Biographical Sketch

Gerald A. Miller

Professor and Associate Director School of Civil Engineering and Environmental Science 202 West Boyd Street, Room 334 Norman, OK 73019 Phone No.: (405) 325-4253 gamiller@ou.edu

(A) PROFESSIONAL PREPARATION

| Clarkson University | Potsdam, NY | Civil Engineering | B.S. 1987 |
|-----------------------|-------------|-------------------|------------|
| Clarkson University | Potsdam, NY | Civil Engineering | M.S. 1987 |
| Univ. of Mass-Amherst | Amherst, MA | Civil Engineering | Ph.D. 1994 |

(B) APPPOINTMENTS

| 8/13-Present | Associate Director, School of Civil Engineering and Environmental Science (CEES), |
|-----------------|---|
| | University of Oklahoma |
| 10/13-5/19 | Associate Director, Southern Plains Transportation Center, University of Oklahoma |
| 7/07 to Present | Professor, CEES, University of Oklahoma |
| 7/00 to 7/07 | Associate Professor, CEES, University of Oklahoma |
| 8/94 to 7/00 | Assistant Professor, CEES, University of Oklahoma |
| 5/94 to 7/94 | Post-Doctoral Research Assistant, University of Massachusetts, Amherst, Massachusetts |
| 2/91 to 5/94 | Research/Teaching Assistant, University of Massachusetts, Amherst, Massachusetts |
| 6/89 to 1/91 | Assistant Engineer II & III, H&A of New York (Haley and Aldrich), Rochester, New |
| | York |
| 1/89 to 5/89 | Geotechnical Engineer II, Moh and Associates, Inc., Taipei, Taiwan |
| | - |

(C) PRODUCTS

(i) Most Closely Related to the Proposed Project

- 1. Zheng, Y., Hatami, K. and **Miller, G.A.**, 2017. Influence of Compaction Moisture Content on Wetting-Induced Settlement of Embankments. *International Journal of Geosynthetics and Ground Engineering*. 3(1):7.
- Hatami, K., Esmaili, D., Chan, E.C., Miller, G.A., 2016. Moisture Reduction Factors for Shear Strength of Unsaturated Reinforced Embankments. *International Journal of Geomechanics*. 16(6): D4016001.
- 3. Khoury, C.K. and **Miller, G.A**. 2012. Influence of Hydraulic Hysteresis on the Shear Strength of Unsaturated Soils and Interfaces. *Geotechnical Testing Journal, ASTM*. 35(1):135-149.
- 4. **Miller, G.A.**, Cerato, A.B., Hassanikhah, A., Varsei, M., Doumet, R., Bourasset, C. Bulut, R. 2015. The Effects of Soil Suction on Shallow Slope Stability. Final Report FHWA-OK-15-04, Oklahoma Department of Transportation (ODOT) SPR 2160, 194 p.
- 5. Miller, G.A., Hatami, K., Cerato, A.B. and Osborne, C. 2013. Applied Approach Slab Settlement Research, Design/Construction. Final Report FHWA-OK-13-09, ODOT SPR 2227, 162 p.

(ii) Other Significant Products

1. Miller, G. A., Tan, N. K., Collins, R. W., & Muraleetharan, K. K. 2018. Cone penetration testing in unsaturated soils. *Transportation Geotechnics*. 17:85-99.

- Fleming, B.J., Sritharan, S., Miller, G.A., and Muraleetharan, K.K., 2016. Full-Scale Seismic Testing of Piles in Improved and Unimproved Soft Clay." Earthquake Spectra. EERI. DOI: 10.1193/012714EQS018M.
- 3. Varsei, M., **Miller, G.A.**, and Hassanikhah, A., 2016. Novel Approach to Measuring Tensile Strength of Compacted Clayey Soil during Desiccation. *International Journal of Geomechanics*. 16(6): D4016011.
- 4. Khoury, C.K., Khoury, N.N. and **Miller, G.A**. 2011. Effect of Cyclic Suction History (Hydraulic Hysteresis) on Resilient Modulus of Unsaturated Fine-Grained Soil. *Journal of the Transportation Research Board*. TRR 2232:68-75.
- 5. Miller, G.A., Khoury, C.K., Muraleetharan, K.K., Liu, C. and Kibbey, C.G. 2008. Effects of Soil Skeleton Deformations on Hysteretic Soil Water Characteristic Curves: Experiments and Simulations. *Water Resources Research*. Vol. 44, Article # W00C06.

(D) SYNERGISTIC ACTIVITIES

- **SPTC:** As Associate Director of Southern Plains Transportation Center, spearheaded the organization of the 1st and 2nd Transportation-Climate Summits, in 2014 and 2016, bringing climate/weather scientists and transportation professionals together for a day-long seminar, and developed local chapter of the Transportation Leadership Council (an SPTC student organization) at OU.
- ASCE: Member of the ASCE Geo-Institute Technical Committee on Unsaturated Soils (2008-Present). On the organizing committee for the 2nd Pan American Conference on Unsaturated Soils. Member of ASCE Geo-Institute. Member of the G-I Board Level Geo-Congress Organizing Committee (2012-present). Chair of the Geo-Institute (G-I) Conference Coordination Committee (2012). Member of the G-I Conference Coordination Committee (2006-2012). Member of the G-I Board of Governors Task Force on Conference Planning. Chair of ASCE G-I Board of Governors Annual Meeting Task Force, June 2009-March 2011. Prepared an online survey of G-I members, collected and analyzed the response and led the effort to prepare and deliver a Task Force report of the findings. Technical Program Manager and Proceedings Co-Editor for the Fourth International Conference on Unsaturated Soils, sponsored by Geo-Institute of ASCE, April 2-5, 2006.
- **ISSMGE:** Member of the ISSMGE Technical Committee TC106 on Unsaturated Soils (2006-2019). Secretary of TC106 (2006-2014). As a member and particularly as secretary, have been very involved in conference theme development, venue selection and promotion of the very successful series of Unsaturated Soil Mechanics Conferences sponsored or co-sponsored by TC106.
- OTHER PROFESSIONAL SERVICE: Editorial Board Member for the ASTM Geotechnical Testing Journal, October 2007-2013. Member of TRB Committee AFP60 (formerly A2L06) 2002-2012; currently friend of committee and active in reviewing papers; reviewed papers for TRB Annual Meeting since 2002 and, helped to conduct a special session for the 2004 Annual TRB Meeting and organized/participated in a workshop for the 2005 Annual TRB Meeting. Very active in reviewing papers for several other journals including Geotechnique, ASCE JGGE, ASCE IJG, CGJ, and others.
- UNDERGRADUATE RESEARCH: Have advised many undergraduate students (>40) on various research projects. Among the students were six women, two African Americans, one Hispanic American, nine students from French Universities and several others of various ethnic backgrounds. Have also advised four Oklahoma high school students on science projects.