

**CURRICULUM VITAE OF**

**MUSHARRAF ZAMAN**

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**EDUCATION:**

Doctor of Philosophy (Civil Engineering; Geotechnical Engineering), University of Arizona, Tucson, Arizona, 1982. Dissertation Title - "Influence of Interface Behavior in Dynamic Soil-Structure Interaction Problems." Dissertation Supervisor - Dr. C.S. Desai.

Master of Engineering (Civil Engineering), Carleton University, Ottawa, Canada, 1979. Thesis Title - "Finite Element Analysis of Interaction Between An Elastic Circular Plate and An Isotropic Elastic Half-space." Thesis Supervisors - Dr. A.P.S. Selvadurai and Prof. W.H. Bowes.

B.Sc. in Engineering (Civil Engineering), Bangladesh University of Engineering and Technology, Dhaka, 1975 (First Class with Honors). Stood first in order of merit out of about 130 students.

**POSITIONS HELD:**

Oct. 2013-Present: **Director, Southern Plains Transportation Center**  
Gallogly College of Engineering, The University of Oklahoma, Norman, Oklahoma 73019

July 2005-Dec. 2013: **Associate Dean for Research and Graduate Programs**  
Gallogly College of Engineering, The University of Oklahoma, Norman, Oklahoma 73019

2010–Present: **Alumni Chair Professor of Petroleum and Geological Engineering**  
Mewbourne School of Petroleum and Geological Engineering, The University of Oklahoma

July 1993-Present: **Professor (David Ross Boyd Prof. since 2003; Aaron Alexander Prof. since 2004)**  
School of Civil Engineering and Environmental Science, The University of Oklahoma, Norman, Oklahoma.

June 1988-June 1993: **Associate Professor** (Tenured May 1988)  
School of Civil Engineering and Environmental Science, The University of Oklahoma, Norman, Oklahoma.

Sept. 1982-May 1988: **Assistant Professor**

School of Civil Engineering and Environmental Science, The University of Oklahoma, Norman, Oklahoma.

May 19-Aug. 18, 1986: **Summer Faculty Research Participant**

Argonne National Laboratory (ANL), Argonne, Illinois.

Aug. 1981-Aug. 1982: **Research Associate**

Department of Civil Engineering and Engineering Mechanics, University of Arizona, Tucson, Arizona.

Sept. 1979-May 1981: **Research Assistant**

Department of Civil Engineering, Virginia Tech., Blacksburg, Virginia.

Sept. 1977 – Aug. 1979: **Teaching Assistant**

Department of Civil Engineering, Carleton University, Ottawa, Canada.

May 1975-July 1976: **Lecturer in Civil Engineering**

Bangladesh University of Engineering and Technology, Dhaka, Bangladesh.

**AREA OF SPECIALIZATION:** Geotechnical Engineering, Geomechanics, Pavement Materials and Systems.

**PROFESSIONAL REGISTRATION:** Registered Professional Engineer (Oklahoma #16199).

**PATENT:** “Method and Apparatus for Predicting Density of Asphalt” (U.S. Patent #7,669,458; March 2, 2010).

**REFEREED JOURNAL PUBLICATIONS:**

214. “Effect of Additives and Aging on Moisture-Induced Damage Potential of Asphalt Mixes using Surface Free Energy and Laboratory-based Performance Tests” (Ali, S. A., Zaman, M., Ghabchi, R., Rahman, M. A., Ghos, S., Rani, S.). *International Journal of Pavement Engineering*, 23(2), 285-296. <https://doi.org/10.1080/10298436.2020.1742335>, 2022.
213. “Review of Strength Improvements of Biocemented Soils” (Xiao, Y., He, X., Zaman, M., Ma, G., Zhao, C.). *International Journal of Geomechanics*, 22(11), [https://doi.org/10.1061/\(ASCE\)GM.1943-5622.0002565](https://doi.org/10.1061/(ASCE)GM.1943-5622.0002565), 2022.
212. “Investigation of Stress State During Cement Hardening and its Effect on Failure of Cement Sheath in Shale Gas Wells” ( Zhao, C., Li, J., Zaman, M.). *Journal of Energy Resources and Technology*, 144(8), 2022.
211. “Performance of Asphalt Mixes Containing Post-Consumer Recycled (PCR) Plastic using Balanced Mix Design Approach and Dry Process” (Ghos, S., Sumter, C., Cancino, P. C., Ali, S. A., Zaman, M., Hobson, K. R., Kalicki, G., Metzger, D.). *Transportation Research Record*, 2676(9). <https://doi.org/10.1177/03611981221088200>, 2022.
210. “Factors Contributing to Fatigue Cracking in Flexible Pavements in Oklahoma: A Case Study Using Laboratory and Field Investigation and AASHTOWare Simulation” (Ghos, S., Ali, S. A., Zaman, M., R., Larrain-Mendez, M., Behm, M.). *Journal of Testing and Evaluation*, 50(2), 20 pages. <http://dx.doi.org/10.1520/JTE20200652>, 2022.

209. "Moisture-Induced Damage Potential of Asphalt Mixes Containing Polyphosphoric Acid and Antistripping Agent" (Rani, S., Ghabchi, R., Ali, S. A., Zaman, M., O'Rear, E. A.). Road Materials and Pavement Design, 23(12), 2818-2838. <https://doi.org/10.1080/14680629.2021.2002180>, 2022.
208. "Rainfall-Induced Erosion of Biocemented Graded Slopes" (Xiao, Y., Ma, G., Wu, H., Lu, H., Zaman, M.). International Journal of Geomechanics, 22(1), [https://doi.org/10.1061/\(ASCE\)GM.1943-5622.0002239](https://doi.org/10.1061/(ASCE)GM.1943-5622.0002239), 2022.
207. "Effect of WMA additive on properties of PPA-Modified Asphalt Binders Containing Anti-Stripping Agent" (Ghabchi, R., Rani, S., Zaman, M., Ali, S. A.). International Journal of Pavement Engineering, 22(4), 418-431, 2021.
206. "Laboratory Characterization of Moisture-Induced Damage Potential of Asphalt Mixes Using Conventional and Unconventional Performance-Based Tests" (Ali, S. A., Ghabchi, R., Zaman, M., Rani, S., Rahman, M. A.). International Journal of Pavement Research and Technology, 15, 1209–1226, <https://doi.org/10.1007/s42947-021-00083-5>, 2022.
205. "Rutting and Moisture-Induced Damage Potential of Foamed Warm Mix Asphalt (WMA) Containing RAP" (Rahman, M. A., Ghabchi, R., Zaman, M., Ali, S. A.). Innovative Infrastructure Solutions, 6(3), 1-11, 2021.
204. "Technical Challenges of Utilizing Ground Tire Rubber in Asphalt Pavements in the United States" (Ghabchi, R., Arshadi, A., Zaman, M., March, F.). Materials, 14(6), 2021.
203. "Evaluation of Mix Design Volumetrics and Cracking Potential of Foamed Warm Mix Asphalt (WMA) Containing Reclaimed Asphalt Pavement (RAP)" (Rahman, M. A., Zaman, M., Ali, S. A., Ghabchi, R., Ali, S. A., Ghos, S.). International Journal of Pavement Engineering, 1-13. <https://doi.org/10.1080/10298436.2021.1902522>, 2021.
202. "Interpretation of Displacement Fields Around Hydraulic Fracture Tip using Digital Image Correlation Method" (Dong, J.-N., Chen, M., Zaman, M.). International Journal of Oil, Gas and Coal Technology, 27(4), 2021.
201. "Evaluation of Stripping Resistance of Organoclay-modified Asphalt Binder and Aggregate Systems Using an Optical Contact Angle Analyzer" (Hossain, Z., Bairagi, B., Zaman, M., Bulut, R.). Sustainable Civil Infrastructure, DOI: 10.1007/978-3-030-79647-1\_5, 2021.
200. "Rheology of Virgin Asphalt Binder Combined with High Percentages of RAP Binder Rejuvenated with Waste Vegetable Oil" (Dugan, C. R., Sumter, C. R., Rani, S., Ali, S. A., O'Rear, E. A., Zaman, M.). ACS Omega, 5(6), 15791-15798. DOI: 10.1021/acsomega.0c00377, 2020.
199. "Aggregate Characteristics-Based Preventive Maintenance Treatments for Optimized Skid Resistance of Pavements" (Li, Q. J., Pittenger, D., Wang, K. P., Yang, G., Zaman, M., Zhan, Y. J.). Journal of the Transportation Research Board (TRR), 2674(12), 372-384. <https://doi.org/10.1177/0361198120953153>, 2020.
198. "Experimental Study of Multi-timescale Crack Blunting in Hydraulic Fracture" (Dong, J.-N., Yuan, G.-J., Wang, X.-Y., Chen, M., Jin, Y., Zeng, C., Zaman, M.). Petroleum Science Online. <https://doi.org/10.1007/s12182-020-00479-1>, 2020.
197. "Relationships Between Compressive and Flexural Strengths of Concrete Based on Fresh Field Properties" (Campos, R., Mendez Larain, M. M., Zaman, M., Pozades, V.). International Journal of Pavement Research and Technology, 7 pages. doi.org/ 10.1007/s42947-020-1074-0, 2020.
196. "Effects of Load Duration and Stress Level on Deformation and Particle Breakage of Carbonate Sands" (Xiao, Y., Desai, C. S., Zhengxin, Y., Zaman, M., Ma, Q., Chen, Q., Liu, H.). International Journal of Geomechanics, ASCE, Special Collection on Testing and Modeling on Particle Breakage for Granular Soils. doi.org/10.1061/(ASCE)GM.1943-5622.0001731, 2020.
195. "Characterization of Effect of Polymer Modification, Poly-Phosphoric Acid and Aging on Asphalt Binder Using X-ray Diffraction (XRD)" (Ali, S. A., Ghabchi, R., Rani, S., Zaman, M.). Journal of Testing and Evaluation, ASTM, 2019.

194. "Laboratory Characterization of Asphalt Binders Containing a Chemical-Based Warm Mix Asphalt Additive" (Zaman, M., Rani, S., Ghabchi, R., Ali, S. A.). Journal of Testing and Evaluation. <https://doi.org/10.1520/JTE20180409> . ISSN 0090-3973, 2019.
193. "Panel Models for Pavement Friction of Major Preventive Maintenance Treatments" (Zhan, Y., Li, Q. J., Yang, G., Pittenger, D., Wang, K. P., Zaman, M.). International Journal of Geomechanics, ASCE, 19(8). doi.org/10.1061/(ASCE)GM.1943-5622.0001445, 2019.
192. "Study on Micro-Scale Properties of Cohesive Zone in Shale" (Dong, J., Chen, M., Jin, Y., Hong, G., Zaman, M., Li, Y.). International Journal of Solids and Structures, 163(15), 178-193, 2019.
191. "Experimental and Theoretical Study on Dynamic Hydraulic Fracture" (Dong, J., Chen, M., Li, Y., Wang, S., Zeng, C., Zaman, M.). Energies, 12(3), 2019.
190. "Porothermoelastic Response and Damage Potential of Tripping Unconventional Cores from Six Different Shale Plays" (Taghichian, A., Hashemolhosseini, H., Zaman, M., Yang, Z. Y.). International Journal of Geomechanics, ASCE, 19(January). doi.org/10.1061/(ASCE)GM.1943-5622.0001328, 2019.
189. "Kernel Machines and Firefly Algorithm Based Dynamic Modulus Prediction Model for Asphalt Mixes Considering Aggregate Morphology" (Singh, D., Maheshwari, S., Zaman, M., Commuri, S.). Journal of Construction and Building Materials, 159, 408-416, 2018.
188. "Flexural Properties of Chemically-Stabilized Subgrade in Designing Semi-Rigid Pavements" (Nazari, M., Ghabchi, R., Zaman, M.). Road Materials and Pavement Design. DOI: 10.1080/14680629.2017.1422435, 2018.
187. "Nonrecoverable Compliance and Recovery Behavior of Polymer-Modified and Reclaimed Asphalt Pavement (RAP)-Modified Binders in Arkansas" (Rahman, M., Hossain, Z., Zaman, M.). ASTM Journal of Testing and Evaluation, 46(6):20170071. DOI: 10.1520/JTE20170071, 2018.
186. "Artificial Neural Network Based Intelligent Compaction Analyzer for Real-Time Estimation of Subgrade Quality" (Imran, A. S., Barman, M., Commuri, S., Zaman, M., Nazari, M.). International Journal of Geomechanics, ASCE, 18. ISSN: Print: 1532-3641; Online: 1943-5622, 2018.
185. "An Alternate Analysis of Indirect Tensile Test Results for Evaluating Fatigue Characterization of Asphalt Mixes" (Barman, M., Ghabchi, R., Singh, D., Zaman, M., Commuri, S.). Journal of Construction and Building Materials. DOI:10.1016/j.conbuildmat.2018.01.049, Elsevier, 2018.
184. "Propagation and Aperture of Staged Hydraulic Fractures in Unconventional Resources in Toughness-Dominated Regimes" (Taghichian, A., Hashemalhosseini, H., Zaman, M. and Zavareh, S.B.). Journal of Rock Mechanics and Geotech. Engineering, Vol 10, No. 2, 2018, pp. 249-258.
183. "Influence of Tensile Strain at Failure on Flexural Properties of a Cementitiously Stabilized Subgrade Soil" (Nazari, M., Ghabchi, R., Zaman, M.). International Journal of Geomechanics, ASCE, 17(2). (ASCE)GM.1943-5622.0000731, 2017.
182. "Performance Evaluation of Plant-Produced Warm Mix Asphalts Containing RAP and RAS" (Arshadi, A., Steger, R., Ghabchi, R. A., Zaman, M., Hobson, K., Commuri, S.). Road Materials and Pavement Design, 18, 2017, pp. 1-18.
181. "Modelling the Dynamics of Asphalt-Roller Interaction during Compaction" (Imran, A., Commuri, S., Barman, M., Zaman, M., Beainy, F.). Journal of Construction Engineering and Management, ASCE. DOI: 10.1061/(ASCE)CO.1943-7862.0001293, 2017.
180. "Design of Semi-Rigid Type of Flexible Pavements" (Solanki, P., Zaman, M.). International Journal of Pavement Research and Technology, 10(2), 2017, pp. 99-111.
179. "Sensitivity of Traffic Input Parameters on Rutting Performance of a Flexible Pavement Using Mechanistic Empirical Pavement Design Guide" (Hossain, N., Singh, D., Zaman, M.). International Journal of Pavement Research and Technology (IJPRT), 9(6), 2016, pp. 450-459.
178. Quality Improvement of Subgrade Using Intelligent Compaction" (Barman, M., Nazari, M., Imran, S. A., Commuri, S., Zaman, M.). Transportation Research Record: Journal of the Transportation Research Board, the National Academies, TRR No. 2579, 2016, pp. 59-69.

177. "Micro-Structural Analysis of Moisture-Induced Damage Potential of Asphalt Mixes Containing RAP" (Ghabchi, R., Singh, D.V., Zaman, M., Hossain, Z.). ASTM Journal of Testing and Evaluation, 44(1), 2016, pp. 194-205.
176. "Enhancing Prediction of Rut by MEPDG Using Data from Field Test Section in Oklahoma" (Hossain, N., Singh, D.V., Zaman, M.). Transportation Research Record: Journal of the Transportation Research Board, National Academies, TRR No. 2590, 2016, pp. 28-36.
175. "Continuous Monitoring of Subgrade Stiffness during Compaction" (Imran, S., Barman, M., Nazari, M., Commuri, S., Zaman, M.). Transportation Research Procedia, 17, 2016, pp. 617-625.
174. "Quality Control of Subgrade Soil Using Intelligent Compaction" (Barman, M., Nazari, M., Imran, S., Commuri, S., Zaman, M., Beainy, F., Singh, D.V.). Innovative Infrastructure Solutions, Springer Verlag, Berlin, 2016, pp. 1-23.
173. "Comparison of Laboratory Performance of Asphalt Mixes Containing Different Proportions of RAS and RAP" (Ghabchi, R., Barman, M., Singh, D.V., Zaman, M., Mubarak, M. A.). Journal of Construction and Building Materials, Vol. 124, 2016, pp. 343-351.
172. "Evaluation of Moisture Susceptibility of Nanoclay-Modified Asphalt Binders through the Surface Science Approach" (Hossain, Z., Zaman, M., Hawa, T., Saha, M.). Journal of Materials in Civil Engineering, Volume 27, Issue 10. 2015, pp. 10-18.
171. "Regression Modeling of Resilient Modulus of Unbound Aggregates" (Hossain, Z., Zaman, M. and Doiron, C.). Journal of Marine Science and Technology, Vol. 23, No. 3, 2015, pp. 388-398.
170. "Laboratory Characterization of Asphalt Mixes Containing RAP and RAS" (Ghabchi, R., Singh, D., Zaman, M., and Hossain, Z.). International Journal of Pavement Engineering, DOI: 10.1080/10298436.2015.1022778 (Available Online), 2015, pp. 1-18.
169. "Laboratory evaluation of stiffness, low-temperature cracking, rutting, moisture damage, and fatigue performance of WMA mixes" (Ghabchi, R., Singh, D.V., and Zaman, M.). Journal of Road Materials and Pavement Design, Vol. 16, No. 2, 2015, pp. 334-357.
168. "Moisture Susceptibility Evaluation of Nano-sized Hydrated Lime-Modified Asphalt-Aggregate Systems Based on Surface Free Energy Concept" (Diab, A., You, Z., Hossain, Z., and Zaman, M.). Journal Transportation Research Board, No. 2446, 2015, pp. 52-59.
167. "Numerical Analysis for a Realistic Support Design – A Case Study: Komurhan Tunnel (Elazig/Eastern Turkey)" (Yalcin, E., Gurocak, Z., Ghabchi, R., and Zaman, M.). International J. of Geomechanics, ASCE, DOI: 10.1061/(ASCE)GM.1943-5622.0000564, 2015.
166. "Effect of Recycled Asphalt Pavement on Thermal Cracking Resistance of Hot-Mix Asphalt" (Solanki, P., Zaman, M., Adje, D., and Hossain, Z.). Int'l J. of Geomech., ASCE, 15(5), A4014001, 2015 (9 pages).
165. "Application of Intelligent Compaction Technology for Estimation of Effective Modulus for a Multilayered Asphalt Pavement" (Singh, D.V., Beainy, F., Commuri, S., and Zaman, M.). ASTM Journal of Testing and Evaluation, Vol. 43, Issue 2, 2015, pp. 1-11.
164. "Mechanical Behavior of Granular Materials under Continuously Varying b Values Using DEM" (Phusing, D., Suzuki, K., and Zaman, M.). International J. of Geomechanics, ASCE, 10.1061/(ASCE)GM.1943-5622.0000506, 04015027, 2015.
163. "Implementation of the Multiple Stress Creep Recovery (MSCR) Test Method to Characterize Polymer-Modified Asphalt Binders for Oklahoma Conditions" (Hossain, Z., Ghosh, D., and Zaman, M.). ASTM J. of Testing and Evaluation (JTE), 44.1S, 2015, pp. 1-14.
162. "Development of Rut Prediction Models from an Instrumented In-Service Test Section on Interstate-35" (Hossain, N., Singh, D. and Zaman, M.). Int. J. of Pavement Research and Tech., Vol. 8, No. 5, 2014, pp. 305-314.
161. "Regression Modeling of Resilient Modulus of Unbound Aggregates" (Hossain, Z., Zaman, M., and Doiron, C.). International Journal of Marine Science and Technology (JMST), Vol. 19, No. 2, 2014, (29 pages).

160. "Effect of Recycled Asphalt Pavement on Thermal Cracking Resistance of Hot-Mix Asphalt" (Solanki, P., Zaman, M., Adje, D. and Hossain, Z.). International J. of Geomechanics, ASCE, 10.1061/(ASCE)GM.1943-5622.0000398 , A4014001, 2014.
159. "Behavior of Stabilized Subgrade Soils Under Indirect Tension and Flexure," Materials in Civil Engineering, ASCE, 26(5), 2014, pp. 833-844.
158. "Stress Shadow Size and Aperture of Hydraulic Fractures in Unconventional Shales" (Taghichian, A., Zaman, M. and Davegowda, D.). Journal of Petroleum Science and Engineering, 124, 2014, pp. 209-221.
157. "Achievable Quality During the Compaction of Asphalt Pavement" (Beainy, F., Singh, D.V., Commuri, S., Zaman, M.). International Journal of Pavement Research and Technology (IJPRT), Vol. 7, Issue 5, 2014, pp. 317-323.
156. "A Visco-elastic-plastic Model of Asphalt/Roller Interaction During Field Compaction" ( Beainy, F., Commuri, S., and Zaman, M.). Engineering Mechanics, ASCE, Vol. 140, Issue 7, pp. 1-12, [http://dx.doi.org/10.1061/\(ASCE\)EM.1943-7889.0000730](http://dx.doi.org/10.1061/(ASCE)EM.1943-7889.0000730), 2014.
155. "Effect of Shape Parameters and Gradation on Laboratory Measured Permeability of Aggregate Bases" (Ghabchi, R., Zaman, M., Kazmee H., and Singh, D.). International Journal of Geomechanics, 10.1061/(ASCE)GM.1943-5622.0000397, 2014.
154. "Evaluation of Moisture Susceptibility of Asphalt Mixes Containing RAP and Different Types of Aggregates and Asphalt Binders Using the Surface Free Energy Method" (Ghabchi, R., Singh, D., and Zaman, M.). Construction and Building Materials, Vol. 73, 2014, pp. 479-489.
153. "Artificial Neural Network Modeling for Dynamic Modulus of Hot Mix Asphalt Using Aggregate Shape Properties" (Singh, D.V., Zaman, M. and Commuri, S.). Materials in Civil Engineering, Vol. 25, No. 1, 2013, pp. 54-62.
152. "Field Construction and Mechanistic Performance of Hot Mix Asphalt Containing Reclaimed Asphalt Pavement" (Solanki, P., Zaman, M., Adje, D., and Hossain, Z.). Journal of Pavement Research and Tech., Vol. 6, No. 4, 2013, pp. 403-413.
151. "Visco-Elastic-Plastic Model of Asphalt-Roller Interaction" (Beainy, F., Commuri, S., Zaman, M., and Syed, I.). International Journal of Geomechanics, ASCE, doi: 10.1061/(ASCE)GM.1943-5622.0000240, 2013.
150. "Mechanistic Evaluation of Effect of WMA-Additives on Wettability and Moisture Susceptibility Properties of Asphalt Mixes" (Ghabchi, R., Singh, D.V., Zaman, M. and Tian, Q.). Journal of Testing and Evaluation, Vol. 41, No. 6, 2013, pp. 1-10.
149. "Influence of In-Isolation Properties of Geogrid on Their Pullout Properties in a Dense Graded Aggregate" (Hatami, K., Mahmood, T., Ghabchi, R., and Zaman, M.). Indian Geotech. Journal, Vol. 43, No. 4, 2013, pp. 303-320.
148. "Behavior of Selected Warm Mix Asphalt Additive Modified Binders and Prediction of Dynamic Modulus of the Mixes" (Hossain, Z. and Zaman, M.). ASTM J. of Testing and Evaluation, DOI: 10.1520/JTE104639; Vol. 41, No. 1, 2013 (12 pages).
147. "Evaluation for Warm-Mix Additive-Modified Asphalt Binders Using Spectroscopy Techniques" (Hossain, Z., Lewis, S., Zaman, M., Buddhala, A., and O'Rear, E.). Journal of Materials in Civil Engineering, ASCE, Vol. 25, No. 2, 2013, pp. 149–159.
146. "Effects of Production and Sample Preparation Methods on Aggregate Shape Parameters" (Singh, D.V., Zaman, M. and Commuri, S.). Journal of Pavement Engineering, Vol 14, No. 2, 2013, pp. 154-175.
145. "Influence of Recovery Processes on Properties of Binders and Aggregates Recovered from Recycled Asphalt Pavement" (Hossain, Z., Solanki, P., Zaman, M., Lewis, S., and Hobson, K.). Journal of ASTM International (JAI), Vol. 9, Issue 3, February 2012, pp. 1-18.

144. "Susceptibility of Asphalt Binder with Warm Mix Additives to Moisture Induced Damage by Surface Free Energy Analysis" (Budhala, A., Hossain, Z., Wasiuddin, N. M., Zaman, M., and O'Rear, E. A.). ASTM Journal of Testing and Evaluation, Volume 40, Issue 1, January 2012.
143. "Inclusion of Aggregate Angularity, Texture, and Form in Estimating Dynamic Modulus of Asphalt Mixes" (Singh, D.V., Zaman, M., and Commuri, S.). International Journal of Road Materials and Pavement Design (RMPD), Vol. 13, Issue: 2, 2012, pp. 327-344.
142. "Comparison of Shape Parameters for Selected Coarse Aggregates in Oklahoma" (Singh, D.V., Zaman, M., and Commuri, S.). ASTM Journal of Testing and Evaluation, Vol. 40, Issue: 3, 2012, pp. 409-426.
141. "A Laboratory Investigation into the Effect of Long-Term Oven Aging on RAP Mixes Using Dynamic Modulus Test" (Singh, D.V., Zaman, M., and Commuri, S.). International Journal of Pavement Research and Technology (IJPRT), Vol.5, Issue: 3, 2012, pp. 142-152.
140. "Evaluation of Dynamic Modulus of Modified and Unmodified Asphalt Mixes for Different Input Levels of the MEPDG" (Singh, D.V., Zaman, M., and Commuri, S.). International Journal of Pavement Research and Technology (IJPRT), Vol.5, Issue: 1, 2012, pp. 1-11.
139. "Sensitivity of Oklahoma Binders on Dynamic Modulus of Asphalt Mixes and Distress Functions" (Hossain, Z., and Zaman, M.). Journal of Materials in Civil Engineering, Volume 24, No. 8, 2012, pp. 1076-1088.
138. "Effect of Gradation and Source Properties on Stability and Drainability of Aggregate Bases: A Laboratory and Field Study" (Ghabchi, R., Zaman, M., Khoury, N., Kazmee, H., and Solanki, P.). International Journal of Pavement Engineering, 13(6), 2012, pp. 1-17.
137. "New Considerations for Empirical Estimation of Tensile Strength of Rocks" (Gurocak, Z., Solanki, P., Alemdag, S. and Zaman, M. M.). Engineering Geology, 145-146, 2012, pp. 1-8.
136. "A Comparative Study of the Mechanical Behavior of Normal-Strength and High-Strength Concrete" (Solanki, P., Zaman, M. M., and Chin, M.) ASTM Advances in Civil Engineering Materials, 2012, 1(1), pp. 1-20.
135. "Evaluation of Durability of Stabilized Clay Specimens Using Different Laboratory Procedures" (Khalife, R., Solanki, P., and Zaman, M.). ASTM Journal of Testing and Evaluation, 40(3), 2012, pp. 363-375.
134. "Neural Network Modeling of 85th Percentile Speed for Two-Lane Rural Highways" (Singh, D.V., Zaman, M., and White, L.). Transportation Research Record, Journal of the Transportation Research Board TRR No. 2301, 2012, pp.17-27.
133. "Rheological Evaluation of Warm Mix and Anti-stripping Additives Modified Performance Grade Binders" (Hossain, Z., Zaman, M., Wasiuddin, N.M., Sneed, J. and O'Rear, E.). Road Materials and Pavement Design, Vol 12, No. 4, 2011, pp. 875-895.
132. "Effectiveness of Water-Bearing and Anti-stripping Additives in Warm Mix Asphalt Technology" (Hossain, Z., Zaman, M., O'Rear, E.A. and Chen, D.H.). International J. of Pavement Engineering, DOI: 10.1080/10298436.2011.616588, Sept. 2011, 9 pages.
131. "Evaluation of Mechanistic-Empirical Design Guide Input Parameters for Resilient Modulus of Subgrade Soils in Oklahoma" (Hossain, Z., Zaman, M., Doiron, C., and Solanki, P.). ASTM J. of Testing and Evaluation (JTE), Vol. 39, No. 5, DOI: 10.1520/JTE103603, 2011, 12 pages.
130. "Effect of Cement Kiln Dust and Rock Dust as Mineral Fillers on Bulk Specific Gravity of Fine Aggregates" (Gupta, A., Zaman, M., Laguros, J.G. and Ghabchi, R.). ASTM Journal of Testing and Evaluation, DOI: 10.1520/JTE103255, April 2011, 9 pages, 2011.
129. "Evaluation of Predictive Models for Estimating Dynamic Modulus of Hot Mix Asphalt Mixes Used in Oklahoma" (Singh, D.V., Zaman, M. and Commuri, S.). 90<sup>th</sup> Annual TRB Meeting and Online Compendium paper (11-3885), held in Washington, DC. on Jan. 23-27, 2011. Also, published in

- the Journal of Transportation Research Board, National Academy of Science, No. 2210, Vol. 4, 2011, pp. 57-72.
128. Validation of Back-Calculated Modulus Values from Falling Weight Deflectometer Through Instrumentation on I-35” (Solanki, P., Zaman, M. and Muraleetharan, K.). 90<sup>th</sup> Annual TRB Meeting and Online Compendium paper (11-3115), held in Washington, DC. on Jan. 23-27, 2011. Also, published in the Journal of Transportation Research Board, National Academy of Science, No. 2227, DOI: 10-3141/2227-09, 2011, pp. 79-86.
  127. Life Cycle Cost-Based Pavement Preservation Treatment Design” (Pittenger, D., Gransberg, D., Zaman, M. and Reimer, C.). 90<sup>th</sup> Annual TRB Meeting and Online Compendium paper (11-1575), held in Washington, DC. on Jan. 23-27, 2011. Also, published in the Journal of Transportation Research Board, National Academy of Science, No. 2235, DOI: 10-3141/2235-04, 2011, pp. 28-35.
  126. “In-Situ Assessment of Stiffness During Construction of an Asphalt Pavement” (Singh, D., Mai, A.T., Beainy, F.N., Commuri, S. and Zaman, M.). Int’l J. of Pvt. Research and Technology, Vol. 4, No. 2, 2011.
  125. “Use of Chat-Asphalt as a Paving Material: Field Performance Assessment” (Wasiuddin, N.M., Zaman, M. and Tarefder, R.A.). International J. of Pavement Research and Technology, Vol. 4, No. 2, 2011.
  124. “Stiffness and Drainage Characteristics of Unbound Aggregate Bases” (Khoury, N.N. and Zaman, M.). Int’l Journal of Geotech. Engineering, Vol. 4, Issue 4, 2010, pp. 461-469.
  123. “Effects of Anti-Stripping Additives on Rheological Properties of Performance Grade Binders” (Hossain, Z., Zaman, M. and Hobson, K.). Int. Journal of Pavement Research & Tech., Vol. 3, No. 4, 2010, pp. 160-170.
  122. “Polymeric Aggregate Treatment Using Styrene-Butadiene Rubber (SBR) for Moisture-Induced Damage Potential” (Wasiuddin, N.M., Zaman, M. and O’Rear, E.). Int. J. of Pavement Research and Tech., Vol. 3, No. 1, Jan. 2010, pp. 1-9.
  121. “Resilient Modulus of Clay Subgrades Stabilized with Lime, Class C Fly Ash and Cement Kiln Dust for Pavement Design” (Solanki, P., Zaman, M. and Dean, J.). J. of Transportation Research Board, No. 2186, 2010, pp. 101-110.
  120. “Neural Network Modeling of Resilient Modulus Using Routine Subgrade Soil Properties” (Zaman, M., Solanki, P., Ebrahimi, A. and White, L.W.). Int. J. of Geomechanics, Vol. 10, No. 1, 2010, pp. 1-12.
  119. “Laboratory Performance Evaluation of Subgrade Soils Stabilized with Sulfate Bearing Cementitious Additives” (Solanki, P. and Zaman, M.). ASTM J. of Testing and Evaluation, Vol. 38, No. 1, 2010, pp. 1-12.
  118. “Use of Raw Chat in HMA Surface: Environmental and Engineering Characterization” (Wasiuddin, N.M., Hamid, W.B., Zaman, M. and Nairn, R.W.). Journal of Solid Waste Tech. and Management, Vol. 36, No. 2, 2010, pp. 69-80.
  117. “Calibration of Non-Nuclear PQI Gauges and Field Comparison of PQI and Nuclear Gauge Densities” (Wasiuddin, N.M., Zaman, M. and Commuri, S.). Int. J. of Pavement Research and Tech., Vol. 2, No. 5, 2009, pp. 181-187.
  116. “A Comparative Evaluation of Various Additives Used in the Stabilization of Sulfate Bearing Soil” (Solanki, P., Khoury, N. and Zaman, M.). J. ASTM International, Vol. 6, No. 8, 2009, pp. 5-67.
  115. “Effects of Lime and Cement Kiln Dust on the Performance of Lean Clays” (Solanki, P. and Zaman, M.). International J. of Geotechnical Engineering, Vol. 3, No. 4, 2009, pp. 455-465
  114. “Calibration Procedures for the Intelligent Asphalt Compaction Analyzer” (Commuri, S., Mai, A. and Zaman, M.). ASTM J. of Testing & Eval. Special Issue on Asphalt Materials; Vol. 37, No. 5, 2009, pp. 454-462.



113. "Properties and Moisture Susceptibility of Silty Clay Stabilized with Lime, Class C Fly Ash and Cement Kiln Dust" (Solanki, P., Khoury, N. and Zaman, M.). J. of Materials in Civil Eng., ASCE, Vol. 21, No. 12, 2009, pp. 749-757.
112. "Variations of Resilient Modulus of Subgrade Soils with Post-Compaction Moisture Contents" (Khoury, N., Zaman, M. and Brooks, R.M.). J. of Transportation Research Board, Vol. 2101, 2009, pp. 72-81.
111. "Evaluation of Resilient Moduli of Pavement Layers at an Instrumented Section on I-35 in Oklahoma" (Solanki, P., Zaman, M., Muraleetharan, K. and Timm, D.). International J. Road Materials and Pavement Design, Vol. 10 (Special issue), 2009, pp. 167-188.
110. "Neural Network-Based Intelligent Compaction Analyzer for Estimating Compaction Quality of Hot Asphalt Mixes" (Commuri, S., Mai, A.T., and Zaman, M.). J. of Construction Engineering and Management, ASCE Vol. 137, No. 9, Sept. 2011.
109. "Finite Element Modeling of Cementitiously Stabilized Unnotched Beams Using a Smear Fracture Approach" (M. Zaman, N. Khoury, and P. Solanki). International J. of Geomech., ASCE, Vol. 9, No. 1, 2009, pp. 34-42.
108. "Development and Validation of "Smart Dust" for Pavement Condition Monitoring." (Pei, J.S., Ivey, R.A., Lin, H., Landram, A.R., Sandburg, C.J., Ferzli, N.A., King, T., Zaman, M. and Refai, H.). J. of Intelligent Material Systems and Structures, Vol. 20, 2009, pp. 63-85.
107. "Statistical Models for Determination of the Resilient modulus of Subgrade Soils" (P. Solanki, A. Ebrahimi and M. Zaman). Int. J. of Pavement Research and Tech., Vol. 1, No. 3, 2008, pp. 85-93.
106. "Rock Slope Stability and Excavability Assessment of Rocks at the Kapikaya Dam Site, Turkey" (Gurocak, Z., Alemdag, S. and Zaman, M.). Engineering Geology, Vol. 96, 2008, pp. 17-27.
105. "Estimation of Bearing Capacity of Basalts at Atasu Dam Site, Turkey" (S. Alemdag, Z. Gurocak, P. Solanki, and M. Zaman). Bulletin of Eng. Geology and The Environment, Vol. 67, No. 1, 2008, pp. 79-85.
104. "Effect of Sasobit® and Aspha-Min® on Wettability and Adhesion between Asphalt Binders and Aggregates" (N. Wasiuddin, M. Zaman and E.A. O'Rear). Transportation Research Record, J. of the Transportation Research Board, TRR No. 2051, 2008, pp. 80-89.
103. "A Neural Network-Based Compaction Analyzer for Density Measurement During the Construction of an Asphalt Pavement" (S. Commuri, M. Zaman and J.N. Gonzalez). International Journal of Pavement Engineering, Vol. 9, Issue 3, June 2008, pp. 177-188.
102. "Influences of Various Cementitious Agents on the Performance of Stabilized Aggregate Base Subjected to Wet-Dry Cycles" (N.N. Khoury and M. Zaman). Int. J. of Pavement Eng., Vol. 8, No. 4, 2007, pp. 265-276.
101. "A Laboratory Evaluation of Unmodified and Polymer Modified Performance-Grade Binders with Anti-Stripping Additives" (S. Selvamohan, M. Zaman and J.G. Laguros). Journal of Engineering, Computing and Architecture, SJI, Vol. 1, Issue 2, 2007, pp. 1-11.
100. "Empirical and Numerical Analyses of Support Requirements for a Diversion Tunnel at the Boztepe Dam Site, Eastern Turkey" (Z. Gurocak, P. Solanki, and M. Zaman). Engineering Geology, Vol. 91, 2007, pp. 194-208.
99. "Effect of Anti-Strip Additives on Surface Free Energy Characteristics of Asphalt Binders for Moisture-Induced Damage Potential" (N. Wasiuddin, C.M. Fogle, M. Zaman, and E.A. O'Rear). ASTM J. of Testing and Evaluation, Vol. 35, No. 11, 2007, pp. 36-44.
98. "Characterization of Thermal Degradation of Liquid Amine Anti-Strip Additives in Asphalt Binders Due to RTFO and PAV-Aging" (N. Wasiuddin, C.M. Fogle, M. Zaman, and E.A. O'Rear). ASTM Journal of Testing and Evaluation, Vol. 35, No. 4, 2007, pp. 387-394.
97. "A Comparative Laboratory Study of Sasobit® and Aspha-Min® in Warm Mix Asphalt." (N. Wasiuddin, S. Selvamohan, M. Zaman, and M.L. Guegan). Transportation Research Record, J. of the Transportation Research Board, TRR On. 1998, 2007, pp. 82-88.

96. "Environmental Effects on Durability of Aggregates Stabilized with Cementitious Materials<sup>2</sup> (N.N. Khoury and M. Zaman). ASCE Journal of Materials in Civil Engineering, Vol. 19, No. 1, 2007, pp. 1-8.
95. "Laboratory and Field Assessment of Pile run Chat from the Tar Creek Superfund Site Stabilized with Class C Fly Ash and Cement Kiln Dust" (N.N. Khoury, R.V. Teredesai, M. Zaman, and C.N. Khoury). International Journal of Geotechnical Engineering, Vol. 1, Issue 1, 2007, pp. 71-80.
94. "Characteristics of Chat-Asphalt for Road Base Application" (N.M. Wasiuddin, M. Zaman, R.W. Nairn and N. Kolothody). Journal of Solid Waste Tech. & Management, Vol 32, No. 3, 2006, pp. 125-137.
93. "Durability Effect on Flexural Behavior of Cementitiously Stabilized Limestone Aggregate" (N.N. Khoury and M. Zaman). Journal of Testing and Evaluation, ASTM, Vol. 34, No. 3, 2006, pp. 167-175.
92. "Semi-Quantification of Cementing Products using X-Ray Diffraction Technique in Stabilized Aggregate" (N. Khoury, M. Zaman, and J.G. Laguros). J. of X-Ray Science and Tech., Vol. 14, No. 1, 2006, pp. 39-54.
91. "Field and Laboratory Properties of Lime-Treated Cold In-Place Recycled Asphalt Pavements" (R.A. Tarefder, M. Zaman, R. Sisson and C.F. Ting). ASTM Journal of Testing and Evaluation, Vol. 34, No. 1, 2006, pp. 31-41.
90. "Development and Application of a Rut Prediction Model for Flexible Pavement" (R.A. Tarefder, M. Zaman, and L. White). Journal of Transportation Research Record, TRR No. 1936 (DOI: 10.3141/1936-23), 2005.
89. "Analysis of Emulsion and Hot Asphalt Cement Chip Seal Performance" (D. Gransberg and M. Zaman). Journal of Transportation Engineering, ASCE, Vol. 131, No. 3, 2005, pp. 229-238.
88. "Neural Network Model for Asphalt Concrete Permeability" (R.A. Tarefder, L. White, and M. Zaman). Journal of Materials in Civil Engineering, ASCE, Vol. 17, No. 1, 2005, pp. 19-27.
87. "Modeling Fully Coupled Oil-Gas Flow in Dual-Porosity Medium" (R. Nair, Y. Abousleiman, and M. Zaman). International Journal of Geomechanics, ASCE, Vol. 5, No. 4, 2005, pp. 326-338.
86. "Simple Expert System for Evaluation of Pollution Potential from Land Application of Manure" (A.N.M. Ahsanuzzaman, M. Zaman, and R. Kolar). Int. J. of Geomech., ASCE, Vol. 4, No. 4, 2004, pp. 285-295.
85. "Analysis of Inclined Boreholes in Poroelastic Media" (S. Ekbote, Y. Abousleiman, L. Cui, and M. Zaman). International Journal of Geomechanics, ASCE, Vo. 4, No. 3, 2004, pp. 178-191.
84. "Correlation Between Resilient Modulus, Moisture Variation and Soil Suction for Subgrade Soils" (N.N. Khoury, and M. Zaman). Journal of the Transportation Research Board, TRR No. 1874, 2004, pp. 99-107.
83. "A Finite Element Porothermoelastic Model for Dual-Porosity Media" (R. Nair, Y. Abousleiman, and M. Zaman). International Journal for Numerical and Anal. Methods in Geomechanics, Vol. 28, 2004, pp. 875-898.
82. "An Alternate Method to Determine Asphalt Content of Hot Mix Asphalt Using Volumetric Properties" (M.S. Shaheed, R.A. Tarefder, and M. Zaman). J. of Testing and Evaluation, ASTM, Vol. 32, No. 4, 2004, pp. 322-333.
81. "A Laboratory and Statistical Evaluation of Factors Affecting Rutting" (R.A. Tarefder, M. Zaman, and K.A. Hobson). International Journal of Pavement Engineering, IJPE, Vol. 4, No. 1, 2003, pp. 59-68.
80. "Formulation of Mix Design and Asphaltic Encapsulation of Hydrocarbon Contaminated Soil," (R.A. Tarefder, M.E., Ruckgaber, M. Zaman, M., and D. Patton). ASCE J. of Materials in Civil Eng., Vol. 15, No. 2, 2003, pp. 166-173.
79. "Stochastic Inversion and Prediction Applied to Concrete Overlay Systems." (L.W. White and M. Zaman). Applied Math and Computation, Vol. 128, 2002, pp. 59-79.

78. "A Laboratory Assessment of Binders' Contribution to Rutting Susceptibility" (R. Tarefder, M. Zaman and K. Hobson). International J. of Pavement, Vol. 1, No. 2, 2002, pp. 36-47.
77. "Evaluating the CoreLok™ Measurement of Bulk Specific Gravity for Hot Mix Asphalt Samples" (R. Tarefder, M. Zaman and K. Hobson). ASTM J. of Testing & Evaluation, Vol. 30, No. 4, 2002, pp. 274-282.
76. "Characteristics of Cold Processed Asphalt Millings and Cement-Emulsion Composite" (R. Issa, M. Zaman, G.A. Miller, and L.J. Senkowski). Transportation Research Record, TRR No. 1767, 2001, pp. 1-6.
75. "Coupling Elastic Models Through Interfacial Conditions with Application to Concrete Overlays" (L.W. White and M. Zaman). Applied Math and Computation, Vol. 123, 2001, pp. 187-204.
74. "A Simplified Model for Pavement Drainage" (L. White and M. Zaman). International Journal of Geomechanics, Vol. 1, 2001, pp. 65-82.
73. "Field and Laboratory Evaluation of Cement Kiln Dust as a Cement Stabilizer" (G.A. Miller and M. Zaman). Transportation Research Record, TRR No. 1714, 2000, pp. 25-32.
72. "Cyclic Shear Strength of Soft Railroad Subgrade" (G.A. Miller, S.Y. Teh, M. Zaman and D. Li). Journal of Geotechnical and Geo-Environmental Eng., ASCE, Vol. 126, No. 2, 2000, pp. 139-147.
71. "A Model for Fluid Accumulation and Flow in a Three-Dimensional Porous Medium" (H. Li, L. White, and M. Zaman). Applied Math and Computation, Vol. 108, 2000, pp. 177-19.
70. "Durability Effects on Resilient Moduli of Stabilized Aggregate Base" (M. Zaman, J.-H. Zhu and J.G. Laguros). Transportation Research Record, TRR No. 1687, 1999, pp. 29-38.
69. "Resilient Modulus and Microstructure of Cement-Kiln-Dust Stabilized Base/Subbase Aggregate" (J.-H. Zhu, M. Zaman, and J.G. Laguros). Soils and Foundations, Vol. 39, No. 6, 1999, pp. 33-42.
68. "Stability of Boreholes in a Geologic Medium Including the Effects of Anisotropy" (D. Gupta and M. Zaman). Applied Math. and Mech., Vol. 20, No. 8, 1999, pp. 837-866.
67. "Building a Knowledge-Efficient Sanding Advisor" (M. Kanj, J.-C. Roegiers, and M. Zaman). Knowledge-Based Systems, Vol. 12, 1999, pp. 145-158.
66. "Effects of In Situ Stresses on Fluid Flow in Fractured Reservoirs" (F. Meng, M. Bai, M. Zaman, and J.-C. Roegiers). In Situ, Vol. 23, No. 2, 1999, pp. 107-130.
65. "Analytical Method for Analysis of Slope Stability" (J. Cao and M. Zaman). Int. J. for Numerical and Analytical Methods in Geomech., Vol. 23, 1999, pp. 439-449.
64. "A Semi-Analytical Solution for a Two-Dimensional Capacitance Model in Solute Transport" (M. Bai, Z. Shu, J. Cao, M. Zaman and J.-C. Roegiers). Petroleum Science and Engineering Journal, Vol. 22, No. 2, 1999, pp. 275-295.
63. "Discussion on Resilient Modulus of Cohesive Soils" (J.-H. Zhu and M. Zaman). Journal of Geotech. And Geoenvironmental Eng., ASCE, Vol. 124, No. 11, 1998, pp. 1155-1156.
62. "Modeling Soil Behavior with a Recurrent Neural Network" (J.-H. Zhu, M. Zaman, and S.A. Anderson). Canadian Geotech. Journal, Vol. 35, 1998, pp. 858-872.
61. "Variation of Resilient Modulus of Aggregate Bases and Its Influence on Pavement Performance" (P. Tian, M. Zaman, and J.G. Laguros). ASTM J. of Testing & Eval., Vol. 26, No. 4, 1998, pp. 329-335.
60. "Cracking Characteristics of Model CRC Pavements" (M.I. Haque, M. Zaman, and A.A. Soltani). Transp. Res. Record, TRR No. 1629, 1998, pp. 90-98.
59. "Gradation and Moisture Effects on Resilient Moduli of Aggregate Base" (T. Ping, M. Zaman, and J.G. Laguros). Transp. Research Record, TRR No. 1619, 1998, pp. 75-84.
58. "Acoustic-Velocity Signatures Associated with Rock Deformation Process" (T.E. Scott, M. Zaman, and J.-C. Roegiers). Journal of Petroleum Tech., Distinguished Author Series, 1998, pp. 70-74.
57. "Modeling Shearing Behavior of a Residual Soil with Recurrent Neural Network" (J.H. Zhu, M. Zaman, and S.A. Anderson). Int. J. For Num. & Anal. Met. In Geomech., Vol. 22, 1998, pp. 671-687.

56. "Fracture Toughness of a Soft Sandstone" (G.R. Krishnan, X.L. Zhao, M. Zaman, and J.-C. Roegiers). Int. Journal of Rock Mech. & Mining Sci., Vol. 35, No. 8, 1998, pp. 695-710.
55. "A Simple Model for Fluid Accumulation and Flow in a Porous Medium" (L.W. White and M. Zaman). Applied Mathematics and Computation, Vol. 90, 1998, pp.181-203.
54. "Numerical Modeling of Stress-Dependent Permeability" (F. Meng, M. Bai, J. Cao, M. Zaman, and J.-C. Roegiers). Int. Journal of Rock Mech. & Mining Sci., Vol. 34, No. 3-4, 1997, pp.446 (full paper appeared on CD).
53. "Applications of Time-Dependent Pseudo-3D Stress Analysis in Evaluating Wellbore Stability" (Y. Abousleiman, L. Cui, S. Ekbote, M. Zaman, J.-C. Roegiers, and A.H-D. Chang). Int. Journal of Rock Mech. & Mining Sci., Vol. 34, No. 3-4, 1997, pp.421 (full paper appeared on CD).
52. "Sanding: An Expert System Approach for Assessment and Control in Wells" (M. Kanj, M. Zaman, and J.-C. Roegiers). Journal of Energy Resources Tech., ASME, Vol. 119, No. 4, 1997, pp. 223-235.
51. "Stress-Dependent Permeability Measurement Using the Oscillating Pulse Technique" (P. Suri, M. Azeemuddin, M. Zaman, A.R. Kukreti, and J.-C. Roegiers). Petroleum Science and Engineering, Vol. 17, 1997, pp. 247-264.
50. "Modeling Time Dependent Behavior of Pavement Drainage Using Linear System Identification and Neural Network Techniques" (M. Rahman, S.I. Sudharsan, K.K. Muraleetharan, and M. Zaman). Transp. Research Board, TRB 1582, 1997, pp. 34-41
49. "Creep Constitutive Modeling of Rock Salt and Evaluation of Model Parameters Using Optimization Technique" (M. Zaman, M.I. Hossain, and M.O. Faruque). Indian Geotech. Journal, Vol. 12, No. 6, 1996, pp. 761-780.
48. "Dynamic Response of Cable-Stayed Bridges to Moving Vehicles Using the Structural Impedance Method" (M. Zaman, A. Khanna, and M.R. Taheri). Applied Mathematical Modeling, Vol. 20, 1996, pp. 887-889.
47. "Creep Constitutive Modeling of an Aluminum Alloy Under Multiaxial and Cyclic Loading" (M.O. Faruque, M. Zaman, and M.I. Hossain). International J. of Plasticity, Vol. 12, No. 6, 1996, pp. 761-780.
46. "Micro Mechanisms of Pore Collapse in Limestone" (S. Mowar, M. Zaman, D.W. Stearns and J.-C. Roegiers). J. of Petroleum Science and Eng., Vol. 15, No. 2/4, 1996, pp. 221-235.
45. "Assessment of Computer Programs for Analysis of Flexible Pavement Structure" (D.H. Chen, M. Zaman, J.G. Laguros and A. Soltani). Transp. Research Record, No. 1482, 1995, pp. 123-133.
44. "Changes in Acoustic Velocity During Pore Collapse of Rocks" (T.E. Scott, M. Azeemuddin, M. Zaman, and J.-C. Roegiers), ISRM News Journal, Vol. 3, No. 1, 1995, pp. 14-17.
43. "Effects of a Moving Aircraft and Temperature Differential on Response of Rigid Pavements" (M.R. Taheri and M. Zaman). Computers and Structures, Vol. 57, No. 3, 1995, pp. 503-511.
42. "A Contact Element Model for the Dynamic Analysis of Jointed Concrete Pavements" (M. Zaman and A. Alvappillai). ASCE Transp. Eng. Div., Vol. 121, No. 5, Sept./Oct., 1995, pp. 425-433.
41. "Static and Dynamic Analysis of Concrete Pavements Including Thermal Warping Effects" (M. Zaman, M.R. Taheri and V. Khanna) Arabian J. of Science and Engr., Vol. 20, No. 3, 1995, pp. 433-466.
40. "Creep Modeling of Rock Salts for Geoenvironmental Application" (M.I. Hossain, M.O. Faruque and M. Zaman). ASME J. Energy Resources Tech., Vol. 117, No. 2, 1995, pp. 108-114.
39. "Characterization of Base/Subbase Materials Under Repetitive Loading" (D.H. Chen, M. Zaman and J.G. Laguros). ASTM J. of Testing and Evaluation, Vol. 23, No. 3, 1995, pp. 180-188.
38. "Resilient Moduli of Aggregate Materials: Variability Due to Testing Procedure and Aggregate Type" (D.H. Chen, M. Zaman and J.G. Laguros). Transp. Research Record, No. 1462, 1995, pp. 57-64.

37. "Resilient Moduli of Granular Materials and Their Correlations with Other Engineering Properties" (M. Zaman, D.H. Chen and J.G. Laguros). ASCE Transp. Div. Journal, Vol. 120, No. 6, 1994, pp. 967-988.
36. "Application of Infinite Elements to Seepage Analysis in Geotechnical Perspective" (M. Zaman and D. Bhat). Discussion of paper by Y. Honjo and G. Pokharel, Soils and Foundations, Vol. 34, No. 2, 1994, pp. 116-117.
35. "A FE Model for Ekofisk Field Subsidence" (A. Abdulraheem, M. Zaman and J.-C. Roegiers), J. of Petroleum Science and Eng., Vol. 10, 1994, pp. 299-310.
34. "Pore Collapse Behavior of Weakly Cemented and Porous Rocks" (M. Zaman, J.-C. Roegiers, A. Abdulraheem and M. Azeemuddin) ASME J. of Energy Resources Technology, Vol. 116, 1994, pp. 97-103.
33. "A Two Characteristic Model for Cohesionless Soil and Its Calibration Using Optimization" (A. Abdulraheem, M.O. Faruque, and M. Zaman). Int. J. of Plasticity, Vol. 10, No. 3, 1994, pp. 309-326.
32. "Surface Subsidence Prediction by Nonlinear Finite Element Analysis" (Y. Najjar and M. Zaman). ASCE Journal of Geotechnical Engineering, Vol. 119, 1993, pp. 1790-1804.
31. "Analysis of Fluid Storage Tanks Including Foundation-Superstructure Interaction" (A.R. Kukreti, M.M. Zaman and A. Issa). Applied Mathematical Modelling, Vol. 17, 1993, pp. 618-631.
30. "Numerical Simulation of a Compacting Reservoir" (A. Abdulraheem, M. Zaman, and J.-C. Roegiers). Int. J. of Rock Mech. and Mining Sciences, Vol. 30, No. 7, 1993, pp. 1299-1302.
29. "Numerical Modeling of Ground Subsidence due to Mining" (Y.M. Najjar and M. Zaman). Int. J. of Rock Mech. and Mining Sciences, Vol. 30, No. 7, 1993, pp. 1445-1448.
28. "Dynamic Response of Concrete Pavements Resting on Viscoelastic Foundation to Moving Loads" (A. Alvappillai, M. Zaman, and M.R. Taheri). European J. of Mech. A/Solids, Vol. 12, No. 1, 1993, pp. 79-93.
27. "Dynamic Analysis of Concrete Pavements Resting on a Two-Parameter Medium" (M. Zaman, A. Alvappillai and M.R. Taheri). Int. J. for Numerical Methods in Engineering, Vol. 36, 1993, pp. 1465-1486.
26. "Effects of Cap Thickness and Pile Inclination on the Response of a Pile Group Foundation by a Three-Dimensional Nonlinear Finite Element Analysis" (M. Zaman, Y.M. Najjar and A. Muqtadir). Computers and Geotechnics, Vol. 15, 1993, pp. 65-86.
25. "Modeling of Stress-Strain Behavior of Plain Concrete Using a Plasticity Framework" (M. Zaman, Y.M. Najjar and M.O. Faruque). Materials and Structures Journal, Vol. 26, 1993, pp. 129-135.
24. "On Modeling Stress-Strain and Dilatant Behavior of Cohesionless Soil (M.O. Faruque, and M. Zaman). Indian Geotech. Journal, Vol. 22, No. 3, 1992, pp. 175-195.
23. "Finite Element Algorithm for Jointed Concrete Pavements Subjected to Moving Aircraft." (A. Alvappillai, M. Zaman and J.G. Laguros). Computers and Geotechnics, Vol. 14, 1992, pp. 121-147.
22. "A Mixed-Variational Approach for the Analysis of Circular Plate-Elastic Halfspace Interaction" (M.O. Faruque and M.M. Zaman). Comp. Met. in Applied Mech. and Engr., Vol. 92, 1991, pp. 75-86.
21. "Dynamic Response of Thick Plates on Viscoelastic Foundation to Moving Loads" (M. Zaman, M.R. Taheri and A. Alvappillai). Int. J. for Numerical and Anal. Methods in Geomech., Vol. 15, 1991, pp. 627-647.
20. "On the Concept of Characteristic States of Cohesionless Soil and Constitutive Modeling" (M.O. Faruque and M. Zaman). Soils and Foundations, Vol. 31, No. 2, 1991, pp. 111-121; Closure: Vol. 33, No. 1, 1993, pp. 209-210.
19. "Mixed-Variational Approach for Restrained Plate-Half-space Interaction" (M. Zaman and M.O. Faruque). Journal of Engr. Mech. Div., ASCE, Vol. 117, No. 8, 1991, pp. 1755-1770.

18. "Analysis of the Interaction Between a Moderately Thick Plate and an Isotropic Elastic Halfspace by Using a Mixed-Variational Principle" (M.O. Faruque and M.M. Zaman). Soils and Foundations, Vol. 31, No. 1, 1991, pp. 73-82.
17. "Consolidation Settlements of Bridge Approach Foundation" (M.M. Zaman, A. Gopalasingam and J.G. Laguros). Journal of Geotech. Eng. Div., ASCE, Vol. 117, No. 2, 1991, pp. 219-240.
16. "Analysis of Moderately Thick Restrained Circular Plates Resting on an Isotropic Elastic Halfspace" (M.M. Zaman, M.O. Faruque and A. Mahmood). Applied Math. Modeling, Vol. 14, 1990, pp. 352-361.
15. "Dynamic Response of Concrete Pavement to Moving Aircraft" (M.R. Taheri, M.M. Zaman and A. Alvappillai). Applied Math. Modeling, Vol. 14, 1990, pp. 562-575.
14. "Elasto-Plastic Constitutive Modeling of Plain Concrete and an Optimization Procedure for Parameter Evaluation" (Y.M. Najjar, M.M. Zaman and M.O. Faruque). Computers and Geotechnics, Vol. 9, 1990, pp. 185-208.
13. "Creep Response of 2618-T61 Aluminum Under Multiaxial Loading" (I.U. Mahmood, M.O. Faruque and M.M. Zaman). ASME, Journal of Applied Mechanics, Vol. 56, No. 3, 1989, pp. 514-518.
12. "Analysis of Tank-Foundation-Halfspace Interaction Using an Energy Approach" (M.M. Zaman and N. Koragappa). Applied Mathematical Modelling, Vol. 13, 1989, pp. 66-78.
11. "Analysis of Cylindrical Storage Tank Foundation Interaction Using Finite Element Method" (M.M. Zaman and I.U. Mahmood). Indian Geotech. Journal, Vol. 18, No. 4, 1988, pp. 365-384.
10. "Efficient Solution for Finite Element Formulation of Flow of Immiscible Fluids in Compressible Heterogeneous Irregular Shaped Reservoirs" (A.R. Kukreti, M.M. Zaman, F. Civan and Y. Rajapaksa). Petroleum Engineering and Science, Vol. 1, 1988, pp. 277-294.
9. "Analysis of Circular Plate-Elastic Halfspace Interaction Using an Energy Approach" (M.M. Zaman, A.R. Kukreti and A. Issa). Applied Mathematical Modeling, Vol. 12, 1988, pp. 285-292.
8. "On Modeling of Steady State and Transient Creep of Polycrystalline Solids" (M.O. Faruque and M.M. Zaman). Acta Mechanica, Vol. 71, 1988, pp. 115-136.
7. "A Cylindrical Tank-Foundation-Halfspace Interaction Using an Energy Approach" (A. Issa and M.M. Zaman). Computer Methods in Applied Mechanics and Eng., Vol. 56, 1986, pp. 47-60.
6. "Cyclic Testing and Modelling of Interfaces" (C.S. Desai, E.C. Drumm and M.M. Zaman). Journal of Geotechnical Eng. Div., ASCE, Vol. 111, No. 6, 1985, pp. 794-815.
5. "A Variational Approach for the Analysis of Square and Rectangular Plates Resting in Smooth Contact with an Isotropic Elastic Halfspace" (M.M. Zaman and M.O. Faruque). Soils and Foundations, Vol. 25, No. 1, 1985, pp. 15-26.
4. "An Interface Model for Dynamic Soil-Structure Interaction" (M.M. Zaman, C.S. Desai and E.C. Drumm). Journal of Geotechnical Eng. Div., ASCE, Vol. 110, No. GT9, 1984, pp. 1257-1273.
3. "A Hyperelastic Model for Granular Materials Under Monotonic Loading" (M.M. Zaman, G. Ayala and T. Kuppasamy). Indian Geotechnical Journal, Vol 14, No. 3, 1984, pp. 163-182.
2. "Thin-Layer Element for Interfaces and Joints" (C.S. Desai, M.M. Zaman, J.G. Lightner and H.J. Siriwardane). International Journal for Numerical and Analytical Methods in Geomechanics, Vol. 8, No. 1, 1984, pp. 19-43.
1. "New Models for Rock Joints and Interfaces" (F.E. Heuze and T.G. Barbour). Discussion, Journal of Geotechnical Eng. Div., ASCE, Vol. 109, No. 7, 1982, pp. 1009-1011.

**BOOKS, BOOK CHAPTERS AND BOOK EDITING:**

19. Desai, C. S., Xiao, Y., Zaman, M., Carter, J. (2023). In Desai, C. S., Xiao, Y., Zaman, M., & Carter, J. (Eds.), *DSC/HISS Modeling Application to Problems in Mechanics. Geomechanics and Structural Mechanics*. CRC Press. (Edited Book, In Press)
18. Rani, S., Zaman, M. (2023). Application of Disturbed State Concept to Prediction of Rutting in Asphalt Pavements. *DSC/HISS Modelling Applications to Problems in Mechanics, Geomechanics and Structural Mechanics*. CRC Press. (Book Chapter, In Press)
17. "Finding Solutions of the 21st Century Transportation Problems Through Research and Innovations." In Hossain, Z., Zaman, M., & Zhang, J. (Eds.), *Edited Book, Selected Papers from GeoChina 2021 international conference*. Springer Nature Switzerland AG.
16. "Feasibility of Using XRF for Assessment of Surface Free Energy Components of Asphalt Binder" (Ali, A., Ghabchi, R., Rani, S., Rahman, M., Zaman, M., O'Rear, E. A.). *Solving Pavement and Construction Materials Problems with Innovative and Cutting-edge Technologies*. Springer International. Published, 2019
15. "Enhancing Sustainability of Transportation Infrastructure in the 21st Century" (Zaman, M., Ghabchi, R., Hossain, Z.). *US Infrastructure: Challenges and Directions for the 21st Century*. New York: Routledge, Taylor and Francis. Published, 2019.
14. "Enhancing the Sustainability of Transportation Infrastructure Using Increased Recycled Materials in Construction: Perspectives for the 21st Century" (Zaman, M., Ghabchi, R., Hossain, Z.). US Infrastructure: Challenges and Directions for the 21st Century (Khan, A. and Becker, K. – Editors); In press, 2019.
13. "Advanced Geotechnical Engineering: Soil-Structure Interactions Using Computer and Material Models" (Desai, C.S. and Zaman, M.). CRC Press, 2014, 616p.
12. "GSP 249: "Recent Developments in Evaluation of Pavements and Paving Materials" (A. Tarefder, J. Hu, M. Zaman, and D.H. Chen (Editors)). Geo-Hubei 2014, ISBN (print): 978-0-7844-7849-3, ASCE, 2014.
11. "Microstructural and Mineralogical Characterization of Clay Stabilized Using Calcium-Based Stabilizers" (Solanki, P., and Zaman, M.). Invited author of a chapter of "Scanning Electron Microscope," (Editor: Kazmiruk, V.), In-Tech Publisher (ISBN 978-953-51-0092-8), Chapter 38, 2012, pp. 771 – 798.
10. "Development of Neural Network Models for Estimation of Traffic Speed on Rural Highways" (Singh, D.V., Zaman, M., White, L.). In "Artificial Neural Network Modeling in Engineering," (Editor: Ahmed El-Shafie), Publisher: iConcept Press Ltd., Australia, ISBN: 978-14775548-7-6, 2012.
9. "Emerging Technologies for Materials Design, Rehabilitation, and Inspection of Roadway Pavements" (Chen, D.H., Chang, J.R., Zaman, M., Zhao, C. and Yao, Z. (Editors)). Geotech. Special Publication (GSP 218), ASCE, 2011, 273 Pages.
8. "Regression and Artificial Neural Modeling of Resilient Modulus of Subgrade Soils for Pavement Design Applications" (Solanki, P., Zaman, M. and Ebrahimi, A.). Soft Computing in Pavement and Geomechanical Systems: Recent Advances (Edited by Gopalakrishnan, K., Ceylan, H. and Attoh-Okine, N.O.). Springer-Verlag, Series, Vol. 259, 2009, pp. 269-304.
7. "Design of Neural Networks for Pavement Rutting" (R.A. Tarefder and M. Zaman) Chapter 9, Applied Research in Uncertainty Modeling and Analysis, Springer International Series in Intelligent Technologies, (Edited by Attoh-Okine, N.O. and Ayyub, M.A), pp. 193-213, 2005.
6. "Modeling in Geomechanics" (M. Zaman, G. Gioda and J. Booker, Editors). John Wiley and Sons, Chichester, United Kingdom, 2000, 706 p.

5. "Reservoir Compaction and Surface Subsidence in the North Sea Ekofisk Field" (M. Zaman, A. Abdulazeez, J.-C. Roegiers) Chapter 8 in "Subsidence Due to Fluid Withdrawal" (Edited by G.V. Chillingarian and E.C. Donaldson), Elsevier Science Publishers Ltd., 1995, pp. 397-447.
4. "Soil-Structure Interfaces: Experimental Aspects" (M. Zaman and A. Alvappillai). Chapter 6 in "Mechanics of Geomaterial Interfaces" (Edited by A.P.S. Selvadurai and M.J. Boulon). Elsevier Studies in Applied Mechanics 42, 1995, pp. 127-145.
3. "Computer Methods and Advances in Geomechanics: Vols. I, II, III and IV" (Edited by H.J. Siriwardane and M.M. Zaman). Proc. of the 8th International Conf. on Computer Methods and Advances in Geomechanics, held at Morgantown, West Virginia, May 22-28, 1994, 2725 pages.
2. "Prediction of Surface Subsidence due to Mining by Finite Element Method" (Y.M. Najjar and M.M. Zaman). Chapter III in "Numerical Analysis and Modelling of Soil-Structure Interaction", John Bull (Editor), Elsevier Science Publishers Ltd., Chapter 11, pp. 395-421, 1994.
1. "U.S.-Canada Workshop Proceedings: Recent Accomplishments and Future Trends in Geomechanics in the 21st Century" (M. Zaman, C.S. Desai, and A.P.S. Selvadurai—Editors). Workshop held in Norman, Oklahoma on October 21-23, 1992, Proceedings published in November 1993 (193 p.).

#### REFEREED CONFERENCE PAPERS:

267. "Assessment of Durability and Strength of Recycled Concrete Aggregate (RCA) for Use in Pavement Base Construction." (Arevalo, P. F.C., Ali, S. A., Zaman, M., Vellingiri, A., Hobson, K. R., Rojas-Pochyla, B.). International Airfield and Highway Pavements Conference, held on June 14-17, 2023, Austin TX.
266. "Estimating Optimum Rejuvenator Rate for Asphalt Recycling Based on Binder Rheological Properties." (Hobson, K. R., Ali, S. A., Vivanco, D., Ghos, S., Zaman, M.). International Airfield and Highway Pavements Conference, held on June 14-17, 2023, Austin TX.
265. "Repair Evaluations of Depressed Transverse Cracks in Asphalt Pavements." (Ghos, S., Hobson, K., Chen, D.-H., Ali, S. A., Zaman, M., Behm, M., Wang, K., Pittenger, D.). Int'l. Airfield and Highway Pavements Conf., held on June 14-17, 2023, Austin TX.
264. "Subsurface Investigation using Traffic Speed Deflection Device (TSDD) in Oklahoma." (Mendez, M. L., Ali, S. A., Hobson, K. R., Zaman, M., Scullion, T.). International Airfield and Highway Pavements Conference, held on June 14-17, 2023, Austin TX.
263. "Comparative Evaluation of Fracture Tests for Characterizing Fatigue Cracking Resistance of Asphalt Mixes." (Sagar, G., Ali, S. A., Zaman, M., Hobson, K. R.). 102nd TRB Annual Meeting, held in Washington, D.C., Jan. 8-12, 2023.
262. "Pavement Quality Evaluation using Intelligent Compaction (IC) Technology: Overview of Some Case Studies in Oklahoma" (Ghos, S., Elaryan, A. E., Ali, S. A., Zaman, M., Rahman, M. A.). Los Angeles, California, Oct. 28-29, 2022, International Conference on Construction Materials and Civil Engineering, 2022.
261. "Evaluation of Strain Recovery and Stress Sensitivity of Asphalt Binders Containing Warm-Mix Asphalt Additive and Anti-stripping Agent" (Rani, S., Ghabchi, R., Zaman, M., Ali, S. A.). Torino, Italy, Aug. 30-Sept. 2, Challenges and Innovations in Geomechanics: Proceedings of the 16th International Conf. of IACMAG, Springer International Vol. 3, 11-18 DOI: DOI: 10.1007/978-3-031-12851-6\_2, 2022.
260. "Evaluation of Stiffness and Fatigue Cracking of Post-Consumer Recycled (PCR) Plastic-Modified Asphalt Mixes" (Ghos, S., Ali, S. A., Zaman, M., Cancino, P.). Seattle, Washington, International Conference on Transportation Development, ASCE, May 31-June 3, 2022 DOI: <https://doi.org/10.1061/9780784484357.018>, 2022.



259. "Effectiveness of Using Polymer-Modified Asphalt Binders in Enhancing Fatigue Life of Asphalt Mixes Containing RAS and RAP" (Ghabchi, R., Zaman, M., Singh, D., Barman, M.), International Conference of the IACMAG, Springer, Cham, 213-219, 2021.
258. "Application of Intelligent Compaction (IC) as a Quality Control Tool: An Oklahoma Experience" (Rahman, M. A., Zaman, M., Gerard, B., Shawn, J., Ali, S. A., Hobson, K. R.). 16<sup>th</sup> IACMAG (online), Torino, Italy, May 5-8, 2021, DOI: DOI:10.1007/978-3-030-64514-4\_22, 2021.
257. "Relationships between Compressive and Splitting Tensile Strengths of Cast and Core High-Strength Concrete Cylinders" (Campos, R., Mendez Larrain, M., Zaman, M., Pozades, V.). Nanchang, China, July 19-21, 2021, GeoChina 2021, Springer International Publishing, Smart and Green Solutions for Civil Infrastructures Incorporating Geological and Geotechnical Aspects.
256. "Evaluation of Stripping Resistance of Organoclay-modified Asphalt Binder and Aggregate Systems Using an Optical Contact Angle Analyzer" (Hossain, Z., Bairagi, B., Zaman, M., Bulut, R., Sumpster, B.). Nanchang, GeoChina 2021 Conference, held in Nanchang, China, July 19-21, 2021, 26 pages DOI: [https://doi.org/10.1007/978-3-030-79647-1\\_5](https://doi.org/10.1007/978-3-030-79647-1_5).
255. "Application of high-resolution GPR for Assessing and Characterizing Potential Damage Zones in Oklahoma's Roads" (Behm, M., Zaman, M., Ali, S. A., Hobson, K. R., Ratre, P., Dangawal, D.). Golden, Colorado, 18th International Conference on Ground Penetrating Radar, *Society of Exploration Geophysicists*, June 14-19, pp. 124-127, 2020.
254. "Rutting Performance of PPA-Modified Binders Using Multiple Stress Creep and Recovery (MSCR) Test" (Rani, S., Ghabchi, R., Zaman, M., Ali, S. A.), Springer, Singapore, Advances in Computer Methods and Geomechanics, 607-616, 2020.
253. "Sensitivity of Pavement MED Input Parameters for Characterization of Cracking in Pavements in Oklahoma" (Ghos, S., Ali, S. A., Zaman, M., Hobson, K. R.). Seattle, Washington, International Conference on Transportation and Development 2020, May 26-29, pp. 296-307 DOI: [doi.org/10.1061/9780784483183.028](https://doi.org/10.1061/9780784483183.028), 2020.
252. "Laboratory Characterization of Moisture-Induced Damage Potential of Asphalt Mixes Using Conventional and Unconventional Performance-Based Tests" (Ali, S. A., Ghabchi, R., Zaman, M., Rani, S., Rahman, M. A.). 98<sup>th</sup> Annual Meeting of Transportation Research Board, 2019.
251. "DSC-Based Model for Growth of Calcite BioCemented Sand" (Zaman, M., Xiao, Y., Desai, C. S.). International IACMAG Symposium, IIT-Gandhinagar, March 5-7, 2019.
250. "Fatigue and Low-Temperature Cracking Performance of Asphalt Mixes Containing RAP and RAS" (Zaman, M., Ali, S. A., Ghabchi, R., Singh, D. V., Barman, M.). Ahmadabad, India, International IACMAG Symposium, IIT Ghandinagar, Mar 5-7, 2019.
249. "Rutting Performance of PPA-Modified Binders using Multiple Stress Creep and Recovery (MSCR) Test" (Rani, S., G, R., Zaman, M., Ali, S. A.). Ahmadabad, India, March 5-7, 2019, IACMAG Symposium.
248. "Prediction of dynamic modulus of hot mix asphalts with reclaimed asphalt pavement" (Hossain, Z., Zaman, M.). 15<sup>th</sup> World Conference on Transportation Research, held on May 26-31, 2019, Mumbai, India.
247. "Effect of Polyphosphoric Acid on Stress Sensitivity of Polymer-Modified and Unmodified Asphalt Binders" (Rani, S., Ghabchi, R., Zaman, M., Ali, S. A.). 2019 International Airfield and Highway Pavements Conference, Chicago, Illinois, July 21-24, 2019.
246. "Fatigue and Low-Temperature Cracking Performance of Asphalt Mixes Containing RAP and RAS" (Zaman, M., Ali, S. A., Ghabchi, R., Singh, D. V., Barman, M.). International IACMAG Symposium, held at IIT Ghandinagar, March 5-7, 2019.
245. "Rutting Performance of PPA-Modified Binders using Multiple Stress Creep and Recovery (MSCR) Test" (Rani, S., G, R., Zaman, M., Ali, S. A.). IACMAG Symposium, held at Ahmadabad, India on March 5-7, 2019.

244. "Use of Intelligent Compaction in Detecting and Remediating Under-Compacted Spots during Compaction of Asphalt Layers" (Barman, M., Imran, A., Nazari, M., Commuri, S., Zaman, M.). 5th GeoChina International Conference, Hangzhou, China, 2018.
243. "Semi-Circular Bending (SCB) Test on Lab-Produced, Plant-Produced, and Field Warm Mix Asphalts" (Arshadi, A., Ghabchi, R., Ali, S. A., Barman, M., Zaman, M., Commuri, S.). 97th Annual Meeting, Transportation Research Board, Washington, D.C., CD ROM DOI: Paper No. 18-04797, 2018.
242. "Feasibility of Using XRF for Assessment of Surface Free Energy Components of Asphalt binder" (Ali, S. A., Ghabchi, R., Rani, S., Rahman, M. A., Zaman, M.). 5th GeoChina International Conference, Hangzhou, China, 2018.
241. "Evaluation of Rutting and Cracking Resistance of Foamed Warm Mix Asphalt Containing RAP" (Rahman, M. A., Arshadi, A., Ghabchi, R., Ali, S. A., Zaman, M.). 5th GeoChina International Conference, Hangzhou, China, 2018.
240. "Impact of Anti-stripping Agents on Laboratory Performance of Asphalt Mixes" (Rani, S., Ghabchi, R., Ali, S. A., Zaman, M.). 5th GeoChina International Conference, Hangzhou, China, 2018.
239. "Mechanistic Evaluation of Effect of PPA on Moisture-induced Damage using SFE and XRF" (Ali, S. A., Ghabchi, R., Zaman, M., Steger, R., Rani, S., Rahman, M. A.). ASCE International Conference on Transportation & Development (ICTD 2018), Philadelphia, Pennsylvania, July 15-18, 2018.
238. "Characterization of Effect of Polymer Modification, Poly-Phosphoric Acid and Aging on Asphalt Binder Using X-ray Diffraction (XRD)" (Ali, S. A., Ghabchi, R., Rani, S., Zaman, M.). 96th Annual Meeting, Transportation Research Board (TRB), Washington, D.C., Jan. 8-12, 2017.
237. "A Novel Approach for Fatigue Performance Characterization of Asphalt Mixes Using Indirect Tension Test Data" (Barman, M., Ghabchi, R., Singh, D., Zaman, M., Commuri, S.). Transportation Research Board 96th Annual Meeting, CD-ROM Publication, Washington, D.C., Jan. 8-12, 2017.
236. "Contribution of Different Structural Layers to Pavement Rutting: A Case Study through Forensic Investigation of a Test Section on Interstate 35" (Hossain, N., Singh, D., Zaman, M., Timm, D., Solanki, P.). Transp. Research Board 96th Annual Meeting, CD-ROM Publication (17-02600), Washington, D.C., Jan. 8-12, 2017.
235. "Influence of Chemical Stabilization on Flexural Fatigue Performance of Subgrade Soil" (Nazari, M., Ghabchi, R., Zaman, M., Commuri, S.). Proc. Geotechnical Frontiers, ASCE, Orlando, Florida, March 12-15, 2017.
234. "Rutting Susceptibility Evaluation of RAP-Modified Asphalt using MSCR Method" (Ali, S. A., Ghabchi, R., Rani, S., Zaman, M., Parker, C.). 15th International Conference of the International Association for Computer Methods and Advances in Geomechanics, Wuhan, China, Oct. 20-23, 2017.
233. "Effects of Different Types of Evotherm Warm Mix Additive on Performance Grade and Moisture-Induced Damage Potential of Asphalt Binder" (Rani, S., Ghabchi, R., Ali, S. A., Zaman, M., O'Rear, E. A.). International Conference on Highway Pavements & Airfield Technology, Philadelphia, Pennsylvania, Aug. 27-30, 2017, pp. 189-200.
232. "Effect of Warm-Mix Additive on Interfacial Energy of an Asphalt Binder and a Granite Aggregate" (Rani, S., Ghabchi, R., Ali, S. A., Zaman, M., O'Rear, E. A., Hobson, K.). 15th International Conference of the International Association for Computer Methods and Advances in Geomechanics, Wuhan, China, 2017.
231. "A Laboratory Study of Rutting Susceptibility of Asphalt Mixes Containing High RAP Content Using Rheological and Performance-based Test Methods" (Ali, S. A., Ghabchi, R., Rani, S., Zaman, M., Parker, C.). International Conf. on Highway Pavements & Airfield Technology, Philadelphia, Pennsylvania, Aug. 27-30, 2017.

230. "Viability Assessment of the Use of Ground Tire Rubber (GTR) as a Modifier in Asphalt Binders" (Hossain, Z., Bairgi, B., Zaman, M., O'Rear, E.). 95<sup>th</sup> Annual Meeting of Transportation Research Board, Compendium Paper, Jan. 10-14, 2016.
229. "Evaluation of Static Contact Angles and Moisture Resistance of Organoclay-Modified Asphalt Binder" (Hossain, Z., Bairagi, B., Zaman, M., Bulut, R., Sumpter, B.). 95<sup>th</sup> Transportation Research Board Annual Meeting, Washington, D.C., No. Paper #16-2566, Jan. 10-14, 2016.
228. "Evaluation of Moisture Susceptibility of Nano-Modified Asphalt Binders" (Hossain, Z., Bairgi, B., Zaman, M., Bulut, R.). 2016 Geo-Chicago, Chicago, Illinois, pp. 477-487.
227. "Sensitivity of Axle Load Spectra on Performance of a Flexible Pavement Using Mechanistic Empirical Pavement Design Guide" (Hossain, N., Singh, D., Zaman, M.). Proc. TPMDC, IIT-Bombay, Mumbai, Dec. 19-21, 2016.
226. "Evaluation of Moisture-Induced Damage of an Asphalt Binder Modified with a Wax-Based Additive" (Ali, S. A., Ghabchi, R., Rani, S., Zaman, M.). 12<sup>th</sup> Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC), IIT-Bombay, Mumbai, December 19-21, 2016.
225. "Evaluation of Chemical Hardening Process to Inhibit Aggregate Abrasion and Polishing" (Zaman, M., Pittenger, D. and Cumberpatch, L.O. 94<sup>th</sup> Transp. Research Board Annual Meeting, held in Washington, D.C. on January 12-16 (Paper #15-0378), 2015.
224. "A 2-Dimensional Dynamical Model of Asphalt-Roller Interaction During Vibratory Compaction" (Imran, S., Commuri, S., and Zaman, M.). Proceedings of the 12<sup>th</sup> International Conference on Informatics in Control, Automation and Robotics, pp. 533-540, Colmar, Alsace, France, July 21-23, 2015.
223. "Evaluation of Moisture Susceptibility and Healing Properties of Nanoclay-Modified Asphalt Binders" (Hossain, Z., Zaman, M., Hawa, T., and Saha, M.). Int'l. Foundations Congress and Equipment EXPO (IFCEE 2015), held in San Antonio, Texas on March 17-21, 2015, pp. 339-348.
222. "Guidelines for Implementation of the Multiple Stress Creep Recovery (MSCR) Test Method" (Hossain, Z., Zaman, M., Ghosh, D. and Hobson, K.). 94<sup>th</sup> TRB Annual Meeting, held in Washington, D.C. on January 12-16 (Paper #15-4318), 2015.
221. "Intelligent Compaction of Stabilized Subgrade of Flexible Pavement" (Barman, M., Imran, S. A., Nazari, M., Commuri, S. and Zaman, M.). Int'l Foundations Congress and Equipment EXPO, IFCEE-2015, San Antonio, Texas. March 17-21, 2015, Published in the ASCE Geotechnical Special Publication No. 256, IFCEE 2015 © ASCE 2015, pp 2554-2566.
220. "A Comparative Evaluation of Three Different Fatigue Test Methods of Asphalt Mixes" (Barman, M., Ghabchi, R., Singh, D., Zaman, M. and Commuri, S.). 3<sup>rd</sup> Conf. on Transp. Research Group of India (CTRG), held in Kolkata, Dec. 17-20, 2015.
219. "Comparative Analysis of Microsurfacing and Slurry Seal for Rut Filling" (Pittenger, D., Granberg, D., Zaman, M., and Riemer, C.). CD ROM publication (Paper #14-0756), 93<sup>rd</sup> Transportation Research Board Annual Meeting, held in Washington, D.C. on January 12-16, 2014.
218. "Application of Intelligent Compaction Technology for Estimation of Effective Modulus for A Multilayered Asphalt Pavement" (Singh, D.V., Beainy, F., Zaman, M., Commuri, S.). GSP 249: Recent Developments in Evaluation of Pavements and Paving Materials, Geo-Hubei 2014, held in Hubei, China on July 20-22, Edited by R.A. Tarefder, J. Hu, M. Zaman, and D.H. Chen, ISBN (print): 978-0-7844-7849-3, ASCE.
217. Local Calibration MEPDG Rut Models: Oklahoma's Experience from an Instrumented Pavement Section" (Hossain, N., Singh, D., Zaman, M. and Rassel, S.M.). 14<sup>th</sup> Int. Conf. Int. Assoc. Comp. Methods and Advances in Geomech. (IACMAG), held in Kyoto, Japan on Sept. 22-25, 2014, pp. 135-140.

216. Evaluation of Viscosity and Rutting Properties of Nanoclay-modified Asphalt Binders” (Hossain, Z., Zaman, M., Saha, M.C., and Hawa, T.). Geo-Congress on Geo-Characterization and Modeling for Geo-Sustainability, held in Atlanta, GA on Feb. 23-26, 2014, (10 pages).
215. “Evaluation of Moisture Susceptibility of Nanoclay-Modified Asphalt Binders” (Hossain, Z., Zaman, M., Saha, M., and Hawa, T.). GSP 244: Application of Nanotechnology in Pavements, Geological Disasters, and Foundation Settlement Control Technology, Geo-Hubei 2014, held in Hubei, China on July 20-22, Edited by D. Singh, L.F. Walubita, J. Oh, and K. Li, ISBN: 978-0-7844-7844-8, ASCE, pp. 1-8.
214. “Dynamical Model of Asphalt-Roller Interaction During Compaction” (Imran, S.A., Beainy, F., Commuri, S., and Zaman, M.). ICINCO – 11<sup>th</sup> International Conf. on Informatics in Control, Automation and Robotics, Paper ID# 210, Vienna, Austria, Sept. 1-3, 2014.
213. “Continuous Monitoring of Subgrade Stiffness during Compaction” (Imran, S.A., Barman, M., Nazari, M., Commuri, S., Zaman, M.). Paper ID # 233, 11<sup>th</sup> International Conference on Transportation Planning and Implementation Methodologies for Developing Countries, TPMDC, IIT Bombay, India, Dec. 10-12, 2014.
212. “Evaluation of Fatigue Performance of Asphalt Mixes Using Semi-Circular Bend and Four Point Beam Fatigue Test Methods” (Barman, M., Ghabchi, R., Singh, D. V., Zaman, M., Commuri, S., and Hobson, K.). 14<sup>th</sup> Int. Conf. Int. Assoc. Comp. Methods and Advances in Geomech. (IACMAG) held in Kyoto, Japan on Sept. 22-25, 2014, pp. 459–464.
211. “Continuous Monitoring of Subgrade Stiffness During Compaction” (Barman, M., Imran, S.A., Nazari, M., Commuri, S., Zaman, M., and Singh, D.V.). 11<sup>th</sup> Planning and Implementation Methodologies for Developing Countries (TPMDC), held in Mumbai, India on Dec. 10-12, 2014.
210. “Application of Intelligent Compaction Technique in Real-Time Evaluation of Compaction Level During Construction of Subgrade” (Barman, M., Nazari, M., Imran, S.A., Commuri, S., and Zaman, M.). CD ROM publication (Paper #14-5183), 93<sup>rd</sup> Transportation Research Board Annual Meeting, held in Washington, D.C. on January 12-16, 2014.
209. “Moisture Susceptibility Evaluation of Nano-sized Hydrated Lime-Modified Asphalt-Aggregate Systems Based on Surface Free Energy Concept” (Diab, A., You, Z., Hossain, Z., and Zaman, M.). CD ROM publication (Paper #14-??), 93<sup>rd</sup> Transportation Research Board Annual Meeting, held in Washington, D.C. on January 12-16, 2014.
208. “Effects of RAP Binder on Moisture-Induced Damage Potential of Asphalt Mixes with Limestone Aggregates” (Ghabchi, R., Singh, D. V., and Zaman, M.). 14<sup>th</sup> Int. Conf. Int. Assoc. Comp. Methods and Advances in Geomech. (IACMAG) held in Kyoto, Japan on Sept. 22-25, 2014, pp. 453–458.
207. Viscoelastic Properties of Asphalt Binders Recovered from Reclaimed Asphalt Pavement” (Hossain, Z., Zaman, M., and Solanki, P.). 17<sup>th</sup> IRF World Meeting & Exhibition, held in Riyadh, Saudi Arabia, November 10-14, 2013, 13 pages.
206. “Evaluation of Rutting and Moisture Susceptibility of Nanoclay-Modified Asphalt Binders” (Hossain, Z., Zaman, M., and Saha, M.). 17<sup>th</sup> IRF World Meeting & Exhibition, held in Riyadh, Saudi Arabia, November 10-14, 2013, 13 pages.
205. “Comparison of Morphological Properties of Different Types of Coarse Aggregates” (Singh, D.V., Zaman, M., Commuri, S.). Air Field and Highway Pavements Conference, 2013, Edited by Imad L. Al-Qadi and Scott Murrell, (ISBN: 978-0-7844-1300-5), Transportation and Development Institute, held in Los Angeles, CA. doi: 10.1061/9780784413005.106, June 9-12, 2013.
204. “Mechanistic Characteristics of Hot Mix Asphalt Containing Reclaimed Asphalt Pavement” (Solanki, P., Zaman, M., Adje, D., and Hossain, Z.). 8<sup>th</sup> International Conf. on Road and Airfield Pavement Tech. (ICPT 2013), held in Taipei, Taiwan on July 14-18, 2013, 9 pages.
203. “Effect of Freeze-Thaw Cycles on Performance of Stabilized Subgrade” (Solanki, P., Zaman, M., and Khalife, R.). GeoCongress 2013, Sound Geotechnical Research to Practice, Geotechnical

- Special Publication Honoring the Contributions of Robert D. Holtz, held in San Diego, California on March 3-6, 2013, pp. 567-581.
202. "A Laboratory Study of Warm Mix Asphalt for Moisture Damage Potential Using Surface Free Energy Method" (Ghabchi, R., Singh, D., Zaman, M. and Tian, Q.). Airfield and Highway Pavement Conference: Sustainable and Efficient Pavements, Transportation & Development Institute of ASCE, held in Los Angeles, CA on June 9-12, 2013, pp. 54-63
  201. "Application of Asphalt-Aggregates Interfacial Energies to Evaluate Moisture-Induced Damage of Warm Mix Asphalt" (Ghabchi, R., Singh, D., Zaman, M., and Tian, Q.). 2<sup>nd</sup> Conf. of Transportation Research Group of India (CTRG), held in Agra, India on December 12-15, 2013, 10 pages.
  200. "Development of Field Rut Prediction Models from an Instrumented Test Section on Interstate-35" (Hossain, N., Solanki, P., Muraleetharan, K. K., Zaman, M., and Singh, D.). (CD ROM, Paper No. 13-3656), Transp. Research Board 92<sup>nd</sup> Annual Meeting, held in Washington, D.C., January 13-17, 2013, 17 pages.
  199. "Mechanistic Empirical Pavement Design Guide Input Parameters for Unbound Aggregates in Oklahoma" (Hossain, Z., Zaman, M., and Doiron, C.). 2<sup>nd</sup> IACGE Int. Conf. on Geotech. and Earthquake Engineering, held in Chengdu, China on October 25-27, 2013, 8 pages.
  198. "Pullout Performance of Geogrids with Different Junction Strength" (Mahmood T., Hatami K., Ghabchi, R., and Zaman, M.). GeoCongress 2012, Oakland, CA, March 25-29, 2012.
  197. "Evaluation of High Temperature Viscoelastic Characteristics of Warm Mix Additive Modified Binders and Prediction of Dynamic Modulus of Mixes" (Hossain, Z., and Zaman, M.). 91<sup>st</sup> Annual Meeting of the Transportation Research Board, Washington, D.C., DVD-ROM Compendium Paper, Jan. 22-26, 2012.
  196. "Evaluation of Resilient Response of Unbound Aggregates Toward Implementation of the Mechanistic-Empirical Pavement Design in Oklahoma" (Hossain, Z., Zaman, M., and Doiron, C.). 91<sup>st</sup> Annual Meeting of the Transportation Research Board, Washington, D.C. DVD-ROM Compendium Paper, Jan. 22-26, 2012.
  195. "Neural Network Modeling of 85th Percentile Speed for Two-Lane Rural Highways" (Singh, D.V., Zaman, M., and White, L.). Paper No. 12-0876, Transportation Research Board 91<sup>st</sup> Annual Meeting, Washington, D.C., CD-ROM Publication, January 22-26, 2012.
  194. "Comparison of Shape Parameters for Different Types and Sizes of Coarse Aggregates for Pavement Applications" (Singh, D.V., Zaman, M., and Commuri, S.). Paper No. 12-0758, Transportation Research Board 92<sup>nd</sup> Annual Meeting, held in Washington, D.C., CD-ROM Publication, January 22-26, 2012.
  193. "Effect of Geogrid Type on Performance of Reinforced Dense-Graded Aggregate Base" (Ghabchi, R., Mahmood, T., Hatami, K., and Zaman, M.). 5<sup>th</sup> Asian Regional Conference on Geosynthetics, held in Bangkok, Thailand on December 13-16, 2012.
  192. "Laboratory Investigation of Pullout Behavior of Non-extruded Geogrids in a Base Aggregate" (Mahmood T., Hatami K., Ghabchi, R., and Zaman, M.). 91<sup>st</sup> TRB Annual Meeting, Paper No.12-4222, held in Washington, D.C. on Jan. 22-26, 2012.
  191. "Evaluation of Mechanistic-Empirical Design Guide Input Parameters for Resilient Modulus of Stabilized Subgrade Soils" (Hossain, Z., Zaman, M., Doiron, C., and Solanki, P.). ICSDEC 2012/ASCE Texas Section Conference/CI Summit, November 7-9, 2012.
  190. "Effect of Recycled Asphalt Pavement on Thermal Cracking Resistance of Hot Mix Asphalt" (Solanki, P., Hossain, Z., Adje, D., and Zaman, M.). 2<sup>nd</sup> International Symposium on Constitutive Modeling of Geomaterials: Advances and New Applications, held in Beijing, China on October 15-16, 2012.
  189. "Recycled Asphalt Pavement in new Asphalt Mixtures: State of the Practice" (Hossain, Z., Buddhalla, A., O'Rear, A. O., Zaman, M., Laguros, J. L., and Lewis, S.). 2<sup>nd</sup> International

- symposium on Asphalt Pavement and Environment, held in Fortaleza, Brazil on October 1-3, 2012.
188. "Mechanistic Evaluation of Recovered Materials from Recycled Asphalt Pavement" (Hossain, Z., Solanki, P., Zaman, M.). GeoCongress 2012, held in Oakland, California on March 25-29, 2012.
  187. "Volumetric and Mechanistic Characteristics of Asphalt Mixes Containing Recycled Asphalt Pavement" (Solanki, P., Hossain, Z., Zaman, M., and Adje, D.). GeoCongress 2012, held in Oakland, California on March 25-29, 2012.
  186. "Effectiveness of Liquid Anti-Stripping Agent on Performance Grade Binder Modified with Warm Mix Additive" (Hossain, Z., Zaman, M., O'Rear, E. and Chen, D-H.). Proc. GeoHunan Int'l Conf. II, held in Hunan, China on June 6-8, 2011.
  185. "Characterization of Subgrade Resilient Modulus for Oklahoma Soils for Pavement Design" (Hossain, Z., Zaman, M., Doiron, C. and Solanki, P.). Proc. GeoFrontiers 2011, held in Dallas, Texas on March 13-16, 2011.
  184. "Characterization of Lime- and Fly Ash-Stabilized Soil by Indirect Tensile Testing" (Solanki, P. and Zaman, M.). Proc. GeoFrontiers 2011, held in Dallas, Texas on March 13-16, 2011.
  183. "In-Aggregate Performance of Unitized and Woven/Knitted Geogrids for Base Reinforcement Application" (Hatami, K., Mahmood, T., Ghabchi, R. and Zaman, M.). Proc. GeoFrontiers 2011, held in Dallas, Texas on March 13-16, 2011.
  182. "Effect of Long Term Oven Aging (LTOA) on Dynamic Modulus of Hot Mix Asphalt" (Singh, D., Zaman, M. and Commuri, S.). Proc. GeoFrontiers 2011, held in Dallas, Texas on March 13-16, 2011.
  181. "In-Aggregate Performance of Unitized Woven Geogrids in Open-Graded and Dense-Graded Aggregates" (Hatami, K., Ghabchi, R., Mahmood, T. and Zaman, M.). Proc. 90<sup>th</sup> Annual TRB Meeting and Online Compendium paper (11-4078), held in Washington, D.C. on Jan. 23-27, 2011
  180. "Energy Efficient Paving: Prospects and Concerns" (Hossain, Z., and Zaman, M.). Proc. US-China Workshop on Energy and Environment in the Development of Sustainable Asphalt Pavements, Chang'an University, Xian, China on June 6 - 8, 2010.
  179. "Comparative Field Testing of Asphalt and Concrete Pavement Preservation Treatments in Oklahoma" (Riemer, C., Gransberg, D., Zaman, M. and Pittenger, D.). Proc. First Int'l Pvt Preservation Conf., held in Newport Beach, CA on Apr. 13-15, 2010, pp. 447-450.
  178. "Drainability of Aggregate Bases in Asphalt Pavements: A Combined Laboratory and Field Study" (Ghabchi, R., Zaman, M., Kazmee, H. and Khoury, N.). Proc. Bangladesh Geotechnical Conference 2010, held in Dhaka, Bangladesh on Nov. 4-5, 2010.
  177. "Effects of Sample Preparation on Aggregate Shape Characteristics" (Singh, D., Zaman, M. and Commuri, S.). Proc. 61<sup>st</sup> Highway Geology Symposium, held in OKC on August 23-26, 2010.
  176. "Influence of Various Cementitious Additives on the Durability of Stabilized Subgrades" (Solanki, P. and Zaman, M.). Proc. 61<sup>st</sup> Highway Geology Symposium, held in OKC on August 23-26, 2010.
  175. "Laboratory Performance Evaluation of Stabilized Sulfate Containing Soil with Lime and Class C Fly Ash" (Singh, D.V., Ghabchi, R., Laguros, J.G., and Zaman, M.M.). ASCE Geotech. Special Pub.# 199, GeoFlorida, held in West Palm Beach, FL on Feb. 20-24, 2010, pp. 757-766.
  174. "In Situ Measurement of the Stiffness During the Construction of a HMA Pavement" (Singh, D.V., Mai, A.T., Beainy, A.F., Commuri, S., and Zaman, M.). 89<sup>th</sup> Annual Meeting of TRB, CD-ROM Publication, Paper No. 10-3533, held in Washington, D.C. on Jan. 10-14, 2010.
  173. "Field Performance of Chat-Asphalt Test Road" (Wasiuddin, N.M., Zaman, M. and Tarefder, R.). CD ROM Publication (10-4002), 89<sup>th</sup> Annual Transportation Research Board Meeting, held in Washington, D.C. on Jan. 10-14, 2010.
  172. "Resilient Modulus of Clay Subgrades Stabilized with Lime, Class C Fly Ash and Cement Kiln Dust for Pavement Design" (Solanki, P., Zaman, M. and Dean, J.). CD ROM Publication (10-

- 1031), 89<sup>th</sup> Annual Transportation Research Board Meeting, held in Washington, D.C. on Jan. 10-14, 2010.
171. "Effectiveness of Cement Kiln Dusts in Stabilizing Expansive Clays" (Solanki, P. and Zaman, M.). Proc. Int. Symp. On Ground Improvement Tech. and Case Histories, held in Singapore on Dec. 9-11, 2009, pp. 515-524.
170. "Influence of Cement Kiln Dust on Strength and Stiffness Behavior of Typical Clays" (P. Solanki, P. and M. Zaman). Geotechnical Special Publication 197, ASCE (Slope Stability, Retaining Walls and Foundations, GeoHunan, held in Changsha, China on Aug. 3-6, 2009, pp. 14-21.
169. "Performance Assessment of Cementitiously Stabilized Subgrade Soils" (P. Solanki, N. Khoury and M. Zaman). CD ROM Publication (09-0288), 88<sup>th</sup> Transportation Research Board Meeting, held in Washington, D.C. on Jan. 11-15, 2009.
168. "Variations of Resilient Modulus of Subgrade Soils with Post-Compaction Moisture Contents" (B. Robert, N. Khoury, M. Zaman and C.N. Khoury). CD ROM Publication (09-0297), 88<sup>th</sup> Annual Transportation Research Board Meeting, held in Washington, D.C. on Jan. 11-15, 2009.
167. "Rheological Properties of Performance Grade Binders Using a Dynamic Mechanical Analyzer" (Z. Hossain and M. Zaman). Proc. Inaugural Int'l Conf. of the Engineering Mech. Inst., held in Minneapolis on May 18-21, 2008.
166. "Moisture Susceptibility and Swelling Behavior of Stabilized Lean Clays" (P. Solanki, N. Khoury and M. Zaman). Proc. 12<sup>th</sup> IACMAG Conf., held in Goa, India on Oct. 1-6, 2008, pp. 3700-3709.
165. "Dynamic Mechanical Analysis of Performance Grade Asphalt Binder" (Z. Hossain and M. Zaman). Proc. 12<sup>th</sup> IACMAG Conf., held in Goa, India on Oct. 1-6, 2008, pp. 4354-4361.
164. "Constitutive Modeling of Normal Strength and High Performance Concrete Using Hierarchical Single Surface Model" (M. Zaman, P. Solanki and M.P.Y. Chin). Proc. 12<sup>th</sup> IACMAG Conf., held in Goa, India on Oct. 1-6, 2008, pp. 1308-1315.
163. "Neural Network-based Intelligent Compaction Analyzer for Estimating Compaction Quality of Hot Asphalt Mixes" (S. Commuri, A.T. Mai and M. Zaman). IFAC World Congress, held in Seoul, Korea on July 6-11, 2008.
162. "Effect of Sasobit and Asphamin on Wettability and Adhesion Between Asphalt Binders and Aggregates" (N.M. Wasiuddin, M. Zaman and E.A. O'Rear). CD ROM Publication (08-2853), 87<sup>th</sup> Annual TRB Meeting, held in Washington, D.C. on Jan. 13-17, 2008.
161. "Experimental Analysis and Statistical Modeling of Cementitiously Stabilized Subgrade Soil" (P. Solanki, N. Khoury and M. Zaman). CD ROM Pub. (08-2474), 87<sup>th</sup> Annual Mtg., held in Washington, D.C. on Jan. 13-17, 2008.
160. "Estimating Resilient Modulus Using Neural Network Models" (M. Zaman, A. Ebrahimi and L. White). Proc. ANNIE 2007 Conf., held in St. Louis, Missouri on Nov. 11-14, 2007
159. "Innovation and Application of Environmental Technologies: Strategies, Progress, and Prospects in Oklahoma" (M. Meo, R.W. Nairn, J.G. Laguros and M. Zaman). Proc. 10<sup>th</sup> Int'l Conf. on Environmental Science and Tech., held in Kos Island, Greece on Sept. 5-7, 2007.
158. "Stiffness and Drainage Characteristics of Unbound Aggregate Bases" (N.N. Khoury and M. Zaman). CD ROM Pub. (07-3022), 86<sup>th</sup> Annual Mtg. of Transp. Research Board, held in Washington, D.C. on Jan. 21-25, 2007.
157. "Effect of Polymer Treatment Using Styrene-Butadiene Rubber for Moisture-Induced Damage Potential" (N.M. Wasiuddin, M. Zaman and E.A. O'Rear). CD ROM Publication (07-3248), 86<sup>th</sup> Annual TRB Meeting, held in Washington, D.C. on Jan. 21-25, 2007.
156. "Evaluating Laboratory Modulus and Rutting of Asphalt Concrete" (R.A. Tarefder, J.C. Stormount and M. Zaman). CD ROM Publication (07-1889), 86<sup>th</sup> Annual TRB Meeting, held in Washington, D.C. on Jan. 21-25, 2007,

155. "Comparative Study of Sasobit and Asphamin in Warm-Mix Asphalt" (N.M. Wasiuddin, S. Selvamohan and M. Zaman). CD ROM Publication (07-2047), 86<sup>th</sup> Annual TRB Meeting, held in Washington, D.C. on Jan. 21-25, 2007.
154. "Use of Raw Chat in Hot-Mix-Asphalt Surface: Environmental and Engineering Characterization" (N.M. Wasiuddin, W.B. Hamid, M. Zaman and R.W. Nairn). CD ROM Publication (07-3193), 86<sup>th</sup> Annual TRB Meeting, held in Washington, D.C., Jan. 21-25, 2007.
153. "Engineering Behavior and Microstructure of Soil Stabilized with Cement Kiln Dust" (P. Solanki, N. Khoury and M. Zaman). Geotechnical Special Publication 172, ASCE Geo-Denver 2007 Conf., held in Denver, Colorado on February 18-21, 2007, pp. 1-10.
152. "Optimizing Aggregate Base Gradation for Maximum Performance" (N. Khoury, M. Zaman, R.W. Nairn and J.G. Laguros). Proc. Int'l Conf. on Advanced Characterization of Pavement and Soil Engineering Materials, held in Athens, Greece on June 20-22, 2007 (8 pages).
151. "Characteristics of Chat-Asphalt for Road Base Application" (N.M. Wasiuddin, M. Zaman, R.W. Nairn and N. Kolothody). Proc. 21<sup>st</sup> International Conf. on Solid Waste Tech. & Management, held in Philadelphia, Pennsylvania on March 26-29, 2006, pp. 333-342.
150. "Acid-Base Characteristics of an Asphalt Binder with and without Anti-Strip Additives" (N.M. Wasiuddin, D.C. Howell, C.M. Fogle, M. Zaman and E.A. O'Rear). Proc. Airfield and Highway Pavements Specialty Conf., ASCE, Atlanta, Georgia, April 30-May 3, 2006, pp. 412-424.
149. "Performance-Grade Changes in PG 64-22 Binder due to Selected Additives" (S. Selvamohan, M. Zaman and G. Gierhart). Proc. 7<sup>th</sup> International Congress on Advances in Civil Engineering (ACE), held at Yildiz Tech. Univ., Istanbul, Turkey, on Oct. 11-13, Paper No. ACE 06-195, 2006 (8 pages).
148. "Use of DMT for Subsurface Characterization: Strengths and Weaknesses" (H.-M. Lim, M. Zaman, and K. Hatami). Proc. Sec. Int. Conf. on Flat Dilatometer, held in Washington, D.C. on April 2- 6, 2006, pp. 213-219, 2006.
147. "Remediating and Recycling Lead Mining Waste in Oklahoma: The Use of Passive Treatment and Road Pavement Applications to Mitigate Environmental Hazards" (Nairn, R.W., Meo, M., Zaman, M., and Laguros, J.G.). Proc. (CD ROM) 9<sup>th</sup> Int. Conf. of Env. Science and Tech., held in Rhodes Island, Greece on Sept. 1-3, 2005 (6 pgs).
146. "Using Raw Chat in Hot Mix Asphalt for Pavement Applications" (Wasiuddin, N.M., Hamid, W.B., Zaman, M., Nairn, R.W. and Landers, T.). Proc. 22<sup>nd</sup> Nat'l Mtg. of the Amer. Soc. of Mining & Rec., ASMR, held in Lexington, KY on June 19-23, 2005, CD ROM Publication (15 pgs).
145. "Assessment of Surface Free Energy Characteristics of Performance Graded Asphalt Binders" (Wasiuddin, N.M., Barraza, H.J., Zaman, M. and O'Rear, E.A.). Geotechnical Special Publication No. 130-142, Geo-Frontiers, ASCE Conf., held in Austin, Texas on Jan. 24-26, 2005, pp. 151-163.
144. "Performance of Stabilized Aggregate Beams Under Freeze-Thaw Cycles" (Khoury, N. and Zaman, M.). Proc. (CD ROM) Transp. Research Board 84<sup>th</sup> Annual Meeting, held in Washington, D.C. on January 12-16, 2005 (24 pgs).
143. "Behavior of Stabilized Aggregate Bases Subjected to Cyclic Loading and Wet-Dry Cycles" (Khoury, N., Zaman, M. and Laguros, J.G.). Geotechnical Special Publication No. 130-142, Geo-Frontiers, ASCE Conf., held in Austin, Texas on Jan. 24-26, 2005, pp. 61-70.
142. "Using RAP Materials for Overlay: Laboratory and Field Study" (Zaman, M., Tarefder, R. and Cheong, T.). Proc. 11<sup>th</sup> Int. Conf of IACMAG (Invited Paper) held in Turin, Italy on June 19-24, Vol. 4, 2005, pp. 71-88.
141. "Influence of Metric Suction on the Resilient Modulus of Kirkland Soil Series in Oklahoma" (Khoury, N. and Zaman, M.). Proc. 11<sup>th</sup> Int'l Conf of IACMAG, held in Turin, Italy on June 19-24, Vol. 2, 2005, pp. 81-88.



140. "Characterizing Resilient Behavior of Asphalt Concrete for Use in Pavement Design" (Tarefder, R.A. and Zaman, M.). Proc. ASCE Geo-Trans Conf., held in Los Angeles, California on July 27-31, 2004.
139. "Fluidized Bed Ash as a Stabilizing Agent for Roadway Base Materials" (Pandey, K.K., Zaman, M. and Laguros, J.G.). Proc. ASCE Texas Section Fall Meeting, held in Houston, Texas, on September 29 – Oct. 2, 2004 (24 pgs).
138. "Performance of Stabilized Base under Flexural and Compressional Cyclic Loading" (Khoury, N., Srouf, C. and Zaman, M.). Proc. (CD ROM) of Geo-Trans, ASCE Geo-Institute Conf. held in Los Angeles, California on July 27-31, 2004 (10 pgs).
137. "The Use of XRD Patterns to Evaluate the Compressive Strength of Stabilized Aggregates" (Khoury, N., Zaman, M. and Laguros, J.G.). Proc. Advances in X-Ray Analysis, held in Denver, Colorado on August 4-8, 2003, Proc. Published in 2004 (6 pgs).
136. "Design and Evaluation of Neural Networks for Rutting of Asphalt Concrete" (Tarefder, A. and Zaman, M.). Proc. ASCE Conf. on Computational Intelligence held in Baltimore, MD on October 20-22, pp. 38-48, 2004.
135. "Evaluation of Rutting Potential in Asphalt Mixes using Finite Element Modeling" (Pirabarooban, S., Zaman, M. and Tarefder, R.A.). Proc. Annual Conf. of the Transp. Assoc. of Canada. Held in Newfoundland, Canada on September 21-23, 2003 (10 pgs).
134. "Correlating Asphalt Concrete Modulus with Rut Potential" (Tarefder, R.A. and Zaman, M.). Proc. Third International Symp. on Maintenance and Rehabilitation of Pavements and Technological Control, held in Portugal on July 7-10, 2003, Vol. 1, pp. 207-217.
133. "2-D and 3-D Modeling of Rutting in Asphalt Pavement" (Zaman, M., Pirabarooban, S. and Tarefder, R.A.). Proc. Int. Conf. on Highway Pvt. Data, Analysis and Mechanistic Design Applications, held in Columbus, Ohio on Sept. 7-10, 2003 (11 pgs).
132. "Virtual Laboratory Modules for Undergraduate Strength of Materials Course" (A.R. Kukreti, M. Zaman, K. Gramoll and J.-H. Lee). ASEE Annual Conf. & Exhibition, held in Nashville, Tennessee, June 22-25, 2002.
131. "Evaluation of Relative Weight of Rutting Parameters" (R. Tarefder, M. Zaman and K. Hobson). Proc. of Canadian Technical Assoc. Held in Calgary, Canada, Nov. 2002.
130. "An Application of the Dual-Porosity Porothermoelastic Approach in Naturally Fractured Porous Media" (R. Nair, Y. Abousleiman and M. Zaman). Proc. 2nd Biot Conf. on Poromechanics, held in Grenoble, France, Aug. 26-28, 2002, pp. 509-514.
129. "DSC-Based Constitutive Modeling of High Performance Concrete" (M. Zaman, A.R. Kukreti and M.P. Chin). Proc. 14<sup>th</sup> US National Congress of Theoretical and Applied Mech., held in Blacksburg, Virginia, June 23-28, 2002, pp. 392-393.
128. "Evaluating Rut Potential of Selected Asphalt Mixes for Improved Pavement Performance" (R. Tarefder and M. Zaman). CD Proc. Second Int. Conf. On Maintenance and Rehabilitation of Pavements and Technological Control, held in Auburn, Alabama, July 29-Aug. 1, 2001.
127. "Numerical Analysis of Fluid Flow in Naturally Fractured Media" (K. Xia, M. Zaman and M. Bai). Proc. 10th IACMAG Intl. Conf., held in Tucson, Arizona Jan. 7-11, 2001, pp. 1815-1822.
126. "Expert System for Evaluation of Groundwater Pollution Potential from CAFO." (A.N.M. Ahsanuzzaman, K. Strevett, and M. Zaman). Proc. 10th IACMAG Intl. Conf., held in Tucson, AZ, Jan. 7-11, 2001, pp. 183-190.
125. "Analysis of Consolidation Including Sand Drain" (with A. Alvappillai). Proc. John Booker Memorial Symp., held in Sydney, Australia, Nov. 16-17, 2000 (13 pgs).
124. "Computer-Based Learning Modules for Rigid Body Mechanics" (with A.R. Kukreti). Proc. (CD-ROM) 2000 ASEE Annual Conf., held in St. Louis, Missouri, June 18-21, 2000 (10 pgs).

123. "Predicting the Performance of Pavement Drainage Systems Using a Neural Network Model" (with A.F. Alam, K. Muraleetharan, and S. Sudharsanan). Proc. (CD-ROM) EM 2000, Fourteenth Engineering Mech. Conf., held at Univ. of Texas at Austin, 2000 (5 pgs).
122. "Porothermoelastic Solutions for an Inclined Borehole in Transversely Isotropic Porous Media" (with S. Ekbote and Y. Abousleiman). Proc. Fourth North American Rock Mech. Symp. Pacific Rocks 2000. Held at Seattle, Washington, July 31-Aug. 3, 2000, pp. 253-259.
121. "Finite Element Modeling of an Inclined Wellbore in a Fractured Porous Medium Saturated with Oil and Gas" (with R. Nair, M. Bai, and Y. Abousleiman). Proc. Fourth North American Rock Mech. Symp. Pacific Rocks 2000. Held in Seattle, Washington, July 31-Aug. 3, 2000, pp. 189-196.
120. "Modeling the 85th Percentile Speed on Oklahoma Two-Lane Rural Highways via Neural Network Approach" (with R. Issa and Y. Najjar). Proc. 2nd Intl. Workshop on Artificial Intelligence and Math. Methods in Pavements and Geomech. Systems. Held at Univ. of Delaware, Aug. 11-12, 2000, pp. 99-108.
119. "Teaching Rigid Body Mechanics Using Laptop Computers in the Classroom Versus the Traditional Way" (M. Zaman and A.R. Kukreti). Proc. 34th ASEE Midwest Section Conf. (Electronic Pub.), held in Stillwater, Oklahoma, April 14-16, 1999 (10 pages).
118. "A Software for Poroelastic Analyses of Borehole Stability" (L. Cui, Y. Abousleiman, S. Ekbote, J.-C. Roegiers, and M. Zaman). SPE 54013, SPE Latin American and Caribbean Petroleum Eng. Conf., held in Caracas, Venezuela, April 21-23, 1999 (8 pages).
117. "Time-Dependent Coupled Processes in Wellbore Design and Stability: PBORE-3D" (Y. Abousleiman, S. Ekbote, L. Cui, F. Mody, J.-C. Roegiers, and M. Zaman), SPE 56759, SPE Annual Technical Conf. and Exhibition, held in Houston, Texas, Oct. 3-6, 1999 (10 pages).
116. "Constitutive Properties of Rocks Under Dry and Saturated Conditions" (A.R. Kukreti and M. Zaman). Proc. Plasticity 1999 Symp., held in Cancun, Mexico, Sept. 1999 (4 pages).
115. "Analysis of Model Continuously Reinforced Concrete Pavement Using FLAC" (M. Zaman and A. Soltani). Proc. Int. FLAC Symp. On Numerical Modeling in Geomech., held in Minneapolis, Minnesota, Sept. 1-3, 1999, pp. 197-202.
114. "Estimating Resilient Modulus of Aggregate Base by Backpropagation Neural Network Model" (R. Issa and M. Zaman). Proc. 4th Int. Conf. on Constitutive Laws for Engineering Materials, held at RPI, Troy, New York, July 27-30, 1999, pp. 493-496.
113. "A Neural Network Model for Pavement Drainage Systems" (K. Muraleetharan, A. Alam, S. Sudharsan, and M. Zaman). Proc. 4<sup>th</sup> Int. Conf. on Constitutive Laws for Engineering Materials, held at RPI, Troy, New York, July 27-30, 1999, pp. 489-492.
112. "A Neural Network Model for a Cohesionless Soil" (M. Zaman and J.-H. Zhu). Proc. Int. Workshop on Artificial Intelligence and Math. Methods in Pavement and Geomechanical Sys., held at Florida Atlantic Univ., Miami, Nov. 5-6, 1998, pp. 39-54.
111. "Foundation Analysis with Deformable Particles Using DDA" (K. Shyu, M.R. Salami and M. Zaman). Proc. Ninth IACMAG Conf., held in Wuhan, China, Nov. 2-7, 1997, pp. 469-472.
110. "Vibration Characteristics of Foundation Slabs on a Two-Parameter Elastic Medium" (M. Zaman, M.O. Faruque, A. Agrawal, W. Low, and J.G. Laguros). Proc. ASCE Special Publ. No. 64: Observation and Modeling in Numerical Analysis and Model Tests in Dynamic Soil-Structure Interaction Problems, 97<sup>th</sup> ASCE Geo Institute Conf., held in Logan, Utah, July 16-19, 1997, pp. 122-137.
109. "Physical and Numerical Modeling of Multiple Fracturing Under Tension in a Continuously Reinforced Concrete Slab" (A. Soltani, M. Zaman, and L. Ring). Proc. Of Ninth IACMAG Conf., held in Wuhan, P.R.C., Nov. 2-7, 1997, pp. 413-419.

108. "Influence of Testing Procedure on Resilient Modulus of Aggregate Materials" (P. Tian, M. Zaman, and J.G. Laguros). Proc. Of Ninth IACMAG Conf., held in Wuhan, P.R.C., Nov. 2-7, 1997, pp. 795-800.
107. "Characterization of Ground Subsidence of Abandoned Mines" (Y. Najjar, M. Zaman, J.L. Ahern, and J.G. Laguros). Proc. Int. Conf. On Innovation in Computer Methods for Civil and Structural Engineering, held in Cambridge, England, Aug. 19-21, 1997, pp. 23-30.
106. "Minimizing Numerical Oscillation in the Consolidation Analysis" (M. Bai, J.-C. Roegiers, M. Zaman, and D. Elsworth). Proc. NUMOG VI: Numerical Models in Geomechanics, held in Montreal, Canada, July 2-4, 1997, pp. 359-354.
105. "Constitutive Modeling of Weak Rocks with Application to Reservoir Compaction" (M. Zaman, A. Abdulraheem, Y. Abousleiman, and J.-C. Roegiers). Proc. Plasticity'97: The Sixth Int. Symp. On Plasticity and Its Current Applications, held in Juneau, Alaska, July 14-18, 1997, pp. 333-334.
104. "Coupling of Constitutive and Permeability Rock Models in a Flow Simulator" (A.R. Kukreti, M. Zaman, and L. Ring). Proc. Plasticity'97: The Sixth Int. Symp. On Plasticity and Its Current Applications, held in Juneau, Alaska, July 14-18, 1997, pp. 313-314.
103. "Multiaxial Testing and Constitutive Modeling of Coal" (M. Zaman, D.-H. Chen, and Y.M. Najjar). Proc. Ninth IACMAG Conf., held in Wuhan, Nov. 2-7, 1997, pp.285-292.
102. "Field Evaluation of Pavement Drainage" (M. Zaman, M. Rahman, and K. Muraleetharan). Proc. Int. Conf. On Rehabilitation and Development of Civil Eng. Infrastructure Systems, held in Beirut, Lebanon, June 9-11, 1997, pp. 600-618.
101. "Neuronets: On Theory and Practice in Civil Engineering" (M. Knaj, J.-C. Roegiers, and M. Zaman). Proc. Int. Conf. On Rehabilitation and Development of Civil Engineering Infrastructure Systems, held in Beirut, Lebanon, June 9-11, 1997, pp. 1258-1269.
100. "Prediction of Shear Stress-Strain Behavior of Soil with Recurrent Neural Network" (J.H. Zhu, M. Zaman, and T.B. Trafalis). Proc. Artificial Neural Networks in Engineering (ANNIE'96), Vol. 6, Smart Engineering Systems: Neural Networks, Fuzzy Logic and Evolutionary Programming, held in St. Louis, Missouri, Nov. 10-13, 1996, pp. 809-814.
99. "Free Vibration Analysis of Rectangular Plates Resting on a Two-Parameter Elastic Medium" (M. Zaman, M.O. Faruque, A. Agrawal, and J.G. Laguros). Proc. First International Conf. On Earthquake Resistent Design of Engineering Structures, ERES 96, held in Greece on Oct. 30-Nov. 1, 1996, Vol. 2, pp. 583-592.
98. "Permeability Measurements Under Different Stress Paths for a Weakly Cemented Sandstone" (G. Krishnan, M.M. Zaman, and J.-C. Roegiers). Proc. NARMS'96, held in Montreal, Canada, June 19-21, 1996, pp. 1011-1017.
97. "Development of a Coupled Constitutive-Flow Rock Model for Indiana Limestone" (A.R. Kukreti, M.M. Zaman, and P. Suri). Proc. NARMS'96, held in Montreal, Canada, June 19-21, 1996, pp. 1305-1313.
96. "A Phenomenological Creep Model for Rocksalt" (M. Zaman, M.O. Faruque, and M.W. Wei). Proc. Developments in Theoretical and Applied Mech., Vol. XVIII, Univ. of AL, Tuscaloosa, 1996, pp. 237-248.
95. "Nonlinear Analysis of Underreamed Shafts" (M. Zaman, I. Houssamy, and R.M. Salami). Proc. 1st Int'l Forum on DDA & Simulations of Discont.Media, held in Berkeley, CA, June 12-14, 1996, pp. 586-595.
94. "Determining Contact Stresses on Potatoes Stored in Bulk Bins by Using Discontinuous Deformation Analysis" (M.R. Salami, A. Shahbazi, M. Zaman, and M. Zargham). Proc. First Int'l Forum on DDA and Simulations of Discontinuous Media, held in Berkeley, California, June 12-14, 1996, pp. 415-431.

93. "Discontinuous Deformation Analysis Using the Third Order Displacement Function" (M.Y. Ma, M. Zaman, and J.H. Zhu). Proc. First Int'l Forum on DDA and Simulations of Discontinuous Media, held in Berkeley, California, June 12-14, 1996, pp. 383-394.
92. "Modeling Stress-Strain Behavior and Determination of Material Parameters of Rocks for a Plasticity Model" (P. Suri, A.R. Kukreti, M. Zaman and J.-C. Roegiers). Fifth International Symp. on Plasticity and Its Current Applications, held at Osaka, Japan, July 17-21, 1995, (4 pages).
91. "Cyclic Testing of Aggregate for Pavement Design" (M.M. Zaman, D.-H. Chen, and J.G. Laguros). Proc. Third Int'l Conf. on Recent Advances in Geotechnical Earthquake Engr., held in St. Louis, Missouri, April 2-7, 1995, Vol. I, pp. 53-56.
90. "Object-Oriented Programming Aspects of the SITEX System" (M. Kanj, M. Zaman and J.-C. Roegiers). Proc. 3<sup>rd</sup> Int. Conf. on Comp. Met. and Water Resources, held in Beirut, Lebanon, Sept. 25-28, 1995, pp. 383-390.
89. "Highlights from the Knowledge-Base of a Sanding Advisor Called SITEX" (M. Kanj, M. Zaman and J.-C. Roegiers). Proc. 3rd Int. Conf. on Comp. Met. and Water Resources, held in Beirut, Lebanon, Sept. 25-28, 1995, pp. 391-398.
88. "Using a Finite Element Program ABAQUS in Predicting the Cooling Rates of Hot Mix Asphalt" (D.H. Chen, M. Zaman, Y. Mehta and J.G. Laguros). Proc. NUMOG V Symp., held in Davos, Switzerland, Sept. 6-8, 1995, pp. 663-666.
87. "Numerical Modeling for Assessment of Cooling Rates of Hot Mix Asphalt Overlays" (D.H. Chen, Y. Mehta, M.M. Zaman, J.G. Laguros and L. Senkowski). Proc. Sixth Int. Conf. on Civil and Struct. Eng. Computing, held at Cambridge, England, August 28-30, 1995, pp. 105-108.
86. "Mechanistic-Empirical Methodology for Conventional Flexible Pavement Design (D.H. Chen, M. Zaman and J.G. Laguros). Proc. Sixth Int. Conf. on Civil and Struct. Eng. Computing, held at Cambridge, England, August 28-30, 1995, pp. 191-194.
85. "Behavior of Natural and Remolded Antler Sandstone: Sample Preparation and Grain Crushing Aspects" (H. Wang, G. Krishman, M. Zaman, and J.-C. Roegiers). Proc. 35th U.S. Rock Mech. Symp., held at Lake Tahoe, June 4-7, 1995, pp. 127-133.
84. "Stress-Dependent Permeability Measurement Using the Pulse Technique" (P. Suri, M. Azeemuddin, M. Zaman, A.R. Kukreti and J.-C. Roegiers). Proc. 35th U.S. Rock Mech. Symp., held at Lake Tahoe, June 4-7, 1995, pp. 645-650.
83. "Assessment of Distress Models for Prediction of Pavement Service Life" (D.H. Chen, M. Zaman and J.G. Laguros). Proc. ASCE Specialty Conf. on Infrastructure: New Materials and Methods for Repair, held at San Diego, California, Nov. 14-16, 1994, 8 pgs.
82. "Bonded Aggregate Base-Pavement-Subgrade Interaction" (M. Zaman, R. Radhakrishnan, and J.G. Laguros). Proc. Advances in Simulation and Interaction Techniques, Edited by M. Papadrakakis and H.V. Topping, 1994, pp. 67-72.
81. "Numerical Modeling of Bridge Approach Settlement with Foundation-Embankment Interaction" (M. Zaman, D. Bhat and J.G. Laguros). ASCE Geotechnical Special Publ. No. 40, Proc. of Settlement 94 Conf. held at College Station, Texas, June 16-18, 1994, Vol. 2, pp. 1400-1414.
80. "Acoustic Velocity Anisotropies in Cordoba Cream Limestone During Different Deformational Stress Paths" (M. Azeemuddin, T.E. Scott, Jr., M. Zaman, and J.-C. Roegiers). Proc. NARMS-94 Symp., held in Austin, Texas, June 1-3, 1994, NARMS-94, pp. 775-782.
79. "Pore collapse Mechanisms in Cordoba Cream Limestone" (S. Mowar, M. Zaman, D.W. Stearns and J.-C. Roegiers). Proc. NARMS-94 Symp., held in Austin, Texas, June 1-3, 1994, pp. 767-773.
78. "Constitutive Modeling of Sand: A Comparative Study" (Y.M. Najjar, M.M. Zaman and R. Tabbaa). Proc. IACMAG-94 Conf., held at Morgantown, West Virginia, May 22-28, 1994, Vol I, pp. 641-646.

77. "Wellbore Stability in a Transversely Isotropic Medium" (D. Gupta and M. Zaman). Proc. IACMAG-94 Conf., held at Morgantown, West Virginia, May 22-28, 1994, Vol. III, pp. 2065-2070.
76. "Statistical Modeling of Bridge Approach Settlement" (R. Jha, M. Zaman, J.G. Laguros and J. Nevels). Proc. IACMAG-94 Conf., held at Morgantown, West Virginia, May 22-28, 1994, Vol. II, pp. 1489-1494.
75. "Effective Stress Creep Model for Rock Salt" (M.I. Hossain, M. Zaman and M.O. Faruque), Proc. IACMAG-94 Conf., held at Morgantown, West Virginia, May 22-28, 1994, Vol. III, pp. 2253-2258.
74. "3-D Testing and Constitutive Modeling of Inherently Anisotropic Sand" (D.H. Chen, M. Zaman and A. Oyesanya), Dev. in Theoretical and Applied Mech. (Proc. SECTAM-94), Vol. XVII, 1994, pp. 400-414.
73. "Numerical Evaluation of Bridge Approach Settlement" (M. Zaman, D. Bhat and J.G. Laguros). Proc. Impact of Computational Mech. to Engr. Probs., Sydney, Australia, Aug. 2, 1993, pp. 175-182.
72. "On Developing an Expert System for Sand Control" (M. Kanj, M. Zaman and J.-C. Roegiers). Proc., 7<sup>th</sup> Oklahoma Symp. on Artificial Intelligence, held in Stillwater, Nov. 18-19, 1993 (7 pgs.).
71. "Computer Aided Analysis of Nonlinear Consolidation" (D. Bhat, M. Zaman and J. Laguros). Proc., 13<sup>th</sup> Annual ASME Int. Mtg. on Computer Engg., held in San Diego, California, Aug. 8-11, 1993, pp. 515-523.
70. "Application of Nonlinear Finite Element Method in Prediction of Ground Subsidence" (Y. Najjar, D.H. Chen and M. Zaman). Proc., First Canadian Symp. on Numerical Modelling and Applications in Mining and Geomech., March 27-30, 1993, pp. 140-149.
69. "A FE Model for Ekofisk Field Subsidence" (A. Abdulraheem, M. Zaman and J.-C. Roegiers). Proc. Composite Material Technology, PD-Vol. 53, ASME, 1993, pp. 103-110
68. "Characterization of Volumetric Response in Sands" (M. Zaman, M.O. Faruque and A. Abdulraheem). Proc., 4th International Symp. on Plasticity and Its Current Applications, held in Baltimore, Maryland, July 19-23, 1993 (4 pgs.).
67. "Anisotropic Constitutive Model for Pressure Sensitive Materials" (Y.M. Najjar, M. Zaman and D.H. Chen). Proc., 4th International Symp. on Plasticity and Its Current Applications, held in Baltimore, Maryland, July 19-23, 1993 (4 pgs.).
66. "Numerical Modeling of Mining Induced Subsidence" (M. Zaman, A.R. Kukreti and D.H. Chen). Proc., 2<sup>nd</sup> Asian-Pacific Conf. on Computational Mech., held in Sydney, Australia, Aug. 3-6, 1993, Vol. I, pp. 521-526.
65. "Constitutive Modeling of Geomaterials and Interfaces/Joints Including Recent Concepts, Localization, Stability and Micromechanics" (C.S. Desai and M. Zaman). Proc., U.S.-Canada Workshop Proceedings: Recent Accomplishments and Future Trends in Geomechanics in the 21<sup>st</sup> Century Proceedings published in November 1993, pp. 39-4
64. "Expert Systems in Transportation Engineering" (M. Zaman, G. Bozai, et. al.). Proc. 3rd Int'l. Conf. on the Applications of AI of Civil and Structural Eng., held at Edinburgh, U.K., Aug. 17-19, 1993, pp. 183-188.
63. "FE Modeling of Pavement Joints for Dynamic Analysis" (A. Alvappillai and M. Zaman). Proc. Contact Mechanics 93, held at Southampton, U.K., July 13-15, 1993, pp. 509-518.
62. "Numerical Simulation of a Compacting Reservoir" (A. Abdulraheem, M. Zaman and J.-C. Roegiers). Proc. 34th U.S. Symp. on Rock Mech., held at Madison, Wisconsin, June 27-30, 1993, pp. 475-478. (Revised version published in IJRMMS Journal).
61. "Numerical Modeling of Ground Subsidence due to Mining" (Y.M. Najjar and M. Zaman). Proc. 34<sup>th</sup> U.S. Symp. on Rock Mech., held at Madison, Wisconsin, June 27-30, 1993, pp. 737-740. (Revised version published in IJRMMS Journal).

60. "Dynamic Testing of Aggregate Bases" (D.H. Chen, M. Zaman and J.G. Laguros). Proc. 6<sup>th</sup> Int'l. Conf. on Soil Dyn. and Earthquake Engr., held at Southampton, U.K., June 14-16, 1993, pp. 259-274.
59. "Recent Expert System in Well Completion and Stimulation" (M. Kanj, M. Zaman and J.-C. Roegiers). Proc. 6<sup>th</sup> Int'l. Conf. on Industrial and Engr. Applications of Artificial Intelligence and Expert Systems, held at Edinburgh, U.K., June 1-4, 1993, pp. 441-449.
58. "Laboratory Testing and Constitutive Modeling of Coal Including Anisotropy" (D.H. Chen, M. Zaman and A.R. Kukreti). Proc. Materials Research Society Fall Mtg./ held at Boston, Nov. 30 - Dec. 4, 1992 (Proc. published in 1993), pp. 349-354.
57. "Application of Nonlinear Finite Element Method in Prediction of Ground Subsidence due to Underground Mining" (Y.M. Najjar, D.H. Chen and M. Zaman). Proc. Canadian Symp. on Num. Modeling Application in Mining and Geomech., held on March 27-30, 1993, Montreal, Canada, pp. 140-149.
56. "A FE Model for Ekofisk Subsidence" (A. Abdulraheem, M. Zaman and J.C. Roegiers). Composite Material Technology, The Energy-Sources Technology Conference and Exhibition, held at Houston, Texas, Jan. 31-Feb. 3, 1993, pp. 103-110.
55. "Pore Collapse Behavior of Cordoba Cream Lime Stone" (M. Azeemuddin, M. Zaman, J.-C. Roegiers and S. Mowar). Proc. 4<sup>th</sup> Int. Symp. on Numerical Models in Geomech. (NUMOG IV), held in Swansea, U.K., Aug. 24-27, 1992, pp. 291-300.
54. "Mechanics of Pore Collapse and Compaction in Weak Porous Rocks" (A. Abdulraheem, J.-C. Roegiers, and M. Zaman). Proc. 33<sup>rd</sup> U.S. Symp. on Rock Mechanics, held at Santa Fe, New Mexico, June 3-5, 1992, pp. 233-242.
53. "Dynamic Response of Concrete Airport Pavements to Temperature Induced Warping" (M.R. Taheri, M. Zaman and V. Khanna). Proc. SECTAM XVI Conf., held at Nashville, Tennessee, April 12-14, 1992, pp. II.10.17 - II.10.26.
52. "Pore Collapse in Weakly Cemented and Porous Rocks" (M. Zaman, J.-C. Roegiers, A. Abdulraheem and M. Azeemuddin). Composite Material Technology, The Energy-Sources Technology Conference and Exhibition, held at Houston, Texas, Jan. 26-30, 1992, pp. 123-132.
51. "Soil Stabilization Using Cement Kiln Dust" (M. Zaman, A. Sayah and J.G. Laguros). Proc. 7<sup>th</sup> Int. Conf. on Expansive Soils, held in Dallas, Texas, Aug. 3-5, 1992, pp. 347-351.
50. "Behavior of Building Foundations on Expansive Soil: A Case Study" (M. Zaman and J.G. Laguros). Proc. World Building Congress, held in Montreal, Canada, 18-20 May, 1992, Vol. I, pp. 206-207.
49. "Modeling Creep Behavior of Rock Salt" (M. Zaman, M.O. Faruque, and M.I. Hossain). Composite Material Technology, PD-Vol. 45, The Energy-Sources Technology Conference and Exhibition, held at Houston, Texas, Jan. 26-30, 1992, pp. 51-56.
48. "Application of Expert Systems in Transportation Engineering: A Critical Review" (M. Zaman, G. Bozai, A.S. Mangaokar, J.F. Harp, J.L. Gattis and J.G. Laguros). Proc. Fifth Okla. Symp. on Artificial Intelligence, held in Norman, Nov. 20-22, 1991, pp. 57-63.
47. "Constitutive Modeling of Concrete for Nuclear Reactor Application" (Y.M. Najjar and M. Zaman). Proc. SMiRT-11 Conf., held in Japan, Aug. 18-23, 1991 (6 pages).
46. "A Constitutive Model to Characterize Dilatancy in Rocks" (J.-C. Roegiers, M. Zaman, A. Abdulraheem and M. Azeemuddin). Proc. 32<sup>nd</sup> U.S. Rock Mech. Symp. held in Norman, Oklahoma 10-12 July, 1991, pp. 531-538.
45. "Circular Plate-Elastic Halfspace Interaction Analysis Including Transverse Shear Deformation" (M.O. Faruque, A. Mahmood and M. Zaman). Proc. IACMAG-91 Conf., held in Australia in May 1991, Vol. II, pp. 1147-1152.
44. "Constitutive Modeling of Pueblo Sand" (M. Zaman and M.O. Faruque). Proc. IACMAG - 91 Conf., held in Australia in May 1991, Vol. I, pp. 709-714.

43. "Influence of Back-Fill Soil Properties on Behavior of Buried Pipes." Proc. ASCE Conf. on Pipeline Crossings, held in Denver, Colorado, March 26-27, 1991, pp. 129-138.
42. "Dynamic Response of Square and Rectangular Foundations on Two-Parameter Elastic Medium" (A. Alvappillai, M. Zaman and M.O. Faruque). Proc. Second Int. Conf. on Geotech. Earthq. Engrg. and Soil Dyn., held at St. Louis, Missouri, March 11-15, 1991, Vol. I, pp. 679-684.
41. "Constitutive Model for Cohesionless Soil" (M.O. Faruque, M. Zaman and A. Abdullaheem). Proc. 3<sup>rd</sup> Int. Conf. on Const. Laws for Engrg. Materials, held at Tucson, Arizona, Jan. 7-11, 1991, pp. 123-127.
40. "A High Capacity Cubical Device and Multi-Axial Testing for Constitutive Modeling of Concrete" (A.R. Kukreti, M. Zaman and D.K. Mishra). Proc. 3<sup>rd</sup> Int. Symp. on Plasticity, held in France, August 1991 (4 pages).
39. "Evaluation of Hierarchical Models Using Pueblo Sand Data" (M. Zaman, M.O. Faruque and R. Tabbaa). Proc. 3<sup>rd</sup> Int. Conf. on Const. Laws for Engrg. Materials, held at Tucson, AZ, Jan. 7-11, 1991, pp. 787-791.
38. "A Thermo-Mechanical Creep Constitutive Model for Metals with Application" (M.O. Faruque and M.M. Zaman). Proc. Thirteenth Annual Energy-Sources Tech. Conf. (Composite Material Technology), New Orleans, Louisiana, Jan. 14-18, 1990, PD-Vol. 32, pp. 173-176.
37. "Predicting Behavior of Buried Pipes Using a Mixed Finite Element Approach" (M. Zaman and J.G. Laguros). Proc. Conf. on Flexible Pipes, held at Columbus, Ohio, Oct. 22-24, 1990, pp. 163-169.
36. "A Mixed Variational Approach for Analysis of Axisymmetric Plates on Elastic Halfspace" (M.O. Faruque, M.M. Zaman and M.R. Taheri). Proc. 3<sup>rd</sup> Iranian Congress, held in Shiraz, Iran, May 14-16, 1990, (18 pgs).
35. "Dynamic Response of Bridges to a Moving Mass Load: Structural Impedance and Finite Element Methods" (M.R. Taheri and M.M. Zaman). Proc. Third Iranian Congress, held in Shiraz, Iran, May 14-16, 1990, (19 pgs).
34. "Analysis of Consolidation Settlements of Two Bridge Approaches in Oklahoma" (A. Gopalasingam, M.M. Zaman and J.G. Laguros). Proc. Fifth Int. Symp. on Numerical Methods in Engrg., held in Lausanne, Switzerland, Sept. 11-15, 1989, pp. 401-408.
33. "Seismic Response of Nuclear Reactors in Layered Liquefiable Soil Deposits Including Nonlinear Soil-Structure Interaction" (M.M. Zaman and S.M. Mamoon). Proc. 10<sup>th</sup> Int. Conf. on Structural Mech. in Reactor Technology, held in Anaheim, California, Aug. 14-18, 1989, Vol. K1, pp. 199-204.
32. "An Improved Two-Surface Plasticity Model for Concrete and Rocks Subject to Three-Dimensional Loading" (M.M. Zaman, A.R. Kukreti and Y.M. Najjar). Proc. Second Int. Symp. on Plasticity and Its Current Applications, held at Mie University, Japan, 1989, pp. 47-50.
31. "Prediction of Surface Subsidence Caused by Underground Mining Using a Nonlinear Finite Element Procedure" (Y.M. Najjar, M.M. Zaman and J.L. Ahern). Proc. 3<sup>rd</sup> Int. Symp. on Numerical Models in Geomechanics (NUMUG III), held in Niagara Falls, Canada, May 8-11, 1989, pp. 557-565.
30. "Stability Analysis and Characterization of Ground Subsidence of Abandoned Lead-Zinc Mines in Northeastern Oklahoma" (M.M. Zaman, J.L. Ahern and Y.M. Najjar). Proc. 30<sup>th</sup> U.S. Symposium on Rock Mechanics, held in Morgantown, West Virginia, June 19-22, 1989, pp. 707-714.
29. "Creep Response of Aluminum 2618-T61 Under Multiaxial Loading" (M.M. Zaman, I.U. Mahmood and M.O. Faruque). Proc. ASME Winter Annual Mtg., Chicago, IL, Nov. 28-Dec. 2, 1988, PVP Vol. 153, pp. 61-67.
28. "Effect of Loading Sequence and Soil Nonlinearity on the Response of a Pile Group Foundation Using a Three-Dimensional Finite Element Analysis" (Y.M. Najjar and M.M. Zaman). Proc. 6<sup>th</sup> Int.

- Conf. on Numerical Methods in Geomechanics, held in Austria, April 11-15, 1988, Vol. 2, pp. 1127-1134.
27. "Simulation of Drilled Pier Behavior Under Three-Dimensional Loading" (M.M. Zaman and I. Houssamy). Proc. Second Int. Conf. on Case Histories in Geotechnical Engineering, held in St. Louis, Missouri, June 1-5, 1988, Vol. II, pp. 1505-1508.
  26. "Reliability of Constitutive Parameter for a Soil Obtained from Laboratory Test Data" (M.M. Zaman, A. Honarmandebrahimi and J.G. Laguros). Proc. 6<sup>th</sup> Int. conf. on Numerical Methods in Geomechanics, held in Austria, April 11-15, 1988, Vol. 3, pp. 2001-2008.
  25. "Significance of Testing Procedure and Equipment on Determination of Constitutive Parameters for Soil" (A. Honarmandebrahimi and M.M. Zaman). Proc. Int. Conf. on Numerical Methods in Eng.: Theory and Applications, held at Swansea, England, July 6-10, 1987, Vol. 2, pp. c18/1-8.
  24. "Earthquake Response of Bridge Piers with Base Isolators and Energy Dissipators" (M.M. Zaman, J.G. Laguros and M.P. Ardhanareeswaran). Proc. 5<sup>th</sup> Canadian Conf. on Earthquake Engineering, held at Ottawa, Canada, July 6-8, 1987, pp. 427-434.
  23. "A Finite Element Model for Simulation of Field Load Test of a Drilled Shaft" (M.M. Zaman and A.I. Uppal). Proc. Second Int. Conf. on Constitutive Laws for Engineering Materials: Theory and Practice, held at Tucson, Arizona, Jan. 5-10, 1987, Vol. II, pp. 1129-1136.
  22. "Effects of Soil-Structure Interaction on the Liquefaction Characteristics of a Site" (M.M. Zaman and S. Mamoon). Proc. 3<sup>rd</sup> U.S. National Conf. on Earthquake Eng., held at Charleston, South Carolina, Aug. 1986, pp. 541-552.
  21. "Stability of Underground Tunnels in Jointed Rocks Subjected to Blast Loading" (M.M. Zaman and M. Shah). Proc. Int. Symp. on Underground Mining, held at Univ. of Nottingham, Sept. 8-13, 1986, (10 pgs).
  20. "The Ultimate Capacity of Underreamed Drilled Piers by Finite Element Methods" (M.M. Zaman and A.I. Uppal). Proc. Southeastern Conf. on Theoretical and Applied Mech., held at Columbia, SC, April 17-18, 1986, pp. 469-475.
  19. "Simulation of Waterflooding in Heterogeneous, Compressible and Irregularly Shaped Reservoirs" (A.R. Kukreti, M.M. Zaman, F. Civan, Y. Perera and G.C. Biswas). Proc. Int. Symp. on Variational Methods in Geosciences, held at Norman, Oklahoma, Oct. 15-17, 1985, pp. 279-284.
  18. "On the Modeling of Soil Liquefaction and Foundation Response by Finite Element Method" (M.M. Zaman and J.G. Laguros). Proc. Int. Symp. on Variational Methods in Geosciences, held at Norman, Oklahoma, Oct. 15-17, 1985, pp. 291-296.
  17. "Analysis of Cylindrical Structure-Foundation Interaction Using Variational Approach" (M.M. Zaman, A. Issa and I.U. Mahmood). Proc. 2<sup>nd</sup> Int. Conf. on Variational Methods in Engineering, held at the Univ. of Southampton, July 17-19, 1985, pp. 12-3 to 12-12.
  16. "Evaluation of Liquefaction Potential of Earth Dams Under Cyclic Loading" (G.C. Biswas and M.M. Zaman). Proc. 2<sup>nd</sup> Int. Conf. on Soil Dyn. & Earthquake Eng., held on Board QE-2, June/July 1985, pp. 6-13 to 6-22
  15. "Effects of Soil Liquefaction on Seismic Response of Nuclear Power Plants" (M.M. Zaman and G.C. Biswas). Proc. 8<sup>th</sup> Int. Conf. on Structural Mechanics in Reactor Technology, held in Brussels, Belgium, Aug. 19-23, 1985, Vol. B, Paper No. BK2/3, pp. 487-492.
  14. "Soil-Structure Interaction During Strong Motion for Bridge Piers with Base Isolators and Energy Dissipators" (M.P. Ardhanareeswaran, M.M. Zaman and L.R.L. Wang). Proc. 5<sup>th</sup> Int. Conf. on Numerical Methods in Geomechanics, held at Nagoya, Japan, 1985, pp. 851-866.
  13. "Evaluation of 'Thin-Layer Element' and Modelling of Interface Behavior in Soil-Structure Interaction." Proc. 5<sup>th</sup> Int. Conf. on Numerical Methods in Geomech., held at Nagoya, Japan, 1985, pp. 1797-1803.
  12. "Rectangular Plate-Elastic Halfspace Interaction: An Energy Approach," Proc. 4<sup>th</sup> Int. Conf. on Applied Numerical Modeling, held at the National Cheng Kung Univ., Taiwan, Dec. 27-29, 1984.



11. "Numerical Modelling of Pressure meter Tests in Rocks with Inelastic Discontinuities." Proc. 4th Int. Conf. on Applied Numerical Modelling, held at National Cheng Kung University, Taiwan, Dec. 27-29, 1984.
10. "Influence of Interface Conditions on Dynamic Response of Axially Loaded Piles" (M.M. Zaman and S.L. Kuang). Proc. Int. Symp. on Dynamic Soil-Structure Interaction, held at the Univ. of Minnesota, Minneapolis, Sept. 4-5, 1984, pp. 75-83.
9. "An Energy Method for Plate-Halfspace Interaction" (M.M. Zaman and M.O. Faruque). Proc. 5th ASCE EMD Specialty Conf., held at Laramie, Wyoming, Aug. 1984, Vol. 1, pp. 571-574.
8. "The Measurement of Cyclic Interface Response" (E.C. Drumm, C.S. Desai and M.M. Zaman). Proc. 5th ASCE EMD Specialty Conf., held at Laramie, Wyoming, Aug. 1984, Vol. 2, pp. 1345-1348.
7. "Response of Circular Subway Tunnels in Layered Discontinuous Geologic Media" (M.M. Zaman and S.L. Kuang). Proc. Southeastern Conf. on Theoretical and Applied Mech. (SECTAM XII), held in Callaway Gardens, Georgia, May 1984, Vol. 2, pp. 212-217.
6. "Influence of Interface Behavior in Dynamic Soil-Structure Interaction" (C.S. Desai and M.M. Zaman). Proc. 8th World Conf. on Earthquake Engineering, held in San Francisco, July 1984, Vol. III, pp. 1049-1056.
5. "Approximate Analysis of Uniformly Loaded Circular Plates on Isotropic Elastic Halfspace" (M.O. Faruque and M.M. Zaman). Proc. IX Congress, National Academy of Eng. of Mexico, Leon, Mexico, Sept. 1983, pp. 271-276.
4. "Modelling of Interface Behavior in Dynamic Soil-Structure Interaction" (M.M. Zaman and C.S. Desai). Trans. 7th Int. Conf. on Structural Mech. in Reactor Tech. (SMiRT), Chicago, Illinois, Aug. 1983, Vol. K(b), pp. 33-41.
3. "Modelling of In Situ Tests in Jointed Rocks" (M.O. Faruque and M.M. Zaman). Proc. of the Eighth Conf. on Electronic Computation, University of Houston, Houston, Texas, Feb. 1983, pp. 88-101.
2. "Models for Sliding and Separation at Interfaces Under Static and Cyclic Loading" (M.M. Zaman and C.S. Desai). Proc. Int. Conf. on Constitutive Laws for Engineering Material: Theory and Applications. Univ. of Arizona, Tucson, Arizona, Jan. 1983, pp. 383-390.
1. "An Algorithm for Determining Parameters for Cap Model from Raw Laboratory Test Data" (M.M. Zaman, C.S. Desai and M.O. Faruque). Proc. 4th Int. Conf. on Numerical Methods in Geomechanics, Edmonton, Canada, 1982, pp. 275-285.

#### MAJOR TECHNICAL REPORTS:

130. "Development of a DIGGS-Compatible Geotechnical Database from Existing Geotechnical Reports – Phase I & II" (Ali, S. A., Hobson, K. R., Zaman, M.). Submitted to ODOT (ODOT Task Order Number 2160-21-09 and 2160-22-03), 2022.
129. "Development of an Interactive Database for Soil for Design of New Pavements and Rehabilitation of Existing Pavements in Oklahoma" (Ali, S. A., Nowlan, L., Zaman, M., Hobson, K. R.). Final Report Submitted to ODOT (ODOT Task Order Number 2160-21-03), 2022.
128. "Effect of Gradation Changes Due to Construction on Performance of Recycled Aggregate Bases in Oklahoma". (Ali, S. A., Arevalo, P. F.C., Zaman, M., Hobson, K. R.). Final Report Submitted to ODOT (ODOT Task Order Number 2160-22-06), 2022.
127. "Project-Level Evaluation of Pavement Conditions for Maintenance, Asset and Safety Management, and Pavement Design" (Mendez, M. L., Ali, S. A., Hobson, K. R., Zaman, M.). Final Report Submitted to ODOT (ODOT Task Order Number 2160-22-11), 2022.
126. "I-35/SH-7 Subsurface Investigation" (Larrain-Mendez, M., Ali, S. A., Hobson, K. R., Scullion, T., Zaman, M.). Final Report (2160-20-08) Submitted to ODOT, 2021.

125. "Development of a Transportation Workforce Development Program for Oklahoma" (Zaman, M., Molina, M., Ali, S. A.). Final Report (2160-20-08) Submitted to ODOT, 2021.
124. "Implementation of Innovative Technologies for Improved Performance and Service Life of Asphalt Pavements" (Zaman, M., Ali, S. A., Jason, S., Metzger, D.). Final Report (IP-19-024) Submitted to OCAST, 2021.
123. "Repair Evaluations of Depressed Transverse Cracks in Asphalt Pavements in District 6" (Ghos, S., Ali, S. A., Larrain-Mendez, M., Hobson, K. R., Chen, D.-H., Zaman, M., Behm, M.). Final Report (2160-20-02) Submitted to ODOT, 2021.
122. "Durability of Recycled Aggregate for Use in Aggregate Base Construction" (Ali, S. A., Cancino, P. C., Zaman, M., Hobson, K. R.). Final Report (2160-19-03) Submitted to Oklahoma Department of Transportation, 2021.
121. "Forensic Investigation of Pavement Distress on US-412 in Noble County" (Ali, S. A., Ghos, S., Larrain-Mendez, M., Hobson, K. R., Zaman, M., Behm, M.). Final Report (2160-19-05) Submitted to Oklahoma Department of Transportation, 2021.
120. "Forensic Investigation of Pavement Distress on US-412 in Noble County" (Ali, S. A., Ghos, S., Mendez Larrain, M., Hobson, K. R., Zaman, M., Behm, M.). Final Report submitted to Oklahoma Department of Transportation (ODOT Task Order Number 2160-19-05), 2021.
119. "Identification of Probable Causes and Repair Options for Pavement Distresses on SH-74 in Logan County" (Larrain-Mendez, M., Ali, S. A., Ghos, S., Hobson, K. R., Zaman, M., Behm, M.). Final Report (2160-19-04), 2021.
118. "Identification of Probable Causes and Repair Options for Pavement Distresses on SH-74 in Logan County" (Mendez Larrain, M., Ali, S. A., Ghos, S., Hobson, K. R., Zaman, M., Behm, M.). Final Report Submitted to Oklahoma Department of Transportation (ODOT Task Order Number 2160-19-04), 2020.
117. "Extraction, Recovery and PG Grading of AC Binder from Provided HMA/WMA" (Hobson, K. R., Ali, S. A., Zaman, M.). Final Report Submitted to Oklahoma Department of Transportation (ODOT Task Order Number 2160-19-02), 2020.
116. "Implementation of Innovative Technologies for Improved Performance and Service Life of Asphalt Pavements" (Zaman, M., Ali, S. A.). Annual Progress Report Submitted to Oklahoma Center for the Advancement of Science and Technology, 2020.
115. "Development of Special Provision for Mix Design of Foamed WMA Containing RAP" (Ghabchi, R., Zaman, M., Arshadi, A., Rahman, M. A., Barman, M.). Final report submitted Southern to Plains Transportation Center, Project SPTC15.1-31 (pp. 80 pages), 2019.
114. "Investigation of Asphalt Pavement Distress, SH-7, Garvin County" (Ali, S. A., Hobson, K. R., Zaman, M., Behm, M.). Final Report Submitted to ODOT (ODOT Task Order Number 2160-18-09) (pp. 67 pages), 2019.
113. "Development of Aggregate Characteristics based Preventive Maintenance Treatment Using 3D Laser Imaging and Aggregate Imaging Technology for Optimized Skid Resistance of Pavements" (Li, J., Pittenger, D., Wang, K., Zaman, M.). Final report (SP&R 2275) submitted to ODOT (pp. 240 pages), 2019.
112. "Premature Pavement Distress or Subgrade Failures Due to Unknown Factors in The Early Stages of Design Life Expectations on SH3E/SH99" (Ali, S. A., Chen, D.-H., Hobson, K. R., Zaman, M.). Final report submitted to ODOT (pp. 81 pages), 2019.
111. "Development of Special Provision for Mix Design of Foamed WMA Containing RAP" (Ghabchi, R., Zaman, M., Arshadi, A., Rahman, M. A., Barman, M.). Final report submitted Southern to Plains Transportation Center, Project SPTC15.1-31 (pp. 80 pages), 2019.
110. "Investigation of Asphalt Pavement Distress, SH-7, Garvin County" (Ali, S. A., Hobson, K. R., Zaman, M., Behm, M.). Final Report Submitted to ODOT (ODOT Task Order Number 2160-18-09) (pp. 67 pages), 2019.

109. "Development of Aggregate Characteristics based Preventive Maintenance Treatment Using 3D Laser Imaging and Aggregate Imaging Technology for Optimized Skid Resistance of Pavements" (Li, J., Pittenger, D., Wang, K., Zaman, M.). Final report (SP&R 2275) submitted to ODOT (pp. 240 pages), 2019.
108. "Premature Pavement Distress or Subgrade Failures Due to Unknown Factors in The Early Stages of Design Life Expectations on SH3E/SH99" (Ali, S. A., Chen, D.-H., Hobson, K. R., Zaman, M.). Final report submitted to ODOT (pp. 81 pages), 2019.
107. "Development of Guidelines for Selection and Evaluation of Tack Coats in Oklahoma" (Ghabchi, R., Zaman, M., Rani, S.). Final Report, Submitted to ODOT, 2018 (117 Pages).
106. "Matching Support for the Southern Plain Transportation Center: Annual Report (FY2018)" (Zaman, M.). Annual Report Submitted to ODOT, 2018 (62 pages).
105. "Intelligent Compaction Data Analyzing" (Rahman, M. A., Gerard, B., Hobson, K. R. and Zaman, M). Final Report (SP&R Item 2160-18-03) submitted to ODOT, 2018 (56 pages)
104. "Special Provisions for Intelligent Compaction of Stabilized Soil Subgrades" (Commuri, S., Zaman, M., Arshadi, A., Imran, S., Barman, M.). Norman, Oklahoma: Final Report Submitted to SPTC, 2017 (89 pages).
103. "Development of a Surface Free Energy (SFE) Database for Screening of Mixes for Moisture-induced Damage in Oklahoma" (Ghabchi, R., Bulut, R., Steger, R., Zaman, M., Ali, S. A.). Annual Progress Report (15.2-19), Submitted to SPTC, 2017 (XX pages).
102. "Performance of Asphalt Binders Modified with Polyphosphoric Acid (PPA)" (Ghabchi, R., Zaman, M., Rani, S.). Annual Report, Submitted to Southern Plain Transportation Center, 2017 (16 pages).
101. "Use of Ground Tire Rubber (GTR) In Asphalt Pavements: Literature Review and DOT Survey" (Ghabchi, R., Zaman, M., Arshadi, A.). Final report submitted to Oklahoma Department of Environmental Quality, Sept. 2016 (63 pages).
100. "Management of the ODOT Library: FFY 2016" (Zaman, M., Pittenger, D., Hagen, A. P., Paterson, S., Chofey, K. (2016). Annual report submitted to Oklahoma Department of Transportation, 2016 (36 pages).
99. "Recommended Fatigue Test for Oklahoma Department of Transportation" (Barman, M., Arshadi, A., Ghabchi, R., Zaman, M., D., Commuri, S.). Final report submitted to Oklahoma Department of Transportation, Oct. 2016 (148 pages).
98. "Development of Guidelines for Selection and Evaluation of Tack Coats in Oklahoma" (Ghabchi, R., Zaman, M., Rani, S.). Annual Report, Submitted to Oklahoma Department of Transportation, Oct. 2016 (56 pages).
97. "Recommended Fatigue Test for Oklahoma Department of Transportation" (Zaman, M., Commuri, S., Barman, M., Ghabchi, R., Singh, D. and Arshadi, A.), Annual project report submitted to ODOT (SP&R #2243) (89 pages).
96. "Special Provisions for Intelligent Compaction of Stabilized Soil Subgrades" (Commuri, S., Zaman, M., Barman, M., Imran, S.A., Nazari, M. (2015). Annual report submitted to Southern Plains Transportation Center (ODOT SP&R 2160(A), SPTC 14.2-03), September 2015 (40 Pages).
95. "Evaluation of Performance of Asphalt Pavements Constructed Using Intelligent Compaction Techniques" (Commuri, S., Zaman, M., Barman, M., Nazari, M. and Imran, S. (2015). Final report submitted to ODOT (SP&R No. 2246) (173 pages).
94. "Matching Support for the Southern Plains Transportation Center" (Zaman, M.). Annual report: FFY2015, submitted to ODOT, 2015 (48 pages).
93. "Management of the ODOT Library: FFY 2015" (Zaman, M., Pittenger, D.). Annual Report submitted to ODOT, 2015 (17 pages).

92. "Fatigue Performance of Asphalt Pavements Containing RAS and RAP" (Ghabchi, R., Zaman, M., Barman, Singh, D. V., and Boeck, D.). Final report submitted to Oklahoma Department of Transportation, January 2015 (119 pages).
91. "Develop Draft Chip Seal Cover Aggregate Specification Based on Aggregate Imaging System (AIMS) Angularity, Shape and Texture Test Results" (Zaman, M., D.M. Pittenger, D.D. Gransberg, R. Bulut, S. Commuri). Final report submitted to Oklahoma Dept. of Transportation, 2014, (122 pages).
90. "Evaluation of Performance of Asphalt Pavements Constructed using Intelligent Compaction Techniques" (Commuri, S., Zaman, M., Barman, M., Nazari, M., Imran, S.A., Beainy, F.). Final report (SP&R Item #22460, submitted to Oklahoma Department of Transportation, 2014 (157 pages).
89. "Recommended Fatigue Test for Oklahoma Department of Transportation" (Zaman, M., Commuri, S., Barman, M., Ghabchi, R. and Singh, D.). Annual report. Submitted to Okla. Dept. of Transportation, Oct. 2014 (80 pages).
88. "Matching Support for the Southern Plains Transportation Center" (Zaman, M.). Annual report submitted to ODOT, Nov. 2014 (49 pages).
87. "Management of the ODOT Library: FFY 2014" (Zaman, M., Pittenger, D.). Annual Report submitted to ODOT, 2014 (17 pages).
86. "WMA Pavements in Oklahoma: Moisture Damage and Performance Issues" (Ghabchi, R., Zaman, M., Bulut, R., Koc, M., and Singh, D.). Final report submitted to Oklahoma Transportation Center (OkTC), 2013, 159 pages.
85. "Implementation of MEPDG for Asphalt Pavements with RAP" (Hossain, Z. Solanki, P., Zaman, M., and Lewis, S.). Final report submitted to Oklahoma Transportation Center, OTCREOS10.1-45, Oklahoma City, Oklahoma, 2013, 158 pages.
84. "Field Performance Monitoring and Modeling of Instrumented Pavement on I-35 in McClain County – Phase 1" (Solanki, P., Zaman, M., and Muraleetharan, K. K.). Final report, FHWA-OK-13-05, Oklahoma Department of Transportation SPR Item No. 2200, Oklahoma City, Oklahoma, 2013.
83. "Field Performance Monitoring and Modeling of Instrumented Pavement on I-35 in McClain County: Phase II" (Zaman, M., Singh, D. and Hossain, N.). Annual report. Submitted to Okla. Dept. of Transportation, October, 2013.
82. "Recommended Fatigue Test for Oklahoma Department of Transportation" (Zaman, M., Commuri, S., Singh, D., Barman, M., Ghabchi, R.). Annual report. Submitted to Okla. Dept. of Transportation, Oct. 2013, 60 pages.
81. "Fatigue Performance of Asphalt Pavements Containing RAS and RAP" (Zaman, M., Ghabchi, R., Singh, D., Barman, M. and Boeck, D.L.). Annual report. Submitted to Okla. Dept. of Transportation, Oct. 2013, 74 pages.
80. "New Asphalt Mix Design Program for Oklahoma Department of Transportation (ODOT)" (Beainy, F., Singh, D.V., Commuri, S., Zaman, M.). Final report. Submitted to Oklahoma Dept. of Transp., 2013.
79. "Real-time measurement of quality during the compaction of subgrade soils" (Commuri, S., Zaman, M., Barman, M., Nazari, M., Imran, A., Beainy, F., and Singh, D.V.). Submitted to Oklahoma Transp. Center, Report No. OTCREOS10.1-11-F, 2013.
78. "Pavement Evaluation Using a Portable Lightweight Deflectometer" (Commuri, S., Zaman, M., Beainy, F., Singh, D.V., Nazari, M., Imran, A., and Barman, M.). Submitted to Oklahoma Transp. Center, Report No. OTCREOS11.1-14-F, 2013.
77. "Evaluation of Performance of Asphalt Pavements Constructed using Intelligent Compaction Techniques" (Commuri, S., Zaman, M., Barman, M., Nazari, M., Imran, S.A., Beainy, F.). Annual Report. Submitted to ODOT (SP&R Item #2246), Oct. 2013.

76. "Continuous Real-Time Measurement of Pavement Quality during Construction" (Commuri, S., Zaman, M., Barman, M., Nazari, M., Imran, S.A., Beainy, F.). Report submitted to Volvo Construction Equipment, Shippensburg, PA, Dec. 2013.
75. "Test Methods for Use of Recycled Asphalt Pavement in Asphalt Mixes" (Hossain, Z., Solanki, P., Zaman, M., Adje, D. and Lewis, S.). Final report (FHWA-OK-12-01) to ODOT, March 2012, 128 pages.
74. "Tube Suction Test for Durability Cementitiously Stabilized Soils" (Solanki, P., Zaman, M. and Khalife, R.). Final report (OTCREOS7.1-52) submitted to OKTC, June 2011 (200 pages).
73. "Wireless Sensor Packaging Monitoring for Highway Bridges" (Pei, J.S., Ibrahim, T. and Zaman, M.). Final report (Project ARO7.2-056) submitted to OCAST, Nov. 2011 (10 pages).
72. "Modeling 85th Percentile Speed for Rural Highways for Enhanced Safety" (Singh, D., Zaman, M. and White, L.). Final report (SPR Item 2211) submitted to ODOT, March 2011 (109 pages).
71. "Development of Flexible Pavement Database for Local Calibration of MEPDG" (Hossain, Z., Zaman, M., Doiron, C. and Cross, S.). Final report (SPR Item 2209) submitted to ODOT, Feb. 2011 (144 pages).
70. "Stability and Permeability of Proposed Aggregate Bases in Oklahoma" (Khoury, N., Zaman, M., Ghabchi, R. and Kazmee, H.). Final report submitted to ODOT, May 2010 (243 pages).
69. "Evaluation of the Use of Warm Mix Asphalt as a Viable Paving Material in the United States" (Hossain, Z., Budhala, A., Zaman, M. and O'Rear, E.). Final report (Cooperative Agreement: DTFH61-06-H-00044: Task 3) submitted to FHWA, Nov. 2009, 139 pages.
68. "Engineering Properties of Stabilized Subgrade Soils for Implementation of the 2002 AASHTO Pavement Design Guide" (P. Solanki, N. Khoury and M. Zaman). Final report (FHWA-OK-08-10) submitted to ODOT, Jan. 2009 (110 pages).
67. "Maximum Chat Utilization in Asphalt Paving at the Tar Creek Superfund Site – Test Road" (N. Wasiuddin, M. Zaman, R. Nairn, G.A. Miller, S.N. Navaratnarajah, and R. Teredesai). Submitted to ODEQ, April 2008 (288 pages).
66. "PHASE I Report - ASSISTANCE AGREEMENT DTFH61-08-G-0002" (B. Lemon, S. Commuri and M. Zaman). Submitted to Julie Zirlin, Highways for LIFE Technology Partnerships Program, FHWA, Washington, D.C., Dec. 2007.
65. "Intelligent Asphalt Compaction Analyzer" (S. Commuri and M. Zaman). Final report submitted to OCAST, 2007 (59 pages).
64. "Field Correlation of PQI Gauge with Nuclear Density Gauge: Phase: I" (N. Wasiuddin, A.T. Mai, S. Commuri and M. Zaman). Final Report to ODOT, 2007 (27 pages).
63. "Effect of Anti-Stripping Additives on Performance Graded Binders in Oklahoma" (S. Selvamohan, M. Zaman, J.G. Laguros, N.M. Wasiuddin, B. Quinn, and J.C. Coleman). Final Report submitted to OTC, Mar. 2007 (108 pages)
62. "Effect of Soil Suction and Moisture Content on Resilient Modulus of Subgrade Soils in Oklahoma" (M. Zaman and N. Khoury). Final Report, Item 2167, ORA 125-6662, Oklahoma Department of Transportation, OKC, Oklahoma, February 2007 (58 pages).
61. "Permeability and Resilient Modulus of Different Aggregate Bases Commonly Used in Oklahoma" (N.N. Khoury and M. Zaman). Draft Final Report submitted to OTC, November 2006 (44 pages).
60. "Resilient Modulus of Asphalt Concrete and Its Correlations with APA Rut" (S.K. Navaratnarajah, N.N. Khoury and M. Zaman). Draft Final Report submitted to Oklahoma Dept. of Transportation, Nov. 2006 (156 pages).
59. "Cementitious Stabilization of Raw Chat for Roadway Base Application" (R.A. Teredesai, M. Zaman, G.A. Miller and R.W. Nairn). Final Report submitted to ODEQ, October 2005 (40 pages).
58. "Evaluation of Surface Free Energy Characteristics of Aggregates and Binders in Hot Mix Asphalt" (N.M. Wasiuddin, C.M. Fogle, M. Zaman and E.A. O'Rear). Final Report submitted to ODOT and OTC, October 2005 (61 pages).

57. "A Laboratory Study to Optimize the Use of Raw Chat in Hot Mix Asphalt for Pavement Application" (N.M. Wasiuddin, W.B. Hamid, N. Kolothody, C.F. Gause, M. Zaman and R.W. Nairn). Final Project Report submitted to ODEQ, August 2005, 200 pages.
56. "Effect of Soil Suction and Moisture on Resilient Modulus of Subgrade Soils in Oklahoma" (N.N. Khoury, and M. Zaman). Annual Progress Report submitted to ODOT/OTC, December 2004 (24 pages).
55. "Evaluation of Surface Free Energy Characteristics of Aggregates and Binders in Hot Mix Asphalt: Phase II, Year 2" (N.M. Wasiuddin, D.C. Howell, M. Zaman and E.A. O'Rear). Annual Progress Report submitted to OTC, December 2004 (54 pages).
54. "Resilient Modulus Testing and Density Gradient Analysis of Selected Asphalt Mixes" (R.A. Tarefder and M. Zaman). Final Project Report submitted to ODOT, July 2004 (95 pages).
53. "Durability of Chemically Stabilized Aggregate Bases" (N.N. Khoury, M. Zaman and G.A. Miller). Final Project Report submitted to ODOT, August 2003 (173 pages).
52. "Evaluation of Surface Free Energy Characteristics of Aggregates and Binders in Hot Mix Asphalt: Phase II, Year 1" (N.M. Wasiuddin, H.J. Barraza, M. Zaman and E.A. O'Rear). Annual Progress Report submitted to OTC, October 2003 (60 pages).
51. "High Performance Pavement from Recycled Materials" (M. Zaman, C.F. Ting, and R. Sisson). Final Project Report submitted to OCAST, September 2003 (176 pages).
50. "Evaluation of Rutting Potential of Asphalt Mixes Using the Asphalt Pavement Analyzer" (R.A. Tarefder and M. Zaman). Final report submitted to Oklahoma Dept. of Transportation, November 2002 (163 pages).
49. "An Alternate Method for the Determination of Asphalt Content" (M. Shaheed, R. Tarefder, M. Zaman and Y. Abousleiman). Final report submitted to Oklahoma Transp. Center and Oklahoma Dept. of Transp., Sept. 2002 (56 pages).
48. "Evaluation of Surface Free Energy Characteristics of Aggregates and Binders in Hot Mix Asphalt: Phase I" (M. Zaman and N.M. Wasiuddin). Final report submitted to Oklahoma Transp. Center and Oklahoma Dept. of Transp., Sept. 2002 (82 pages).
47. "Rock Mechanics Research Center". (Y. Abousleiman, M. Zaman, et al). Final report submitted to OCAST, Aug. 2001 (55 pgs).
46. "Nonlinear Analyses for Coupled Fluid/Rock Interaction" (Y. Abousleiman, M. Zaman, T.E. Scott and J.-C. Roegiers). Final report submitted to OCAST, Feb. 2001 (47 pgs).
45. "Mix Design Using Asphalt Millings" (R. Issa, M. Zaman, and G.A. Miller). Summary Rep. to ODOT, Aug. 2000 (36 pgs).
44. "Pavement Rehabilitation Using Asphalt Millings" (R. Issa, M. Zaman and G.A. Miller). Project Report submitted to Koch Materials Co, January. 2000 (109 pgs).
43. "Laboratory and Field Evaluation of Soil Stabilization Using Cement Kiln Dust" (G.A. Miller, M. Zaman, J. Rahman and N.K. Tan). Final report submitted Oklahoma Dept. of Transportation, Feb. 1999.
42. "Modeling the 85th Percentile Speed on Oklahoma Two-Lane Rural Highways: A Neural Network Approach" (R. Issa, M. Zaman and Y.M. Najjar). Final report submitted ODOT, Dec. 1998 (36 pages).
41. "Resilient Modulus of Raw and Stabilized Aggregate Bases and Evaluation of Layer Coefficients for AASHTO Flexible Pavement Design," Vol. IV: Meridian Aggregate Stabilized with Cement-Kiln-Dust (J.-H. Zhu, M. Zaman and J.G. Laguros). Final report submitted to ODOT, Aug. 1998 (104 pgs.).
40. "Resilient Modulus of Raw and Stabilized Aggregate Bases and Evaluation of Layer Coefficients for AASHTO Flexible Pavement Design," Vol. III: Meridian Aggregate Stabilized with Fly Ash and Fluidized Bed Ash (K. Pandey, M. Zaman and J.G. Laguros). Final report submitted to Oklahoma Dept. of Transportation, Aug. 1998 (96 pgs.).

39. "Resilient Modulus of Raw and Stabilized Aggregate Bases and Evaluation of Layer Coefficients for AASHTO Flexible Pavement Design," Vol. II: Richard Spur and Sawyer Aggregates (P. Tian, M. Zaman, and J.G. Laguros). Final report submitted to Oklahoma Dept. of Transportation, Aug. 1998 (231 pgs.).
38. "Resilient Modulus of Raw and Stabilized Aggregate Bases and Evaluation of Layer Coefficients for AASHTO Flexible Pavement Design," Vol. I: Final Summary Report (M. Zaman, J.G. Laguros, P. Tian, J.-H. Zhu, K. Pandey). Final report submitted to Oklahoma Dept. of Transportation, Aug. 1998 (96 pgs.).
37. "Laboratory Investigation of Soft Railroad Subgrade Soil Behavior Under Repeated Load Applications" (G.A. Miller, M. Zaman, and S.Y. Teh). Final report submitted to Trans. Tech. Center, Assoc. Of American Railroads, Oct. 1997 (59 pages).
36. "Impact of Loaded Trucks on Transportation Infrastructure Deterioration" (Z. Hossain, A.N.M. Ahsanuzzaman, C.T. Bong, M. Zaman, and M. Mooney). Final report submitted to Oklahoma Dept. Of Transportation, Jan. 1997 (105 pgs.).
35. "Experimental Study of the Effects of Reinforcing Steel Arrangement in CRCP" (A. Soltani, M. Zaman, and L. Ring). Final report submitted to Concrete Reinforcing Steel Inst., June 1996 (205 pgs.).
34. "Field Evaluation of Drainable Bases in Oklahoma" (M. Rahman, T. Curtis, and M. Zaman; in collaboration with D.A. Ooten, K.K. Muraleetharan, and J.G. Laguros). Submitted to ODOT, May 1996 (232 pgs.).
33. "Effect of Fluid Hydraulics on Petroleum Rock Behavior" (A.R. Kukreti, M. Zaman, and F. Civan). Final Report (Proj. AR2-084) to OCAST, Aug. 1995 (360 pgs.).
32. "Statistical Models for Identification of Problematic Bridge Sites and Estimation of Approach Settlements" (M. Zaman, J.G. Laguros, and R.K. Jha). Submitted to Okla. Dept. of Transp., May 1995 (110 pgs.).
31. "FEABAS - A User-Friendly Software for Prediction of Bridge Approach Settlement" (M. Zaman, J. Laguros, H. Chen and M. Rahman). Submitted to Okla. Dept. of Transp., May 1995, (217 pgs.).
30. "Rock Mechanics Research Center" (J.-C. Roegiers, M. Zaman, et. al.). Third year Annual Rep./Renewal Submitted to National Science Foundation, April 1995, (296 pgs.)
29. "Cooling Properties of Asphalt Surfaces" (D. Chen, M. Zaman and J.G. Laguros). Final Report to ODOT, October 1994 (61 pgs.).
28. "Annual Report: An Expert System for Reservoir Completion and Stimulation" (M. Kanj, M. Zaman and J.-C. Roegiers). Submitted to OCAST, Sept. 1994.
27. "Resilient Moduli of Aggregates for Improved Pavement Design" (D.H. Chen, L. Yi, M. Zaman and J.G. Laguros). Final Report submitted to OCAST, December 1994 (290 pgs.).
26. "Study of Pore Collapse Problems in Oil Reservoir Rocks" (A. Abdulraheem, M. Azeemuddin, S. Mowar, M. Zaman, and J.-C. Roegiers). Final Report to OCAST, Dec. 1993 (395 pgs.).
25. "AI-Applications in the Petroleum Industry—A Literature Review" (M. Kanj, M. Zaman and J.-C. Roegiers). Report submitted to OCAST, April 1993 (66 pgs.).
24. "Workshop on User-Friendly Software for Prediction of Bridge Approach Settlements" (M. Zaman, J.G. Laguros, D. Bhat, C. Hua and K. Pandey). Workshop Handout (ODOT Study #2188), Workshop organized by the Okla. Dept. of Transp., held on July 21, 1993 (79 pgs).
23. "Effect of Fluid Hydraulics on Petroleum Rock Behavior" (A.R. Kukreti, M. Zaman, F. Civan and S. Singh). Progress Report (Proj. No. AR2-084) submitted to Okla. Center for Advancement of Science and Tech. (OCAST), May 1993 (241 pgs).
22. "Statistical Models for Identification of Problematic Bridge Sites and Estimation of Approach Settlements" (M. Zaman, J.G. Laguros and R.K. Jha). Res. Rep. submitted to Okla. Dept. of Transp., June 1993 (118 pgs.).

21. "A User-Friendly Software for Prediction of Bridge Approach Settlements" (M. Zaman, D. Bhat and C. Hua). Res. Rep. submitted to Okla. Dept. of Transp., June 1993 (182 pgs.).
20. "Resilient Modulus of Select Aggregate Bases and Their Correlations with Other Engineering Properties" (J.G. Laguros, M. Zaman and D.H. Chen). Res. Rep. submitted to Okla. Dept. of Transp., June 1993 (118 pgs.).
19. "U.S.-Canada Workshop on Recent Accomplishments and Future Trends in Geomech. in 21st. Century" Pre-Workshop Proc. (Edited by M. Zaman, C.S. Desai and A.P.S. Selvadurai), held at Norman, Okla., Oct. 21-23, 1992 (387 pgs.).
18. "Dynamic Response of Rigid Airport Pavements Subjected to Temperature Differentials" (M.R. Taheri, M. Zaman and V. Khanna). Res. Rep. to the Engineering Foundation (Grant RS-A-90-3).
17. "A High Capacity (30,000 psig) Cubical Device: Development and Performance Evaluation" (M. Zaman, A.R. Kukreti and D.K. Mishra). Res. Rep. to National Science Foundation (Grant #MSM-8705972), Dec. 1991 (325 pgs).
16. "Constitutive Modeling of Geological Formations Considering Porosity and Permeability Alterations Due to Fluid Withdrawal" (A.R. Kukreti, M. Zaman and F. Civan). Proj. Report for Grant No. G1104140, submitted to the U.S. Dept. of Interior, Bureau of Mines, Washington, D.C., July 1991, (50 pages).
15. "Expert Systems Applications for ODOT" (J.G. Laguros, G. Bozai, M. Zaman, A. Mangaokar, J.F. Harp and J.L. Gattis). Final Rep. to ODOT, July 1991 (49 pgs).
14. "Assessment of Resilient Modulus Testing Methods and Their Application to Design of Pavements" (R. Danayak, M. Zaman, J.G. Laguros). Final Rep. to ODOT, June 1991 (87 pgs).
13. "Evaluation of Causes of Excessive Settlements of Pavements Behind Bridge Abutments and Their Remedies: Phase III" (J.G. Laguros, M. Zaman, A. Alvappillai and K. Vavarapis). Res. Rep. to ODOT, June 1991, (216 pgs).
12. "Pore Collapse in Reservoir Rocks: A Critical Review" (A. Mohammed, M. Zaman and J.C. Roegiers). Int. Rep. CEES and PG & E., Univ. of Oklahoma, Nov. 1990 (40 pgs).
11. "Three -Dimensional Testing and Constitutive Modeling of an Oklahoma Coal for Effective Mine System Design and Ground Control" (with Y.M. Najjar and A.R. Kukreti). Submitted to Oklahoma Mining and Mineral Resources Research Institute, University of Oklahoma, July 1990.
10. "Evaluation of Causes of Excessive Settlements of Pavements Behind Bridge Abutments and Their Remedies: Phase II" (with J.G. Laguros and I.U. Mahmood). Res. Rep. to Research Division, Oklahoma Department of Transportation, January 1990 (199 pgs).
9. "Stability Analysis and Characterization of Ground Subsidence of Abandoned Lead-Zinc
8. Mines in Northeastern Oklahoma (with J.L. Ahern). Final Report to Oklahoma Mining and Mineral Resources Research Institute, University of Oklahoma, July 1988, (73 pgs).
7. "Development of a Constitutive Model for Predicting Yielding and Failure Behavior of Rocks Under Three-Dimensional Loading" (with A.R. Kukreti and Y.M. Najjar). Final Report to the Energy Resources Institute, University of Oklahoma, Aug. 1988, (99 pgs).
6. "Ground Subsidence in Oklahoma Due to Mining: Potential, Problems and Numerical Modeling" (with Y.M. Najjar and N. Koragappa). Research Report to Oklahoma Mining and Mineral Resources Research Institute, University of Oklahoma, 1987.
5. "Evaluation of Causes of Excessive Settlements of Pavement Behind Bridge Abutments and Their Remedies - Phase I" (with J.G. Laguros and I.U. Mahmood). Submitted to the Research Division, Oklahoma Department of Transportation, January 1986.
4. "Modeling of Flow of Immiscible Fluids in Heterogeneous Irregular Shaped Reservoirs for Efficient Oil Recovery" (A.R. Kukreti and F. Civan). Submitted to the Energy Resources Institute, University of Oklahoma, 1985.
3. "Influence of Interface Behavior in Dynamic Soil-Structure Interaction Problems" (with C.S. Desai). Report to National Science Foundation, University of Arizona, Tucson, 1982.



2. "Finite Element Analysis of Interaction Between an Elastic Circular Plate and Isotropic Elastic Half Space." M. Eng. Thesis, Carleton University, Ottawa, Canada, 1979.
1. "The Evaluation of Polluting Effects of Tannery Waste on Natural Water Resources of Bangladesh and Its Treatment" (Research report, with A.F. Ahmed and M.N. Islam). Submitted to the Univ. Grants Commission, Bangladesh, 1976.

**PRESENTATIONS:**

190. Zaman, M., Ali, S., Hobson, K., Presented at Seminar Series on Rock Mechanics, Tsinghua University, "Assessment of Transportation Infrastructure Health Using Forensic Investigations," China. (June 15, 2022). Oral Presentation, Seminar.
189. Zaman, M., Hobson, K., Ali, S. A., Ghos, S., 6th International Conference on Civil Engineering for Sustainable Development - ICCESD - 2022, "Enhancing Sustainability of Transportation Infrastructure Using Forensic Investigations," Khulna University of Engineering and Technology, Bangladesh. (February 11, 2022). Lecture, Conference.
188. Larrain-Mendez, M., Ali, S. A., Hobson, K., Zaman, M., Annual Meeting, Transportation Research Board, Jan. 9-13, 2022, "Comparison of Predicted Remaining Service Life from Fast Falling Weight Deflectometer and Traffic Speed Deflection Device Data," TRB, National Academies, Washington, D.C. (January 2022). Poster, Conference.
187. Larrain-Mendez, M., Hanlon, B., Zaman, M., Razzaghi, T., Transportation Research Board Annual Meeting, Jan. 9-13, 2022, "Prediction of Unconfined Compressive Strength in Oklahoma Clays using Linear Regressions and Random Forest Models," Transportation Research Board, Washington, D.C. (January 2022). Oral Presentation, Hybrid (Podium/Poster)
186. Mendez Larrain, M. M., Ali, S. A., Hobson, K. R., Zaman, M. (2022). "Enhancement of Data Analysis Procedure of Traffic Speed Deflection Device for Pavement Structural Evaluation." Presented at 2022 Oklahoma Transportation Research Day (OTRD), held on October 18, 2022, Oklahoma City, Oklahoma.
185. Ghos, S., Ali, S. A., Hobson, K. R. and Zaman, M. (2022). "Evaluating the Impact of Various Asphalt Rejuvenating Agents on the Performance of Asphalt Binders." Presented at 2022 Oklahoma Transportation Research Day (OTRD), held on October 18, 2022, Oklahoma City, Oklahoma.
184. Arevalo, P. F. C., Ali, S. A., Zaman, M., and Hobson, K. R. (2022). "Laboratory Evaluation of Strength, Permeability and Durability of Recycled Concrete Aggregate (RCA) for Pavement Base Construction." Presented at 2022 Oklahoma Transportation Research Day (OTRD), held on October 18, 2022, Oklahoma City, Oklahoma. (Poster competition winner)
183. Barrios, L. U., Khalife, R., Mendez Larrain, M. M., Zaman, M., and Razzaghi, T. (2022). "Mitigation of Swelling Soil-Induced Problems in Oklahoma Using Chemical Injections." Presented at 2022 Oklahoma Transportation Research Day (OTRD), held on October 18, 2022, Oklahoma City, Oklahoma.
182. Arevalo, P. F. C., Ali, S. A., Zaman, M., and Hobson, K. R. (2022). "Laboratory Evaluation of Performance and Durability of Recycled Concrete Aggregate (RCA) for Pavement Base Construction." Presented at 2022 Oklahoma Transportation Summer Symposium, held on August 4, 2022, Oklahoma City, Oklahoma.
181. Ghos, S., Sumter, C. R., Ali, S. A., Arevalo, P.C., Hobson, K. R., and Zaman, M. (2022). "Evaluation of Fatigue Cracking Performance of Asphalt Mixes Containing Recycled Low-Density Polyethylene (LDPE) and Linear-Low-Density Polyethylene (LLDPE)." Presented at 2022 Oklahoma Transportation Summer Symposium, held on August 4, 2022, Oklahoma City, Oklahoma

180. Zaman, M., ASCE Geo-Institute, "Premature Failure of Pavements in Oklahoma: Forensic Investigation and Geotechnical Issues," ASCE Oklahoma Chapter, Zoom. (March 12, 2021). Oral Presentation.
179. Ghos, S., Sumter, C., Ali, S. A., Zaman, M., O'Rear, E. A., Hobson, K., International Airfield and Highway Pavement Conference, "Issues with the Design of Asphalt Mixes Containing Post-Consumer Recycled Plastic," Zoom. (June 2021). Oral Presentation.
178. Ghos, S., Sumter, C., Ali, S. A., Cancino, P., Hobson, K., Zaman, M., 2021 Oklahoma Transportation Symposium, "Assessment of asphalt Mixes Containing Recycled Plastics for Pavement Construction Using a Balanced Mix Design Approach," OKC, (July 27, 2021). Podium.
177. Zaman, M., Rahman, M., Ghos, S., Ali, S. A., SPARC Hub International Workshop on Intelligent Compaction (IC), "Intelligent Asphalt Compaction Analyzer (IACA) for Quality Control of Asphalt Pavement," Monash University, Australia. (Sept. 28, 2021). Keynote Lecture.
176. Zaman, M., Hobson, K., Ali, S. A., 2021 GeoChina International Conference (online), Nanchang, China, Sept. 18-19, "Enhancing Sustainability of Transportation Infrastructure Using Forensic Investigations." (September 2021). Keynote/Plenary Address.
175. Ghos, S., Sumter, C., Cancino, P., Ali, S. A., Hobson, K., Zaman, M., Kalicki, G., Metzger, D., "Performance of Asphalt Mixes Containing Recycled Plastics Incorporated Using the Dry Process and Balanced Mix Design" OTRD, OKC, Oklahoma. (October 19, 2021).
174. Cancino, P., Ali, S. A., Zaman, M., Garland, S., Romero, M., 2021 Oklahoma Transportation Research Day, "Durability and Service Life of Recycled Concrete Aggregate (RCA) for Use in Pavement Base Construction," ODOT-SPTC, OKC, Oklahoma. (October 19, 2021).
173. Li, J. (Author & Presenter), Pittenger, D. (Author), Wang, K. (Author), Wang, G. (Author), Zaman, M. (Author), Zhan, Y. (Author), Annual Meeting, Transportation Research Board, "Aggregate Characteristics-Based Preventive Maintenance Treatments for Optimized Skid Resistance of Pavements," National Academies, Washington, D.C. (January 2020). Oral Presentation, Conference.
172. Rahman, M. (Author & Presenter), Ghabchi, R. (Author), Zaman, M. (Author), Ali, S. (Author), Arshadi, A. (Author), 99th Transportation Research Board Annual Meeting, Jan. 12-16,, "Laboratory Characterization of Rutting and Moisture-Induced Damage Potential of Foamed Warm Mix Asphalt (WMA) Containing RAP," TRB, National Academies, Washington, D.C. (January 2020). Paper, Conference.
171. Rahman, M. (Author), Zaman, M. (Author & Presenter), Gerard, B. (Author), Shawn, J. (Author), Ali, S. (Author), Hobson, K. (Author), 16th International Conference of IACMAG, "Application of Intelligent Compaction (IC) as a Quality Control Tool: Oklahoma Experience," IACMAG, Turino, Italy, July 1-4, (July 2020). Paper.
170. Zaman, M. (Author & Presenter), Ali, S. (Author), Ghabchi, R. (Author), Tech Transfer Workshop, Jan. 8, 2019, "Surface Free Energy Technique to Evaluate Moisture-Induced Damage," SPTC and ODOT, Oklahoma City, Oklahoma. (January 8, 2019). Workshop, Workshop.
169. Floyd, R. (Author & Presenter), Volz, J. (Author), Zaman, M. (Author), TRB ABC Subcommittee Meeting, Jan. 14, 2019, "Development of Non-Proprietary UHPC," TRB, National Academies, Washington, D.C. (January 14, 2019). Oral Presentation, Subcommittee Meeting.
168. Ali, S. (Author & Presenter), Ghabchi, R. (Author), Zaman, M. (Author), Rani, S. (Author), Rahman, M. (Author), 98th Annual Meeting of Transportation Research Board, Jan. 13-17, 2019, "Laboratory Characterization of Moisture-Induced Damage Potential of Asphalt Mixes Using Conventional and Unconventional Performance-Based Tests," Transportation Research Board, Washington, D.C. (January 2019). Poster, Conference.
167. Zaman, M. (Author & Presenter), Hobson, K. (Author), Ali, S. (Author), Tech Transfer Workshop, Feb. 24, 2019, "Effect of RAP and RAS on Asphalt Binder Grade," SPTC and ODOT, Oklahoma City, Oklahoma. (February 24, 2019). Workshop, Workshop.

166. Zaman, M. (Author & Presenter), Ali, S. (Author), Ghabchi, R. (Author), Singh, D. (Author), Barman, M. (Author), International IACMAG Symposium, "Fatigue and Low-Temperature Cracking Performance of Asphalt Mixes Containing RAP and RAS," IACMAG, IIT-Gandhinagar, Gujrat, India. (March 2019). Keynote/Plenary Address, Conference.
165. Zaman, M. (Author & Presenter), Rani, S. (Author), Ghabchi, R. (Author), Ali, S. (Author), International IACMAG Symposium, "Rutting Performance of PPA-Modified Asphalt Binders," International Association for Computer Methods and Advances in Geomechanics, IIT-Gandhinagar, Gujrat, India. (May 2019). Paper, Conference.
164. Ghos, S. (Author & Presenter), Elaryan, A. (Author), Rahman, M. (Author), Zaman, M. (Author), Ali, S. (Author), CUTC Summer Meeting, June 24-26, 2019, "Pavement Quality Evaluation using OU Intelligent Compaction Analyzer (ICA): A Case Study," CUTC/SPTC, Norman, Oklahoma. (June 2019). Poster, Annual Meeting.
163. Rani, S. (Author & Presenter), Ghabchi, R. (Author), Zaman, M. (Author), Ali, S. (Author), International Airfield and Highway Pavements Conference, July 21-24, "Effect of Polyphosphoric Acid on Stress Sensitivity of Polymer-Modified and Unmodified Asphalt Binders," Transportation and Development Institute, ASCE, Chicago, Illinois. (July 2019). Poster, Conference.
162. Ghos, S. (Author & Presenter), Elaryan, A. (Author), Rahman, M. (Author), Zaman, M. (Author), Ali, S. (Author), SPTC Summer Symposium, August 8, 2019, "Quality Control in Asphalt Pavement Construction using Intelligent Compaction Analyzer (ICA)," SPTC, ODOT and ABC-UTC, Oklahoma City, Oklahoma. (August 8, 2019). Poster.
161. Ali, S. (Author & Presenter), Ghabchi, R. (Author), Zaman, M. (Author), Rahman, M. (Author), 2019 SPTC Summer Symposium, August 8, 2019, "Evaluation of Moisture-Induced Damage Potential of Asphalt Mixes Using Performance based Laboratory Tests," Southern Plain Transportation Center, Oklahoma City, Oklahoma. (August 8, 2019). Oral Presentation, Symposium.
160. Rahman, M. (Author & Presenter), Zaman, M. (Author), Ghabchi, R. (Author), Ali, S. (Author), Arshadi, A. (Author), Barman, M. (Author), SPTC Summer Symposium, August 8, 2019, "Evaluation of Cracking Resistance of Warm Mix Asphalt (WMA) Containing RAP," Southern Plain Transportation Center, Oklahoma City, Oklahoma. (August 8, 2019). Oral Presentation, Symposium.
159. Ali, S. (Author & Presenter), Zaman, M. (Author), Ghabchi, R. (Author), Ghos, S. (Author), Hobson, K. (Author), Oklahoma Transportation Research Day, November 5, 2019, "Effect of Additives and Aging on Moisture-induced Damage Potential of Asphalt Mixes," SPTC, ODOT and ABC-UTC, Oklahoma City, Oklahoma. (November 5, 2019). Poster, Annual Meeting.
158. Floyd, R. (Author), Volz, J. (Author), Walker, C. (Author & Presenter), Zaman, M. (Author), Roswurm, S. (Author), Dyachkova, Y. (Author), Oklahoma Transportation Research Day, Oklahoma City, OK, November 5, 2019., "Development of ABC-UTC Non-Proprietary UHPC Mix," ODOT and SPTC, Oklahoma City, Oklahoma. (November 5, 2019). Poster, Conference
157. Ghos, S. (Author & Presenter), Elaryan, A. (Author), Rahman, M. (Author), Zaman, M. (Author), Ali, S. (Author), Oklahoma Transportation Research Day, November 5, 2019, "Application of Intelligent Compaction Analyzer (ICA) in Monitoring Asphalt Pavement Construction Quality," SPTC, ODOT and ABC-UTC, Oklahoma City, Oklahoma. (November 5, 2019). Poster, Annual Meeting.
156. Zaman, M. (Author & Presenter), China University of Geosciences-Wuhan, December 18, 2019, "Mechanistic Characterization of Rock-Binder Interface for Evaluation of Moisture-Induced Damage," Wuhan, China. (December 18, 2019). Oral Presentation, Seminar.
155. Zaman, M. (Author & Presenter), Institute of Rock and Soil Mechanics, Chinese Academy of Sciences-Wuhan, December 18, 2019, "Fracture Toughness and Flow Behavior of Antler

- Sandstone for Geotechnical Applications,” Chinese Academy of Sciences-Wuhan, Wuhan, China. (December 18, 2019). Oral Presentation, Seminar.
154. Zaman, M. (Author & Presenter), Huanzhong University of Science and Technology-Wuhan, December 19, 2019, “Sustainable Transportation Infrastructure: Innovative Technology and Practices,” Huanzhong University of Science and Technology, Wuhan, China. (December 19, 2019). Oral Presentation, Seminar.
  153. Zaman, M. (Author & Presenter), Chinese Academy of Sciences-Wuhan, December 19, 2019, “Fatigue Performance of Asphalt Pavements Containing RAS and RAP,” Chinese Academy of Sciences-Wuhan, Wuhan, China. (December 19, 2019). Oral Presentation, Seminar.
  152. Floyd (Author & Presenter), Volz, J. (Author), Zaman, M. (Author), Walker, C. (Author), Roswurm, S. (Author), Dyachkova, Y. (Author), Looney, T. (Author), Accelerated Bridge Construction Conference, Miami, FL, December 12-13, 2019, “Development of ABC-UTC Non-Proprietary UHPC Mix,” Miami, Florida. (December 2019). Poster, Conference.
  151. “Mechanistic Evaluation of Moisture-induced Damage of Asphalt Mixes using SFE and XRF” (Ali, S. A., Zaman, M.). Presented at Graduate Student Research & Creativity Day, Norman, March 2, 2018.
  150. “Development of a Surface Free Energy (SFE) Database for Screening of Mixes for Moisture-induced Damage in Oklahoma” (Ali, S. A., Ghabchi, R., Zaman, M., Steger, R., Rani, S., Rahman, M. A.). Presented at the 2018 SPTC Summer Symposium, organized by Southern Plain Transportation Center, held at Metro Tech., OKC, Aug. 14, 2018.
  149. “Effects of Waste Vegetable Oil in High Concentration Recycled Asphalt Pavement Binder Mixes” (Dugan, C., O’Rear, E. A., Rani, S., Ali, S. A., Zaman, M.). Presented at 2018 Annual AIChE Meeting, 2018.
  148. “Improved Characterization of Polymer- and RAP-Modified Binders Commonly Used in Oklahoma” (Ali, S. A., Ghabchi, R., Rani, S., Zaman, M.). Oral presentation at 2017 SPTC Summer Symposium held in Oklahoma City, Oklahoma.
  147. (2017). “Rutting Resistance of Warm Mix Asphalt and Hot Mix Asphalt Containing RAP” (Rahman, A., Arshadi, A., Ghabchi, R., Ali, S. A., Barman, M., Zaman, M.). Poster presentation at 2017 Oklahoma Transportation Research Day, held in Oklahoma City, Oklahoma.
  146. (2017). “Rutting and Cracking Resistance of Foamed Warm Mix Asphalt Containing RAP” (Rahman, A., Arshadi, A., Ghabchi, R., Ali, S. A., Zaman, M.). Poster presentation at 2017 SPTC Summer Symposium held in Oklahoma City, Oklahoma.
  145. “Laboratory Evaluation of Interlayer Shear Strength of Commonly Used Tack Coats in Oklahoma” (Rani, S., Ali, S. A., Ghabchi, R., Zaman, M.). Poster presentation at 2017 SPTC Summer Symposium held in Oklahoma City, Oklahoma.
  144. “Evaluation of Interlayer Shear Strength of Different Tack Coats Used in Oklahoma” (Rani, S., Ali, S. A., Ghabchi, R., Zaman, M.). Poster presentation at 2017 Oklahoma Transportation Research Day, held in Oklahoma City, Oklahoma.
  143. “Effects of Waste Vegetable Oil in High Concentration Recycled Asphalt Binder” (Dugan, C., Rani, S., Ali, S. A., O’Rear, E. A., Zaman, M.). Poster presentation at 2017 Oklahoma Transportation Research Day, held in Oklahoma City, Oklahoma (First Prize).
  142. “Development of a Surface Free Energy (SFE) Database for Screening of Mixes for Moisture-induced Damage in Oklahoma” (Ali, S. A., Ghabchi, R., Rani, S., Rahman, M. A., Zaman, M.). Presented at 2017 Oklahoma Transportation Research Day, held in Oklahoma City, Oklahoma.
  141. “Field and Laboratory Investigation of Fatigue Performance of Oklahoma Warm Mix Asphalts” (Ali, S. A., Arshadi, A., Ghabchi, R., Zaman, M.). Presented at 2016 SPTC Summer Symposium, Aug. 10, 2016.

139. "The Response of Polyphosphoric Acid Modified Asphalt Binders to the Addition of an Anti-Stripping Agent" (Rani, S., Ali, S. A., Ghabchi, R., Zaman, M.). University of Oklahoma, Norman: Graduate Student Research & Creativity Day, 2016.
138. "Characterization of Rheological Properties of Polymer and RAP Modified Asphalt Binders Using Multiple Stress Creep and Recovery Method" (Ali, S. A., Rani, S., Ghabchi, R., Zaman, M.). Presented at University of Oklahoma, Norman: Graduate Student Research & Creativity Day - 2016.
137. "Response of Oklahoma Asphalt Binder Modified using Polyphosphoric Acid, Warm-Mix Asphalt Additive and Anti-Stripping Agent" (Zaman, M.). Presented at 2016 Oklahoma Transportation Research Day, October 18, 2016.
136. "Interlayer Shear Strength of Tack Coats in Asphalt Pavements" (Rani, S., Ali, S. A., Ghabchi, R., Zaman, M.). Presented at 2016 Oklahoma Transportation Research Day, October 18, 2016.
135. "Evaluation of High Temperature Characteristics of Polymer and RAP Modified Asphalt Binders Using Multiple Stress Creep and Recovery Method" (Ali, S. A., Rani, S., Ghabchi, R., Zaman, M.). Presented at 2016 Oklahoma Transportation Research Day, Oklahoma City, Oklahoma, October 18, 2016.
134. "Performance of Asphalt Binders Modified with Polysphosphoric Acid" (Rani, S., Ali, A.S., Ghabchi, R. and Zaman, M.). Poster presentation at 2015 Oklahoma Transportation Research Day, held in OKC, OK, October 2015.
133. "Fatigue Characteristics of Asphalt Mixes Containing RAP and RAS" (Zaman, M., Ghabchi, G. and Barman, M.). Presented at Shandong Highway Department, Jinan, China, April 28, 2015.
132. "Southern Plains Transportation Center: Overview and Opportunity for Collaboration" (Zaman, M.). Presented at Shandong University, Jinan, China, April 27, 2015.
131. "Intelligent Asphalt Compaction Analyzer for Quality Control of Asphalt Pavement during Compaction" (Imran, S., Commuri, S., Barman, M., Arshadi, A., and Zaman, M.). Poster presentation at 2015 Oklahoma Transportation Research Day, Oklahoma City, OK, October 20.
130. "Development of Guidelines Toward Adopting the Multiple Stress Creep Recovery (MSCR) Test Method for Extreme Weather Conditions Prevailing in the Southern Plains" (Ali, A., Rani, S., Ghabchi, R. and Zaman, M.). Poster presentation at 2015 Oklahoma Transportation Research Day, held in OKC, OK, October 20.
129. "Fatigue Performance of Asphalt Pavement Containing RAS and RAP" (Zaman, M., Ghabchi, R. and Barman, M.). Workshop presentation at Oklahoma Dept. of Transportation, March 12, 2015.
128. "Superpave® Performance Grading of Oklahoma Asphalt Binders" (Rani, S., Ali, S.A., Ghabchi, R., and Zaman, M.). Presented at Oklahoma Research Day, held on March 6, 2015.
127. "Southern Plains Transportation Center: An Overview and Collaboration Potential" (Zaman, M.). Presented at OSSM on Jan. 21, Oklahoma City, OK, 2015.
126. "Southern Plains Transportation Center: Overview and Collaboration Potential" (Zaman, M.). Presented at University of Tokyo, Tokyo, Japan, February 25, 2014.
125. "Southern Plains Transportation Center: Overview of a Regional University Transportation Center" (Zaman, M.). Presented at Kajima Technical Research Institute, Tokyo, Japan, February 27, 2014.
124. "Traffic and Transportation Safety Issues in Bangladesh" (Zaman, M.). Presented at Metropolitan Expressway Co. Ltd., Tokyo, Japan, February 27, 2014.
123. "Modeling Nanoclay Modified Asphalt Binder Through Molecular Dynamic Simulations" (Baker, D.S., Hawa, T., Hossain, M.Z., Saha, M.C. and Zaman, M.). Presented at AIAA/ASME Oklahoma Symposium, held in Oklahoma City, Oklahoma, March 29, 2014.
122. "Recommended Fatigue Test Method for ODOT: Discussion of Results" (Barman, M., Ghabchi, R., Singh, D., Zaman, M. and Commuri, S.). Presented to the Project Panel, held in Norman, Oklahoma, June 19, 2014.

121. "Intelligent Compaction – Oklahoma Style" (Dark, T., Beainy, F., Commuri, S. and Zaman, M.). Presented at OAPA Awards Banquette and Conference, Midwest City, OK, Feb. 5-6, 2013.
120. "Field Performance of Asphalt Pavements Containing Mine Tailings: A Case Study on Green Paving" (Zaman, M.). Invited Keynote Presentation at 8<sup>th</sup> International Conf. on Road and Airfield Pavement Tech., held at Taipei, Taiwan on July 14-18, 2013.
119. "Pavement Preservation Research in Oklahoma" (Pittenger, D., Zaman, M., Riemer, C., Gransberg, D. and Bulut, R.). Presented at ODOT-OTC Transportation Research Day, held in OKC on Sept. 12, 2013.
118. "Southern Plains Transportation Center: Vision, Mission, and Collaboration Potential" (Zaman, M.). Presented at UT-Arlington on November 8, 2013.
117. "Southern Plains Transportation Center: Overview of Plan and Progress" (Zaman, M.). Presented at RITA Kickoff Visit, held at OU on December 4, 2013.
116. "Use of High RAP Contents in Hot Mix Asphalt Pavements" (Zaman, M., Hossain, Z., Ghabchi, R., Singh, D.). OkTC-ODOT Workshop, Oklahoma City (September 2012).
115. "Mechanistic Approach for Evaluation of Moisture Damage Potential of Green Pavement Technologies" (Ghanbchi, R., Singh, D., Tian, Q., Zaman, M.). Poster Presentation at GeoCongress, ASCE, Oakland, CA (March 2012).
114. "Environmentally Friendly Asphalt Technologies for Pavement Applications: Advantages and Technical Challenges" (Ghabchi, R., Singh, D., Tian, Q., Zaman, M.). Graduate Program Information Symposium, CoE, Norman, OK. Poster, 2012.
113. "Field Performance of a Test Road Containing Mine Tailings" (Zaman, M.). Shell Energy Security and Climate Change Seminar Series, UTEP, El Paso, Texas (December 2012).
112. "Recycled Asphalt Pavement in New Asphalt Mixtures: State of the Practice" (Hossain, Z., Buddhala, A., O'Rear, E. A., Zaman, M., Laguros, J., Lewis, S.). 2<sup>nd</sup> International Symposium on Asphalt Pavement and Environment, Fortaleza, Brazil (October 2012).
111. "Key to Green Paving: Challenges and Opportunities" (Zaman, M.). Big Idea Seminar, AME, Norman, Oklahoma. (October 2012).
110. "Preparation and Evaluation of Nanoclay-Modified Asphalt Binders" (Hossain, Z., Zaman, M., Saha, M., Hawa, T.). Poster Presentation at ODOT-OkTC Research Day, Oklahoma City, OK. (October 2012).
109. "Design, Construction and Performance of a Pavement Test Section with High Reclaimed Materials" (Zaman, M., Solanki, P., Adje, D., Hossain, Z., Singh, D., Ghabchi, R., Lewis, S.). ODOT-OkTC Transportation Research Day, Oklahoma City. (October 2012).
108. "Effect of Recycled Asphalt Pavement on Mechanistic Properties of Hot Mix Asphalt" (Solanki, P., Hossain, Z., Adje, D., Ghabchi, R., Singh, D., Zaman, M.). Poster Presentation at ODOT-OkTC Transportation Research Day, Oklahoma City. (October 2012).
107. "Fatigue and Rut Behavior of an Instrumented Pavement Under Vehicular Traffic" (Singh, D., Hossain, N., Zaman, M., Muraleetharan, K., Breidy, M.). Poster Presentation at ODOT-OkTC Transportation Research Day, Oklahoma City. (October 2012).
106. "Warm Mix Asphalt and Intelligent Compaction" (Zaman, M.). Presented at Shandong University, China, Dec. 1, 2011.
105. "Durability of Stabilized Aggregates" (Zaman, M.). Presented at Shandong University, China, Dec. 2, 2011.
104. "Warm Mix Asphalt Moisture Susceptibility Evaluation Using Surface Free Energy Approach" (Zaman, M., Bulut, R., Cross, S.A, Ghabchi, R., Tian, Q., Singh, D. and Murat, K.). Poster presentation at ODOT-OkTC Transportation Research Day, Oct. 11, 2011 (**First Prize**).
103. "Involvement of University Transportation Centers in Pavement Preservation Research" (Zaman, M., Gransberg, D., Riemer, C. and Pittenger, D.). Southeast Pavement Preservation Partnership Annual Meeting, held in OKC, May 4, 2011

102. "Enhancing Flexible Pavement Design through Field Performance Monitoring and Testing" (Zaman, M.). Presented at Shandong University, China, Nov. 21, 2111.
101. "Characterization of Cementitiously Stabilized Subgrades for Mechanistic-Empirical Pavement Design" (Zaman, M.). Presented at Shandong University, China, Nov. 22, 2011.
100. "Using Mine Chat in Asphalt Paving: A Field Demonstration Study" (Zaman, M.). Presented at Shandong University, China, Nov. 23, 2011.
99. "Energy Efficient Paving: Prospects and Concerns" (Zaman, M.). Presented at Shandong University, China, Nov. 24, 2011.
98. "Effect of Gradation on Stiffness and Flow Behavior of Aggregate Bases: A Laboratory and Field Study" (Zaman, M.). Presented at Shandong University, China, Nov. 25, 2011.
97. "Dynamic Modulus of Asphalt Mixes for Asphalt Pavement Applications: A Laboratory Study and Modeling" (Zaman, M.). Presented at Shandong University, China, Nov. 28, 2011.
96. "Civil Engineering Education and Research in the United States" (Zaman, M.). Presented at Shandong University, China, Nov. 28, 2011.
95. "Laboratory Performance Evaluation of Hot Mix Asphalt Mixes with RAP" (Singh, D.V., Zaman, M., and Commuri, S.). International Symp. on Testing and Spec. of Recycled Materials for Sustainable Geotechnical Construction, held in Maryland on Feb. 2-4, 2011.
94. "Traffic and Transportation Issues in Bangladesh" (Zaman, M.). Presented at NABIC's Annual Convention, held in Richardson, Texas, May 21, 2011.
93. "Effectiveness of Advera on Warm Mix Asphalt" (Hossain, Z., Zaman, M., O'Rear, E. and Chen, D-H.). Presented at GeoHunan Int'l Conf. II, held in Hunan, China on June 6-8, 2011.
92. "Enhancing Structural Design of Pavement Through Field Performance Monitoring" (Zaman, M.). Presented at Oklahoma Structural Engineering Association Meeting, held in OKC, July 26, 2011.
91. "Field Performance of a Test Pavement Section on I-35" (Zaman, M., Muraleetharan, M., Breidy, M. and Solanki, P.). Presented at ODOT-OkTC Transportation Research Day, held in OKC, October 11, 2011.
90. "Tube Suction Test for Evaluating Durability of Cementitiously Stabilized Soils" (Zaman, M., Solanki, P., and Khalife, R.). OTC RITA Site Visit, Poster Presentation, March 30, 2010, NCED Conference Center, Norman, Oklahoma.
89. "Effect of Gradation on Stability and Drainability of Selected Aggregate Bases in Oklahoma: A Field Case Study" (Ghabchi R. and Zaman M.). ODOT-OTC Transportation Research Day. Poster presentation, held in OKC, Oct. 14, 2010.
88. "Local Calibration of the MEPDG for Asphalt Pavements with RAP" (Zaman, M., Hossain, Z., Solanki, P., Laguros, J., Lewis, S., Doiron, C., Adje, D., and Autrey, J.). ODOT-OTC Research Day, Poster Presentation, held in OKC on Oct. 14, 2010.
87. "Tube Suction Test for Evaluating Durability of Cementitiously Stabilized Soils" (Solanki, P., Zaman, M. M., and Khalife, R.). ODOT-OTC Research Day, Poster Presentation, held in OKC on Oct. 14, 2010 (**Received Second Prize**).
86. "Measurement of Stiffness of Pavement Using Intelligent Asphalt Compaction Analyzer" (Singh, D.V., Commuri, S., and Zaman, M.). Student Research and Performance Day, The University of Oklahoma, Norman, 2010.
85. "Measurement of Stiffness of Pavement Using Intelligent Asphalt Compaction Analyzer" (Singh, D.V., Commuri, S., and Zaman, M.). Student Research and Performance Day, The University of Oklahoma, Norman, 2010.
84. "Improvement of Subgrade Soil Properties Using Chemical Stabilization: A Case Study" (Singh, D.V., Ghabchi, R., Laguros, J.G., and Zaman, M.M.). BGSA Research Symposium, The University of Oklahoma, Norman, 2010. (**Awarded 2<sup>nd</sup> Prize**).

83. "Continuous Real-Time Measurement of Pavement Quality during Construction" (Singh, D.V., Commuri, S., and Zaman, M.). ODOT-OkTC Research Day, held in OKC on Oct. 14, 2010 (**Awarded 1<sup>st</sup> Prize**).
82. "Pavement Research in OTC" (Zaman, M.). Presentation at the RITA site visit, Postal Training Center, March 30, 2010.
81. "Data Collection and Performance Monitoring of an Instrumented Flexible Pavement Section on I-35" (Solanki, P., Zaman, M. and Muraleetharan, K.). Presented at the Pavement Performance Prediction Symp: Validation of Predictive Models Using Full Scale and Field Pavement Performance, in Laramie, Wyoming, July 15-17, 2010.
80. "Timberdell Aggregate Testing Update." Presentation at the 8<sup>th</sup> Annual Meeting of the Oklahoma Aggregate Association (OKAA), OKC, Feb. 18, 2009.
79. "Durability of Chemically Stabilized Soils." Presentation at the Rajshahi Univ. of Engineering and Technology, Bangladesh, October 16, 2008.
78. "Rheological Properties of WMA Additives and Anti-Stripping Agent Modified Performance Grade Binder." Presentation (with Z. Hossain, D. Singh, A. Budhala and E.A. O'Rear) at the 45<sup>th</sup> Petersen Asphalt Conference, held at Laramie, Wyoming, July 14-16, 2008.
77. "OU Works for Cooperative Efforts with Industry." Presentation at 7<sup>th</sup> Annual Meeting of Oklahoma Aggregate Association, OKC, Feb. 13, 2008.
76. "Soil Stabilization in Pavement Structures." Poster Presentation (with P. Solanki and N. Khoury) at the ODOT-OTC Research Day, Poster Presentation, October 17, 2007, OKC, Oklahoma.
75. "Soil Stabilization," Graduate Student Research and Creative Endeavor, Poster Session (with P. Solanki and N. Khoury), Univ. of Oklahoma, April 6, Norman, Oklahoma.
74. "Effect of Aging on Surface Free Energy Characteristics of Asphalt Binders." Presentation (with N. Wasiuddin) at Second Int'l Workshop on Moisture Damage in Asphalt Pavements, College Station, Texas, College Station, Texas. (September 2007).
73. "Effect of Polymeric Aggregate Treatment Using Styrene-Butadiene Rubber (SBR) for Moisture-Induced Damage Potential," Presentation (with N. Wasiuddin and E.A. O'Rear) at Annual Meeting of the Int'l Soc. for Asphalt Pvt. (ISAP), Technical Committee (on Constitutive Modeling of Asphaltic Materials), Washington, D.C., Jan. 2007.
72. "Effect of Mineral Filler on Bulk Specific Gravity of Fine Aggregates." Presented (with A. Gupta, S. Selvaratnam and J.G. Laguros) at Peterson Asphalt Research Conf., 16-18, July, 2007, Laramie, WY.
71. "Advances in Intelligent Compaction of Asphalt Concrete Pavement." Presented (with S. Commuri) at ODOT-OTC Research Day, Oklahoma City, Sept. 19, 2006.
70. "Overview of OU Asphalt Program." Presented (with S. Commuri) to OTC, February 1, 2006.
69. "Civil Engineering: An Exciting Career with an Incredible History." Presentation at ENGR 2113: Intro to Engineering Class, June 17, 2004.
68. Tarefder, R.A., White, L. and Zaman, M., "Neural Network Assessment of Asphalt Concrete Permeability Factors." Presentation at the 83<sup>rd</sup> Annual Meeting of the Transp. Research Board, January 11-15, 2004, Washington, D.C.
67. "Oklahoma Transportation Center: An Overview." Presentation at the CEES Visiting Council Meeting, Nov. 7, 2003.
66. "Cold Asphalt Pavement Recycling: Laboratory and Field Aspects." Presentation at the Asphalt Pavement Recycling Workshop, held on September 16, 2003 in Oklahoma City, OK.
65. "Resilient Characteristics of Fly Ash Stabilized Marginal Aggregate Base." Presentation at the ASCE Texas Section Fall Meeting, held on September 24-27, 2003 at Dallas, Texas.
64. "Limiting Source Dimensions of Three-Dimensional Point Source Model for Solute Transport." (with A.N.M. Ahsanuzzaman and R. Kolar). Presentation at the AGU Hydrology Days 2003 Conference, held on March 31-April 2, 2003 at Fort Collins, Colorado.



63. "Scanning Eletron Microscopy in Identifying the Microstructural Development of Stabilized Aggregate Bases." Presented (with N. Khoury and J.G. Laguros) at the Annual Oklahoma Academy of Science Fall Technical Mtg., held on Nov. 7, 2003 at Chickasha, OK.
62. "Effect of Freeze-Thaw Cycles on Class C Fly Ash Stabilized Aggregate Base." Presented (with N. Khoury) at 82nd Annual Meeting of the Transportation Research Board, held on January 12-16, 2003 in Washington, D.C. Also, appeared in CD publication of TRB.
61. "Asphalt Program: Accomplishment and Goal." Presented at the CEES Visiting Council Mtg., April 4, 2002.
60. "Testing and Constitutive Modeling of HPC" Invited Presentation at Kansas State University, Manhattan, April 1, 2002.
59. "Overview of OU Asphalt Program." Presented at the OAPA Board Meeting, December 18, 2002.
58. "Soft Sediments." Presented at RMI Bi-Annual Meeting, October 24-25, 2002.
57. "Poroplastic Multi-Laterals in ABAQUS Using Cam Clay Model" (with A. Singanayagam and Y. Abousleiman). Presented at RMI Bi-Annual Meeting, March 5, 2002.
56. "Asphalt Pavement Recycling: Laboratory Aspects." Presented at OCAST-Sponsored Technology Transfer Workshop, held at Univ. of Oklahoma, May 21, 2002.
55. "Evaluation of Rutting Potential of Selected Mixes Using APA." Presented at Oklahoma Department of Transportation, Nov. 30, 2000.
54. "Numerical Modeling Efforts at RMI." Presentation at RMI Consortium Bi-Annual Meeting, July 26-27, 2000.
53. "Asphalt Encapsulation of Contaminated Soils and Aggregates" (R.A. Rarefder, M.E. Ruckgaber, M. Zaman, and D. Patton). Presented at 7<sup>th</sup> IPEC Conf., held in Albuquerque, New Mexico, Nov. 7-10, 2000.
52. "Hydraulic Fracture in Complex Stress Fields and Weak Formations." Presentation at RMRC Bi-Annual Meeting, held in Norman, OK, Nov. 16-17, 1999.
51. "Resilient Modulus and Mechanistic Pavement Design: Are We There Yet." Panel Discussion in Session 333, 78<sup>th</sup> Annual Meeting, Transportation Research Board, Washington, D.C., Jan. 10-14, 1999.
50. "Durability Effects on Resilient Modulus of Stabilized Aggregate Bases." Presentation at Session 238, 78<sup>th</sup> Annual Meeting, Transportation Research Board, Washington, D.C., Jan. 10-14, 1999.
49. "Evaluation of Crack Formation and Spacing in Continuously Reinforced Concrete Pavement." Presented at the Structure/Geotech. Seminar, School of CEES, Univ. Of Oklahoma, Aug. 27, 1997.
48. "Physical and Numerical Modeling of CRC Pavement." Presentation at the ACI meeting in Oklahoma City, Aug. 12, 1997.
47. "Soft Sediment Mechanics: Sanding, Drill-Cutting Reinjection--Overview of Progress." Presentation (with RMI colleagues) at the Rock Mechanics Institute Bi-Annual Meeting, held in Norman, Oklahoma, December 3-5, 1996.
46. "Cyclic Testing for Improved Pavement Design." Presentation at the Freshman Seminar: Discovering Engineering--What Does It Mean? organized by Prof. John Cheung, School of Electrical Engineering, University of Oklahoma, October 9, 1996.
45. "Resilient Moduli of Aggregate Materials: Variability due to Gradation and Moisture Content." Presentation at the Structures-Geotech Seminar, School of CEES, October 9, 1996.
44. "Soft Sediment Mechanics: Sanding--Project Overview and Research Plan." Presentation (wtih RMI colleagues) at the Pre-Consortium Mtg. on Sanding, held in Norman, Oklahoma, September 17-18, 1996.

43. "Statistical and Deterministic Models for Identification of Problematic Bridges and Estimation of Approach Settlements." Invited Presentation at the Highway Engineering Exchange Program Area III conference, held at Radisson Inn, Oklahoma City, Oklahoma, May 13-16, 1996.
42. "Resilient Modulus of Aggregate Bases." Presented at 21st Southwest Geotechnical Engineering Conf., held in Tulsa, Oklahoma, April 22-25, 1996.
41. "Field Evaluation of Drainable Bases in Oklahoma" (with M. Rahman and T. Curtis). Research Presentation at the Oklahoma Dept. of Transp., Oklahoma City, Oklahoma, March 22, 1996.
40. "Soft Sediment Mechanics." Presentation at Bi-annual RMC/RMRC Meeting, held at Norman Campus, O.U., November 9, 1995.
39. "Study of Differential Settlement Problems at Bridge Ends." Seminar at Helwan Univ., Cairo, Egypt, September 30, 1995.
38. "Technology Transfer and Industrial Collaborations." Presentation at NSF/OCAST Site Visit, June 20, 1995.
37. "Mechanics of Pore Collapse in Reservoir Rocks and Unconsolidated/Poorly Consolidated Sediments." Presentation at NSF/OCAST Assessment/Review Site Visit, held in Norman Campus, O.U., June 20, 1995.
36. "Cooling Properties of Asphalt Pavement." Presentation at Research Review Day, ODOT, February 1995.
35. "Pore Collapse Mechanisms, Reservoir Compaction and Subsidence, Unconsolidated Sands and Soft Sediments." Presentation at RMC/RMRC Biannual/Fall Meeting, Nov. 16, 1994.
34. "Bridge Approach Settlement Workshop" (with J.G. Laguros, H. Chen and M. Rahman). Presentation at Workshop held at the Univ. of Oklahoma for ODOT, Nov. 9, 1994.
33. "Pore Collapse Mechanisms and Unconsolidated Sands—A Review of Progress During March—October 1993" (with H. Wang, P. Suri, A. Mohammed and T. Scott). Presentation at the RMC/RMRC Biannual/Fall Meeting, October 12, 1993.
32. "Overview of Rock Mechanics Research Center." Presented to CSIRO visitors, Australia, July 2, 1993.
31. "The Role of Small Companies in a Centers Operation/Research Program Development." Presentation at the Roundtable Discussion Sessions at the NSF State-IUCRC Meeting in Washington, DC, April 19, 1993.
30. "Pore Collapse Mechanisms and Unconsolidated Sands—A Review of Progress" (with A. Abdulraheem, M. Azeemuddin, S. Mowar and H. Wang). Presentation at the Rock Mechanics Consortium-Spring Meeting and Rock Mechanics Research Center Meeting, April 1, 1993.
29. "Bridge Approach Settlement Problems in Oklahoma." Presented at the ASCE Monthly Mtg. in Oklahoma City, Oklahoma, March 3, 1993.
28. "Bridge Approach Settlement." Presented at the Research Review Day, Okla. Dept. of Transp. in Oklahoma City, Oklahoma, February 3, 1993.
27. "Workshop on Bridge Approach Settlement" (with J.G. Laguros, D. Bhat, C. Hua, and K. Pandey). Oklahoma Dept. of Transportation, July 21, 1993.
26. "Overview of Rock Mechanics Research Center at University of Oklahoma". Presented to Petrobras Visitors, May 12, 1993.
25. "Thermal Effects on Dynamic Response of Concrete Pavements" (with V. Khanna and M.R. Taheri). Presented at the Transportation Research Board Meeting, January 10-14, 1993.
24. "Pore Collapse Research at the University of Oklahoma" (with A. Abdulraheem and S. Mowar). Presented to Statoil, Norway Visitors, June 22, 1992.
23. "Role of Rock Mechanics in Reserving Compaction". Reservoir Compaction Forum, held at Las Teques (INTEVEP) Venezuela, April 9-10, 1992.

22. "Dynamic Response of Jointed Concrete Pavements to Moving Aircraft" (with A. Alvappillai). Presented at the 80th Annual Meeting of Oklahoma Academy of Science, held at Southeastern Oklahoma State University, Durant, Nov. 7, 1991.
21. "3-D Testing and Constitutive Modeling of Coal" (with D.H. Chen and A.R. Kukreti). Presented at the 80th Annual Meeting of Oklahoma Academy of Science held at Southeastern Oklahoma State University, Durant, Nov. 7, 1991.
20. "Pore Collapse Mechanisms in Poorly Consolidated Reservoir Rocks" (with J.-C. Roegiers, A. Abdulazeez, M. Azeemuddin). Presented at the Rock Mechanics Consortium (RMC) meeting. March 12, 1991.
19. "Three-Dimensional Testing of Plain and Fiber Reinforced Concrete" (with A.R. Kukreti and D.K. Mishra). Presented at the 79th Annual (Technical) Meeting of the Oklahoma Academy of Sciences, held at Oral Roberts Univ., Tulsa, Oklahoma on Nov. 9, 1990.
18. "Application of Constitutive Modeling in Underground Mining" (with A.R. Kukreti and D. Chen). Presented at the 79th Annual (Technical) Meeting of the Oklahoma Academy of Sciences, held at Oral Roberts Univ., Tulsa, Oklahoma on Nov. 9, 1990.
17. "An Anisotropic Constitutive Model for Concrete and Rocks" (with A.R. Kukreti and Y.M. Najjar). Presented at the 79th Annual (Technical) Meeting of the Oklahoma Academy of Sciences, held at Oral Roberts Univ., Tulsa, Oklahoma on Nov. 9, 1990.
16. "Thick Plate Response to Moving Suspended Point Load" (with M.R. Taheri and A. Alvappillai). Presented at the 78th Annual Mtg. of Okla. Acad. Science, held at Central State Univ., Edmond, OK, Nov. 10, 1989.
15. "Finite Element Analysis of Consolidation Settlements of Bridge Approach Pavements in Oklahoma" (with A. Gopalasingam and J.G. Laguros). Presented at the 78th Annual Mtg. of the Okla. Acad. Science, held at Central State Univ., Edmond, OK, Nov. 10, 1989.
14. "A Single Surface Plasticity Model for Rocks and Concrete" (with Y.M. Najjar and M.O. Faruque). Presented at the 78th Annual Mtg. of the Okla. Acad. Sc., Central State Univ., Edmond, Nov. 10, 1989.
13. "Application of Elastoplastic and Viscoplastic Finite Element Analyses to Prediction of Bridge Approach Settlements" (with A. Gopalasingam and J.G. Laguros). Presented at the 77th Annual Meeting of the Okla. Academy of Science, held at the Univ. of Science and Arts, Chickasha, Oklahoma, Nov. 11, 1989.
12. "Prediction of Stress-Strain Response of Concrete Under Three-Dimensional Loading by a Two-Surface Constitutive Model" (with Y.M. Najjar and A.R. Kukreti). Presented at the 77th Annual Meeting of the Okla. Academy of Science, held at the Univ. of Science and Arts, Chickasha, Oklahoma, Nov. 11, 1989.
11. "Soil Liquefaction and Foundation Response Under Earthquake Loading." Presented at a seminar organized by the Dept. of Meteorology, Univ. of Oklahoma, Dec. 8, 1987.
10. "Analysis of Cylindrical Storage Tanks on Rectangular or Square Foundations Including Interaction Effects" (with N. Koragappa). Presented at the 76th Annual Meeting of the Oklahoma Academy of Science, held at Northwestern State Univ., Alva, Oklahoma, Nov. 13, 1987.
9. "A Generalized Plasticity Model and Its Application to Some Field Problems in Geomechanics." Presented at a seminar organized by the OU School of Aerospace, Mechanical and Nuclear Engineering, March 1987.
8. "Seismic Response of a Bridge Pier Including a Base Isolator and Energy Dissipator." Presented at the 75th Annual Fall Meeting of the Oklahoma Academy of Science, held at Northeastern Univ., Tahlequah, Oklahoma, Nov. 14, 1986.
7. "Three-Dimensional Nonlinear Behavior of Pile Group Foundation: Effect of Loading Sequence" (with Y.M. Najjar). Presented at the 75th Annual Fall Meeting of the Oklahoma Academy of Science, held at Northeastern State Univ., Tahlequah, Oklahoma, Nov. 14, 1986.

6. "Modeling of Immiscible Displacements in Heterogeneous Reservoirs" (with A.R. Kukreti and F. Civan). Presented at the 74th Annual Meeting of the Oklahoma Academy of Science, held at the Oklahoma Baptist Univ., Shawnee, Oklahoma, Nov. 11, 1985.
5. "A Finite Element Model for Analysis of Drilled Piers" (with A. Uppal). Presented at the 74th Annual Meeting of the Oklahoma Academy of Science, held at the Oklahoma Baptist Univ., Shawnee, Oklahoma, Nov. 11, 1985.
4. "Modeling of Flow of Immiscible Fluids in Heterogeneous, Irregular Shaped Reservoirs for Efficient Oil Recovery" (with A.R. Kukreti and F. Civan). Workshop organized by the Energy Resources Institute (ERI), April 11, 1985.
3. "Finite Element Simulation of Borehole Dilatometer Tests in Discontinuous Rocks" (with S.L. Kuang). Presented at the 72nd Annual Meeting of the Oklahoma Academy of Science, Oral Roberts University, Tulsa, Oklahoma, November 1983.
2. "Behavior of Subway Tunnels Under Static and Cyclic Loading." Presented at the Fifteenth Annual Meeting of the Mid-Continent Regional Science Association, held at Oklahoma City, June 1983.
1. "Cyclic Testing and Modelling of Interfaces" (with C.S. Desai, E.C. Drumm and R. Janardhanam). Presentation at session: 'Cyclic Loading of Soils, Concrete and Metals'. National Spring Convention, ASCE, Las Vegas, 1982.

#### AWARDS AND HONORS:

30. Japanese Society for the Promotion of Science Fellowship at Saitama University, Japan, February 16 – March 16, 2014.
29. "Outstanding Contributions" award given by the 8th International Conference on Road and Airfield Pavement Engineering, July 2013.
28. Invention disclosure: "A Method to Determine the Stiffness of a Hot Mix Asphalt (HMA) Pavement During its Construction" (Commuri, S. and Zaman, M.), February 22, 2011.
27. Outstanding Contribution Award, given by IACMAG, for life-long contributions in geomechanics, 2011.
26. IJOG Excellent Paper Award (2008) given by IACMAG for the paper "Modeling Fully Coupled Oil-Gas Flow in Dual-Porosity Medium" (R. Nair, Y. Abousleiman, M. Zaman), Int. J. of Geomech., ASCE, Vol. 5, 2005, pp. 326-338.
25. Chandra Desai Medal (2005) from the International Association for Computer Methods and Advances in Geomechanics (IACMAG).
24. David Ross Boyd Professorship (2003, life-time teaching award for outstanding contributions to teaching).
23. Ker McGee Presidential Professor (1997-2001).
22. Agilent Technologies Award for Excellence in Laboratory Instruction, ASEE (2000)
21. ASEE Midwest Section Teaching Excellence Award (1998)
20. College of Engineering Distinguished Lectureship Award (1997).
19. Citation of Meritorious Achievement by Inter. Biographical Center, Cambridge, England (1996).
18. Who's Who in the World (1995, 1996).
17. Who's Who in South and Southwest (1995).
16. C.S. Desai Biennial Prize, Indian Geotechnical Society (1994) for the best paper published in Indian Geotechnical Journal during 1991-1992.
15. IACMAG Award for significant contribution in Constitutive Laws and Application (1994).
14. Who's Who in Science and Engineering (1993, 1996/1997).
13. Regents' Award for Superior Research and Creative Activity, The University of Oklahoma (1992).
12. Regents' Award for Superior Teaching, The University of Oklahoma (1990).

11. CoE Distinguished Lectureship Award, College of Engineering (for a five-year period: 9/88 to 9/93).
10. National Science Foundation Travel Award to attend the International Symp. on Tunnelling for Water Resources and Power Projects, held in New Delhi, India, 19-23 Jan. 1988.
9. Summer Faculty Research Participation Fellowship, Argonne National Laboratory, Argonne, Illinois (1987).
8. Associates Distinguished Lectureship Award, College of Engineering, University of Oklahoma (1986, 1987).
7. Outstanding Young men of America - 1983, 1984, 1986 by U.S. Jaycees
6. Young Faculty Development Award, College of Engineering, University of Oklahoma, Norman (1985).
5. Junior Faculty Summer Fellowship, University of Oklahoma (1985).
4. Young Faculty Development Award, College of Engineering, University of Oklahoma, Norman (1984).
3. Annual Dissertation Award, College of Engineering, University of Arizona, Tucson (1983).
2. Merit Award (given to top student of the year), Bangladesh University of Engineering and Technology (BUET), Dhaka (1975).
1. Merit Scholarship, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh (1970-1975).

#### **FUNDED RESEARCH PROJECTS:**

197. Zaman, M., (PI, 90% credit), Michael, M., (Co-PI, 10% credit), "Management of the ODOT Transportation Library: FFY 2023," Sponsored by ODOT, State, \$177,901. (October 1, 2022 - September 30, 2023).
196. Molina, M., (PI, 50% credit), Zaman, M., (Co-PI, 50% credit), "Transportation Research and Connectivity," Sponsored by Oklahoma Department of Transportation, State, \$260,000. (September 30, 2020 - February 28, 2025).
195. Zaman, M., (PI, 100% credit), "OU Task Order Contract Administration -- FFY2023," Sponsored by Oklahoma Department of Transportation, State, \$39,999. (October 1, 2022 - September 30, 2023).
194. Molina, M., (PI, 50% credit), Zaman, M., (Co-PI, 50% credit), "Knowledge Management Awareness Campaign, SharePoint Site Creation, and Codifying Knowledge," Sponsored by Oklahoma Department of Transportation, State, \$75,000. (October 1, 2022 - September 30, 2023).
193. Molina, M., (PI, 50% credit), Zaman, M., (Co-PI, 50% credit), "Transportation Taxonomy, Additional Social Network Analyses, Growing the KM Liaison Network, and Workforce Development," Sponsored by ODOT, State, \$75,000. (October 1, 2022 - September 30, 2023).
192. Zaman, M., (PI, 80% credit), Molina, M., (Co-PI, 20% credit), "ODOT Peer Exchange," Sponsored by Oklahoma Department of Transportation, State, \$62,945. (October 1, 2022 - September 30, 2023).
191. Hobson, K., (PI, 0% credit), Ali, S. A., (Co-PI, 10% credit), Zaman, M., (Co-PI, 90% credit), "Modification of AASHTO T 283 for Improved Screening of Asphalt Mixes for Moisture-Induced Damage," Sponsored by ODOT, State, \$66,001. (October 1, 2022 - September 30, 2023).
190. Zaman, M., (PI, 80% credit), Molina, M., (Co-PI, 20% credit), "Management of the ODOT Transportation Library: FFY2023," Sponsored by Oklahoma Department of Transportation, State, \$177,901. (October 1, 2022 - September 30, 2023).
189165. Zaman, M., (PI, 70% credit), Mendez Larrain, M., (Co-PI, 5% credit), Razzaghi, T., (Co-PI, 15% credit), "(OCAST) Mitigation of Swelling Soil-Induced Problems in Oklahoma Using AI-

- Based Models and Chemical Injection,” Sponsored by Oklahoma Center for the Advancement of Science and Technology, State, \$48,582. (February 1, 2022 - September 30, 2023).
188. Zaman, M., (PI, 60% credit), Floyd, R., (Co-PI, 40% credit), “Workforce Development, Outreach and Tech Transfer Activities,” Sponsored by Florida International University, University, \$20,097. (June 1, 2022 - June 1, 2023).
  187. Salazar-Cerreño, J. L., (PI, 34% credit), Schvartzman Cohenca, D., (Co-PI, 33% credit), Zaman, M., (Co-PI, 33% credit), "A Radar-Based Warning System and Stakeholder-Focused Outreach for Enhancing Safe Driving on Icy Roads," Sponsored by Oklahoma Department of Transportation, State, \$40,000. (January 1, 2022 - December 31, 2022).
  164. Zaman, M., (PI, 85% credit), Ali, S. A., (Co-PI, 7.5% credit), Mendez Larrain, M., (Co-PI, 7.5% credit), “Project-Level Evaluation of Pavement Conditions for Maintenance, Asset and Safety Management, and Pavement Design (OU),” Sponsored by Oklahoma Department of Transportation, State, \$28,350. (January 24, 2022 - September 30, 2022).
  163. Zaman, M., (PI, 100% credit), “OU Task Order Contract Administrative Support: FFY2022,” Department of Transportation, \$40,000. (October 7, 2021 - December 31, 2023).
  162. Zaman, M., (PI, 50% credit), Barnes, R., (Co-PI, 25% credit), Miller, G., (Co-PI, 25% credit), “Matching Support for The Southern Plains Transportation Center,” Oklahoma, Department of Transportation, State, \$3,392,485. (October 1, 2013 - September 30, 2023).
  161. Zaman, M., (PI, 80% credit), Michael, M., (Co-PI, 10% credit), Pittenger, D., (Co-PI, 10% credit), "Management of the ODOT Transportation Library: FFY 2022," Sponsored by ODOT, State, \$172,945. (October 1, 2021 - September 30, 2022).
  160. Zaman, M., (Co-PI, 90% credit), Hobson, K., (PI, 0% credit), Ali, S. A., (Co-PI, 10% credit), “Effect of Gradation Changes due to Construction on Performance of Recycled Aggregate Bases in Oklahoma,” ODOT, \$75,000. (October 5, 2021 - September 30, 2022).
  159. Molina, M., (PI, 50% credit), Zaman, M., (Co-PI, 50% credit), “Knowledge Management Awareness, Information Storage/Retrieval, and Workshops/Short Courses,” Oklahoma Department of Transportation, \$75,000. (November 2, 2021 - September 30, 2022).
  158. Molina, M., (PI, 50% credit), Zaman, M., (Co-PI, 50% credit), “ODOT Social Network Analysis Toward Critical Process and Procedure Identification and Improvement,” Oklahoma Department of Transportation, \$75,000. (October 18, 2021 - September 30, 2022).
  157. Zaman, M., (PI, 90% credit), Matias, M. L., (Co-PI, 0% credit), Razzaghi, T., (Co-PI, 10% credit), “An Improved Approach to Estimate Bearing Capacity of Soil Using Laboratory and Field Data and Artificial Intelligence,” Sponsored by State of Oklahoma, Center for the Advancement of Science and Technology, State, \$54,410. (September 1, 2020 - July 31, 2022).
  156. Hobson, K., (PI, 0% credit), Zaman, M., (Co-PI, 90% credit), Ali, S. A., (Co-PI, 10% credit), “Evaluating the Impact of Various Asphalt Rejuvenating Agents on the Performance of Asphalt Binders,” ODOT, \$60,000. (October 11, 2021 - June 30, 2022).
  155. Ali, S. A., (PI, 10% credit), Hobson, K., (Co-PI, 0% credit), Zaman, M., (Co-PI, 90% credit), “Development of a DIGGS-Compatible Geotechnical Database from Existing Geotechnical Reports - Phase I,” ODOT, \$46,350. (October 1, 2021 - March 31, 2022).
  154. Zaman, M., (PI, 100% credit), “OU Task Order Contract Administrative Support - FY2020,” Oklahoma Department of Transportation, \$39,999. (July 1, 2020 - March 31, 2022).
  153. Zaman, M., (PI, 80% credit), Cokely, E. T., (Co-PI, 20% credit), “Risk and Resilience of Bridges: Toward Development of Hazard-Based Assessment Framework, Research Needs, and Benefits of Accelerated Construction,” FIU, \$65,019. (Feb. 1, 2021 – Feb. 28, 2022).
  152. Zaman, M., (PI, 90% credit), Ali, S. A., (Co-PI, 10% credit), “Development of an Interactive Database for Soil for Design of New Pavements and Rehabilitation of Existing Pavements in Oklahoma,” ODOT, \$75,000. (January 22, 2021 - December 31, 2021).

151. Zaman, M., (PI, 100% credit), "OU Task Order Contract Administrative Support - FY2021," Sponsored by State of Oklahoma, Department of Transportation, State, \$40,000. (October 1, 2020 - December 31, 2021).
150. Zaman, M., (PI, 90% credit), Syed Ashik, A., (Co-PI, 10% credit), "I-35/SH-7 Subsurface Investigation," Oklahoma Department of Transportation, State, \$75,000. (October 1, 2020 - November 30, 2021).
149. Hobson, K., (PI, 0% credit), Zaman, M., (Co-PI, 90% credit), Ali, S. A., (Co-PI, 10% credit), "Evaluation of High-Performance Thin Overlays for Extended Pavement Life," Sponsored by ODOT, \$75,000. (April 5, 2021 - September 30, 2021).
148. Molina, M., (PI, 50% credit), Zaman, M., (Co-PI, 50% credit), "Workforce Development: Performance Metrics and Processes and Procedures Improvement," Sponsored by ODOT, \$75,000. (March 30, 2021 - September 30, 2021).
147. Molina, M., (PI, 50% credit), Zaman, M., (Co-PI, 50% credit), "Further Implementation of ODOT Knowledge Management Framework," Sponsored by State of Oklahoma, Department of Transportation, State, \$75,000. (October 1, 2020 - September 30, 2021).
146. Zaman, M., (PI, 90% credit), Syed Ashik, A., (Co-PI, 10% credit), "I-35/SH-7 Subsurface Investigation," Sponsored by State of Oklahoma, Department of Transportation, State, \$75,000. (October 1, 2020 - September 30, 2021).
145. Zaman, M., (PI, 50% credit), Barnes, R., (Co-PI, 25% credit), Miller, G., (Co-PI, 25% credit), "Matching Support for The Southern Plains Transportation Center," Sponsored by State of Oklahoma, Department of Transportation, State, \$3,392,485. (October 1, 2013 - September 30, 2021).
144. Zaman, M., (PI, 100% credit), "OU Task Order Contract Administrative Support - FY2020," Sponsored by State of Oklahoma, Department of Transportation, State, \$39,999. (July 1, 2020 - June 30, 2021).
143. Zaman, M., (PI, 100% credit), Syed Ashik, A., (Co-PI, 10% credit), "Repair Evaluations of Depressed Transverse Cracks in Asphalt Pavements in Division 6," Sponsored by State of Oklahoma, Department of Transportation, State, \$75,000. (March 1, 2020 - May 31, 2021).
142. Zaman, M., (PI, 90% credit), Syed Ashik, A., (Co-PI, 10% credit), "Workforce Development and Tech Transfer," Sponsored by Florida International University, University, \$25,398. (January 18, 2018 - March 31, 2021).
141. Zaman, M., (PI, 90% credit), Ali, S. A., (Co-PI, 10% credit), "Implementation of Innovative Technologies for Improved Performance and Service Life of Asphalt Pavements," Sponsored by State of Oklahoma, Center for the Advancement of Science and Technology, State, \$59,770. (March 1, 2019 - January 13, 2021).
140. Molina, M., (PI, 100% credit), Zaman, M., (Co-PI, 50% credit), "Implementation of Knowledge Management Framework," Sponsored by State of Oklahoma, Department of Transportation, State, \$75,000. (October 28, 2019 - September 30, 2020).
139. Zaman, M., (PI, 90% credit), Kenneth, H., (Co-PI, 0% credit), Syed Ashik, A., (Co-PI, 10% credit), "Investigation of Pavement Distresses in Logan County on SH-74," Sponsored by State of Oklahoma, Department of Transportation, State, \$72,001. (October 1, 2019 - September 30, 2020).
138. Zaman, M., (PI, 90% credit), Kenneth, H., (Co-PI, 0% credit), Syed Ashik, A., (Co-PI, 10% credit), "Forensic Investigation of Pavement Distresses on US-412 in Noble County," Sponsored by State of Oklahoma, Department of Transportation, State, \$70,150. (October 1, 2019 - September 30, 2020).
137. Zaman, M., (PI, 90% credit), Syed Ashik, A., (Co-PI, 10% credit), "Durability of Recycled Aggregate for Use in Aggregate Base Construction," Sponsored by State of Oklahoma, Department of Transportation, State, \$75,000. (October 1, 2019 - September 30, 2020).

136. Zaman, M., (PI, 100% credit), "OU Task Order Contract Administrative Support," Sponsored by State of Oklahoma, Department of Transportation, State, \$40,000. (June 1, 2019 - September 30, 2020).
135. Zaman, M., (PI, 100% credit), "OCAST Internship (with ROCA Engineering, INC.) Improved Relationships between Properties of High Strength Concrete for Better Quality Control and Forensic Investigations," Sponsored by State of Oklahoma, Center for the Advancement of Science and Technology, State, \$72,964. (September 1, 2018 - August 31, 2020).
134. Zaman, M., (PI, 90% credit), Ali, S. A., (Co-PI, 10% credit), "Extraction, Recovery and PG Grading of AC Binder from Provided HMA/WMA," Sponsored by State of Oklahoma, Department of Transportation, State, \$30,000. (September 1, 2019 - June 30, 2020).
133. "OU Task Order Contract Administrative Support" (PI). Funded by Oklahoma, Department of Transportation, \$40,000 (Oct. 2018-Sept. 2019).
132. Zaman, M., (PI, 32% credit), Muraleetharan, K., (Co-PI, 32% credit), Harvey, P. S., (Co-PI, 36% credit), "Accelerated Bridge Construction – University Transportation Center (ABC-UTC)," Florida International University, University, \$118,000. (10/1/16-9/30/19).
131. "Premature Pavement Distress or Subgrade Failures Due to Unknown Factors In the Early Stages of Design Life Expectations on SH3E/SH99" (PI). Funded by Oklahoma, Department of Transportation, \$64,998 (Sept. 2018-March 2019).
130. "Establishment of ODOT Knowledge Management Implementation Framework" (Co-PI with Molina). Funded by Oklahoma, Department of Transportation, \$70,000 (Oct. 2018-Sept. 2019).
129. "Forensic Investigation - Depressed Transverse Asphalt Pavement Cracking in Division 6," Funded by Oklahoma Department of Transportation, \$69,996 (Oct. 2018-Sept. 2019).
128. "Investigation of Asphalt Pavement Distress, SH-7, Garvin Co" (PI; Co-PI: Ali). Funded by Oklahoma, Department of Transportation, \$70,000 (Oct. 2018-Sept. 2019).
127. "Management of the Oklahoma Transportation Library: FFY2019" (PI; Co-PI: Pittenger). Funded by Oklahoma, Department of Transportation, \$169,761 (Oct. 2018-Sept. 2019).
126. Zaman, M., (PI, 90% credit), Ali, S. A., (Co-PI, 10% credit), "Investigation of Asphalt Pavement Distress, SH-7, Garvin Co," ODOT, \$70,000. (December 1, 2018 - September 30, 2019).
125. Zaman, M., (PI, 100% credit), "OCAST Internship (with ROCA Engineering, INC.) Improved Relationships between Properties of High Strength Concrete for Better Quality Control and Forensic Investigations," OCAST, \$72,964. (September 1, 2018 - August 31, 2020).
124. "Development of ABC-UTC Non-Proprietary UHPC Mix" (Co-PI with Floyd). Funded by Florida International University, \$99,999 (Feb. 2019 – Feb 2020).
123. Improved Relationships between Properties of High Strength Concrete for Better Quality Control and Forensic Investigations" (PI). Internship funded by OCAST, \$72,964 (Oct. 2018-Sept. 2020).
122. Zaman, M., (PI, 50% credit), Barnes, R., (Co-PI, 25% credit), Miller, G., (Co-PI, 25% credit), "Southern Plains Transportation Center (SPTC)," U.S. Department of Transportation, Research and Innovative Technology Admin, \$7,717,600. (10/1/13 – 9/30/19).
121. "Implementation of Innovative Technologies for Improved Performance and Service Life of Asphalt Pavements" (PI; Co-PI: Ali). Internship funded by OCAST, \$125,570 (March 2019 – Feb. 2021).
120. "Year 2 Support for the SPTC 15.2 Projects" (PI; Co-PIs: Miller, Barnes)). Funded by Oklahoma Department of Transportation, State, \$391,981. (April 2017 - September 2018).
119. "Intelligent Compaction Data Analyzing" (PI). Funded by Oklahoma, Department of Transportation, \$16,818 (July – Sept., 2018).
118. "Management of the ODOT Transportation Library - FY 18" (PI; Co-PI; Pittenger). Funded by Oklahoma Department of Transportation, \$169,740. (October 2017 - September 30, 2018).



117. "Accelerated Bridge Construction - University Transportation Center (ABC-UTC)" (PI; Co-PI: Muraleetharan). Funded by Florida International University \$120,000. (October 2016 – September 2017).
116. "Development of Statewide WIM Data Quality Control and Axle Load Spectra and Traffic Volume Adjustment Factors for Oklahoma" (PI). Funded by Oklahoma State University/SPTC. \$69,315. (May 2016 – May 2019\$70,0).
115. "Management of the Oklahoma Transportation Library: FFY2017" (PI; Co-PI: Pittenger). Funded by Oklahoma, Department of Transportation, \$169,745. (October 1, 2016 - September 30, 2017).
114. Southern Plains Regional Transportation Center (SPRTC): Year 3." (PI; Co-PIs: Miller and Barnes). Funded by OST-R, USDOT (total fund \$2,554,400). Oct. 2015 – Sept. 2018.
113. "Matching Funds for Southern Plains Transportation Center: Year 3." (PI; Co-PIs: Miller and Barnes). Funded by ODOT (total fund \$1,000,168). Oct. 2015 – Sept. 2018.
112. "Recommended Fatigue Test for Oklahoma Department of Transportation." (PI; Co-PI: Commuri and Barman). Funded by ODOT (extension with new funds, total fund \$74,820). Oct. 2013 – Sept. 2016.
111. "Management of the ODOT Library: FFY2016." (PI; Co-PI: Pittenger). Funded by ODOT. (total fund \$178,693). Oct. 2015 – Sept. 2016.
110. "Development of Guidelines for Selection of and Evaluation of Tack Coats in Oklahoma." (Co-PI; PI: Ghabchi). Funded by ODOT (total fund \$166,319). Oct. 2015 – Sept. 2017.
109. "Development of Aggregate Characteristics-Based Preventative Maintenance Treatments using 3D Laser Imaging and Aggregate Imaging Technology for Optimized Skid." (Co-PI; PI: Pittenger). Funded by ODOT with OSU as lead (total fund \$84,701). Oct. 2015 – Sept. 2017.
108. "Use of Ground Tire Rubber in Asphalt Pavements: Literature Review and DOT Survey." (Co-PI; PI: Ghabchi). Funded by ODEQ (total fund \$18,496). Nov. 2015 – May 2016.
107. "Special Provisions for Intelligent Compaction of Stabilized Soil Subgrades." (Co-PI; PI: Commuri, Barman). Funded by SPTC (total funds \$162,045). Oct. 2014 – Sept. 2016.
106. "Performance of Asphalt Binders Modified with Polyphosphoric Acid (PPA)." (PI; Co-PI: Ghabchi). Funded by ODOT/SPTC (total funds \$162,045). Oct. 2014 – Sept. 2016.
105. "Matching Funds for Southern Plains Transportation Center: Year 2." (PI; Co-PIs: Miller and Barnes). Funded by ODOT (total fund \$1,000,168). Oct. 2014 – Sept. 2017.
104. "Southern Plains Transportation Center (SPTC): Year 2" (PI; Co-PIs: Miller and Barnes). Funded by OST-R, USDOT (total fund \$2,581,600). Oct. 2014 – Sept. 2017.
103. "Field Performance Monitoring and Modeling of Instrumented Pavement on I-35 in McClain County: Phase II." (PI; Co-PI: Singh). Funded by ODOT (total funds \$91,432). Oct. 2012 – Dec. 2014.
102. "Fatigue Performance of Asphalt Pavements Containing RAS and RAP." (PI; Co-PI: Boeck and Singh). Funded by ODOT (total funds \$217,253). Oct. 2012 – Dec. 2014.
101. "Evaluation of Performance of Asphalt Pavements Constructed Using Intelligent Compaction Technologies." (Co-PI; PI: Commuri). Funded by ODOT (total funds \$219,417). Oct. 2012 – Sept. 2014.
100. "Creep Compliance and Percent Recovery of Oklahoma Certified Binders Using the Multiple Stress Creep Recovery (MSCR) Method." (PI; Co-PI: Hossain). Funded by ODOT (total funds \$203,871). Oct. 2012 – Dec. 2014.
99. "Matching Funds for Southern Plains Transportation Center," Funded by ODOT; PI (50%); \$1,000,168; with G. Miller and R. Barnes; Oct. 2013 – Sept. 2017.
98. "Southern Plains Regional Transportation Center (SPRTC)," Funded by OST-R, US Dept. of Transp., PI (50%) \$2,592,500; with G. Miller, R. Barnes; Oct. 2013 – Sept. 2017.

97. "Technology Transfer Support for Intelligent Compaction of Pavements – FY 2014." (Co-PI; PI: Commuri, Braman). Funded by Volvo Road Machinery (total funds \$119,960). Jan. 2014 – Dec. 2014.
96. "Evaluate Densifier-Over-Shotblasting (DOS) Treatment Performance for Pavements and Bridge Decks." (Co-PI; PI: Pittenger). Funded by ODOT (total funds \$217,929). Oct. 2013 – Sept. 2015.
95. "Management of the ODOT Library." (PI). Funded by ODOT (total fund \$149,803). Oct. 2014 – Sept. 2015.
94. "Management of the ODOT Library." (PI). Funded by ODOT (total funds \$74,984). Apr. 2014 – Sept. 2014.
93. "Recommended Fatigue Test for Oklahoma Department of Transportation." (PI; Co-PI: Commuri and Singh). Funded by ODOT (total funds \$458,527). Oct. 2012 – Sept. 2015.
92. "Matching Funds for Southern Plains Transportation Center: Year 1." (PI; Co-PIs: Miller and Barnes). Funded by ODOT (total fund \$1,000,168). Oct. 2013 – Sept. 2017.
91. "Southern Plains Transportation Center (SPTC): Year 1" (PI; Co-PIs: Miller and Barnes). Funded by OST-R, USDOT (total fund \$2,592,500). Oct. 2013 – Sept. 2017.
90. "Intelligent Compaction of Soil Subgrades and Asphalt Pavements" (Co-PI; PI: Commuri). Funded by Volvo Road Machinery (total fund \$119,993). Jan. 2012 – Dec. 2012).
89. "Evaluation of Enhanced Integrated Climatic Model for Oklahoma Pavements" (Co-PI; PI: Bulut and Muraleetharan). Funded by Oklahoma Transportation Center (total fund \$40,000). Oct. 2011 – Sept. 2013.
88. "Evaluation of Asphalt Pavements using a Portable Lightweight Deflectometer" (Co-PI; PI: Commuri). Funded by Oklahoma Transportation Center (total fund \$98,087). Oct. 2011 -June 2013.
87. "Improved Cover Aggregate Specifications to Enhance Chip Seal Performance" (PI; Co-PI: Commuri, Pittenger). Funded by Oklahoma Transportation Center (total fund \$139,660). Oct. 2011 – June 2013.
86. "Drying Shrinkage Problems in High PI Subgrade Soils" (Co-PI; PI: Bulut). Funded by Oklahoma Transportation Center (total funds: \$60,000). Oct. 2011 – Sept. 2013.
85. "New Asphalt Mix Design Program for ODOT" (Co-PI; PI: Commuri). Funded by ODOT (total fund \$89,995). Oct. 2011 – Sept. 2012.
84. "Develop Draft Chip Seal Cover Aggregate Specifications Based on Aggregate Imaging System (AIMS) Angularity, Shape and Texture Test Results" (PI; Co-PI: Commuri, Pittenger). Funded by ODOT (total funds \$131,380). Jan. 2011-Sept. 2013.
83. "OkTC Web Site, Electronic Warehouse and Networking" (PI). Funded by Oklahoma Transportation Center (total fund \$10,000). Jan – Dec. 2011.
82. "Enhancing Laboratory Facilities in Asphalt Research and Education: Sharing to Gain" (PI; Co-PI: Hatami, Commuri). Funded by Oklahoma Transportation Center (total fund \$333,288). Jan. 2011 – June 2013.
81. "Continuous Real-Time Measurement of Quality During the Compaction of Subgrade Soils." OTC; \$199,946; March 2010 – Feb. 2012 (Co-PI; PI: Commuri).
80. "Implementation of MEPDG for Asphalt Pavements with RAP." OTC; \$245,683; Feb. 2010 – Jan. 2012 (PI; Co-PI: Solanki, Hossain, Laguros).
79. "WMA Pavements in Oklahoma: Moisture Damage and Performance Issues." OTC/OSU; \$190,265; Feb. 2010 – March 2012; (PI; Co-PI: O'Rear).
78. "OTC Workshops and Seminars," Oklahoma Transportation Center (OTC-H2RO(0010 22013(04)), March 2010 – Dec. 2011; \$64,312; (PI; Co-PI: Court).
77. "ODOT Guidelines for Geosynthetic Reinforcement in Aggregate Base Roadways in Oklahoma," OTC; Aug. 2009 – July 2011; \$194,304; (Co-PI; PI: Hatami).

76. "Development of ODOT Guidelines for Use of Geogrids in Aggregate Bases," ODOT, Oct. 2009 – Sept. 2011; \$189,638; (Co-PI; PI: Hatami).
75. "Analysis of Aggregates and Binders Used for the ODOT Chip Seal Program," ODOT, Oct. 2009 – Sept. 2010; \$111,084; (Co-PI; PI: Gransberg).
74. "Quantifying the Costs and Benefits of Pavement Retexturing as a Pavement Preservation Tool," OTC, Aug. 2009 – July 2011; \$118,602; (Co-PI; PI: Gransberg).
73. "Intelligent Asphalt Compaction Analyzer" (Co-PI; PI: S. Commuri, Haskell Lemon and EST). Funded by Highways for Life, FHWA (total fund \$200,000). May 2007 – Dec. 2009.
72. "Continuous Real-time Measurement of Pavement Quality during Construction" (Co-PI; PI: S. Commuri). Funded by Volvo Road Machinery (total fund \$140,393). Jan. – Dec. 2009.
71. "Modeling 85th Percentile Speed for Rural Highways for Enhanced Traffic Safety" (PI; Co-PI: L. White). Funded by ODOT (total fund \$96,192). Oct. 2008 – Sept. 2010.
70. "Development of Flexible Pavement Database for Local Calibration of MEPDG" (PI). Funded by ODOT (total fund \$80,325). Oct. 2008 – Sept. 2010.
69. "Tube Suction Test for Evaluating Durability of Cementitously Stabilized Soils" (PI; Co-PI: Solanki). Funded jointly by ODOT and OTC (total fund \$194,393). Oct. 2008 – Sept. 2010.
68. "OTC Summer Internship" (PI). Funded by OTC (total fund \$74,994). June 2008 – May 2011.
67. "Quantifying the Costs and Benefits of Pavement Retexturing as a Pavement Preservation Tool" (Co-PI; PI: D. Gransberg). Funded by Oklahoma Transp. Center (total fund \$195,501). May 2008 – Apr. 2010.
66. "Continuous Real-Time Measurement of Compaction Quality During the Construction of Asphalt Pavement" (Co-PI; PI: S. Commuri). Funded by OTC (Total fund \$99,893). Jan. – Dec. 2009.
65. "Wireless Sensor Packaging for Monitoring Airport Runways and Highway Bridges" (Co-PI with J. Pei (PI) and T. Ibrahim (Co-PI)). Funded by OCAST (total fund \$300,000). Dec. 2007 – Nov. 2011.
64. "Intelligent Asphalt Compaction Analyzer – Proposal for Refinement and Development of a Commercial Prototype" (Co-PI; PI: S. Commuri). Funded by Volvo Road Machinery (total fund \$190,782). June 2007 – Aug. 2009.
63. "OTC Work Program for the Remaining FY04 OTC Appropriation Funds Through FHWA" (PI; Co-PI: M. Court, J. Pei, C. Ramseyer and others). Funded by FHWA (total fund \$797,035). Jan. – Dec., 2008.
62. "OTC Work Program for FY05 OTC Appropriation Through FHWA: Turner-Fairbank Highway Research Center" (PI; Co-PIs: P. Pulat, K.D. Mish and others). Funded by T-FHRC, FHWA (total fund \$1.155M). Sept. 2006 – Mar. 2009.
61. "Field Correlation of PQI Gauge with Nuclear Density Gauge: Phase I" (PI; Co-PI: S. Commuri). Funded by Okla. Dept. of Transp. (total fund \$20,000). June – Sept. 2006.
60. "Field Performance Monitoring and Modeling of Instrumented Pavement on I-35 in McLain Co" (PI; Co-PI: K. Muraleetharan). Funded by Okla. Dept. of Transportation (total fund \$287,961). Oct. 2006 – Sept. 2011.
59. "OTC FY04 Federal Highway Earmark Projects for OSU and LU" (PI; Co-PI: T. Landers). Funded by Oklahoma Transportation Center (total fund \$534,630). Feb. 2006 – Dec. 2008.
58. "Public Perception of Noise Barriers in Oklahoma (Phase: I)" (Co-PI; PI: M. Nanny). Funded by Oklahoma Transportation Center (total fund \$67,500). Mar. 2005 – Aug. 2007.
57. "Permeability and Resilient Modulus of Different Aggregate Bases Commonly Used in Oklahoma" (Co-PI; PI: N. Khoury). Funded by Okla. Transp. Center (total fund \$58,000). Mar. 2005 – Oct. 2006.
56. "Effect of Anti-Stripping Additives on Performance-Graded Binders in Oklahoma" (PI; Co-PI: J.G. Laguros). Funded by Oklahoma Transportation Center (total fund \$68,672). Mar. 2005 – Mar. 2006.

55. "Engineering Properties of Stabilized Subgrade Soils for Implementation of the AASHTO 2002 Pavement Design Guide" (PI; Co-PI: N. Khoury). Funded by Oklahoma Dept. of Transportation (total fund \$296,152). Oct. 2005 – Sept. 2008.
54. "National Public Transportation Analysis" (Co-PI with Court (PI), Landers and others). Funded by Federal Transit Administration (total fund \$1,5M). Sept. 2004 – Aug. 2007.
53. "Maximum Chat Utilization – Test Road" (PI; Co-PIs: R. Nairn, G.A. Miller and K. Strevett). Funded by DoD-Corps of Engineers (total fund \$500K). May 2004 – Dec. 2007.
52. "Doctoral Fellowships in Sustainable Technologies for Civil and Environmental Systems" (Co-PI with R. Kolar (PI) and others). Funded by U.S. Dept. of Education (total fund \$793,344). Sept. 2003 – Aug. 2006.
51. "Research Experience for Undergraduates in Geoenvironmental Systems" (Co-PI with R. Kolar (PI) and others). Funded by National Science Foundation REU (total fund \$542,318). Mar. 2000 – Feb. 2005.
50. "Resilient Modulus and Other Geotechnical Testing of Subgrade Soils" (PI). Funded by Burgess Engineering and Testing, OKC (total fund \$6,396). Jan. 2003 – May 2004.
49. "Evaluation of Surface Free Energy Characteristics of Aggregate and Binders in HMA: Phase II" (PI). Funded by Oklahoma Transportation Center (total fund \$87,541). Oct. 2003 – Sept. 2004.
48. "Evaluation of Surface Free Energy Characteristics of Aggregate and Binders in HMA: Phase I" (PI). Funded by Oklahoma Transportation Center (total amount \$40,980). Jan. – Sept. 2003.
47. "Effect of Suction and Moisture on RM of Subgrade Soils in Oklahoma" (PI; Co-PI: G.A. Miller). Funded by Oklahoma Dept. of Transportation (total fund \$105,242). Oct. 2003 – Sept. 2005.
46. "Intelligent Asphalt Compaction Analyzer" (Co-PI; PI; S. Commuri). Funded by OCAST (total fund \$594,279, including match). Sept. 2003 – Aug. 2006.
45. "Evaluation of Surface Free Energy Characteristics of Aggregates and Binders in Hot Mix Asphalt: Phase I" (PI; C-PI: N. Wasiuddin). Funded by Oklahoma Transp. Center (total fund \$8,900). May – Sept. 2002.
44. "An Alternate Method for the Determination of Asphalt Content" (PI; Co-PIs: R.A. Tarefder and Y. Abousleiman). Funded by Oklahoma Transportation Center (total fund \$59,117). May – Sept. 2002.
43. "A Lab.Study to Optimize the Use of Raw Chat in Hot Mix Asphalt for Pavement Application" (PI; Co-PI: R. Nairn). Funded by Oklahoma Department of Environmental Quality (total fund \$200,000). Sept. 2002 – August 2004.
42. "Resilient Modulus and Density Gradient Analysis of Selected Asphalt Mixes" (PI). Funded by Oklahoma Dept. of Transportation and Federal Highway Administration (total fund \$153,044). Oct. 2001 – Sept. 2003.
41. "Rock Mechanics Institute Consortium: Phase III" (Co-PI; PI: Y. Abousleiman). Funded by Industry (total fund \$600,000, Year 3). Jan. – Dec. 2001.
40. "Acquisition and Development of Equipment for Unsaturated Soil Research" (Co-PI with G.A. Miller (PI) and K. Muraleetharan (Co-PI)). Funded by National Science Foundation (MRI Prog.) (Total fund \$368,778). July 2000 – June 2002.
39. "Acoustic Imaging and Mechanical Properties of Soft Rocks and Marine Sediments" (Co-PI with T. Scott (PI) and Y. Abousleiman (Co-PI)). Funded by U.S. Dept. of Energy (total fund \$366,718). Jan. 2001 – Dec. 2002.
38. "Integrated, Scalable MBS for Flow Through Porous Media" (Co-PI with D. Papavassiliou (PI) and H. Neeman (Co-PI)). Funded by National Science Foundation (total fund \$150,071). Sept. 2000 – Feb. 2002.
37. "High Performance Pavement Using Recycled Materials" (PI). Funded by OCAST (total fund \$115,000). Mar. 2000 – May 2003.

36. "Ray C. Broce Materials Laboratory" (Asphalt) (PI; Co-PIs: A.R. Kukreti and G.A. Miller). Funded by Broce Construction Co. (total fund \$140,000 including \$40,000 matching from VPRA). Aug. 1998 – Sept. 2000.
35. "Evaluation of Rutting Potential of Selected Mixes Using an Asphalt Pavement Analyzer" (PI). Funded by Oklahoma Dept. of Transportation. (total fund \$174,127 including \$40,000 matching from VPRA and \$30,000 matching from OAPA). Oct. 1999 – Sept. 2000.
34. "Settlement of Compacted Fill Embankments" (PI; Co-PI: G.A. Miller and K. Muraleetharan). Funded by Oklahoma Dept. of Transportation. (total fund \$80,944). April 1999 – March 2001.
33. "Durability of Chemically Stabilized Aggregate Bases" (PI; Co-PI: G.A. Miller). Funded by Oklahoma Dept. of Transportation. (total fund \$140,554). May 1999 – July 2001.
32. "Pavement Management Data Analysis" (PI). Funded by Oklahoma Dept. of Transportation. (total fund \$14,626). May 1999 – Jan. 2000.
31. "Technology Transfer Workshops" (PI; Co-PIs: M. Kanj, T. Scott and J.-C. Roegiers). Funded by OCAST. (total fund \$20,000). Sept. 1999 – Aug. 2000.
30. "Sooner City – Design Across the Curriculum" (Co-PI; A.R. Kukreti (PI), Kolar, Bush, Muraleetharan, Sabatini, Miller and others). Funded by National Science Foundation. (total fund \$750,000). Sept. 1998 – Aug. 2001.
29. "International Workshop on Sea Level Rise and Coastal Management" (PI). Funded by National Science Foundation. (total fund \$14,700). Feb. 1999 – Jan. 2000.
28. "Chemicals in the Environment – Doctoral Fellowships in Environmental Engineering" (Co-PI with R.C. Knox (PI), Canter, Kolar, Kukreti, Nairn, Strevett, Sabatini, Vieux and others). Funded by U.S. Dept. of Education. (total fund \$751,530). Aug. 1998 – July 2002.
27. "Mix Design Using Asphalt Millings" (PI; Co-PIs: A.R. Kukreti and G.A. Miller). Funded by Oklahoma Dept. of Transportation. (total fund \$77,655). Aug. 1998 – Sept. 2000.
26. "Automated Triaxial Test System for Unsaturated Soils" (Co-PI with K. Muraleetharan (PI), M.A. Mooney (Co-PI) and G.A. Miller (CoPI). Funded by OU Research Council (total fund \$51, 900). Sept.-Dec.1997.
25. "Laboratory and Field Evaluation of Soil Stabilization Using Cement Kiln Dust" (PI; Co-PI: G. Miller). Funded by Oklahoma Department of Transportation (total fund \$44,091). Oct. 1997-Sept. 1998.
24. "Use of Asphalt Millings for Subbase" Funded by Oklahoma Dept. Of Transportation (total fund \$12,938) (PI). Sept. 1, 1997 – Jan. 31, 1998.
23. "Improving Concrete Performance Through the Use of Blast Furnace Slag" (Co-PI with T. Bush (PI) and B. Russell (Co-PI)). Funded by Oklahoma Dept. of Transp. (total fund \$98,737). Jan. 1997 - December 1998.
22. "Laboratory Investigation of Soft Railroad Subgrade Failure Under Repeated Load Applications" (Co-PI; PI; G.A. Miller). Funded by Assoc. of American Railroad (total fund \$19,910). Jan. - June 1997.
21. "Impact of Loaded Trucks on Transportation Infrastructure Deterioration" (PI; Co-PI: M.A. Mooney). Funded by Oklahoma Dept. of Transportation (total fund \$10,364). Oct. 1996 - Jan. 1997.
20. "Groundwater Sensitivity Analysis for Potential Pollution Sources" (P.I.: M. Zaman; Co-P.I.s: A.R. Kukreti and K. Strevett). Funded by EPA (total fund \$253,038, including \$25,000 equipment match by OU). Oct. 1996 - Sept. 1999.
19. "Modeling the 85th Percentile Speed on Oklahoma Two-Lane Rural Highways: A Neural Net Approach" (PI; Co-PI: K. Muraleetharan) (total fund \$39,787). Funded by Oklahoma Department of Transportation, Jan. 1997 - June. 1998.
18. "Testing Screen for Sieving of Coarse and Fine Aggregates" (PI; Co-PI: J.G. Laguros). Funded by OU Research Council (total fund \$4,850). June - July, 1995.

17. "Nonlinear Analysis of Coupled Fluid/Rock Interaction" (Co-PI with Y. Abousleiman (PI), J.-C. Roegiers (Co-PI), G. Scott (Co-PI)). Funded by OCAST (total fund \$373,234). July 1995 - June 1998.
16. "Experimental Study of the Effects of Reinforcing Steel Arrangement in CRCP" (PI; Co-PI: G.A. Miller). Funded by Concrete Reinforcing Steel Institute (total fund (\$30,000). Feb. 1995 - Jan. 1996.
15. "Field Evaluation of Drainable Bases in Oklahoma" (PI; Co-PIs: K. Muraleetharan, J.G. Laguros). Funded by ODOT (total fund \$53,959). Jan. - Sept. 1995.
14. "Resilient Moduli of Raw and Stabilized Aggregate Bases and Evaluation of Layer Coefficients for AASHTO Flexible Pavement Design" (PI; Co-P.I.: J.G. Laguros). Funded by ODOT and FHWA (total fund \$274,053). Oct. 1994 - Dec. 1997.
13. "Cooling Properties of Asphalt Surfaces" (PI; Co-PI: J.G. Laguros). Funded by ODOT and FHWA (total fund \$7,410). Sept. - Dec. 1994.
12. "Demonstration of Engineering Mechanics: Physical and Computer Models as Teaching Tools" (Co-PI; PI: B. Russell). OU Instructional Improvement Award (total fund \$6,800). July 1994 - July 1995.
11. "Rock Mechanics Research Center: (Co-PI; with J.-C. Roegiers (PI) and D.W. Stearns (Co-PI)). Funded by NSF and OCAST (total fund NSF \$2.4M; OCAST \$2.4M; over \$2.4 M in industry matching). Sept. 1992 - Aug. 2000.
10. "Sample Preparation Equipment for Resilient Modulus Testing of Soils" (PI; Co-PI: J.G. Laguros). Funded by OU Research Council (total fund \$2,225; excluding matching). June - Dec. 1992.
9. "Effect of fluid Hydraulics on Petroleum Rock Behavior" (with A.R. Kukreti (PI) and F. Civan). Funded by OCAST (total fund \$115,241). Aug. 1992 - July 1995.
8. "Resilient Moduli of Select Aggregate Bases and Their Correlations with Other Engineering Properties" (PI; Co-P.I.: J.G. Laguros). Funded by Oklahoma Dept. of Transportation (ODOT) and Federal Highway Administration (FHWA) (total fund \$60,000). July 1991 - Sept. 1993.
7. "Laboratory and Field Testing to Characterize Bridge Approach Settlements at Selected Sites and Development of Settlement Evaluation Methodology for Predominantly Clay Sites" (PI; Co-PI: J.G. Laguros). Funded by Oklahoma Dept. of Transportation (ODOT) and Federal Highway Administration (FHWA), (total fund \$181,598). July 1991 - Sept. 1995.
6. "Resilient Moduli of Soils for Improved Pavement Design" (PI; Co-PI: J.G. Laguros). Funded by OCAST (total fund \$97,095). Dec. 1991 - Nov. 1994.
5. "Expert Systems for Reservoir Completion and Stimulation" (Co-PI; PI: J.C. Roegiers). Funded by OCAST and Rock Mechanics Consortium (RMC) (total fund \$245,402, excluding matching). Dec. 1991 - Jan. 1995.
4. "U.S.-Canada Workshop on Recent Accomplishments and Future Trends in Geomechanics in the 21st Century" (PI; Co-PIs: C.S. Desai and A.P.S. Selvadurai). Funded by the National Science Foundation (\$44,200). July 1, 1991 - Jan. 31, 1994.
3. "Study of Pore Collapse Problems in Oil Reservoir Rocks" (Principal Investigator; Co-P.I. - J.C. Roegiers). Funded by the Oklahoma Center for the Advancement of Science and Technology (OCAST) and Rock Mechanics Consortium (RMC), (total fund \$199,404, excluding cost-sharing). July 1990 - June 1993.
2. "Assessment of Current Resilient Modulus Testing Methods and Their Application to Design of Pavements". (PI; Co-PI: J.G. Laguros) Funded by the Oklahoma Dept. of Transportation (ODOT) and Federal Highway Administration (FHWA) (total fund \$7,500). July 1 - Dec. 30, 1990.
1. "Constitutive Modeling of Geological Formations Considering Porosity and Permeability Alterations Due to Fluid Withdrawal" (PI; Co-PI: A.R. Kukreti and F. Civan). Funded by the Oklahoma Mining and Mineral Resources Institute (total fund \$50,864, including cost-sharing). July 1, 1990 - June 30, 1991.

0. "Evaluation of Dynamic Response of Offshore Drilling Platforms and Soil Liquefaction Due to Arctic Loading" (PI). Funded by Univ. of Okla. Research Council (total fund \$6,361). March 1990 - Dec. 1990.
- 1. "Experimental Study of Pore Collapse Mechanisms in Porous Rock." (PI; Co-PI: M.O. Faruque). Funded by Energy Center, Univ. of Oklahoma (total fund \$6,000). Sept. 1989 - Aug. 1990.
- 2. "Underground Storage Tank Assessment Methodology" (Co-PI, PI: D. Sabatini). Funded by SEARCH, Inc. (total fund \$16,529). Aug. 1989 - Jan. 1990.
- 3. "Procurement of Software for CE 1111: Handheld Computers and ENGR 1112: Introduction to Engineering" (PI; Co-PIs: J.G. Laguros and B.J. Wallace) Funded by OU Inst. Support Program (total fund \$4,735 including cost-sharing). October 1988 to March 1989.
- 4. "Evaluation of Properties of Rocks and Characterization of Mine Collapse in the Picher Field Mining District, Oklahoma" (PI; Co-P.I. J.L. Ahern). Funded by Oklahoma Mining and Mineral Resources Research Institute (OMMRRI) (total fund \$39,469 - including cost-sharing). July 1, 1988 - June 30, 1989.
- 5. "Evaluation of Causes of Excessive Settlements of Pavements Behind Bridge Abutments and Their Remedies: Phase III" (Co-PI; PI: J.G. Laguros). Funded by Oklahoma Dept. of Transportation (ODOT) and Federal Highway Administration (FHWA) (total fund for Phase III \$258,619), Dec. 1988 to May 1991.
- 6. "A Laboratory Model for Simulation of Transient Phreatic Surface Seepage Through Earth Dams" (PI; Co-PI: J.G. Laguros). Funded (total fund = \$3,740 including CEES and CoE cost-sharing) by OU Instructional Support Funds, Dec. 1987 to June 1988.
- 7. "Engineering Research Equipment Grant: A High Capacity (30,000 psig) Cubical Device." (PI; Co-PI: A.R. Kukreti). Matching funds for NSF from Okla. Dept. of Com. (total fund \$31,469), Jan. to Dec. 1988.
- 8. "A Cyclic Triaxial Device for Simulation of Soil Liquefaction." (PI) Funded by the OU Associates Fund, University of Oklahoma (total fund \$20,000, including cost sharing). Jan. 1 to June 30, 1988.
- 9. "Evaluation of Causes of Excessive Settlements of Pavements Behind Bridge Abutments and Their Remedies: Phase II." (Co-PI; PI: J.G. Laguros). Funded by Oklahoma Department of Transportation (ODOT) and FHWA (total fund for Phase II \$114,584), March 1987 to May 1989.
- 10. "Engineering Research Equipment Grant: A High Capacity (30,000 psig) Cubical Device". (PI; Co-PI: A.R. Kukreti). Funded by National Science Foundation (total fund \$62,939). June 1, 1987 to Nov. 30, 1988. Supplemental funds from NSF \$10,000 (January 1989). Duration: through May 31, 1990.
- 11. "Stability Analysis and Characterization of Ground Subsidence of Abandoned Lead-Zinc Mines in Northeastern Oklahoma". (PI; Co. PI - J.L. Ahern). Funded by Oklahoma Mining and Mineral Resources Research Institute (total fund \$40,200, including cost sharing). July 1, 1987 to Sept. 1, 1988.
- 12. "Development of a New Constitutive Model for Predicting Yielding and Failure Behavior of Rocks Under Three-Dimensional Loading". (PI; Co-PI: A.R. Kukreti). Funded by Energy Resources Institute (ERI) (total fund \$39,106, including CEES and CoE cost sharing), July 1, 1987 to July 31, 1988.
- 13. "Development of Constitutive Relationships for Anisotropic Materials under Three-Dimensional Loadings" (Co-PI; PI: A.R. Kukreti). Funded by the OU Research Council (total fund - \$9,190, including CEES and CoE contributions, for fabrication of a cubical device), April 1986.
- 14. "High Pressure Cubical Device: Deformation Measuring Unit" (Co-PI; PI: A.R. Kukreti). Funded by Energy Resources Institute (ERI) (total fund = \$7,000), March 1986.

- 15. "Development of a Numerical Procedure for Prediction of Ground Subsidence due to Coal Mining" (PI). Funded by the Oklahoma Mining and Mineral Resources Institute, (total fund \$21,043 including CEES and CoE cost sharing). July 1, 1986 to June 30, 1987.
- 16. "Computer Modelling and Simulation of Mining Systems" (PI). Funded by the Oklahoma Mining and Mineral Resources Research Institute, (total fund = \$7,236). July 1, 1985 to June 30, 1986.
- 17. "Evaluation of Causes of Excessive Settlements of Pavements Behind Bridge Abutments and their Remedies: Phase I" (Co-PI; PI; J.G. Laguros). Funded by the Oklahoma Department of Transportation (ODOT) and Federal Highway Administration (FHWA) (total fund = \$12,400). June 1985 to Feb. 1986.
- 18. "Modelling of Earthquake Induced Pore Pressure Buildup and Soil Liquefaction Including Effects of Dynamic Soil-Structure Interaction" (PI). Funded by the University of Oklahoma Research Council, (total fund - \$3,500). June 1 to August 30, 1985.
- 19. "Modelling of Flow of Immiscible Fluids in Heterogeneous, Irregular Shaped Reservoirs for Efficient Oil Recovery" (PI; Co-PIs A.R. Kukreti and F. Civan). Funded by the Energy Resources Institute (ERI), (total fund = \$24,080). July 1, 1984 to June 30, 1985.
- 20. "Procurement of Computer Software for Earthquake Engineering Research". Funded by the University of Oklahoma Research Council (total fund = \$2,207), (Co-PI; PI: L.R.L. Wang), February 1984.
- 21. "Analysis of Potential Environmental Implications Resulting from the Operation of Off-Site Oil and Gas Drilling Fluid Disposal Pits" (Faculty Associate; PI: L.W. Canter). Funded by Oklahoma Corporation Commission (total fund=\$108,922). Sept. 1983 to Apr. 1984.

#### **GRADUATE STUDENT SUPERVISION:**

- 94. Matias Mendez-Larrain (Ph.D. 2023). "Assessment of Pavement Conditions Using Traffic Speed Deflection Data and AI-Based Models."
- 93. Sagar Ghos (expected to graduate 5/24). "Study of Post-Consumer Recycled Plastic in Asphalt Mixes using Dry Process and Balanced Mix Design."
- 92. Jorge Luis Alva Alarcon (expected to graduate 5/24?); Advisor: Jorge Salazar Cerreno (Committee Member).
- 91. Syed A. Ali (Ph.D., 2021). "Moisture-Induced Damage Characterization of Asphalt Mixes: A Chemical, Thermodynamic and Mechanistic Approach."
- 90. Ghos, Sagar (M.S., 2020). "Evaluation of Causes of Transverse and Fatigue Cracking in Flexible Pavements Using Laboratory and Field Testing and PMED Simulation."
- 89. Chaojie Zhao (expected to graduate: 2021). "Mechanism of Casing Deformation During Multi-Fracturing in Shale Gas Wells." Petroleum Engineering, China Univ. of Petroleum, Beijing; OU Period: Nov. 2019 – Oct. 2020.
- 88. M. Ashiqur Rahman (M.S. 2019). "Laboratory Characterization of Foamed WMA Containing RAP."
- 87. Shivani Rani (Ph.D. 2019). "Characterization of Rutting in Asphalt Pavements Using Laboratory Testing."
- 86. Nur Hossain (Ph.D. 2017). "Mechanistic Input Parameters and Model Calibration for Design and Performance Evaluation of Flexible Pavements in Oklahoma."
- 85. Moeen Nazari (Ph.D. 2016). "Laboratory and Field Assessment of Chemically Treated Subgrade Moduli under Compressive and Flexural Loading."
- 84. Syed Ashik Ali (M.S. 2016). "Rheological Properties of Polymer and RAP-Modified Asphalt Binders using Multiple Stress Creep and Recovery Method."
- 83. Liam Cumberpatch (M.S. 2015). "Evaluate Densifier-Over-Shortblasting Pavement Treatment Performance for Oklahoma Limestone Aggregate" (Co-Advisor: Pittenger).



82. Rouzbeh Ghabchi (Ph.D. 2014), "Laboratory Characterization of Recycled and Warm Mix Asphalt for Enhanced Pavement Applications."
81. Debaroti Ghosh (M.S. 2014), "Characterization of Oklahoma Binders Using Multiple Stress Creep Recovery Method."
80. Ali Taghichian (M.S. 2013). "On the Geomechanical Optimization of Hydraulic Fracturing in Unconventional Shale."
79. Dominique Pittenger (Ph.D., 2012). "Stochastic Life Cycle Cost Analysis for Pavement Preservation Treatments," General Engineering (Co-Chair with Dr. Gransberg).
78. David Adje (M.S., 2012). "Effect of Recycled Asphalt Pavement on Mechanistic Performance of Hot Mix Asphalt."
77. Marc Breidy (2011). "Development of a Field-Based Fatigue Transfer Function for Flexible Pavement Section on I-35 in Oklahoma" (Co-Chair with Dr. Muraleetharan).
76. Roy Khalife (M.S., 2011). "Evaluation of Durability of Stabilized Clay Specimens Using Different Laboratory Procedures."
75. Caleb Riemer (Ph.D., 2011). "Quantifying the Costs and Benefits of Pavement Retexturing as a Pavement Preservation Tool" (Co-Chair: Dr. Gransberg).
74. Dharamveer Singh (Ph.D., 2011). "A Laboratory Investigation of Dynamic Modulus of Asphalt Mixes for Pavement Applications."
73. Zahid Hossain (Ph.D., 2011). "Evaluation of Rheological Properties of Asphalt Binders for Pavement Design Applications."
72. Nur Hossain (M.S. 2010). "Observed and Predicted Rut Behavior of an Instrumented Test Section on I-35."
71. Hasan Kazmee (M.S. 2010). "Effect of Gradation on Stiffness and Flow Behavior of Aggregate Bases: A Laboratory & Field Study."
70. Pranshoo Solanki (Ph.D. 2010). "Characterization of Cementitiously Stabilized Subgrades for Mechanistic-Empirical Pavement Design."
69. Ashish Gupta (M.S. 2009). Thesis title – "Effect of Mineral Fillers on Specific Gravity of Fine Aggregates".
68. Kunal Shah (M.S. 2007). Thesis title - "Effects of Gradation and Compaction Energy on the Hydraulic Conductivity of an Aggregate Base Commonly Used in Oklahoma" (Co-Advisor: N. Khoury).
67. Selvaratnam Selvamohan (M.S. 2007). Thesis title - "Effect of Anti-Stripping Additives on Performance Graded Binders in Oklahoma."
66. Nazimuddin Wasiuddin (Ph.D. 2007). Dissertation title - "Effect of Additives on Surface Free Energy Characteristics of Aggregates and Binders in Hot Mix Asphalt."
65. Sinniah K. Navaratnarajah (M.S. 2006). Thesis title - "Performance Characteristics of Selected Asphalt Mixes: A Laboratory and Field Study."
64. Ali Ebrahimi (Ph.D. 2006). Dissertation title - "Regression & Neural Network Modeling of Resilient Mod. Based on Routine Soil Properties & Stress State."
63. High-Ming Lim (M.S. 2005). Project title - Use of MDT for Subsurface Characterization."
62. Rajul V. Teredesai (M.S. 2005). Thesis title - "Stabilization of Pile Run Chat for Roadway Base Application."
61. Roland D. Sisson (M.S. 2005). Thesis title - "Laboratory and Field Study of Partial Depth Cold In-Place Recycling for Pavement Rehabilitation."
60. Naji N. Khoury (Ph.D. 2005). Dissertation title - "Durability of Cementitiously Stabilized Aggregate Bases for Pavement Application."
59. Salima Shamim (M.S. 2004). Project title - "A Comparative Laboratory Study of Hot Mix Asphalt and Warm Asphalt Using Sasobit."

58. Nishad Kolothody (M.S. 2004). Project title - "Superpave Mix Design Methodology for Chat Asphalt."
57. Wamiq Bin Hamid (M.S. 2004). Thesis title - "Use of Raw Chat in Hot Mix Asphalt Employing Superpave Design Methodology."
56. Abu Noman Ahsanuzzaman (Ph.D. 2004). Dissertation title - "Expert System for Evaluation of Nutrient Pollution Potential in Groundwater from Land Application of Manure." (Co-Adv.: K. Strevett).
55. Chadi A. Srour (M.S. 2003). Project title - "Flexural Strength and Resilient Modulus Limestone Aggregate Base Stabilized with Class C Fly Ash."
54. Tobia Elias Kmeid (M.S. 2003). Thesis title - "Experimental Study of Unconsolidated Sand Under High Confining Pressures."
53. Cheong Fung Ting (M.S. 2003). Thesis title - "Laboratory and Field Investigation of Asphalt Millings in Cold-Mixed, Cold-Laid Pavement Rehabilitation."
52. Rafiqul Tarefder (Ph.D. 2003). Dissertation title - "Laboratory and Model Prediction of Rutting in Asphalt Concrete."
51. Rajesh Nair (Ph.D. 2003). Dissertation title - "The Poromechanics of Naturally Fractured Rock Formations: A FEM Approach." (Co-Adv.: Y. Abousleiman).
50. Yanhui Han (M.S. 2001). Thesis Title: "Poroelastic Response of a Hollow Cylinder in a Non-Hydrostatic Stress Field" (Co-Chair; Chair: Y. Abousleiman).
49. Michelle P.-Y. Chin (M.S. 2001). Thesis Title: "Laboratory Testing and Constitutive Modeling of High Performance Concrete (HPC)" (Co-Supervisor: A.R. Kukreti).
48. Naji Najib Khoury (M.S. 2001). Thesis Title - "Effect of Freeze-Thaw and Wet-Dry Cycles on Resilient Modulus of Class C Fly Ash Stabilized Aggregate Base."
47. Emad Alnamasy (M.S. 2001). Thesis title - "Rutting Evaluation of Selected Mixes Using an Asphalt Pavement Analyzer (APA).
46. Ping Tian (Ph.D. degree 1998). Dissertation title - "Evaluation of Resilient Moduli and Layer Coefficients of Aggregate Materials for AASHTO Flexible Pavement Design."
45. Jian-Hua Zhu (Ph.D. 1998). Dissertation title - "Characterization of Cement-Kiln-Dust Stabilized Base/Subbase Aggregate."
44. Marty Ray (M.S. 1997). Project title – "Comparison of MODULUS and ILLI-BACK Microcomputer-Based Systems for Back calculation of Pavement Layer Moduli."
43. Md. Emtazul Haque (M.S. 1997). Thesis title – "Experimental and Numerical Study of Model Continuously Reinforced Concrete Pavement Under Tensile Loading."
42. Jिंगgang Cao (M.S. 1997). Thesis title – "Modeling of Flow and Transport in Anisotropic and Heterogeneous Porous Media."
41. Kundan Pandey (Ph.D. 1996). Dissertation title - "Evaluation of Resilient Moduli and Layer Coefficients of a Coal Ash Stabilized Aggregate Base for AASHTO Flexible Pavement Design."
40. Motiar Rahman (M.S. 1996). Thesis title - "Evaluation of Pavement Drainage Systems Based on Field Performance."
39. Alan Soltani (Ph.D. 1996). Dissertation title - "Evaluation of Crack Formation and Spacing in Continuously Reinforced Concrete Pavements Using Small Scale Laboratory Experiments and Numerical Modeling."
38. Mazen Kanj (Ph.D. 1995). Dissertation title - "SITEX: The Sand Inflow Treatment Expert."
37. Geetha Krishnan (M.S. 1995). Thesis title - "Experimental Evaluation of Physical and Mechanical Properties of Antler Sandstone."
36. Hua Chen (M.S. 1995). Thesis title - "A User-Friendly Software for Prediction of Bridge Approach Settlement."
35. Luping Yi (M.S. 1995). Thesis title - "Resilient Moduli of Fly Ash Stabilized Aggregates."

34. Puneet Suri (M.S. 1995). Thesis title - "Stress Dependent Permeability of Rocks: The Experimental and Modeling Aspects." (Co-supervision with Professor Kukreti).
33. Dar-Hao Chen (Ph.D. 1994). Dissertation title - "Resilient Moduli of Aggregate Bases and A Mechanistic-Empirical Methodology for Flexible Pavements."
32. Rajesh Sehgal (M.S. 1994). Thesis title - "Numerical Modeling of Rigid Airport Pavements Including Effect of Initial Restraint on Warping and Rotation of Aircraft."
31. Dinesh Gupta (M.S. 1994). Thesis title - "Stability of Boreholes in a Transversely Isotropic Geologic Medium."
30. Ratan K. Jha (M.S. 1994). Thesis title - "Identification of Problematic Sites and Estimation of Bridge Approach Settlements using Statistical Models."
29. Abdulazeez Abdurraheem (Ph.D. 1993). Dissertation title - "Constitutive Modeling of Rocks and Numerical Simulation of Oil Reservoirs Exhibiting Pore Collapse."
28. Santanu Mowar (M.S. 1993). Thesis title - "Experimental Study of Pore Collapse in Limestone: Macroscopic and Microscopic Aspects."
27. Adhir K. Agarwal (M.S. 1993), Thesis title - "Free Vibration Analysis of Rectangular Plates Resting on a Two-Parameter Elastic Medium."
26. Ahmad I. Sayah (M.S. 1992). Thesis title - "Stabilization of a Highly Expansive Clay Using Cement Kiln Dust."
25. Ming-Way Wei (M.S. 1993). Thesis title - "A Phenomenological Creep Model for Geomaterials."
24. Arumugam Alvappillai (Ph.D. 1992). Dissertation title - "Dynamic Analysis of Rigid Pavements Considering Pavement-Subgrade-Aircraft Interaction."
23. Adedamola Oyesanya (M.S. 1992). Thesis title - "Laboratory Testing and Constitutive Modeling of Canadian River Sand."
22. Md. Iftexhar Hossain (M.S. 1992). Thesis title - "A Preliminary Creep Model for Avery Island Dome Salt for Nuclear Waste Repository Application."
21. Anuradha Khanna (M.S. 1992). Thesis title - "Dynamic Response of Cable-Stayed Bridges to Moving Vehicles Using Finite Element and Structural Impedance Methods."
20. Vivek Khanna (M.S. 1992). Thesis title - "Dynamic Response of Rigid Airport Pavement Subjected to Temperature-Induced Warping and Multiple Aircraft."
19. Dar-Hao Chen (M.S. 1992). Thesis title - "Three-Dimensional Testing and Constitutive Modeling of Coal for Analysis of Ground Subsidence Due to Mining."
18. Weng Chuan Low (M.S. 1990). Thesis title - "Analysis of Free Vibration of Plane Frames Resting on the Vlazov Two-Parameter Elastic Medium."
17. Yacoub M. Najjar (Ph.D. 1990). Dissertation title - "Constitutive Modeling and Finite Element Analysis of Ground Subsidence Due to Mining."
16. Iqbal U. Mahmood (Ph.D. 1990). Dissertation title - "Evaluation of Causes of Bridge Approach Settlement and Development of Settlement Prediction Models."
15. Riad Tabbaa (M.S. 1990). Thesis title - "A Comparative Study of Some Selected Plasticity Models for Granular Soil."
14. Jasney Abdul Ghani (M.S. 1989). Thesis title - "Analysis of Drilled Pier and Its Application to a Case Study of a Damaged Building on Expansive Soil."
13. Arumugam Gopalasingam (M.S. 1989). Thesis title - "Finite Element Analysis of Consolidation Settlements of Bridge Approach Foundation."
12. Nasim Uddin (M.S. 1989). Thesis title - "Analysis of Tank-Foundation - Halfspace Interaction Using Variational Approaches."
11. Azhar Mahmood (M.S. 1989). Thesis title - "Analysis of Circular Plate - Elastic Halfspace Interaction by Using a Variational Method."
10. Ali Honarmandebrahimi (M.S. 1988). Thesis title - "Laboratory Testing of a Weathered Shale Using Cubical and Triaxial Devices."

9. Imad Houssamy (M.S. 1987). Thesis title - "Three-Dimensional Nonlinear Finite Element Analysis of Underreamed Drilled Pies."
8. Nagesh Koragappa (M.S. 1987). Thesis title - "Analysis of Cylindrical Tank-Foundation Interaction Using an Energy Approach."
7. Yacoub Mohammad Najjar (M.S. 1986). Thesis title - "Three-Dimensional Nonlinear Finite Element Analysis of Pile Groups."
6. Saifuddin M. Mamoon (M.S. 1986). Thesis title - "Soil Liquefaction and Foundation Response Under Earthquake Loading."
5. Gopal Chandra Biswas (M.S. 1985). Thesis title - "Modeling of Soil Liquefaction and Foundation Response Under Cyclic and Earthquake Loading."
4. Asif Iqbal Uppal (M.S. 1985). Thesis title - "The Ultimate Capacity of Underreamed Drilled Piers by Finite Element Method."
3. Adnan Issa (M.S. 1985 co-supervision with A.R. Kukreti). Thesis title - "Analysis of Cylindrical Storage Tanks and Circular Plate Foundations Resting on Isotropic Elastic Halfspace Using an Energy Method."
2. Iqbal Uddin Mahmood (M.S. 1984). Thesis title - "Finite Element Analysis of Cylindrical Tank Foundations Resting on Isotropic Soil Medium Including Soil-Structure Interaction."
1. Soon-Lee Kuang (M.S. 1983). Thesis title - "Evaluation of Interface behavior in Soil-Structure Interaction."

#### **PROFESSIONAL ACTIVITIES/SERVICE:**

##### **(i) Role in International/National Conferences/Symposia/Workshops:**

50. Co-Chair, GeoChina International Conference 2021, held in Nan-Chang, China on July 19-21, 2021.
49. Co-Chair, 16th IACMAG International Conference, held in Torino, Italy, Aug. 30 – Sept. 2, 2022.
48. Co-Chair, IACMAG International Symposium, held in Gandhinagar, India on March 5-7, 2019.
47. Co-Chair, GeoChina Conference, held at HangZhou, China on July 23-25, 2018.
46. Co-Chair, GeoChina International Conference, held at Shandong, China on July 25-27, 2016.
45. Executive Committee Member, 2016 International Conference on Transportation Infrastructure and Materials, held at Xian, China on July 16-18, 2016.
44. Co-Chair, 15th IACMAG International Conference, held in Wuhan, China on October 20-23, 2017.
43. Co-Organizer, Transportation-Climate Summit, held in Norman, Oklahoma, September 30, 2014.
42. Co-Chair, GeoHubei International Conference, Hubei, China, July 20-22, 2014.
41. Co-Chair, 14th IACMAG Conference, held at Kyoto, Japan, September 22-25, 2014.
40. Co-Chair, 13th IACMAG Conference, held in Melbourne, Australia, May 9-11, 2011
39. Chief Proctor, EIT Exam. (ELSES) (from 2002 to 2010).
38. Co-Chair, 12th IACMAG Conference, held at Goa, India, Oct. 1-6, 2008.
37. Co-Chair, 11th IACMAG Conference, held at Turin, Italy, 2005.
36. Member of the Organizing Committee, Oklahoma Asphalt Pavement Association Conf., 2004.
35. Organizer, Asphalt Pavement Recycling Workshop (with OCAST, ODOT and Koch Pavement Solutions), Sept. 16, 2003.
34. Organizer of Technical Session "Computational Mechanics 1" at the 14th U.S. National Congress on Theoretical and Applied Mechanics, Virginia Tech., 2002.
33. Co-Chair, 10th IACMAG Conference, held at Tucson, Arizona, 2001.
32. Organizer and Chair of Session T4/2 "Neural Networks in Structural Analysis." Fourth Int. Conf. on Constitutive Laws for Engineering Materials, R.P.I., Troy, New York, July 27-30, 1999.
31. Co-Organizer (with E.C. Drumm, Univ. of Tennessee) of sessions 238, 272 and 333 at the 78th Annual Meeting, Transportation Research Board, Jan. 10-14, 1999.

30. Developer of Technical Session on Plasticity of Granular Materials (with Prof. A.R. Kukreti), Sixth International Symp. on Plasticity, held in Alaska, July 14-18, 1997.
29. Session Chair, "D2: Deep Excavation", 9th IACMAG Conf., held in Wuhan, P.R.C., Nov. 2-7, 1997.
28. Member, International Advisory Com., 9th IACMAG Conf., held in Wuhan, P.R.C., Nov. 2-7, 1997. Also, developing two technical sessions, one on Petroleum Rock Mechanics (with Dr. Y. Abousleiman) and the other on Discontinuous Deformation Analysis (with Prof. Salami).
27. Session Chair, Discrete Element Methods II, 2nd North American Rock Mech. Symp., held in Montreal, Canada, June 19-21, 1996.
26. Session Organizer, Session: Discrete Element Method/DDA, 2nd North American Rock Mech. Symp., held in Montreal, Canada, June 19-21, 1996.
25. Member, International Tech. Comm., First International Symp. on Discontinuous Deformation Analysis, held in Berkeley, California, June 12-14, 1996.
24. Developer of Technical Session and Chair, Third International Conference on Comp. Methods and Water Resources, held in Beirut, Lebanon, Sept. 25-28, 1995. 24.
23. Co-Chairman, "Session - Mechanical and Hydraulic Properties of Rock", 35th U.S. Symp. on Rock Mechanics, held at Lake Tahoe, June 4-7, 1995.
22. Co-Chairman, "International Conf. of the Int'l. Assoc. of Computer Methods and Advances in Geomechanics (IACMAG-94)," held at the West Virginia Univ., Morgantown, May 22-28, 1994.
21. Chairman, "Session SM7 - Solid Mechanics", Second Asian-Pacific Conf. on Computational Mech., held in Sydney, Australia, Aug. 3-6, 1993.
20. Co-Organizer, "U.S.-Canada Workshop on Recent Accomplishments and Future Trends in Geomechanics in the 21st Century," held in Norman, Oklahoma, October 21-23, 1992.
19. Chairman of Session 7 "Thermoelasticity," Southeastern Conf. on Theoretical and Appl. Mech. (SECTAM XVI), held at Houston, Texas, Jan. 26-29, 1992.
18. Vice Chairman of Session CM-3 "Dynamics and Experimental Mechanics of Composite Materials II," Energy Technology Conf. and Exhibition (ETCE), held at Houston, Texas, Jan. 26-29, 1992.
17. Chairman of session "Constitutive Modeling", IACMAG-91 Conf., held in Cairns, Australia, May 6-11, 1991.
16. Co-Chairman of session "General and Cyclic Plasticity", Third International Conf. on constitutive Laws for Engineering Materials, held in Tucson, Arizona, January 7-11, 1991.
15. Co-Editor, Newsletter of the International Assoc. for Computer Methods and Advances in Geomechanics (1989 - present).
14. Member and Treasurer, Organizing Committee, 32nd U.S. Rock Mechanics Symposium, held in Norman, Oklahoma, July 1991.
13. Member, International Advisory Committee, 7th International Conference on Recent Advances and Comp. Methods in Geomechanics, held in Australia in 1991.
12. Chairman of Session CM-5 "Plasticity and Dynamics in Composite Materials," Energy Tech. Conference, New Orleans, Louisiana, January 14-18, 1990.
11. Reviewer, ASME Winter Annual Meeting, held at Chicago, Illinois, 1988.
10. Chairman of Session "Flow and Consolidation," 6th International Conference on Numerical Methods in Geomechanics, held in Austria, April 11-15, 1988.
9. Reviewer, 6th International Conference on Numerical Methods in Geomechanics, held April 1988 at Innsbruck, Austria.
8. Co-Chairman of session "Discontinuities, Contacts, Interfaces, Joints," Second International Conference on Constitutive Laws of Engineering Materials: Theory and Application," held at Tucson, Arizona, Jan. 5-8, 1987.
7. Moderator of session "Engineering," 75th Annual Meeting of the Oklahoma Academy of Science, held at Southeastern State University, Tahlequah, Oklahoma, November 14, 1986.

6. Moderator of session, "Structures," Southeastern Conference on Theoretical and Applied Mechanics (SECTAM) XIII, held at Columbia, South Carolina, April 17-18, 1986.
5. Co-editor, Proceedings of the International Symposium on Variational Methods in Geosciences, held at Norman, Oklahoma, October 15-17, 1985.
4. Member, Organizing and Steering Committee, ADSC Drilled Foundation Workshop for Engineering Faculty, held in Fort Collins, Colorado, July 12-18, 1987.
3. Organizer and co-chairman of session "Geomechanics," International Symposium on Variational Methods in Geosciences, held at Norman, Oklahoma, October 15-17, 1985.
2. Session Chairman, "Soil-Structure Interaction," 5th International Conference on Numerical Methods in Geomechanics, held at Nagoya, Japan, April 1-5, 1985.
1. Member, International Advisory Committee, 5th International Conference on Numerical Methods in Geomechanics, held at Nagoya, Japan, April 1-5, 1985.

**(ii) Society Offices:**

30. Member, Oklahoma's Premiere Research and Public Policy Organization (The Oklahoma Academy). (since 2014).
29. Executive Vice-President, International Association for Computer Methods and Advances in Geomechanics. (since 2008).
28. Board of Advisors, Physics and Biomedical Eng. Dept., UCO. (since 2008).
27. Vice President, International Assoc. for Computer Methods and Advances in Geomech. (since 2008).
26. Executive Committee Member, Council of University Transportation Center. (2016 – 2020)
25. Member, Warm Mix Asphalt Task Force. (2011 - 2019).
24. Interim Technical Director, Oklahoma Transportation Center (Jan. Dec., 2009).
23. Chair, OTC Education and Outreach Committee (since 2007).
22. Member, Council of University Transportation Center (CUTC) (since 2006).
21. Chair, Oklahoma Transportation Center Technical Committee (2006 – 2007).
20. OU Director, Oklahoma Transportation Center (October 2003 – December 2004).
19. Member (OU), Oklahoma Asphalt Pavement Task Force (since 2002).
18. Fellow, American Society of Civil Engineers. (since 2000).
17. Member, American Society of Engineering Education (ASEE) (since 1997).
16. Member, Society of Petroleum Engineers (SPE) (1997 - 2000).
15. Member, A2JO2 (Chemical and Mechanical Stabilization), Transportation Research Board (2001-2010).
14. Member, A2K05 (Modeling Techniques in Geomechanics; sub-committee on Neural Network).
13. Member, A2L02 (Soil and Rock Properties), Transportation Research Board (1997-2003).
12. Founding Member, American Rock Mechanics Association (since 1996).
11. Co-Chair, IACMAG Award Committee (since August 1996).
10. Board Member, International Association for Computer Methods and Advances in Geomechanics (IACMAG) (since 1996).
9. University Representative, Transportation Research Board, (since September 1993).
8. Chair, ASCE Deep Foundation Sub-Committee for Nominating Papers for Awards (June-August, 1993).
7. Editor, Newsletter of the International Association for Computer Methods and Advances in Geomechanics (IACMAG) (since 1991) (Co-Editors: Gioda, Ichikawa).
6. Elected Chairperson (Section I: Engineering), Oklahoma Academy of Science (11/87 - 11/88).
5. Member, U.S. Universities Council for Geotechnical Engineering Research (USUCGER) By-Laws Committee (3/87 - 3/88).

4. Co-Chairman of ADSC Joint Contractor-Technical Affiliate Committee (for establishing criteria for research to be funded by the HBW fund) (1987)
3. Chairman, ADSC Technical Affiliate Committee (6/84 - 12/94).
2. Elected Vice-Chairperson (Section I: Engineering), Oklahoma Academy of Science (11/86 - 11/87).
1. Member, ASCE Deep Foundations Committee (June 1987 - 1996)

**(iii) Journal Editorial Board:**

10. Editor-in-Chief, International Journal of Pavement Research and Technology (2023-Present)
9. Co-Editor, International Journal of Geomechanics, ASCE. (since April 2020).
8. Editorial Board Member, Soils and Foundation (Elsevier) (2017-2021).
7. Editorial Review Board Member, Studies in Surveying and Mapping Science. (since 2012).
6. Associate Editor, Journal, International Journal of Pavement Research and Technology. (2011-2022).
5. Member, Editorial Board, International Journal of Geotechnical Engineering (since 2007).
4. Editor-in-Chief, International Journal of Geomechanics, ASCE (since January 2009 – March 2020).
3. Associate Editor, International Journal of Geomechanics, ASCE (until 2008).
2. Co-Editor (Application Briefs), International Journal for Numerical and Analytical Methods in Geomechanics (until 2000).
1. Associate Editor, Petroleum Science and Engineering

**TEACHING**

**Courses Taught:**

CE 2153	Strength of Materials
CE 3363	Soil Mechanics
CE 2553	Engineering Surveying
CE 2113	Rigid Body Mechanics (Statics)
CE 3403	Macromeritics
CE 2103	Elementary Surveying
CE 5333	Foundation Engineering
CE 5413 <sup>+</sup>	Soil-Structure Interaction
CE 5443 <sup>+</sup>	Constitutive Laws of Engineering Materials
CE 5353 <sup>*</sup>	Soil Dynamics
CE 6713	Theory of Elasticity
CE 5343	Advanced Soil Mechanics
CE 5693	Structural Design of Pavement
CE 5020 <sup>+</sup>	Dynamic Soil-Structure Interaction
CE 5020 <sup>+</sup>	Selected Topics in Foundation Engineering
CE 5020 <sup>*</sup>	Theory of Plasticity
CE 5020 <sup>+</sup>	Advanced Foundation Design

<sup>\*</sup>Irregular courses      <sup>+</sup>Courses developed and taught

**UNIVERSITY SERVICE:**

22. Search Committee Member, MPGE Chair (April 2018-Aug. 2019)
21. Member, GCoE Dean's Senior Advisory Committee (2016, 2017)
20. OU Councilor, Oak Ridge Associated Universities (since 2009)

19. Member, Presidential Professor Selection Committee (Sept. 2004 – Aug. 2007)
18. Member, VPR Advisory Com. (since 2007); Co-Chair, Strategy & Budget Sub-Com. (2009)
17. Member, VPR Task Force on Centers, Institutes and Consortia (April 2007 – Aug. 2007)
16. Associate Dean for Research and Graduate Education, College of Engineering (July 2005 – Dec. 2013)
15. Member, Faculty Awards and Honors Council (Sept. 2004 – Aug. 2007)
14. Acting Director, Rock Mechanics Institute (April 2000 – May 2001)
13. Member, OU Research Council (9/99 – 8/02; Chair, 9/01 – 8/02)
12. Member, Campus Tenure Committee (8/96 – 7/99)
11. Member, CoE Dean's Senior Advisory Committee (11/93 - 8/96; 10/97-10/98)
10. Member, OU Budget Council (appointed by the President) (9/93 - 8/96)
9. Committee A (CEES) (9/90 - 8/92; 8/94 – 8/96)
8. Member, OU Commencement Committee (9/89 - 8/92)
7. Member, OU Class Scheduling Committee (9/89 - 8/93)
6. Member, OU Faculty Senate (9/89 - 8/93)
5. Member, OU Parking and Transportation Subcommittee (9/86 - 10/88)
4. Chair, CoE Library Committee (8/86 - 8/87)
3. College of Engineering Library Committee (CEES rep.) (9/84 – 8/00)
2. Faculty Sponsor, Univ. of Oklahoma Vietnamese Student Association (8/83 - 12/90)
1. Faculty Sponsor, Univ. of Oklahoma Bangladesh Student Association (since Aug. 1982)

#### **ADMINISTRATIVE EXPERIENCE:**

9. Director, Southern Plains Transportation Center (2022-Present): Major activities in CY2022 include the following: (i) Formed a Core Group for proactively working on the Regional UTC proposal for the UTC competition held in 2022. The size of the consortium increased from eight to eleven. The group held regular meetings to discuss theme, needs and potential topics. These discussions helped solidify the consortium and developing a timely theme “Enhancing Economic Prosperity and Safety through Durable and Climate Resilient Transportation Infrastructure.” Major efforts were made to receive commitment for significant cash match from ODOT. Also, major efforts were made to secure institutional match and letters of support. The proposal was submitted successfully on August 25, 2022; (ii) Worked closely with the ODOT leadership to generate funding for workforce development and outreach activities and applied projects through Service Agreement (\$500K/year); (iii) Was instrumental to generating nine projects (about \$500K total) through this Agreement in FY2022; (iv) Offered the 2022 Transportation Regional Internship Program (TRIP). With 25 plus students participating regionally, it was a very successful program; (v) Organized the 2022 Oklahoma Transportation Research Day on October 18, 2022 in collaboration with ODOT and ABC-UTC (OU is a member of this consortium, which is led by the Florida International University). With about 200 people attending in-person, it was a hugely successful event for workforce development, outreach and technology transfer. In addition to three keynote lectures and nine podium presentations, 36 posters were presented by students. The poster competition led to five winners; (vi) Organized a one-day short course on Alternative Dispute Resolution for Engineers; about 30 people attended this event; (viii) Organized many workshops, seminars, tech transfer and outreach activities; (ix) Worked closely with UC-Berkley on its National UTC proposal; (x) Worked closely with OSU on its Tier 1 UTC proposal.
8. Co-Director, ABC-UTC -- a Tier 1 University Transportation Center led by Florida International University, with OU as a consortium member. Responsible for soliciting research ideas, coordinating development and submission of proposals, organizing workforce development and outreach activities, attending all meetings, and submitting reports and data required by OST-R



- including quarterly progress reports, bi-annual activities report, annual highlight, and performance indicators. Details of 2022 activities can be found at <https://abc-utc.fiu.edu/> OU is also a member of the Engineering Solutions for Resilient and Sustainable Coastal Infrastructure (INTERACT) consortium, which is led by FIU. INTERACT organizes national level webinars (see <https://interact.fiu.edu/> for details) and is seeking major funding for research. During CY22, OU worked closely with the FIU team in preparing its Tier 1 UTC proposal.
7. Director, Southern Plains Transportation Center (SPTC) (Oct. 2013 – 2021): Thanks to strong collaborations, outstanding institutional support, and hard work by many individuals, SPTC has accomplished a great deal during its relatively short existence. It has: (1) administered five funding competitions resulting in more than 60 research, education and workforce development grants totaling \$5.23 Million; (2) supported six early career research project collaborations between OU and OSU; (3) supported 17 research projects involving collaborations between at least two of the SPTC or external university partners; (4) provided financial support to more than 250 graduate research assistants, so far; (5) funded more than 150 undergraduate internships with partner companies, so far; (6) sponsored 26 workshops and seminars; (7) spearheaded and organized, in partnership with the South Central Climate Science Center, the 1st and 2nd Transportation-Climat Summit; (8) co-organized the Oklahoma Transportation Research Day (OTRD) with ODOT each year; (9) developed a student organization, Transportation Leadership Council (TLC), which now has a vibrant chapter at OU and partner institutions; (10) granted four SPTC Student of the Year Awards, two Dissertation Awards, and three Master Thesis Awards to deserving students; and (11) hosted SPTC Leadership Forum at UTEP-EI Paso in 2018 and at University of Arkansas in 2019; both included a strong TLC program with participation of more than 30 students from partner institutions. There are many other activities and tangible benefits from SPTC that are not on this list. Furthermore, execution of these programs and building of formal relationships with partner institutions, state DOTs and the industry required a tremendous amount of behind the scenes work to develop the business infrastructure and needed policies and procedures.
  6. Associate Dean for Research and Graduate Programs (July 2005 to December 2013). (a) Provided leadership in expanding the annual research expenditures of the College from \$17.9 Million (FY06) to more than \$21 Million in FY13; (b) Grants in-force increased from \$49.2 Million (239 projects in FY06) to \$71.8 Million (258 projects in FY10); (c) Archival publications of the College increased steadily. Also, CoE invention disclosures (about 10 per year) and patents (about 9 per year) remained healthy; (d) Introduced and funded Seed Funding for Interdisciplinary Research (\$10K/project) to promote interdisciplinary collaboration; (e) Formalized the graduate programs in General Engineering; (f) Introduced and funded Interdisciplinary Undergraduate Research Opportunity Program (ID-UROP; \$2K/project) to enhance interdisciplinary research among undergraduate students; (g) Organized Graduate Programs Information Symposium (GPiS) to enhance graduate enrollment; (h) Played a key role in introducing Centennial Fellowship (\$5K/year for up to three years); and (i) Organized interdisciplinary seminars and research roundtables.
  5. Interim Technical Director, OTC (Jan. – Dec., 2009). (a) Developed a process for submission and review of quarterly progress report; (b) Developed a process for submission and review of annual progress report; (c) Prepared OTC Newsletters; (d) Enhanced ODOT-OkTC Research Day making it a major venue for dissemination of OkTC products; (e) Organized seminars and workshops; (f) Held a successful funding competition in 2009; (g) Developed a process and used it to select OTC Student of the Year.
  4. OU Director, Oklahoma Transportation Center (OTC) (2003-2005; Executive Director for one year, 2005). Organized monthly meetings; prepared grant applications for major funding; provided leadership in strengthening collaborations among OTC institutions (OU, Oklahoma State

University and Langston University) in securing matching funds, required by the funding agency, RITA-USDOT.

3. Acting Director, Rock Mechanics Institute (2000-2001). Managed the affairs of the institute including the research program, students, research scientists and staff. The institute had an annual budget of more than \$1 Million.
2. Technology Transfer Manager, Rock Mechanics Research Center (RMRC) (1992-2000). Provided leadership in organizing technology transfer activities including bi-annual meetings with the members of the Rock Mechanics Consortium and organizing seminars and workshops. The annual expenditures of the Center were about \$1.2 Million.
1. Member, Committee A (1990-1992, 1994-1996). As a member of Committee A, Dr. Zaman was actively involved in the administrative affairs of Civil Engineering and Environmental Science (CEES) including faculty evaluation, faculty recruitment, budget discussions, and policy decisions.