

Dr. Md R Islam, P.E.

Assistant Professor of Civil Engineering Technology
Colorado State University-Pueblo (CSU-Pueblo)
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Education

- Ph.D. in Civil Engineering, University of New Mexico, Albuquerque, New Mexico
- M.S. in Structural Engineering, University of Minho, Portugal and Technical University of Catalonia, Barcelona, Spain
- B.S. in Civil Engineering, Bangladesh University of Engineering and Technology, Dhaka

Major Professional Achievements

- o ABET Evaluator, ABET Inc., Baltimore, Maryland
- o Member, American Society of Civil Engineers (ASCE), Member ID. 9266047
- o Member, Standing Committee on Geosynthetics (AFS70), Transportation Research Board (TRB)
- o Reviewed over 100 journal articles from ASCE, ASTM, Elsevier, Taylor and Francis, TRB, etc.
- o Google scholar citation, <https://scholar.google.com/citations?hl=en&user=Jh-c9aQAAAAJ>

Positions Held

- Jan 2017 – Present, Assistant Professor, Civil Engineering Technology, CSU-Pueblo, CO
- Aug 2017 – Dec 2017, Assistant Professor, Construction Engineering Technology, SUNY-Farmingdale
- Aug 2015 – July 2017, Assistant Professor, Civil Engineering Technology, CSU-Pueblo, CO
- July 2011 – Aug 2015, Research Assistant, Civil Engineering, University of New Mexico
- Nov 2008 – Nov 2010, Lecturer of Civil Engineering, Stamford University Bangladesh

Grants and Contracts as PI

- 1) Feasibility of Using Hand-Held Dynamic Cone Penetrometer for Analyzing Soft Subgrade Quickly
Dec 2016 - Dec 2019, Colorado Department of Transportation (CDOT)
- 2) Sensitivity of Dynamic Modulus and Flow Number of CDOT HMA Mixes in the Pavement Mechanistic-Empirical Design (PMED)
Dec 2016 - Dec 2018, Colorado Department of Transportation (CDOT)
- 3) Dynamic Modulus of Cold In-Place Recycle Material
June 2016 - May 2017, Federal Highway Research Administration (FHWA)
- 4) Modeling Dynamic Modulus of Asphalt Concrete, SEED Grant, CSU-Pueblo, 2016 – 2017.

Awards

- o 2016 Outstanding Reviewer Award, ASCE Journal of Cold Regions Engineering
- o Second place in the Student Paper Competition, ASCE Conference, TX, spring 2013

Publications

Text Books

1. **Islam, M. R.** (2018). FE Civil Review Manual with 800 Solved Problems, Third Edition, ISBN-13: 978-0-9979180-3-8. (Available in Amazon.com)
2. **Islam, M. R.** (2018). FE Civil Practice Exams – Two Full Tests Including Solutions, First Edition, ISBN-13: 978-0-9979180-4-5. (Available in Amazon.com)
3. **Islam, M. R.** (2018). FE Mechanical Review Manual with 750 Solved Problems, Second Edition, 2018. ISBN-13: 978-0-9979180-5-2. (Available in Amazon.com)

Peer-Reviewed Journal Papers

1. **Islam, M. R.**, Rahman, A. and Tarefder, R. A. (2018). “Open Graded Friction Course in Resisting Transverse Cracking in Asphalt Pavement.” *ASCE Journal of Cold Regions Engineering*, Vol. 32, No. 2, [https://doi.org/10.1061/\(ASCE\)CR.1943-5495.0000164](https://doi.org/10.1061/(ASCE)CR.1943-5495.0000164).
2. **Islam, M. R.** and Tarefder, R. A. (2017). “Contribution of Day-Night Temperature Fluctuation to Top-Down Cracking in Asphalt Pavement.” *ASCE Journal of Cold Regions Engineering*, Vol. 32, No. 1, DOI 10.1061/(ASCE)CR.1943-5495.0000148.
3. **Islam, M. R.** and Tarefder, R. A. (2015). “Developing Temperature-Induced Fatigue Model of Asphalt Concrete for Better Prediction of Alligator Cracking.” *ASCE Journal of Materials in Civil Engineering*, DOI. 10.1061/(ASCE)MT.1943-5533.0001477.
4. **Islam, M. R.**, and Tarefder, R. A. (2015). “Coefficients of Thermal Contraction and Expansion of Asphalt Concrete in the Laboratory.” *ASCE Journal of Materials in Civil Engineering*, Vol. 27, No. 11.
5. **Islam, M. R.** and Tarefder, R. A. (2015). “Effects of Large Freeze-Thaw Cycles on Stiffness and Tensile Strength of Asphalt Concrete.” *ASCE Journal of Cold Regions Engineering*, DOI. 10.1061/(ASCE)CR.1943-5495.0000094.
6. Hasan, M. A.[#], **Islam, M. R.**, and Tarefder, R. A. (2016). “Clustering Vehicle Class Distribution and Axle Load Spectra for Mechanistic-Empirical (ME) Predicting Pavement Performances.” *ASCE Journal of Transportation Engineering*, Vol. 142, No. 11.
7. **Islam, M. R.**, Vallejo, M., Tarefder, R. A. and (2016). “Modeling Crack Propagation in Asphalt Concrete Overlay using Extended Finite Element Model.” *ASCE Journal of Materials in Civil Engineering*, DOI. [http://dx.doi.org/10.1061/\(ASCE\)MT.1943-5533](http://dx.doi.org/10.1061/(ASCE)MT.1943-5533).
8. **Islam, M. R.**, and Tarefder, R. A. (2015). “Study of Asphalt Aging Through Beam Fatigue Test.” *Transportation Research Record: Journal of Transportation Research Board*, Vol. 2505, pp. 115-120.
9. Ahmed, M., Tarefder, R. A., and **Islam, M. R.** (2013). “Effect of Cross-Anisotropy of Hot-Mix Asphalt Modulus on Falling Weight Deflections and Embedded Sensor Stress-Strain.” *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2369, pp. 20-29.
10. **Islam, M. R.**, Mannan, U. A.[#], Rahman, A. and Tarefder, R. A. (2014). “Effects of Reclaimed Asphalt Pavement on Hot-Mix Asphalt.” *ASTM Journal of Advances in Civil Engineering Materials*, Vol. 3, No. 1, pp. 291–307.
11. **Islam, M. R.** and Tarefder, R. A. (2014). “Determining Coefficients of Thermal Contraction and Expansion of Asphalt Concrete using Horizontal Asphalt Strain Gage.” *ASTM Journal of Advances in Civil Engineering Materials*, Vol. 3, No. 1, pp. 204-219.
12. Tarefder, R. A., Ahmed, M., **Islam, M. R.** and Rahman, M. (2014). “Finite Element Model of Pavement Response under Load Considering Cross-Anisotropy in Unbound Layers.” *ASTM Journal of Advances in Civil Engineering Materials*, Vol. 3, No. 1, pp. 57-75.
13. **Islam, M. R.** and Tarefder, R. A. (2014). “Determining Thermal Properties of Asphalt Concrete using Field Data and Laboratory Testing.” *Construction and Building Materials*, ELSEVIER, Vol. 67, pp. 297-306.
14. **Islam, M. R.**, Hossain, M. I. and Tarefder, R. A. (2015). “A Study of Asphalt Aging Using Indirect Tensile Strength Test.” *Construction and Building Materials*, ELSEVIER, Vol. 95, pp. 218-223.

15. Ahmed, M., Rahman, A. **Islam, M. R.** and Tarefder, R. A. (2015). "Combined Effect of Asphalt Concrete Cross-Anisotropy and Temperature Variation on Pavement Stress-Strain under Dynamic Loading." *Construction and Building Materials*, ELSEVIER, Vol. 93, pp. 685-694.
16. **Islam, M. R.**, Faisal H. and Tarefder, R. A. (2015). "Determining Temperature and Time Dependent Poisson's Ratio of Asphalt Concrete using Indirect Tension Test." *Journal of Fuel*, ELSEVIER, Vol. 146, pp. 119-124.
17. Mannan, U. A., **Islam, M. R.**, and Tarefder, R. A. (2015). "Effects of Recycled Asphalt Pavements on the Fatigue Life of Asphalt under Different Strain Levels and Loading Frequencies." *International Journal of Fatigue*, ELSEVIER, Vol. 78, pp. 72-80.
18. **Islam, M. R.**, Ahmed, M. and Tarefder, R. A. (2016). "Measuring the Cross-Anisotropy of Hot-Mix Asphalt." *International Journal of Pavement Engineering*, Taylor and Francis, 17 (3), 265-274.
19. Rahman, A., **Islam, M. R.**, and Tarefder, R. A. (2018). "Dynamic Modulus and Phase Angle Models for New Mexico's Superpave Mixtures." *Road Materials and Pavement Design*, DOI:10.1080/14680629.2017.1422002.
20. Hasan, M. M. #, **Islam, M. R.**, and Tarefder, R. A. (2018). "Characterization of Subgrade Soil Mixed with Recycled Asphalt Pavement (RAP)." *J. of Traffic and Transportation Engineering (English Edition)*, 5(3): 207-214.
21. Rahman, A., **Islam, M. R.**, and Tarefder, R. A. (2018). "Assessment and Modification of Nationally-Calibrated Dynamic Modulus Predictive Model for the Implementation of Mechanistic-Empirical Design." *Intl. J of Pavement Research and Technology*, (in press).
22. Tarefder, R. A., Ahmed, M. U. and **Islam, M. R.** (2013). "Impact of Cross-Anisotropy on Embedded Sensor Stress-Strain and Pavement Damage." *European Journal of Environmental and Civil Engineering*, Taylor and Francis, Vol. 18, No. 8, pp. 845-861.
23. **Islam, M. R.** and Tarefder, R. A. (2014). "Quantifying Traffic and Temperature Induced Fatigue Damages of Asphalt Pavements." *Journal of Transportation Infrastructure Geotechnology*, Springer, DOI: 10.1007/s40515-014-0014-3.
24. **Islam, M. R.**, Ahsan S. #, and Tarefder, R. A. (2015). "Modeling Temperature Profile of Hot-Mix Asphalt in Flexible Pavement." *Intl. Journal of Pavement Research and Technology (IJPRT)*. Vol. 8, No. 1, pp. 47-52.
25. **Islam, M. R.**, and Tarefder, R. A. (2013). "Measuring Thermal Effect in the Structural Response of Flexible Pavement Based on Field Instrumentation." *International Journal of Pavement Research and Technology (IJPRT)*, Vol. 6, No. 4, pp. 274-279.
26. Ahmed, M., Tarefder, R. A. and **Islam, M. R.**, Rahman, M. (2014). "A Study on Cross-anisotropy of Unbound Layers of Pavement Considering Nonlinearity." *International Journal of Pavement Research and Technology (IJPRT)*, Vol. 7, No. 4. pp. 263-272.
27. **Islam, M. R.**, Rahman, M. T. # and Tarefder, R. A. (2012). "Laboratory Investigation of the Stiffness and the Fatigue Life of Glass Grid Reinforced Asphalt Concrete." *Intl. J. Pavements*, Vol. 11, No. 1, pp. 82-91.
28. Mannan, U. A., **Islam, M. R.**, Weldegiorgis, M. and Tarefder, R. A. (2014). "Experimental Investigation on Rheological Properties of Recycled Asphalt Pavement (RAP) Mastics." *Journal of Applied Rheology*. DOI: 10.3933/ApplRheol-25-22753.
29. Ahmad, M., Mannan, U. A. #, **Islam, M. R.**, and Tarefder, R. A. (2017). "Chemical and Mechanical Changes in Asphalt Binder due to Moisture Conditioning." *Road Materials and Pavement Design*, Taylor and Francis, Vol. 18, No. 2, pp. 1 - 14.
30. **Islam, M. R.** and Tarefder, R. A. (2013). "Evaluating the Longitudinal and the Transverse Horizontal Strains at the Bottom of Hot Mix Asphalt." *Intl. J. of Scientific and Engineering Research*, Vol. 4, No. 3, pp. 1-5.
31. **Islam, M. R.** and Tarefder, R. A. (2014). "Tensile Strength of Asphalt Concrete due to Moisture Conditioning." *Intl. Journal of Civil, Architectural, Structural and Construction Engineering*, Vol. 8, No. 9, pp. 942-945.
32. **Islam, M. R.** and Tarefder, R. (2015). "Moisture Variations in Unbound Layers in an Instrumented Pavement Section". *Intl. J. of Environmental, Ecological, Geological and Geophysical Eng.*, Vol. 9, No. 4, pp. 167-171.
33. **Islam, M. R.** and Tarefder, R. A. (2013). "Field Measurement of Vertical Strain in Asphalt Concrete." *International Journal of Scientific and Engineering Research*, Vol. 4, No. 2, pp. 1-6.

34. **Islam, M. R.**, Ahmed, M. U., and Tarefder, R. A. (2013). "Evaluating FWD Moduli of a Flexible Pavement Using Finite Element Model." *International Journal of Civil, Architectural, Structural and Construction Engineering*, Vol. 7, No.1, pp. 85-89.
35. **Islam, M. R.**, Mannan, U. A., and Tarefder, R. A. (2013). "Backcalculation of HMA Stiffness Based on Finite Element Model." *International Journal of Civil, Architectural, Structural and Construction Engineering*, Vol. 7, No. 5, 2013, pp. 206-211.
36. Hasan, M. A., **Islam, M. R.**, and Tarefder, R. A. (2015). "Measured versus Default Interstate Traffic Data in New Mexico, USA." *International Journal of Civil, Architectural, Structural and Construction Engineering*, Vol. 9, No. 12, pp. 1441-1445.
37. Hasan, M. A., **Islam, M. R.**, and Tarefder, R. A. (2015). "Weigh-In-Motion Data Analysis Software For Developing Traffic Data For Mechanistic Empirical Pavement Design." *International J. of Computer, Electrical, Automation, Control and Information Engineering*, Vol. 9, No. 12, pp. 2148-2152.
38. **Islam, M. R.** and Bhuyan, M. R. K. (2011). "Development of Software to Transform Graphically the Stress at a Point inside a Cube in Three-Dimensional Directions." *International Journal of Applied Engineering Research*, Vol. 2, No. 1, pp. 125-134.
39. **Islam, M. R.** and Masud, M. A. (2011). "Numerical Analysis of a Corrugated Metal Pipe: A Case Study." *International Journal of Applied Engineering Research*, Vol. 2, No. 1, pp. 250-258.
40. Ahmad, M. and **Islam, M. R.** (2010). "Auto Generation of Geometry, Calculation of Loads and Optimized Design of Overhead Transmission Tower by Developing Computer Aided Programs." *International Journal of Mechanics Structural*, Vol. 1, No. 1, pp. 11-15.
41. Mahmud, K., **Islam, M. R.** and Amin, A. (2010). "Study the Reinforced Concrete Frame with Brick Masonry Infill due to Lateral Loads." *Intl. Journal of Civil & Environmental Engineering*, Vol. 10, No. 04, pp. 35-40.
42. **Islam, M. R.** and Sazib, N. S. (2009). "Fiber Reinforced Polymer: An Innovative Material for Repairing and Strengthening of Civil Engineering Structures." *Stamford Journal of Civil Eng.*, Vol. 2, No. 1, pp. 81-97.
43. **Islam, M. R.**, Ahmed, M. U. and Tarefder, R. A. (2014). "Laboratory Investigation and Field Validation of the Cross-Anisotropy of Field Cored Asphalt Sample." *Geotechnical Special Publication (ASCE)*, Vol. 246, pp. 194-201.
44. **Islam, M. R.**, Hossain, M. I., and Tarefder, R. A. (2014). "Field Validation of the Arching Phenomenon of Earth Pressure Cell to Measure Vertical Stress in Flexible Pavement." *Geotechnical Special Publication (ASCE)*, Vol. 255, pp. 99-106.
45. **Islam, M. R.**, Mannan, U. A.[#], Rahman A. and Tarefder, R. A. (2014). "Simplified Thermal Stress Model to Predict Low Temperature Cracks in Flexible Pavement." *Geotechnical Special Publication (ASCE)*, Vol. 239, pp. 251-261.
46. **Islam, M. R.**, Rahman, M. T.[#] and Tarefder, R. A. (2014). "Evaluating Sample Orientation in Flexural Stiffness and Temperature Load in Fatigue Life of Asphalt Concrete." *Geotechnical Special Publication (ASCE)*, Vol. 239, pp. 90-99.
47. **Islam, M. R.**, Ahmed, M. U. and Tarefder, R. A. (2016). "Backcalculated Asphalt Stiffness in a Pavement Section in New Mexico." *Geotechnical Special Publication (ASCE)*, Vol. 266, pp. 67-74.
48. Khan, Z. H.[#], **Islam, M. R.**, and Tarefder, R. A. (2016). "Determining Average Asphalt Temperature of Flexible Pavement." *Geotechnical Special Publication (ASCE)*, Vol. 262, pp. 113-119.
49. **Islam, M. R.**, Weldegiorgis, M. T., and Tarefder, R. A. (2013). "Correlating the Dynamic Modulus and the Indirect Tensile Strength of Asphalt Concrete." *Advanced Material Research*, Vol. 723 (2013), pp. 268-275.
50. **Islam, M. R.**, Ahmed, M. U., and Tarefder, R. A. (2013). "Evaluating Structural Response of Flexible Pavement Based on Field Instrumentation." *Advanced Material Research*, Vol. 723 (2013), pp. 67-74.
51. **Islam, M. R.**, Ahmad, M. and Tarefder, R. A. (2015). "Effect of Loading Rate on the Properties of Asphalt Concrete using Three-Point Bending Test." *Advanced Materials Research*, Vol. 1096, pp 553-556.
52. Khan, Z. H.[#], **Islam, M. R.**, and Tarefder, R. A. (2018). "Determining Asphalt Pavement Surface Temperature Using Weather Parameters." *Journal of Traffic and Transportation Engineering*, (under review)

53. Hasan, M. A.[#], **Islam, M. R.**, and Tarefder, R. A. (2018). "Investigating the Performance of Selected Interstates under the Site-Specific and the National Average Traffic Data." *Journal of Traffic and Transportation Engineering*, (under review)
54. Mannan, U. A.[#], **Islam, M. R.**, and Tarefder, R. A. (2018). "Effect of Aging on Healing of Asphalt Binder." *International Journal of Pavement Engineering*, Taylor and Francis, (under review)

Referred Conference Papers

55. **Islam, M. R.**, and Tarefder, R. A. (2015). "Temperature-Induced Fatigue Damage of Asphalt Pavement: Model Development and Evaluation." *TRB Annual Meeting 2015*, January 11-15, 2015, Washington, D.C., Paper No. 15-5673.
56. Mannan, U. A., **Islam, M. R.**, and Tarefder, R. A. (2015). "Fatigue Behavior of Asphalt Containing Reclaimed Asphalt Pavements." *TRB Annual Meeting 2015*, January 11-15, 2015, Washington, D.C., Paper No. 15-5828.
57. Ahmed, M., Tarefder, R. A., Rahman, A. and **Islam, M. R.** (2015). "Effects of Cross-Anisotropy and Temperature on Pavement Stress-Strain Responses under Dynamic Loading." *TRB Annual Meeting 2015*, January 11-15, 2015, Washington, D.C., Paper No. 15-5710.
58. **Islam, M. R.** and Tarefder, R. A. (2014). "Comparing Temperature Induced Fatigue Damage to Traffic Induced Fatigue Damage in Asphalt Concrete." *TRB Annual Meeting*, Jan 12-16, 2014, Washington, D.C., Paper 14-3194.
59. **Islam, M. R.**, Ahmed, M. and Tarefder, R. A. (2014). "Cross-Anisotropy of Laboratory and Field Compacted Asphalt Concrete Samples." *TRB Annual Meeting 2014*, Jan 12-16, 2014, Washington, D.C., Paper 14-2916.
60. **Islam, M. R.**, Mannan U. A.[#], Rahman A. and Tarefder, R. A. (2014). "Effects of Recycled Asphalt Pavement on Mix and Binder Properties and Performance in the Laboratory." *TRB Annual Meeting 2014*, January 12-16, 2014, Washington, D.C., Paper No. 14-4748.
61. Ahmed, M., Tarefder, R. A., **Islam, M. R.** and Rahman, M. T.[#] (2014). "Effects of Unbound Layer Cross-Anisotropy on Pavement Responses." *TRB Annual Meeting 2014*, January 12-16, 2014, Washington, D.C., Paper No. 14-3588.
62. Tarefder, R. A and **Islam, M. R.** (2013). "Measuring Fatigue Damage from an Instrumented Pavement Section due to Day-Night and Yearly Temperature Rise and Fall in Desert Land of the West." *Climatic Effects on Pavement and Geotechnical Infrastructure, International Symposium of Climatic Effects on Pavement and Geotechnical Infrastructure*, Fairbanks, Alaska, August 4-7, 2013, pp. 78-88.
63. **Islam, M. R.**, Tarefder, R. A. and Syed, I.[#] (2014). "Measurements of Lateral Distribution of Vehicle Wheels and its Effect on Fatigue Life of Asphalt Concrete." *Sustainability, Eco-efficiency, and Conservation in Transportation Infrastructure Asset Management, 3rd International Conference on Transportation Infrastructure (ICTI)*, April 22-25, 2014, Pisa, Italy, pp. 379–383.
64. **Islam, M. R.**, Ahmed, M. U., and Tarefder, R. A. (2012). "Performance Evaluation of the Embedded Sensors in I-40 Pavement in New Mexico." *Proceedings of International Conference on Sustainable Design, Engineering & Construction (ICSDEC)*, ASCE, November 7-9, 2012 at Dallas Fort Worth, Texas, pp. 519-526.
65. **Islam, M. R.**, Ahmed, M. U., and Tarefder, R. A. (2012). "Validation of the Backcalculated Stiffness of a Pavement Section in I-40 New Mexico." *Proceedings of International Conference on Sustainable Design, Engineering & Construction (ICSDEC)*, ASCE, November 7-9, 2012 at Dallas Fort Worth, Texas, pp. 527-533.
66. **Islam, M. R.**, and Tarefder, R. A. (2012). "Stress-Strain Responses of an I-40 Pavement Section in New Mexico." *Proceedings of 2nd Southwest Energy Science and Engineering Symposium (SESES)*, March 24, 2012 at El Paso, Texas, Paper No. SESES 2012-021, pp. 58-60.
67. **Islam, M. R.**, and Tarefder, R. A. (2013). "Measuring Thermal Strain in Asphalt Concrete Based on Field Instrumentation." *Proceedings of 3rd Southwest Energy Science and Engineering Symposium (SESES)*, UTEP, April 27, 2013 at El Paso, Texas, pp. 76-78.

68. **Islam, M. R.**, and Tarefder, R. A. (2013). "Measuring Vertical Strain of Asphalt Concrete Based on Field Instrumentation." *Proc. of 5th European Asphalt Technology Association Conference*, June 3-5, 2013, Braunschweig, Germany, Paper ID- 34, pp. 1-11.
69. **Islam, M. R.**, Ahmed, M. U., and Tarefder, R. A. (2013), "Investigation of Anisotropic Behavior of Laboratory Compacted Asphalt Concrete." *Proceeding of 5th European Asphalt Technology Association Conference*, June 3-5, 2013, Braunschweig, Germany, Paper ID- 39, pp. 1-10.
70. **Islam, M. R.**, Rahman, M. T.[#], Ahmed, M. U., and Tarefder R. A. (2013). "Evaluating Moduli of Base and Subbase Layers in Flexible Pavement." *Proceedings of the ASCE Texas Section Spring Conference and Centennial Celebration*, March 19-23, 2013 at Corpus Christi, Texas, Paper ID SP-5, pp. 1-14. DOI: 10.13140/2.1.2204.0009.
71. **Islam, M. R.**, and Tarefder, R. A. (2013). "Effect of Glass-Grid Reinforcement on Indirect Tensile Strength of Asphalt Concrete." *Proceedings of the ASCE Texas Section Spring Conference and Centennial Celebration*, March 19-23, 2013 at Corpus Christi, Texas, Paper ID TDI-4, pp. 1-7.
72. Weldegiorgis, M. T., **Islam, M. R.**, and Tarefder, R. A. (2013). "Relationship of Compressive and Flexural Dynamic Moduli of Asphalt Concrete." *Proceedings of the ASCE Texas Section Spring Conference and Centennial Celebration*, March 19-23, 2013 at Corpus Christi, Texas, Paper ID TDI-6, pp. 1-8.
73. **Islam, M. R.**, Weldegiorgis, M. T., and Tarefder R. A. (2013). "Relating Dynamic Modulus and Indirect Tensile Strength of a SuperPave Asphalt Concrete Mixture." *Proceedings of the ASCE Texas Section Spring Conference and Centennial Celebration*, March 19-23, 2013 at Corpus Christi, Texas, ID TDI-3, pp. 1-6.
74. **Islam, M. R.**, and Tarefder, R. A. (2013). "Investigating the Cross-Anisotropic Flexural Behavior of Asphalt Concrete Beam Sample." *Proceedings of the ASCE Texas Section Spring Conference and Centennial Celebration*, March 19-23, 2013 at Corpus Christi, Texas, Paper ID TDI-2, pp. 1-8, 2013.
75. **Islam, M. R.**, Faisal, S., Syed, I.[#] and Tarefder, R. A. (2014). "Permeability and Moisture Damage Issues of the Glass-Grid-Reinforced Asphalt Concrete." *7th International Congress on Environmental Geotechnics*, November 10-14, 2014, Melbourne, pp. 1554-1561, Engineers Australia, Australia.
76. **Islam, M. R.**, Hasan, M. A.[#] and Tarefder, R. A. (2015). "Measured Versus Generated Temperature and Rainfall Data in a Pavement Section in New Mexico." *5th Southwest Energy Science and Engineering Symposium (SESES)*, UTEP, April 4, 2015, El Paso, Texas, pp. 143-145.
77. **Islam, M. R.**, and Tarefder, R. A. (2015). "Effect of Friction Course on the Performance of Asphalt Pavement." *5th Southwest Energy Science and Engineering Symposium (SESES)*, UTEP, April 4, 2015, El Paso, Texas.
78. **Islam, M. R.**, Hasan, M. M.[#] and Tarefder, R. A. (2015). "Effects of Input Parameters While Backcalculating Layer Stiffness of Pavement." *5th Southwest Energy Science and Engineering Symposium (SESES)*, UTEP, April 4, 2015, El Paso, Texas.
79. **Islam, M. R.**, Ahmed, M. U. and Tarefder, R. A. (2015). "Predicted Stress-Strain versus the Measured Ones in an Instrumentation Pavement Section in New Mexico." *International Conference on Advances in Management Science and Engineering*, July 26-27, 2015, Phuket, Thailand, pp. 97-102.
80. Ahmad, M., Mannan, U. A.[#], **Islam, M. R.**, and Tarefder, R. A. (2016). "Effects of Moisture Conditioning on Chemical and Mechanical Properties of Asphalt Concrete." *Transportation Research Board (TRB) 95th Annual Meeting*, January 10–14, 2016, Washington, D.C., Paper ID. 16-6677.
81. Rahman, A., **Islam, M. R.**, and Tarefder, R. A. (2016). "Modifying the Viscosity Based Witczak Model and Developing Phase Angle Predictive Model for New Mexico's Superpave Mixes." *Transportation Research Board (TRB) 95th Annual Meeting*, Jan. 10–14, 2016, Washington, D.C., Paper ID. 16-3180.
82. Hasan, M. A., **Islam, M. R.**, and Tarefder, R. A. (2016). "Site-Specific Versus Pavement Mechanistic-Empirical Default Traffic Data on Interstate Pavement Performance." *Transportation Research Board (TRB) 95th Annual Meeting*, January 10–14, 2016, Washington, D.C., Paper ID. 16- 5619.
83. Hossain, M., Mehta, R., Shaik, N., **Islam, M. R.**, Tarefder, R. (2016). "Rutting Potential of Asphalt Pavement Exposed to High Temperatures." *International Conference on Transportation & Development*, ASCE, June 26-29, Houston, Texas.
84. **Islam, M. R.**, Ahmed, S., and Tarefder, R. (2016). "Effect of Aging on the Air Void of Asphalt Concrete." *International Conference on Sustainable Design, Engineering & Construction (ICSDEC)*, May 18–20, 2016, Tempe, AZ, United States, Procedia Engineering, Vol. 145, pp. 1044 – 1050.

85. Hasan, M. M.[#], **Islam, M. R.**, and Tarefder, R. A. (2016). "Correlating Dynamic Cone Penetrometer and Laboratory Resilient Modulus of Subgrade." *8th International Conference on Maintenance and Rehabilitation of Pavements (MAIREPAV8)*, 27 to 29 July 2016, Singapore. (paper accepted)
86. Hossain, M., Azam, M., Mehta, R., Shaik, N., **Islam, M. R.**, Tarefder, R. (2016). "Determining and Validating Thermal Strain in Asphalt Concrete." *International Conference on Sustainable Design, Engineering & Construction (ICSDEC)*, May 18–20, 2016, Tempe, AZ, United States, Procedia Engineering, Vol. 145, pp. 1036 – 1043.
87. Millemon, R.[#], **Islam, M. R.**, Mincic, M. (2017). Evaluation of BELLS3 Temperature Prediction Model for Asphalt Pavement Design, *The Southwest Emerging Technology Symposium (SETS)*, UTEP, April 1st, 2017, El Paso, Texas.
88. Jill, R.[#], **Islam, M. R.**, Mincic, M. (2017). Statistical Analysis of Pavement System in the US, *The Southwest Emerging Technology Symposium (SETS)*, UTEP, April 1st, 2017, El Paso, Texas.
89. Jill, R.[#], **Islam, M. R.**, Mincic, M. (2017). Effects of Design Parameters on the Performances of Flexible Pavement, *The Southwest Emerging Technology Symposium (SETS)*, April 1st, 2017, El Paso, Texas.
90. Hossain, M., Adelkarim, A., Azam, M., Mehta, R., **Islam, M. R.**, Tarefder, R. (2017). "Extended Finite Element Modeling of Crack Propagation in Asphalt Concrete Pavements Due to Thermal Fatigue Load, International Conference on Highway Pavements and Airfield Technology 2017, August 27–30, 2017, Philadelphia, Pennsylvania.

Major Research Reports

91. Tarefder, R. A., and **Islam, M. R.** (2015). "Study and Evaluation of Materials Response in Hot Mix Asphalt Based on Field Instrumentation." Final Report, Project ID. NM11MSC-03, Research Bureau, New Mexico Department of Transportation (NMDOT), pp. 1-195.
92. **Islam, M. R.**, Kalevela, S.A., and Rivera, J. (2018). "Dynamic Modulus of Cold-in-Place Recycling Asphalt Materials." Final Report, 2018-10, Colorado Department of Transportation (CDOT), Denver, CO, pp. 1-158.
93. **Islam, M. R.**, Kalevela, S.A., and Nesselhauf, S. (2018). "Sensitivity of Dynamic Modulus and Flow Numbers using the PMED Analysis" Final Report, Colorado Department of Transportation (CDOT), Denver, CO, pp. 1-183.

Teaching Experiences

Engineering Mechanics (Statics, Dynamics and Strength of Materials)
 Highway and Pavement Design
 Traffic Analysis and Design
 Civil Engineering Materials with Laboratory Testing
 Geotechnical Engineering (Soil and Foundation)
 Structural Analysis
 Structural Design (Reinforced Concrete, Steel and Wood Structures)
 FE Exam Preparation
 Construction Scheduling and Control
 Construction Engineering and Management

(Student evaluations range 4.2 to 4.9 out of 5.0)