in Chip Seal Applications – August 2020 – 18-5B.
4. Ming Sun, dissertation title "Developing Safety Performance Functions for Two-Way Stop-Controlled Intersections in Louisiana", associated with LTRC project 18-4SA.
5. Sushmita Khanal, Thesis title "Safety Effectiveness of Centerline Rumble Strips and Shoulder Rumble Strips on Louisiana Two-Lane Highways", associated with LTRC project 19-4SA.
6. Md Mahmud Hossain, Thesis title "Investigating Fatal and Injury Crash Patterns of Teen Drivers in Louisiana", associated with LTRC project 19-5SA.
7. Hilda Ofori-Addo, Thesis title "Evaluating the Accuracy of Using the 85th Percentile Operating Speed to Determine Posted Speed Limits on Road Segments".
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