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## EDUCATION

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- B.S. in Civil Engineering**, with honors, National University of Córdoba, Argentina, March 1987.  
**M.S. in Civil Engineering**, Pontifical Catholic University of Rio de Janeiro (PUC-Rio), Brazil, August 1989.  
**Ph.D. in Civil Engineering**, University of California at Berkeley, December 1994.

## PROFESSIONAL REGISTRATION

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Registered Professional Engineer, California, No. C 056325.

## CURRENT AND PREVIOUS ACADEMIC POSITIONS

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- 08/98 - 08/03     **Assistant Professor**, Department of Civil, Environmental, and Architectural Engineering, University of Colorado at Boulder.
- 08/03 – 08/07     **Associate Adjunct Professor**, Department of Civil, Environmental, and Architectural Engineering, University of Colorado at Boulder.
- 08/03 – 08/06     **Assistant Professor**, Department of Civil, Architectural, and Environmental Engineering, The University of Texas, Austin.
- 09/06 – 08/11     **Associate Professor**, Department of Civil, Architectural, and Environmental Engineering, The University of Texas, Austin.
- 09/11 – present   **Professor**, Department of Civil, Architectural, and Environmental Engineering, The University of Texas, Austin.

## OTHER PROFESSIONAL EXPERIENCE

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- 08/89 - 08/90     **Research Engineer**, Civil Engineering Department, PUC-Rio, Brazil.
- 01/95 - 07/95     **Assistant Research Engineer**, Civil Engineering Department, University of California, Berkeley.
- 08/95 - 08/98     **Project Engineer**, GeoSyntec Consultants, Huntington Beach, California.

## HONORS AND AWARDS

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- First place in University Admission Exam. College of Engineering and Natural Sciences, *National University of Córdoba*, Argentina, 1981.
- HORMIX S.A. Award. Awarded for achievements on concrete technology. Córdoba, Argentina, 1986.

- Premio Universidad (University Prize), *National University of Córdoba*. Córdoba, Argentina, 1987.
- Young IGS Member Award 1996, *International Geosynthetics Society (IGS)*. Awarded in recognition to “outstanding contributions to the development and use of geotextiles, geomembranes, related products or associated technologies.” Maastricht, The Netherlands, October 1996.
- Junior Faculty Development Award, Council on Research and Creative Work, *University of Colorado*, 1999.
- Collingwood Prize, *American Society of Civil Engineers (ASCE)*. For the paper “Performance of Geosynthetic Reinforced Slopes at Failure,” by Zornberg, Sitar, and Mitchell, published in the *Journal of Geotechnical and Geoenvironmental Engineering*. October 2000.
- Young Researcher Award, Department of Civil, Environmental and Architectural Engineering, *University of Colorado*, Boulder, April 2001.
- CAREER Award, *National Science Foundation (NSF)*. For the project “Alternatives in Waste Cover Systems and in Engineering Education.” July 2001.
- Presidential Early Career Award for Scientists and Engineers (*PECASE*), awarded by the *President of the United States*. The White House, Washington DC, July 12, 2002. Period 2002-2007. This Presidential Award is “the highest honor bestowed by the United States Government on outstanding scientists and engineers beginning their independent careers.”
- Research Development Award, Department of Civil, Environmental and Architectural Engineering, *University of Colorado*, Boulder, April 2003.
- Award of Excellence, *North American Geosynthetics Society (NAGS)*. For the paper “Validation of Discrete Framework for Fiber Reinforcement,” by Li and Zornberg, Winnipeg, Canada, October 1, 2003.
- IGS Award 2004, *International Geosynthetics Society (IGS)*, awarded in recognition to “Advances in geosynthetic reinforced soil design.” Seoul, South Korea, June 21, 2004.
- SHPE Student Chapter Special Recognition 2006, awarded by the Student Chapter of the Society of Hispanic Professional Engineers, University of Texas, Austin, March 29, 2006.
- IGS Achievement Award 2008, awarded by the Mexican Chapter of the International Geosynthetics Society, Cancún, Mexico, March 4, 2008.
- Best Paper Award 2010, *Geosynthetics International* journal, awarded for the paper “Geosynthetic Capillary Barriers: Current State of Knowledge.” Vol. 17, No. 5, pp. 273-300.
- Best Paper Award 2011, *Journal of GeoEngineering*, awarded for the paper “Location of Failure Plane and Design Considerations for Narrow GRS Wall Systems.” Vol. 6, No. 1, pp.27-40.
- J. James R. Croes Medal 2012, *American Society of Civil Engineers (ASCE)*. For the paper “Centrifuge Permeameter for Unsaturated Soils I: Theoretical Basis and Experimental Developments,” published in the *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 136, No. 8, pp. 1051-1063.
- Invitational Lecture 2013, British Geotechnical Association (BGA), Institution of Civil Engineers, London, UK, October 09, 2013.
- Best Paper on Stabilization Techniques, 6<sup>th</sup> *Brazilian Conference on Slopes (COBRAE 2013)*, for the paper “Behavior of a Wall Reinforced with Nonwoven Geotextiles under Heavy Precipitation and Surcharge,” October, 2013.
- Distinguished Lecturer 2015, 33<sup>rd</sup> *Annual Distinguished Lecture Series*, University of California at Berkeley, Berkeley, CA May 01, 2015.
- Mercer Lecture Award, 2015-16, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) and International Geosynthetics Society (IGS).
- Elected Fellow of the American Society of Civil Engineers (ASCE), February 15, 2017.
- IGS Service Award, *International Geosynthetics Society (IGS)*, awarded “In recognition to his outstanding commitment and dedication to the IGS, and in acknowledgement of the significant growth of the Society under his leadership,” Seoul, South Korea, 19 September 2018.

Recognized with the “Zornberg Lecture,” an honorary lecture established in 2019, by the *International Geosynthetic Society* (IGS) in recognition of Dr. Zornberg’s “major contributions to the geosynthetics discipline.”

## PUBLICATIONS

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### Refereed Archival Journal Publications

- 1) Zornberg, J.G., and Azevedo, R.F. (1989). “Finite Element Analysis of Potential Failure Surfaces in Open-Cut Excavations using a Non-Associated Elasto-Plastic Model.” *Computational Mechanics*, Argentinean Society of Computational Mechanics, AMCA, June, Vol. 7, pp. 361-374.
- 2) Zornberg, J.G., and Mitchell, J.K. (1994). “Reinforced Soil Structures with Poorly Draining Backfills. Part I: Reinforcement Interactions and Functions.” *Geosynthetics International*, Vol. 1, No. 2, pp. 103-148.
- 3) Mitchell, J.K., and Zornberg, J.G. (1995). “Reinforced Soil Structures with Poorly Draining Backfills. Part II: Case Histories and Applications.” *Geosynthetics International*, Vol. 2, No. 1, pp. 265-307.
- 4) Zornberg, J.G., and Giroud, J.P. (1997). “Uplift of Geomembranes by Wind - Extension of Equations.” *Geosynthetics International*, Vol. 4, No. 2, pp. 187-207.
- 5) Zornberg, J.G., Mitchell, J.K., and Sitar, N. (1997). “Testing of Reinforced Soil Slopes in a Geotechnical Centrifuge.” *ASTM Geotechnical Testing Journal*, Vol. 20, No. 4, December, pp. 470-480.
- 6) Zornberg, J.G., Sitar, N., and Mitchell, J.K. (1998). “Performance of Geosynthetic Reinforced Slopes at Failure.” *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 124, No. 8, pp. 670-683.
- 7) Zornberg, J.G., Sitar, N., and Mitchell, J.K. (1998). “Limit Equilibrium as Basis for Design of Geosynthetic Reinforced Slopes.” *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 124, No. 8, pp. 684-698.
- 8) Zornberg, J.G., Jernigan, B.L., Sanglerat, T.R., and Cooley, B.H. (1999). “Retention of Free Liquids in Landfills Undergoing Vertical Expansion.” *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 125, No. 7, pp. 583-594.
- 9) Giroud, J.P., Gleason, M.H., and Zornberg, J.G. (1999). “Design of Geomembrane Anchorage Against Wind Action.” *Geosynthetics International*, Vol. 6, No. 6, pp. 481-507.
- 10) Zornberg, J.G., Sitar, N., and Mitchell, J.K. (2000). “Performance of Geosynthetic Reinforced Slopes at Failure, Closure.” *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 126, No. 3, pp. 281-286.
- 11) Zornberg, J.G., Sitar, N., and Mitchell, J.K. (2000). “Limit Equilibrium as Basis for Design of Geosynthetic Reinforced Slopes,” Closure. *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 126, No. 3, pp. 286-288.
- 12) Giroud, J.P., Zornberg, J.G., and Zhao, A. (2000). “Hydraulic Design of Geosynthetic and Granular Liquid Collection Layers.” *Geosynthetics International*, Special Issue on Liquid Collection Systems, Vol. 7, Nos. 4-6, pp. 285-380.
- 13) Giroud, J.P., Zornberg, J.G., and Beech, J.F. (2000). “Hydraulic Design of Geosynthetic and Granular Liquid Collection Layers Comprising Two Different Slopes.” *Geosynthetics International*, Special Issue on Liquid Collection Systems, Vol. 7, Nos. 4-6, pp. 453-489.
- 14) Zornberg, J.G., and Kavazanjian, E. (2001). “Prediction of the Performance of a Geogrid-Reinforced Slope Founded on Solid Waste.” *Soils and Foundations*, Japanese Geotechnical Society, Vol. 41, No. 6, pp. 1-16.
- 15) Azevedo, R.F., Parreira, A.B., and Zornberg, J.G. (2002). “Numerical Analysis of a Tunnel in Residual Soils.” *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 128, No. 3, pp. 227-236.

- 16) Abu-Hejleh, N., Zornberg, J.G., Wang, T., and Watcharamonthein, J. (2002). "Monitored Displacements of Unique Geosynthetic-Reinforced Soil Bridge Abutment." *Geosynthetics International*, Vol. 9, No. 1, pp. 71-95.
- 17) Zornberg, J.G. (2002). "Discrete Framework for Limit Equilibrium Analysis of Fibre-Reinforced Soil." *Géotechnique*, Vol. 52, No. 8, pp. 593-604.
- 18) Zornberg, J.G., and Kavazanjian, E. (2002). "Prediction of the Performance of a Geogrid-Reinforced Slope Founded on Solid Waste," Closure. *Soils and Foundations*, Vol. 42, No. 5, pp. 129-130.
- 19) Zornberg, J.G. (2002). "Peak versus Residual Shear Strength in Geosynthetic-Reinforced Soil Design." *Geosynthetics International*, Vol. 9, No. 4, pp. 301-318.
- 20) Zornberg, J.G. (2002). "Peak versus Residual Shear Strength in Geosynthetic-Reinforced Soil Design," Discussion and Response 1. *Geosynthetics International*, Vol. 9, No. 4, pp. 381-386.
- 21) Zornberg, J.G. (2002). "Peak versus Residual Shear Strength in Geosynthetic-Reinforced Soil Design," Discussion and Response 2. *Geosynthetics International*, Vol. 9, No. 4, pp. 387-390.
- 22) Zornberg, J.G. (2002). "Peak versus Residual Shear Strength in Geosynthetic-Reinforced Soil Design," Discussion and Response 3. *Geosynthetics International*, Vol. 9, No. 4, pp. 391-393.
- 23) Zornberg, J.G., and Arriaga, F. (2003). "Strain Distribution within Geosynthetic-Reinforced Slopes." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 129, No. 1, pp. 32-45.
- 24) Zornberg, J.G., LaFountain, L., and Caldwell, J.A. (2003). "Analysis and Design of Evapotranspirative Cover for Hazardous Waste Landfill." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 129, No. 5, pp. 427-438.
- 25) Costa, Y.D., Cintra, J.C., and Zornberg, J.G. (2003). "Influence of Matric Suction on the Results of Plate Load Tests Performed on a Lateritic Soil Deposit." *ASTM Geotechnical Testing Journal*, March, Vol. 26, No. 2, pp. 219-227.
- 26) Costanzi, M.A., Bueno, B.S., Baras, L.C., and Zornberg, J.G. (2003). "Evaluation of Creep of Non-Woven Geotextiles using Accelerated Tests." *Soils and Rocks*, Latin-American Geotechnical Journal, December, Vol. 26, No. 3, pp. 217-228.
- 27) Zornberg, J.G. (2003). "Peak versus Residual Shear Strength in Geosynthetic-Reinforced Soil Design," Discussion and Response 4. *Geosynthetics International*, December, Vol. 10, No. 6, pp. 234-237.
- 28) Zornberg, J.G. (2004). "Discrete Framework for Limit Equilibrium Analysis of Fibre-Reinforced Soil," Closure. *Géotechnique*, February, Vol. 54, No. 1, pp. 72-73.
- 29) Giroud, J.P., Zhao, A., Tomlinson, H.M., and Zornberg, J.G. (2004). "Liquid Flow Equations for Drainage Systems Composed of Two Layers Including a Geocomposite." *Geosynthetics International*, February, Vol. 11, No. 1, pp. 43-58.
- 30) Zornberg, J.G., Cabral, A.R., and Viratjandr, C. (2004). "Behaviour of Tire Shred-Sand Mixtures." *Canadian Geotechnical Journal*, April, Vol. 41, No. 2, pp. 227-241.
- 31) Dell'Avanzi, E., Zornberg, J.G., and Cabral, A.R. (2004). "Suction Profiles and Scale Factors for Unsaturated Flow under Increased Gravitational Field." *Soils and Foundations*, June, Vol. 44, No. 3, pp. 79-89.
- 32) McCartney, J.S., Zornberg, J.G., Swan, R.H., and Gilbert, R.B. (2004). "Reliability-Based Stability Analysis Considering GCL Shear Strength Variability." *Geosynthetics International*, June, Vol. 11, No. 3, pp. 212-232.
- 33) Zornberg, J.G., Byler, B.R., and Knudsen, J. (2004). "Creep of Geotextiles using Time-Temperature Superposition Methods." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, November, Vol. 130, No. 11, pp. 1158-1168.
- 34) Parent, S.-E., Cabral, A.R., Dell'Avanzi, E., and Zornberg, J.G. (2004). "Determination of the Hydraulic Conductivity Function of a Highly Compressible Material Based on Tests with Saturated Samples." *ASTM Geotechnical Testing Journal*, November, Vol. 27, No. 6, pp. 614-618.

- 35) Zornberg, J.G., Costa, Y.D., and Vollenweider, B. (2004). "Performance of Prototype Embankment Built with Tire Shreds and Nongranular Soil." *Transportation Research Record: Journal of the Transportation Research Board*, December, No. 1874, TRB, National Research Council, Washington, D.C. pp. 70-77.
- 36) Zornberg, J.G., Friedrichsen, J., and Dell'Avanzi, E. (2005). "Performance of Centrifuge Data Acquisition Systems Using Wireless Transmission." *ASTM Geotechnical Testing Journal*, March, Vol. 28, No. 2, pp. 144-150.
- 37) Zornberg, J.G., McCartney, J.S., and Swan, R.H. (2005). "Analysis of a Large Database of GCL Internal Shear Strength Results." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, March, Vol. 131, No. 3, pp. 367-380.
- 38) Bueno, B.S., Costanzi, M.A., and Zornberg, J.G. (2005). "Conventional and Accelerated Creep Tests on Nonwoven Needle-punched Geotextiles." *Geosynthetics International*, December, Vol. 12, No. 6, pp. 276-287.
- 39) McCartney, J.S., and Zornberg, J.G. (2006). "Correction of Lightning Effects on Wave Content Reflectometer Soil Moisture Data." *Vadose Zone Journal*, Vol. 5, No. 2, May, pp. 673-683.
- 40) Kakuda, F.M., Bueno, B.S., Teixeira, S.H.C., and Zornberg, J.G. (2006). "Pullout Tests on Geogrids using Reduced-scale Equipment." (in Portuguese), *Soils and Rocks*, Vol. 29, May, No. 2, pp. 161-176.
- 41) Bouazza, A., Zornberg, J.G., McCartney, J.S., and Nahlawi, H. (2006). "Significance of Unsaturated Behaviour of Geotextiles in Earthen Structures." *Australian Geomechanics Journal*, September, Vol. 41, No. 3, pp. 133-142.
- 42) Zornberg, J.G., McCartney, J.S., and Swan, R.H. (2006). "Analysis of a Large Database of GCL Internal Shear Strength Results, Closure." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 132, October, No. 10, pp. 1376-1379.
- 43) Teixeira, S.H.C., Bueno, B.S., and Zornberg, J.G. (2007). "Pullout Resistance of Individual Longitudinal and Transverse Geogrid Ribs." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, January, Vol. 133, No. 1, pp. 37-50.
- 44) Benjamim, C.V.S., Bueno, B., Zornberg, J.G. (2007). "Field Monitoring Evaluation of Geotextile-Reinforced Soil Retaining Walls." *Geosynthetics International*, April, Vol. 14, No. 2, pp. 100-118.
- 45) Parent, S.E., Cabral, A.R., Dell'Avanzi, E., and Zornberg, J.G. (2007). "Determination of the Hydraulic Conductivity Function of a Highly Compressible Material Based on Tests with Saturated Samples - Closure." *ASTM Geotechnical Testing Journal*, Vol. 30, No.3, May, pp. 242-243.
- 46) Parent, S.E., Cabral, A.R., and Zornberg, J.G. (2007). "Water Retention Curve and Hydraulic Conductivity Function of Highly Compressible Materials." *Canadian Geotechnical Journal*, Vol. 44, No. 10, October, pp. 1200-1214.
- 47) Cui, Y.J., and Zornberg, J.G. (2008). "Water Balance and Evapotranspiration Monitoring in Geotechnical and Geoenvironmental Engineering." Keynote paper, *Journal of Geotechnical and Geological Engineering*, Springer publishing, June, Vol. 26, No. 6, pp. 783-798.
- 48) Ferreira, J.A.Z., Bueno, B.S., and Zornberg, J.G. (2008). "Small Pullout Tests for Pavement Reinforcement Study" (in Portuguese). *Geotecnia*, Lisbon, Vol. 113, July, pp. 109-124.
- 49) Palmeira, E.M., Tatsuoka, F., Bathurst, R.B., Stevenson, P.E., and Zornberg, J.G. (2008). "Advances in Geosynthetics Materials and Applications for Soil Reinforcement and Environmental Protection Works." *Electronic Journal of Geotechnical Engineering*, Vol. 13, Special Issue State of the Art in Geotechnical Engineering, December, pp. 1-38.
- 50) McCartney, J.S., Zornberg, J.G., and Swan, R.H. (2009). "Analysis of a Large Database of GCL-Geomembrane Interface Shear Strength Results." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 134, No. 2, February, pp. 209-223.
- 51) Lodi, P.C., Bueno, B.S., and Zornberg, J.G. (2009). "Evaluation of the Degradation of HDPE and PVC Geomembranes using Thermogravimetric Analyses." *Ibero-American Journal of Polymers*, Vol. 10, No. 2, March, pp. 110-118.

- 52) Nogueira, C.L., Azevedo, R.F., and Zornberg, J.G. (2009). "Coupled Analysis of Excavations in Saturated Soil." *International Journal of Geotechnical Engineering*, ASCE, Vol. 9, No 2, April, pp. 73-81.
- 53) Costa, Y.D., Zornberg, J.G., Bueno, B.S., and Costa, C.L. (2009). "Failure Mechanisms in Sand over a Deep Active Trapdoor." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 135, No. 11, November, pp. 1741-1753.
- 54) Liu, C., Zornberg, J.G., Chen, T-C., Ho, Y., and Lin, B. (2009). "Behavior of Geogrid-Sand Interfaces in Direct Shear Mode." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 135, No. 12, December, pp. 1863-1871.
- 55) Lodi, P.C., Zornberg, J.G., and Bueno, B.S. (2009). "A Brief Overview on the Use of Geosynthetics on Landfills." (in Portuguese) *Tecnologia*, Vol. 30, No. 2, December, pp. 188-197.
- 56) McCartney, J.S., Zornberg, J.G., and Swan, R.H. (2010). "Analysis of a Large Database of GCL-Geomembrane Interface Shear Strength Results, Closure." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 136, No. 1, January, pp. 276-277.
- 57) Lodi, P.C., Zornberg, J.G., and Bueno, B.S. (2010). "Degradation of HDPE Geomembranes due to Exposure to Weather and Leachate." (in Portuguese) *Ibero-American Journal of Polymers*, Vol. 11, No. 3, May, pp. 145-158.
- 58) Zornberg, J.G., and McCartney, J.S. (2010). "Centrifuge Permeameter for Unsaturated Soils I: Theoretical Basis and Experimental Developments." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 136, No. 8, August, pp. 1051-1063.
- 59) McCartney, J.S., and Zornberg, J.G. (2010). "Centrifuge Permeameter for Unsaturated Soils II: Measurement of the Hydraulic Characteristics of an Unsaturated Clay." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 136, No. 8, August, pp. 1064-1076.
- 60) Zornberg, J.G., Bouazza, A., and McCartney, J.S. (2010). "Geosynthetic Capillary Barriers: Current State of Knowledge." *Geosynthetics International*, Vol. 17, No. 5, October, pp. 273-300.
- 61) McCartney, J.S., and Zornberg, J.G. (2010). "Effects of Infiltration and Evaporation on Geosynthetic Capillary Barrier Performance." *Canadian Geotechnical Journal*, Vol. 47, No. 11, November, pp. 1201-1213.
- 62) Williams, L., Dwyer, S., Zornberg, J.G., Hoyt, D., and Hargreaves, G. (2011). "Covering it All," *Civil Engineering*, ASCE, January, Vol. 81, No. 1, pp. 64-71.
- 63) Yang, K.H., Ching, J-Y., and Zornberg, J.G. (2011). "Reliability-Based Design for External Stability of Narrow Mechanically Stabilized Walls: Calibration from Centrifuge Tests." *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 137, No.3, March, pp. 239-253.
- 64) Yang, K.H., Zornberg, J.G., Hung, W.Y., and Lawson, C.R. (2011). "Location of Failure Plane and Design Considerations for Narrow GRS Wall Systems." *Journal of GeoEngineering*, Vol. 6, No. 1, April, pp.27-40.
- 65) Nogueira, C.L., Azevedo, R.F., and Zornberg, J.G. (2011). "Validation of Coupled Simulation of Excavations in Saturated Clay: Camboinhas Case History." *International Journal of Geomechanics*, ASCE, Vol. 11, No. 3, June, pp. 202-210.
- 66) McCartney, J.S., Nogueira, C.L., Homes, D., and Zornberg J.G. (2011). "Formation of Secondary Containment Systems using Permeation of Colloidal Silica." *Journal of Environmental Engineering*, ASCE, Vol. 137, No. 6, June, pp. 444-453.
- 67) Franca, F.A.N., Bueno, B.S., and Zornberg, J.G. (2011). "Confined, Accelerated Creep Tests on Geosynthetics." *Foundations and Geotechnical Projects*. Vol. 2, No. 12, December, pp. 56-63.
- 68) Yang, K.-H., Zornberg, J.G., Liu, C.N., and Lin, H.D. (2012). "Distribution and Development of Backfill Stress within Geosynthetic-Reinforced Soil Slopes," *Geosynthetics International*, February, Vol. 19, No. 5, pp. 62-78.
- 69) Zornberg, J.G. (2012). "Reinforcement of Pavements over Expansive Clays," *International Journal of Natural Disasters, Accidents and Civil Infrastructure*, Vol. 12, No. 1, May, pp. 144-150.
- 70) Li, C., and Zornberg, J.G. (2013). "Mobilization of Reinforcement Forces in Fiber-Reinforced Soil," *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, Vol. 139, No. 1, January, pp. 107-115.

- 71) Portelinha, F.H.M., Bueno, B.S., and Zornberg, J.G. (2013). "Performance of Nonwoven Geotextile Reinforced Walls under Wetting Conditions: Laboratory and Field Investigation," *Geosynthetics International*, Vol. 20, No. 2, April, pp. 90-104.
- 72) Zornberg, J.G. (2013). "Geosynthetic-reinforced Pavement Systems," *Civil Engineering*, CEDEX, No. 171, July, pp. 5-25.
- 73) Portelinha, F.H.M., Bueno, B.S., and Zornberg, J.G. (2013). "Performance of Nonwoven Geotextile Reinforced Wall with Unsaturated Fine Backfill Soil," *Journal of Civil Engineering and Architecture*, David Publishing, Vol. 7, No. 10, October, pp. 1253-1259.
- 74) Bouazza, A., Zornberg, J.G., McCartney, J.S., and Singh, R.M. (2013). "Unsaturated Geotechnics Applied to Geoenvironmental Engineering Problems Involving Geosynthetics," *Engineering Geology*, Elsevier, Vol. 165, October, pp. 143-153.
- 75) Costa, C.M.L., Zornberg, J.G., and Costa, Y.D.J. (2014). "Failure of Geotextile-Reinforced Walls in Centrifuge Model Tests," *Advanced Materials Research*, Advances in Civil Engineering and Building Materials III, Vol. 831, January, pp. 321-325.
- 76) Correia, N.S., and Zornberg, J.G. (2014). "Influence of Tack Coat Rate on the Properties of Paving Geosynthetics," *Transportation Geotechnics*, Elsevier, Vol. 1, No. 1, March, pp. 45-54.
- 77) Portelinha, F.H.M., Zornberg, and Pimentel, V. (2014). "Field Performance of Retaining Walls Reinforced with Woven and Nonwoven Geotextiles." *Geosynthetics International*, August, Vol. 21, No. 4, pp. 270-284.
- 78) Correia, N.S., Zornberg, J.G., and Bueno, B.S. (2014). "Behavior of Impregnated Paving Geotextiles – A Study of Optimum Tack Coat Rate," *Journal of Materials in Civil Engineering*, ASCE, November, Vol. 26, No. 11, pp. 1790-1797.
- 79) Kang, Y., BooHyum, N., Zornberg, J.G., and Cho, Y.H. (2015). "Pullout Resistance of Geogrid Reinforcement with In-Plane Drainage Capacity in Cohesive Soil," *KSCE Journal of Civil Engineering*, Springer, March, Vol. 19, No. 3, pp. 602-610.
- 80) Ferreira, J.A.Z., and Zornberg, J.G. (2015). "A Transparent Pullout Testing Device for 3D Evaluation of Soil-Geogrid Interaction," *ASTM Geotechnical Testing Journal*, September, Vol. 38, No. 5, pp. 686-707.
- 81) Cavalcante, A.L.B., and Zornberg, J.G. (2016). "Numerical Schemes to Solve Advective Contaminant Transport Problems with Linear Sorption and First Order Decay." *Electronic Journal of Geotechnical Engineering*, Vol. 21, No. 5, March, pp. 2043-2060.
- 82) Costa, C.M.L., Zornberg, J.G., Bueno, B.S., and Costa, Y.D.J. (2016). "Long-term Behavior of Geotextile-reinforced Soil Walls in Centrifuge Tests," *Geotextiles and Geomembranes*, April, Vol. 44, No. 2, pp. 188-200.
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## ORAL PRESENTATIONS

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- 1) Presentation of “On the Use of an Elasto-Plastic Model on the Analysis of Excavations.” *Canada-Brazil ISSMF Workshop for Young Researchers in South America* (Sponsored by CIDA and UNESCO), Rio de Janeiro, Brazil, December 1988.
- 2) Presentation of “Finite Element Analysis of Surface Failure in Open-Cut Excavations Using a Non-Associated Elasto-Plastic Model.” *Ninth Latin-American and Iberian Conference on Computational Methods in Engineering (MECOM '88)*, Córdoba, Argentina, November 1988.
- 3) Invited lecture, “Geotextile-Reinforced Soil Structures.” Geotechnical Research Seminar, University of California, Berkeley, California, March 1994.
- 4) Presentation of “Finite Element Prediction of the Performance of an Instrumented Geotextile-Reinforced Wall.” *Eight International Conference of the International Association for Computer Methods and Advances in Geomechanics (IACMAG '94)*, Morgantown, West Virginia, May 1994.
- 5) Invited lecture, “Design of Reinforced Embankments.” California State Department of Transportation, Sacramento, California, July 1994.
- 6) Invited lecture, “Performance of Geotextile-Reinforced Embankments at failure: a Centrifuge Study.” University of California, Berkeley, California, January 1995.
- 7) Presentation of “Construction and Instrumentation of a Highway Slope Reinforced with High Strength Geotextiles.” *Geosynthetics '95*, Nashville, Tennessee, February 1995.
- 8) Invited lecture, “Performance of Reinforced Soil Structures with Decomposed Granite as Backfill Material.” California State Department of Transportation, Redding, California, May 1995.
- 9) Invited lecture, “Limit Equilibrium Design of Reinforced Soil Structures.” Geotechnical Group, Woodward Clyde Consultants, Oakland, California, February 1995.
- 10) Invited lecture, “Performance of Geotextile-Reinforced Soil Structures at Failure.” GeoSyntec Consultants, Huntington Beach, California, March 1995.
- 11) Invited lecture, “Performance of Geotextile-Reinforced Soil Structures at Failure.” GeoSyntec Consultants, Atlanta, Georgia, March 1995.
- 12) Invited lecture, “Performance of Geotextile-Reinforced Soil Structures at Failure.” Sacramento Chapter of the American Society of Civil Engineers (ASCE), Sacramento, California, June 14, 1995.
- 13) Invited lecture, “Limit Equilibrium Design of Reinforced Soil Structures.” Geotechnical Group, Pontifical Catholic University of Rio de Janeiro (PUC-Rio), Rio de Janeiro, Brazil, June 23, 1995.
- 14) Presentation of “Performance of a Geotextile-Reinforced Slope using Decomposed Granite as Backfill Material.” *2nd Brazilian Symposium on Geosynthetics*, São Paulo, Brazil, June 27, 1995.
- 15) Invited lecture, “Performance of Geotextile-Reinforced Soil Structures at Failure.” Brazilian Society of Soil Mechanics and Foundation Engineering, São Paulo, Brazil, June 29, 1995.

- 16) Invited lecture, "Limit Equilibrium Design of Reinforced Soil Structures." First Argentine Workshop on Geosynthetics, Buenos Aires, Argentina, July 5, 1995.
- 17) Invited lecture, "Performance of Geotextile-Reinforced Soil Structures at Failure." Geotechnical Group, National University of Cordoba, Cordoba, Argentina, July 7, 1995.
- 18) Invited lecture, "Construction and Instrumentation of a Geotextile-Reinforced Embankment." Second Latin American Conference for Young Geotechnical Engineers, International Society of Soil Mechanics and Foundation Engineering, Rio de Janeiro, Brazil, July 21, 1995.
- 19) Presentation of "Failure of Steep Reinforced Soil Slopes." *Geosynthetics '97* Conference, Long Beach, California, March 12, 1997.
- 20) Invited lecture, "Failure of Geosynthetic-Reinforced Systems." Failure Analysis Associates, Menlo Park, California, August 29, 1997.
- 21) Invited presentation, "Percolation Control by Monocover Systems." Board of Directors OII Superfund Site, New Cure, Los Angeles, October 20, 1997.
- 22) Invited lecture, "Design of Geotextile-Reinforced Soil Structures." Synthetic Industries, Chattanooga, Tennessee, November 17, 1997.
- 23) Invited lecture, "The Role of Geotechnical Modeling in the Closure Design of a Superfund Site." Geotechnical Seminar, Department of Civil and Environmental Engineering, University of California, Berkeley, California, March 04, 1998.
- 24) Invited lecture, "Design of the Cover System at the OII Superfund Site." Geotechnical Seminar, GeoSyntec Consultants, Huntington Beach, California, March 5, 1998.
- 25) Invited lecture, "The Role of Geotechnical Modeling in the Closure Design of a Superfund Site." Geotechnical Program, University of Colorado at Boulder, Boulder, Colorado, March 16, 1998.
- 26) Invited lecture, "The Role of Geotechnical Modeling in the Closure Design of a Superfund Site." Civil Engineering Department, Columbia University, New York, New York, March 23, 1998.
- 27) Presentation of "Evaluation of a Geogrid-Reinforced Slope Subjected to Differential Settlements." *Sixth International Conference on Geosynthetics*, Atlanta, Georgia, March 28, 1998.
- 28) Invited lecture, "The Role of Geotechnical Modeling in the Closure Design of a Superfund Site." Geotechnical Group, Pontifical Catholic University of Rio de Janeiro (PUC-Rio), Rio de Janeiro, Brazil, April 24, 1998.
- 29) Interview by *Erosion Control Magazine's* Editor. April, 1998. Interview published in: "Vegetating Steep Reinforced Slopes" (1998) by D. Sawvel, Vol. 5, No. 3, pp. 72-79.
- 30) Keynote lecture, "Numerical Simulation of Differential Settlements of a Structure Founded on Waste." Third International Workshop on *Applications of Computational Mechanics in Geotechnical Engineering*, Porto, Portugal, September 4, 1998.
- 31) Invited lecture, "Development of a Discrete Design Methodology for Fiber Reinforcement." Synthetic Industries, Chattanooga, TN, September 25, 1998.
- 32) Invited lecture, "Performance of Geotextile-Reinforced Soil Structures at Failure." Geotechnical Group, University of Colorado at Boulder, Boulder, Colorado, September 28, 1998.
- 33) Invited seminar, "The use of Fiber Reinforcement in Slope Stabilization Applications." Presentation to Synthetic Industries, Boston, April 29, 1999.
- 34) Invited lecture, "Use of Tire Shreds in Highway Embankments." Colorado Advanced Materials Institute, Golden, Colorado, June 1, 1999.
- 35) Presentation of "Selection of Backfill Shear Strength in Reinforced Soil Design." *XI Panamerican Conference on Soil Mechanics and Geotechnical Engineering (PCSMGE)*, Foz do Iguaçu, Brazil, August 9, 1999.

- 36) Presentation of General Report, Special Session on Soil Improvement and Reinforcement. *XI Panamerican Conference on Soil Mechanics and Geotechnical Engineering (PCSMGE)*, Foz do Iguacu, Brazil, August 9, 1999.
- 37) Invited lecture, "Geotechnical Modeling in Geoenvironmental Engineering Projects." Geotechnical Group, National University of Cordoba, Cordoba, Argentina, August 17, 1999.
- 38) Presentation of General Report, Session on "Case Histories Involving Geosynthetics." *First Panamerican Conference on Geosynthetics*, Rio de Janeiro, Brazil, October 22, 1999.
- 39) Invited lecture, "Use of Tire Shreds in Highway Embankments." Colorado Advanced Materials Institute, Golden, Colorado, February 17, 2000.
- 40) Invited lecture, "Analysis and Design of an Evapotranspirative Cover for a Hazardous Waste Landfill." Environmental Protection Agency, Region 8, Denver, Colorado, May 18, 2000.
- 41) Invited lecture, "Performance of Geosynthetic-Reinforced Soil Structures." Colorado Department of Transportation, Denver, Colorado, June 1, 2000.
- 42) Invited lecture, "Rescuing the Leaning Tower of Pisa." Success Institute, Integrated Teaching and Learning Laboratory, University of Colorado, Boulder, Colorado, June 24, 2000.
- 43) Invited lecture, "Tire Shred-Reinforced Embankments." Colorado Advanced Materials Institute, Golden, Colorado, June 27, 2000.
- 44) Interview by *Geosynthetics News Magazine*. October 2000. Interview published in: "Industry Initiatives Applauded by Conference Organizer of GeoDenver 2000" by Sam Garrett, Vol. 5, No. 10, pp.18-20.
- 45) Invited lecture, "Optimization and Performance of Tire Shred-Reinforced Embankments." Colorado Advanced Materials Institute, Golden, Colorado, January 30, 2001.
- 46) Invited lecture, "Analysis and Design of an Evapotranspirative Cover System for a Hazardous Waste Landfill." American Society of Civil Engineers (ASCE), Colorado Section, Joint meeting, Environmental and Geotechnical groups, Denver, Colorado, February 15, 2001.
- 47) Invited lecture, "Role of Numerical Modeling in the Design of a Hazardous Waste Containment Facility." URS Greiner, Denver, Colorado, March 15, 2001.
- 48) Invited lecture, "Rescuing the Leaning Tower of Pisa." Success Institute, Multicultural Engineering Program (MEP), Integrated Teaching and Learning Laboratory, University of Colorado, Boulder, Colorado, July 27, 2001.
- 49) Invited lecture, "Tire Shred-Reinforced Embankments." Colorado Advanced Materials Institute, Golden, Colorado, August 31, 2001.
- 50) Invited lecture, "Evapotranspirative Cover System for a Hazardous Waste Landfill." Colorado School of Mines, Environmental Science and Engineering Division, Golden, Colorado, September 6, 2001.
- 51) Invited lecture, "Rocky Mountain Arsenal Demonstration Project." Interstate Technology Regulatory Council Symposium, Austin, Texas, September 11, 2001.
- 52) Invited lecture, "Discrete Design Methodology for Fiber Reinforcement." Synthetic Industries, Soil Reinforcement Group, Chattanooga, Tennessee, October 5, 2001.
- 53) Invited lecture, "Comparison of International Design Criteria for Geosynthetic-Reinforced Soil Structures." International Symposium on Earth Reinforcement, Fukuoka, Japan, November 16, 2001.
- 54) Invited lecture, "Selection of Soil Shear Strength Parameters in Geosynthetic-Reinforced Soil Design." Fifteenth Geosynthetic Research Institute Conference, Houston, Texas, December 14, 2001.
- 55) Invited lecture, "Advances on Reinforced Soil Technology." American Society of Civil Engineers (ASCE), Geotechnical Group, Los Angeles Section, Los Angeles, California, January 23, 2002.
- 56) Invited lecture, "Evapotranspirative Cover System at a Superfund Site." Interstate Technology Regulatory Cooperation, Alternative Landfill Technologies Team Meeting, Salt Lake City, Utah, March 5, 2002.

- 57) Invited lecture, "Alternatives in Waste Cover Systems." College of Engineering and Applied Sciences, University of Colorado, Boulder, March 6, 2002.
- 58) Presentation of General Report, Session on Applied Unsaturated Soil Mechanics. *Third International Conference on Unsaturated Soils*, UNSAT 2002, Recife, Brazil, March 11, 2002.
- 59) Presentation of "Scale Factors for Centrifuge Modeling of Unsaturated Flow." *Third International Conference on Unsaturated Soils*, UNSAT 2002, Recife, Brazil, March 13, 2002.
- 60) Invited lecture, "Advances in Reinforced Soil Technology." School of Civil Engineering, Technical University of Catalonia, Barcelona, Spain, June 21, 2002.
- 61) Invited presentation, "Alternatives in Waste Cover Systems and in Engineering Education." National Science Foundation, Arlington, Virginia, July 11, 2002.
- 62) Invited lecture, "Rescuing the Leaning Tower of Pisa." *Success Institute*, Multicultural Engineering Program (MEP), Integrated Teaching and Learning Laboratory, University of Colorado, Boulder, Colorado, July 26, 2002.
- 63) Invited lecture, "New Composite Systems: Should We Represent them using Discrete or Homogenized Frameworks?" NSF Workshop on Geotechnical Composite Systems, Roanoke, Virginia, July 28, 2002.
- 64) Invited keynote lecture, "Geosynthetics in Waste Containment Facilities: Recent Advances" *International Conference on Geosynthetics*, International Geosynthetics Society, Nice, France, September 23, 2002.
- 65) Invited lecture, "Role of Centrifuge Modeling in the Design of an Evapotranspirative Cover for a Hazardous Waste Landfill" *INEEL Geocentrifuge Workshop*, Idaho Falls, Idaho, March 28, 2003.
- 66) Presentation of General Report, Session on Geosynthetics in Environmental Applications. *Fourth Brazilian Symposium on Geosynthetics*, Porto Alegre, Brazil, May 21, 2003.
- 67) Invited keynote lecture, "New Trends in the Use of Geosynthetics in Environmental Applications." *Fourth Brazilian Symposium on Geosynthetics*, Porto Alegre, Brazil, May 21, 2003.
- 68) Invited lecture "Geosynthetics Education via the University." Geosynthetic Institute Meeting, Denver, Colorado, June 19, 2003.
- 69) Presentation of "Design of Fiber-Reinforced Soil." *Twelfth Panamerican Conference of Soil Mechanics and Geotechnical Engineering*, Cambridge, Massachusetts, June 23, 2003.
- 70) Invited lecture "Comparison of International Design Criteria for Geosynthetic-Reinforced Soil Structures." TC9 Earth Reinforcement Committee Meeting, Cambridge, Massachusetts, June 25, 2003.
- 71) Invited keynote lecture, "Assessment of Evapotranspirative Cover Performance using Field Data and Numerical Modeling" *Fourth International Workshop on Applications of Computational Methods in Geotechnical Engineering*, Ouro Preto, Brazil, August 18, 2003.
- 72) Presentation of "Validation of Discrete Framework for Fiber Reinforcement." *2003 North American Conference on Geosynthetics*, Winnipeg, Canada, October 1, 2003.
- 73) Invited lecture, "Rescuing the Leaning Tower of Pisa." Introduction to Civil Engineering CE 301, University of Texas, Austin, November 17, 2003.
- 74) Presentation of "Needs in Geosynthetics Research for Hydraulic Structures." *Seventeenth Geosynthetic Research Institute Conference*, Hot Topics in Geosynthetics IV, Las Vegas, Nevada, December 17, 2003.
- 75) Invited lecture, "Fiber-Reinforced Soil." Tenax Corporation, Technical Support Group, Baltimore, MD, January 12, 2004.
- 76) Presentation of "Mechanical Performance of a Prototype Embankment Backfill Built with Tire Shreds and Cohesive Soil." *83rd Annual Meeting*, Transportation Research Board, Washington D.C., January 13, 2004.
- 77) Presentation of "The Quest for Consistency among Regulatory, Design, and Post-Closure Monitoring Frameworks." *Designing, Building, & Regulating Evapotranspiration (ET) Landfill Covers*, USEPA Remediation Technology Development Forum Program, Denver, Colorado, March 10, 2004.

- 78) Presentation of "Effect of Specimen Conditioning on Geosynthetic Clay Liner Shear Strength." *Third Asian Regional Conference on Geosynthetics, GeoAsia 2004*, Seoul, Korea, June 23, 2004.
- 79) Invited lecture, "Discrete Framework for Analysis of Fiber-Reinforced Soil." Geotechnical Engineering Program, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil, July 13, 2004.
- 80) Invited lecture, "ET Covers: The Quest for Consistency among Regulatory, Design, and Post-closure Monitoring Frameworks." Brazilian Institute of Agricultural Research (EMBRAPA), Rio de Janeiro, Brazil, July 14, 2004.
- 81) Invited lecture, "New Trends in the Use of Geosynthetics in Environmental Applications." Geotechnical Engineering Program, National University of Cordoba, Cordoba, Argentina, July 20, 2004.
- 82) Invited lecture, "Discrete Framework for Analysis of Fiber-Reinforced Soil." Geotechnical Engineering Department, University of Sao Paulo, Sao Carlos, Brazil, December 16, 2004.
- 83) Presentation of "Geosynthetic Reinforcement in Landfill Design: US Perspectives." *Geo-Frontiers 2005*, Geo-Institute Congress, Austin, Texas, January 25, 2005.
- 84) Presentation of "Pullout of Geosynthetic Reinforcement with In-plane Drainage Capability." *Eighteenth Geosynthetic Research Institute Conference*, Geosynthetics Research and Development in Progress, Austin, Texas, January 26, 2005.
- 85) Invited lecture, "ET Covers: The Quest for Consistency among Regulatory, Design, and Post-closure Monitoring Frameworks." Geotechnical Engineering Department, University of Sao Paulo, Sao Carlos, Brazil, May 25, 2005.
- 86) Invited lecture, "Evapotranspirative Cover Systems for Municipal and Hazardous Waste Containment Systems." Civil Engineering Department, Federal University of Pernambuco, Recife, Brazil, May 30, 2005.
- 87) Invited lecture, "US Trends in the Use of Geosynthetics in Environmental Applications." Sao Paulo Institute of Technology, Sao Paulo, Brazil, June 1, 2005.
- 88) Invited lecture, "Determination of Field Suction Values in High PI Clays for Various Surface Conditions and Drain Installations." Structures Research Management Committee (RMC 5), Lion Red Hotel, Austin, June 6, 2005.
- 89) Invited lecture, "Rescuing the Leaning Tower." Minority Introduction to Engineering program (MITE), College of Engineering, University of Texas, Austin, June 23, 2005.
- 90) Presentation of "The Centrifuge Permeameter for Unsaturated Soils (CPUS)." *International Symposium on Advanced Experimental Unsaturated Soil Mechanics, Experus 2005*, Trento, Italy, June 28, 2005
- 91) Presentation of "Evaluation of Evapotranspiration from Alternative Landfill Covers at the Rocky Mountain Arsenal." *International Symposium on Advanced Experimental Unsaturated Soil Mechanics, Experus 2005*, Trento, Italy, June 29, 2005.
- 92) Invited keynote lecture, "Energy Balance and Evapotranspiration Measurement." State-of-the-art paper, *International Symposium on Advanced Experimental Unsaturated Soil Mechanics, Experus 2005*, Trento, Italy, June 29, 2005.
- 93) Invited lecture, "Advances in Reinforced Soil Technology." *International Symposium on Geosynthetic Applications for Ground Reinforcement and Improvement*, Busan, South Korea, July 6, 2005.
- 94) Presentation of "Comparison between Field Monitoring and Numerical Results of a Woven Geotextile-Reinforced Soil Retaining Wall." *Sixteenth International Conference of Soil Mechanics and Geotechnical Engineering (ISSMGE)*, Osaka, Japan, September 15, 2005.
- 95) Presentation of "Interface Shear Strength in Fiber-Reinforced Soil." *Sixteenth International Conference of Soil Mechanics and Geotechnical Engineering (ISSMGE)*, Osaka, Japan, September 15, 2005.
- 96) Presentation of "Geosynthetic Drainage Layers in Contact with Unsaturated Soils." *Sixteenth International Conference of Soil Mechanics and Geotechnical Engineering (ISSMGE)*, Osaka, Japan, September 15, 2005.

- 97) Invited lecture, "Geosynthetics in Dams: Current Research and Applications." *Dam Safety 2005 Conference*, Association of State Dam Safety Officials, Orlando, Florida, September 26, 2005.
- 98) Invited lecture, "Geosynthetic Performance in Dams." International Standards Organization, TC221 / ASTM D 35 – *Workshop on Geosynthetics in Hydraulic Applications*, Philadelphia, Pennsylvania, November 2, 2005.
- 99) Invited, lecture, "Quantify the Benefits of Using Geosynthetics for Unbound Base Courses." RMC 1 Meeting, Construction, Pavements, Maintenance TxDOT Research Group, Corpus Christi, Texas, November 9, 2005.
- 100) Presentation of "Advances on the Use of Geosynthetics in Hydraulic Systems." *Nineteenth Geosynthetic Research Institute Conference (GRI-19)*, Geosynthetics Institute, Las Vegas, Nevada, December 16, 2005.
- 101) Presentation of "Use of Geosynthetics in Hydraulic Systems." *Geosynthetics Workshop*, Geosynthetics Research Center, University of Sao Paulo, Sao Carlos, June 10, 2006.
- 102) Presentation of "Advances in Remediation Technologies." *Fifth International Conference on Environmental Geotechnics*, International Society of Soil Mechanics and Geotechnical Engineering, Cardiff, U.K., June 29, 2006.
- 103) Invited lecture, "Advances in Reinforced Soil Technology." Australasian Chapter of the International Geosynthetics Society, Melbourne, Australia, August 17, 2006.
- 104) Invited lecture, "ET Covers: The Quest for Consistency among Regulatory, Design, and Post-closure Monitoring Frameworks." Geotechnical Engineering Program, Monash University, Melbourne, Australia, August 18, 2006.
- 105) Invited lecture, "Geosynthetic-Reinforced Pavements over Expansive Soil Subgrades." International Tensar meeting, Lima, Peru, October 18, 2006.
- 106) Invited lecture, "Reinforcement Applications in Environmental and Mining Projects." International Tensar meeting, Lima, Peru, October 18, 2006.
- 107) Invited lecture, "Advances in Reinforced Soil Technology." Peruvian Chapter of the International Geosynthetics Society, Lima, Peru, October 18, 2006.
- 108) Invited lecture, "Geosynthetic-Reinforced Structures: Advances in their Design under Conventional and Unconventional Loads." Texas A&M University, College Station, November 30, 2006.
- 109) Presentation of "Use of Fiber-Reinforced Soil for Blast Protection." *Twentieth Geosynthetic Research Institute Conference (GRI-208)*, Washington DC, January 18, 2007.
- 110) Invited lecture, "The Texas Experience in Civil Engineering Applications of Waste Tires." Cross-Border Environmental Management Conference, LBJ School of Public Affairs, University of Texas, Austin, February 27, 2007.
- 111) Keynote lecture. "New Concepts in Geosynthetic-Reinforced Soil." *Fifth Brazilian Symposium on Geosynthetics*, Geosintéticos 2007, and *Sixth Brazilian Congress on Environmental Geotechnics*, REGEO '2007, Recife, Brazil June 18, 2007.
- 112) Invited lecture, "Reinforced soil Walls: Advances in their Design under Conventional and Non-conventional Loads." Geotechnical Group, National University of Cordoba, Cordoba, Argentina, July 13, 2007.
- 113) Invited lecture, "Use of Geosynthetic Reinforcement in Cover Systems for Environmental Protection." *International Workshop on Geoenvironmental Engineering*, Argentinean Society of Geotechnical Engineering, Cordoba, Argentina, October 19, 2007.
- 114) Invited lecture, "Use of Geosynthetic Reinforcement in Landfill Design." *Workshop on the Geotechnical Stability of Landfills*, Brazilian Society of Soil Mechanics, Sao Paulo, Brazil, October 22, 2007.
- 115) Invited lecture, "Use of Geosynthetic Reinforcement in Landfill Design." *Workshop on the Use of Geosynthetics in Environmental Protection*, Brazilian Society of Soil Mechanics, Rio de Janeiro, Brazil, October 25, 2007.
- 116) Keynote lecture, "New Horizons in Reinforced Soil Technology." Proceedings of the *Fifth International Symposium on Earth Reinforcement (IS Kyushu 2007)*, Fukuoka, Japan, November 15, 2007.

- 117) Invited lecture, "New Trends on the Use of Geosynthetics for Environmental Protection." Mexican Chapter of the International Geosynthetics Society, Mexico City, November 29, 2007.
- 118) Presentation of "Time-Dependent Deformations of Geotextile-Reinforced Walls in Reduced-Scale Models." *GeoAmericas 2008*, the First PanAmerican Geosynthetics Conference and Exhibition, March 5, 2008.
- 119) Invited lecture, "US Regulations for Containment of Municipal and Hazardous Solid Waste." *Geosynthetics Asia 2008*, the Fourth Asian Conference on Geosynthetics, Shanghai, China, June 19, 2008.
- 120) Invited lecture, "Advances in Reinforced Soil Technology." Geotechnical Engineering Program, Shanghai University, Shanghai, China, June 20, 2008.
- 121) Invited lecture, "Use of Geosynthetic Reinforcement in Landfill Design." *Workshop on Soil Reinforcement Applications*, Department of Geotechnical Engineering, University of Sao Paulo, Sao Carlos, August 1, 2008.
- 122) Invited lecture, "Design of Geocomposite Drainage Layers." *Structure, Testing, Performance and Application of Drainage Geocomposites in Landfills*, Texas Research International (TRI), Austin, Texas, November 5, 2008.
- 123) Invited lecture, "Use of Geosynthetic Reinforcement in Landfill Design." Civil Engineering Department, Sungkyunkwan University, Seoul, Korea, November 20, 2008.
- 124) Keynote lecture, "Advances in Soil Reinforcement Technology." *Korean Geosynthetics Conference*, Seoul, Korea, November 21, 2008.
- 125) Keynote lecture, "Advances in the Use of Geosynthetics for Environmental Projects." *24<sup>th</sup> National Conference on Soil Mechanics*, Mexican Society of Soil Mechanics, Aguascalientes, Mexico, November 27, 2008.
- 126) Invited lecture, "Design of Drainage Systems for Landfill Applications." Texas Commission for Environmental Quality (TCEQ), Austin, Texas, December 7, 2008.
- 127) Invited lecture, "ET Covers: The Quest for Consistency among Regulatory, Design, and Post-closure Monitoring Frameworks." Geo-Engineering Centre, Queen's University, Kingston, Ontario, Canada, December 17, 2008.
- 128) Invited presentation, "Evaluation of Moisture Monitoring Data at the Rocky Mountain Arsenal." Environmental Protection Agency, Region 5, Denver, Colorado, March 3, 2009.
- 129) Invited lecture, "ET Covers: The Quest for Consistency among Regulatory, Design, and Post-closure Monitoring Frameworks." Geoenvironmental Engineering Action Group Conference, Geosyntec Consultants, Austin, Texas, April 04, 2009.
- 130) Keynote lecture, "Design of Drainage Systems for Waste Containment." *Environmental Trade Fair and Conference*, Texas Commission on Environmental Quality, Austin, Texas, May 14, 2009.
- 131) Invited lecture, "Advances in Soil Reinforcement Technology." Brazilian Society of Geotechnical Engineering, PUC-Rio, Rio de Janeiro, Brazil, June 22, 2009.
- 132) Keynote lecture, "Geosynthetic Capillary Barriers: Principles and Applications." *First African Conference on Geosynthetics*, GeoAfrica 2009, Cape Town, South Africa, September 24, 2009.
- 133) Presentation of "A Model for the Characterization of Scrap the Scrap Tire Bale Interface." *GeoFlorida 2010*, Geo-Institute, ASCE, West Palm Beach, Florida February 24, 2010.
- 134) Keynote lecture, "Reinforced Walls: Advances in their Design." *First Mexican Conference on Geosynthetics*, Mexican Society of Geotechnical Engineering (SMIG), Colegio de Ingenieros, Mexico city, Mexico, March 11, 2010.
- 135) Invited lecture, "US Regulations on Waste Containment." *First Mexican Conference on Geosynthetics*, Mexican Society of Geotechnical Engineering (SMIG), Colegio de Ingenieros, Mexico city, Mexico, March 12, 2010.

- 136) Invited lecture, "Implications on the Adoption of a Design Criterion for Unsaturated Soil Covers." *Water Balance Covers Workshop*, US Environmental Protection Agency and Texas Commission on Environmental Quality, Austin, Texas, April 1, 2010.
- 137) Presentation of "Field Monitoring of Reinforced Pavements over Expansive Clays." *9th International Conference on Geosynthetics*, 9ICG, Guarujá, Brazil, May 26, 2010.
- 138) Presentation of "Geosynthetics in Pavements: North American Contributions." Theme Speaker Lecture, *9th International Conference on Geosynthetics*, 9ICG, Guarujá, Brazil, May 26, 2010.
- 139) Presentation of "Effective Shear Strength of Fiber-Reinforced Clays." *9th International Conference on Geosynthetics*, 9ICG, Guarujá, Brazil, May 27, 2010.
- 140) Invited lecture, "Studying at the University of Texas at Austin." Ecole Central de Lille, International Exchange Program, Lille, France, June 17, 2010.
- 141) Invited lecture, "New Trends in the Use of Geosynthetics for Environmental Protection." University Lille 1, Lille, France, June 23, 2010.
- 142) Invited lecture, "Geosynthetics in Capillary Barriers." Ecole Central de Lille, Laboratory of Engineering Mechanics, Lille, France, June 24, 2010.
- 143) Presentation of "Testing of an Expansive Clay in a Centrifuge Permeameter." *7th International Conference on Physical Modelling in Geotechnics (ICPMG 2010)*, Zurich, Switzerland, June 29, 2010.
- 144) Invited lecture, "Geosynthetics in the Design of Basal Reinforcement for Flexible Pavements." Technion, Israel Institute of Technology, Haifa, Israel, July 04, 2010.
- 145) Invited lecture, "Use of Geosynthetics in Landfill Design." CEDEX, Center of Studies and Testing for Public Works, Madrid, Spain, September 14, 2010.
- 146) Invited lecture, "Demonstration, Design and Construction of Unsaturated Soil Covers at the Rocky Mountain Arsenal." Texas Commission for Environmental Quality (TCEQ), Austin, Texas, October 05, 2010.
- 147) Invited lecture, "Lessons Learned from Monitoring of Water Balance Covers at the Rocky Mountain Arsenal." Texas Commission for Environmental Quality (TCEQ), Austin, Texas, October 26, 2010.
- 148) Keynote Lecture, "Advances on the Use of Geosynthetics in Reinforced Soil Structures." *Second Peruvian Conference on Geosynthetics, GEOSPERU 2010*, Lima, Peru, November 04, 2010.
- 149) Presentation of "Perspectives on Global Geoenvironmental Engineering Challenges and Opportunities: Geosynthetics in Waste Containment Facilities." *US-India Workshop on Global Geoenvironmental Engineering Challenges*, New Delhi, India, November 07, 2010.
- 150) Presentation of "Analysis, Modeling, Design, and Evaluation Monitoring of Alternative Covers at the Rocky Mountain Arsenal." *Sixth International Conference on Environmental Geotechnics*, 6ICEG, New Delhi, India, November 08, 2010.
- 151) Keynote lecture, "Advances in Landfill Design Practice in the US." *International Seminar on Geosynthetic Applications*, Central Board of Irrigation and Power, New Delhi, India, November 12, 2010.
- 152) Keynote lecture, "Geosynthetic Capillary Barriers." *First International GSI-Asia Geosynthetics Conference*, Taichung, Taiwan, November 18, 2010.
- 153) Invited lecture, "Geosynthetic Capillary Barriers." Geotechnical Engineering Department, University of Sao Paulo, Sao Carlos, Brazil, December 10, 2010.
- 154) Invited lecture, "Lessons Learned from Monitoring of Water Balance Covers at the Rocky Mountain Arsenal." Geotechnical Engineering Program, National University of Cordoba, Cordoba, Argentina, December 13, 2010.
- 155) Invited lecture, "Moisture Monitoring of Water Balance Cover Test Plots." Texas Commission for Environmental Quality (TCEQ), Austin, Texas, January 05, 2011.
- 156) Invited lecture, "Characterization of Soil-Geosynthetic Interfaces for Reinforced Pavement Applications." American Society of Testing and Materials (ASTM) Annual meeting, Baltimore, Maryland, February 03, 2011.

- 157) Presentation of “Design Criteria and Construction of a Capillary Barrier Cover System: The Rocky Mountain Arsenal Experience,” *GeoFrontiers 2011 Conference*, Geo-Institute of ASCE, Dallas, Texas, March 14, 2011.
- 158) Invited lecture, “Design of Drainage Systems.” *Structure and Drainage Design with Geosynthetic Drains*, Texas Research International (TRI), Austin, Texas, May 02, 2011.
- 159) Invited lecture, “Geosynthetics in Hydraulic Projects.” *Hydraulic Resources Agency, Argentine Government*, Ministry of Public Works, Buenos Aires, Argentina, June 15, 2011.
- 160) Keynote lecture, “Advances in the Use of Geosynthetic for Waste Containment.” *Fifteenth African Regional Conference on Soil Mechanics and Geotechnical Engineering*, Maputo, Mozambique, July 17, 2011.
- 161) Invited lecture, “Innovation in Geotechnical Engineering: Geosynthetics.” *Fifteenth African Regional Conference on Soil Mechanics and Geotechnical Engineering*, Maputo, Mozambique, July 19, 2011.
- 162) Invited lecture, “Advances in Geoenvironmental Engineering.” Texas Commission for Environmental Quality (TCEQ), Texas-Nuevo Leon Cooperation Program, Austin, Texas, July 28, 2011.
- 163) Keynote lecture, “Advances in the Use of Geosynthetic in Pavement Reinforcement.” *Geosynthetics India '11*, Indian Institute of Technology Madras, Chennai, India, September 23, 2011.
- 164) Presentation of “Testing of Expansive Clays in a Centrifuge Permeameter.” *XIV Pan-American Conference on Soil Mechanics and Geotechnical Engineering*, Toronto, Canada, October 03, 2011.
- 165) Invited lecture, “Teaching Geotechnical Engineering in the US: Some Opportunities and Constraints.” *XIV Pan-American Conference on Soil Mechanics and Geotechnical Engineering*, Toronto, Canada, October 05, 2011.
- 166) Invited lecture, “Reinforcement of Pavements over Expansive Clays.” *2<sup>nd</sup> Workshop of Latin Professors in Geotechnical Engineering*, Atlanta, GA, October 07, 2011.
- 167) Invited lecture, “Research Initiatives in Geotechnical Engineering.” *2<sup>nd</sup> Workshop of Latin Professors in Geotechnical Engineering*, Atlanta, GA, October 08, 2011.
- 168) Keynote lecture, “US Perspectives on Geosynthetics in Road Pavement Applications.” *Belgian Road Research Centre*, Brussels, Belgium, December 07, 2011.
- 169) Invited lecture, “Ingenuity in Geotechnical Engineering: Geosynthetics.” *Jubilee 150 Years of HUESKER*, Dusseldorf, Germany, January 20, 2012.
- 170) Invited lecture, “The Unsaturated Soil Covers at the Rocky Mountain Arsenal: Important Lessons Learned from their Monitored Performance.” Geotechnical Engineering Program, *University of Michigan*, Ann Arbor, Michigan, February 22, 2012.
- 171) Invited lecture, “Advances in the Use of Geosynthetics in Reinforced Pavement Design.” *Capital Area Pavement Engineers Council (CAPEC)*, Austin, Texas, February 23, 2012.
- 172) Keynote Lecture, “Ingenuity in Geotechnical Design using Geosynthetics.” *State-of-the-Art Keynote Lecture*, Geo-Congress 2012, Oakland, CA March 28, 2012.
- 173) Keynote Lecture, “Geosynthetics in Reinforced Soil Applications.” *US-Russia Geotechnical Engineering Workshop*, Oakland, California, March 30, 2012.
- 174) Invited lecture, “Unsaturated Soils and Geosynthetics: The covers at the Rocky Mountain Arsenal.” *California Institute of Technology, Caltech*, Pasadena, California, April 12, 2012.
- 175) Keynote State-of-the-Art Lecture, “Geosynthetics and Unsaturated Soils.” *The 15<sup>th</sup> Annual George F. Sowers Symposium*, Atlanta, Georgia, May 08, 2012.
- 176) Invited Lecture, “Geosynthetic-reinforced Pavements for Mitigation of Cracks Induced by Expansive Clays.” *First Ankara Geosynthetics Seminar*, Ankara, Turkey, June 05, 2012.
- 177) Keynote Lecture, “US Perspectives in the Design of Geosynthetic-reinforced Soil Structures.” *First Ankara Geosynthetics Conference*, Ankara, Turkey, June 06, 2012.
- 178) Invited lecture, “Geosynthetic-Reinforced Pavements.” *Ministry of Infrastructure*, Cordoba, Argentina, June 26, 2012.

- 179) Invited Presentation, "Introduction to Cover Systems." *Yamana Gold*, Mineração Fazenda Brasileiro, Bahia, Brazil, July 05, 2012.
- 180) Invited lecture, "Unsaturated Soils and Geosynthetics - Or the Mysterious Response of the Covers at the Rocky Mountain Arsenal." Geotechnical Engineering Program, *Federal University of Rio de Janeiro*, Rio de Janeiro, Brazil, July 09, 2012.
- 181) Invited lecture, "Ingenuity in Geotechnical Design using Geosynthetics." Geotechnical Engineering Program, Universidad de los Andes, Bogota, Colombia, July 25, 2012.
- 182) Invited lecture, "Advances in the Use of Geosynthetics for Reinforced Pavements." International Tensar Conference, Cancun, Mexico, August 21, 2012.
- 183) Invited lecture, "Geosynthetic-reinforced Cover Systems." International Tensar Conference, Cancun, Mexico, August 21, 2012.
- 184) Keynote Lecture, "Geosynthetic-reinforced Pavement Systems." *Fifth European Geosynthetics Conference*, EuroGeo5, Valencia, Spain, September 19, 2012.
- 185) Keynote Lecture, "Ingenuity in Geotechnical Engineering: Geosynthetics." *Second Mexican Geosynthetics Conference*, Mexico City, Mexico, October 11, 2012.
- 186) Invited lecture, "Ingenuity in Geotechnical and Geoenvironmental Design using Geosynthetics." Civil Engineering Graduate Seminar Series, The University of Texas at San Antonio, San Antonio, Texas, October 26, 2012.
- 187) Invited lecture, "Geosynthetic-reinforced Pavement System." Mirafi Geosynthetics Seminar, San Antonio, Texas, October 30, 2012.
- 188) Invited lecture, "Ingenuity in Geotechnical Design using Geosynthetics." San Diego Geo-Institute Chapter, ASCE, San Diego, California, November 28, 2012.
- 189) Invited Lecture, "Advances on the Use of Geosynthetics in Reinforced Soil Structures." Kleinfelder Technical Presentation, Webinar, San Diego, CA, January 29, 2013.
- 190) Invited lecture, "Characterization of Swelling Clays using Centrifuge Technology." *Capital Area Pavement Engineers Council (CAPEC)*, City of Austin Learning & Research Center, Austin, Texas, March 28, 2013.
- 191) Presentation of "The International Geosynthetics Society (IGS): No Borders for the Good Use of Geosynthetics." *25-Year Retrospectives on the Geosynthetic Industry and Glimpses Into the Future*, Twenty-fifth Geosynthetic Research Institute Conference (GRI-25), Long Beach, California, April 02, 2013.
- 192) Presentation of "Confined-Accelerated Creep Tests on Geosynthetics." *Geosynthetics 2013 Conference*, Long Beach, California, April 03, 2013.
- 193) Invited lecture, "*Geosynthetics in Geotechnical Engineering*." Educate the Educators Program, Carlos Paz, Argentina, May 26, 2013.
- 194) Keynote lecture, "Ingenuity in Geotechnical Design using Geosynthetics." Engineers Centre, *Ghanaian Institution of Engineers*, Accra, Ghana, July 09, 2013.
- 195) Invited lecture, "Ingenuity in Geotechnical Design using Geosynthetics." Catholic University of Chile, Department of Structural and Geotechnical Engineering, Santiago, Chile, August 06, 2013.
- 196) Keynote Lecture, "Advances in the Design of Geosynthetic-reinforced Soil Structures." Chilean Chamber of Commerce, Santiago, Chile, August 07, 2013.
- 197) Presentation of "Characterization of Soil-geosynthetic Interaction under Small Displacement Conditions." *18<sup>th</sup> International Conference on Soil Mechanics and Geotechnical Engineering*, Paris, France, September 05, 2013.
- 198) Keynote Lecture, "Ingenuity in Geotechnical Design using Geosynthetics." *18<sup>th</sup> International Conference on Soil Mechanics and Geotechnical Engineering*, Geosynthetics Workshop, Paris, France, September 05, 2013.
- 199) Presentation of "International Geosynthetics Society Activities in the Geo-Profession." *18<sup>th</sup> International Conference on Soil Mechanics and Geotechnical Engineering*, FedIGS Workshop, Paris, France, September 05, 2013.

- 200) Keynote lecture, “Advances in the Use of Geosynthetics for Paved Roads.” *The British Geotechnical Association*, Institution of Civil Engineers, London, U.K., October 09 2013.
- 201) Keynote Lecture, “Recent Examples of Innovation in Projects using Geosynthetics.” *1<sup>st</sup> Iberic Conference on Geosynthetics*, Geosintec Iberia 1, Seville, Spain, 06 November 2013.
- 202) Keynote Lecture “Geosynthetics in Roadway Applications.” *2<sup>nd</sup> African Regional Conference on Geosynthetics*, GeoAfrica 2013, Accra, Ghana, 18 November 2013.
- 203) Presentation of “Advantages and Applications of Enhanced Lateral Drainage in Pavement Systems.” *2<sup>nd</sup> African Regional Conference on Geosynthetics*, GeoAfrica 2013, Accra, Ghana, November 20, 2013.
- 204) Invited lecture, “Education on Geosynthetics.” *Geotechnical Professors Workshop, GeoLatina III*, Atlanta, Georgia, February 27, 2014.
- 205) Invited lecture, “Generation of Alternative Energy involving Exposed Geomembrane Covers.” Geo-San Antonio 2014, Geotechnical Topics in the Energy Sector, San Antonio, Texas, March 14, 2014.
- 206) Keynote Lecture, “Advances in the Use of Geosynthetic-Reinforced Soil Structures.” *Fourteenth National Conference on Geotechnics*, Portuguese Geotechnical Society, Covilha, Portugal, April 07, 2014.
- 207) Keynote Lecture, “Ingenuity in Geotechnical Design using Geosynthetics.” *First National Conference on Geosynthetics, Honduras 2014*, Tegucigalpa, Honduras, 16 June 2014.
- 208) Invited Lecture, “Advances in the Use of Geosynthetic Reinforcements For Paved Roads.” *First National Conference on Geosynthetics, Honduras 2014*, Tegucigalpa, Honduras, 18 June 2014.
- 209) Invited lecture, “*Geosynthetics in Geotechnical Engineering*.” Educating Educators Program, Cieszyn, Poland, June 23, 2014.
- 210) Invited lecture, “Use of Geosynthetics for Enhanced Lateral Drainage in Pavement Systems.” Geosynthetics in Roadway Design Session, TRB Geosynthetics Committee, Laramie, WY, 07 July, 2014.
- 211) Invited lecture, “Properties Governing the Performance of Geosynthetic-reinforced Pavements.” International Tensar Conference, Bogota, Colombia, August 19, 2014.
- 212) Invited lecture, “Geosynthetic-reinforced Bridge Abutments.” International Tensar Conference, Bogota, Colombia, August 20, 2014.
- 213) Invited presentation, “Geosynthetic-reinforced Pavements.” Texas Department of Transportation, San Antonio District, San Antonio, Texas, September 12, 2014.
- 214) Presentation of “Pullout Characterization of Geogrids Embedded in Dredged Material and Steel Slag Fines (DM-SSF) Blends.” *10th International Conference on Geosynthetics*, 10ICG, Berlin, Germany, 25 September 2014.
- 215) Invited lecture, “Geosynthetics for Enhanced Lateral Drainage in Pavement Systems.” TenCate Pavements Seminar, Austin, TX, 23 October, 2014.
- 216) Invited lecture, “Geosynthetic Reinforcements for Paved Roads.” TenCate Pavements Seminar, Austin, TX, 23 October, 2014.
- 217) Invited lecture, “Properties Governing the Performance of Geosynthetic-reinforced Pavements.” TenCate Pavements Seminar, Austin, TX, 23 October, 2014.
- 218) Invited lecture, “Stiffness of the Soil-geosynthetic Composite.” George Mason University, NCHRP Research Team, Fairfax, VA, October 27, 2014.
- 219) Invited lecture, “Properties Governing the Performance of Geosynthetic-reinforced Pavements.” *ICT Kent Seminar*, University of Illinois at Urbana-Champaign, Urbana, IL, November 06, 2014.
- 220) Invited presentation, “Recent Educate the Educator Events.” *Geosynthetics 2015 Conference*, Portland, Oregon, 17 February, 2015.
- 221) Presentation of “We Will See a Significant Growth in Geosynthetic Use if...” *Geosynthetics 2015 Conference*, Portland, Oregon, 18 February, 2015.

- 222) Keynote lecture, “Geosynthetics in Capillary Barriers: The covers at the Rocky Mountain Arsenal.” *Third National Congress on Geosynthetics*, Lima, Peru, March 04, 2015.
- 223) Keynote lecture, “New Frontiers for Geosynthetics in Pavement Engineering.” *Geosynthetics in Pavement Engineering: Working towards 2025*, Fourth National Geosynthetics Symposium, Loughborough University, U.K., April 22, 2015.
- 224) Distinguished Lecture, “Ingenuity in Geotechnical Design using Geosynthetics.” *33<sup>rd</sup> Annual Distinguished Lecture Series*, University of California at Berkeley, Berkeley, CA, May 01, 2015.
- 225) Distinguished Lecture, “Ingenuity in Geotechnical Design using Geosynthetics.” 50<sup>th</sup> Year Anniversary Celebration, Civil Engineering Department, Pontifical Catholic University of Rio de Janeiro (PUC-Rio), Rio de Janeiro, Brazil, May 27, 2015.
- 226) Keynote lecture, “US Experience on the Performance of Geosynthetic-Reinforced Integrated Bridge Abutments.” *Second GSI-Asia Geosynthetics Conference*, Seoul, Korea, June 24, 2015.
- 227) Keynote lecture, “Geosynthetic Reinforcements for Paved Roads,” *VII Brazilian Congress on Geosynthetics*, Brasilia, Brazil, July 19, 2015.
- 228) Invited Lecture, “US Experience on the Performance of Geosynthetic-Reinforced Bridge Abutments.” Civil Engineering Department, University of Brasilia, Brasilia, Brazil, July 21, 2015.
- 229) Invited Lecture, “Evaluation of Soil-geogrid Interaction using Transparent Soil.” Workshop on Research on Soil-Geosynthetic Interaction, Edinburgh, UK, September 13, 2015.
- 230) Keynote lecture, “Advances in the Use of Geosynthetics in Pavement Structures,” *II Spanish Congress on Geosynthetics*, Madrid, Spain, October 08, 2015.
- 231) Keynote lecture, “Stabilization of Pavements using Geosynthetics,” Mercer Lecture, *15<sup>th</sup> Asian Regional Conference on Soil Mechanics and Geotechnical Engineering*, Fukuoka, Japan, November 09, 2015.
- 232) Keynote lecture, “Stabilization of Pavements using Geosynthetics,” Mercer Lecture, *15<sup>th</sup> PanAmerican Conference on Soil Mechanics and Geotechnical Engineering*, Buenos Aires, Argentina, November 17, 2015.
- 233) Invited lecture, “Geosynthetics for Pavement Systems,” *Construction Division*, Texas Department of Transportation (TxDOT), Austin, Texas, 03 December 2015.
- 234) Invited lecture, “Swelling Clays in Pavement Applications: Their Characterization and Stabilization using Geosynthetics for Pavement Systems,” Southern Planes Transportation Center, Norman, Oklahoma, 09 December 2015.
- 235) Invited lecture, “Evaluation of Soil-geogrid Interaction using Transparent Soil.” NCHRP Research Group, Denver, CO, March 06, 2016.
- 236) Invited lecture, “Stabilization of Pavements using Geosynthetics” Geo-San Antonio 2016, Geotechnical Advances in the Transportation Sector, San Antonio, Texas, March 18, 2016.
- 237) Invited lecture “Geosynthetics in Pavement Systems (in Spanish),” 3<sup>rd</sup> Pan-American Conference on Geosynthetics, *GeoAmericas 2016*, Miami, FL, April 11, 2016.
- 238) Invited lecture “Geosynthetics in Pavement Systems,” 3<sup>rd</sup> Pan-American Conference on Geosynthetics, *GeoAmericas 2016*, Miami, FL, April 12, 2016.
- 239) Presentation of “Geosynthetics in the Americas: What is Holding Back their Growth?” *3<sup>rd</sup> Pan-American Conference on Geosynthetics*, GeoAmericas 2016, Miami Beach, Florida, 12 April 2016.
- 240) Keynote lecture, “Stabilization of Pavements using Geosynthetics,” Mercer Lecture, *3<sup>rd</sup> Pan-American Conference on Geosynthetics*, GeoAmericas 2016, Miami Beach, Florida, 13 April 2016.
- 241) Keynote Lecture, “Ingenuity in Geotechnical Design using Geosynthetics.” 2016 Annual Kansas City Geotechnical Conference, ASCE, Kansas City, MO, 21 April 2016.
- 242) Invited Lecture, “Ingenuity in Geotechnical Design using Geosynthetics.” Geotechnical Engineering Program, Tsinghua University, Beijing, China, 08 July 2016.

- 243) Invited lecture, "Evaluation of Soil-Geogrid Interaction Using Transparent Soil." International Tensar Conference, Lima, Peru, July 22, 2016.
- 244) Keynote lecture, "Geosynthetics with Enhanced Lateral Drainage Capabilities in Roadway Systems," Workshop 1: Geosynthetics in Transportation Geotechnics, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), Guimaraes, Portugal, 04 September 2016.
- 245) Invited lecture, "Contact Pressure Distribution on Weak Subgrades due to Repeated Traffic on Geocell Reinforced Base Layers," Workshop 1: Geosynthetics in Transportation Geotechnics, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), Guimaraes, Portugal, 04 September 2016.
- 246) Honor Keynote lecture, "Stabilization of Pavements using Geosynthetics," Mercer Lecture, *3<sup>rd</sup> International Conference on Transportation Geotechnics*, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), Guimaraes, Portugal, 07 September 2016.
- 247) Invited lecture, "Geosynthetics for Enhanced Lateral Drainage in Roadways," Specialty Session 7A: Geosynthetics in Road Construction, *6<sup>th</sup> European Conference on Geosynthetics, EuroGeo6*, International Society of Geosynthetics (IGS), Ljubljana, Slovenia, 28 September 2016.
- 248) Invited lecture, "Geosynthetic-Reinforced Bridge Abutments: Seismic Considerations," Specialty Session 6: Geosynthetics under Earthquake Shaking, *6<sup>th</sup> European Conference on Geosynthetics, EuroGeo6*, International Society of Geosynthetics (IGS), Ljubljana, Slovenia, 28 September 2016.
- 249) Invited lecture, "Prediction of Clay Swelling and PVR Using Centrifuge Testing," Texas Department of Transportation, College Station, Texas, October 11, 2016.
- 250) Keynote lecture, "Use of Geosynthetics in Roadways," 2<sup>nd</sup> Mexican Conference on Geosynthetics, Mexico City, Mexico, 28 October 2016.
- 251) Keynote lecture, "Stabilization of Pavements using Geosynthetics," Mercer Lecture, *6<sup>th</sup> Asian Regional Conference on Geosynthetics*, International Geosynthetics Society (IGS), New Delhi, India, 09 November 2016.
- 252) Keynote lecture, "Experimental determination of geosynthetic parameters for stabilisation projects," *7<sup>th</sup> International Geogrid Expert Panel Meeting*, Krakow, Poland, December 16, 2016.
- 253) Keynote lecture, "Stabilization of Pavements using Geosynthetics," Mercer Lecture, *Geotechnical Frontiers 2017*, Geo-Institute of ASCE, Orlando, FL, 12 March 2017.
- 254) Keynote lecture, "Stabilization of Pavements using Geosynthetics," Mercer Lecture, *Fourth National Congress on Geosynthetics*, Peruvian Geosynthetics Society, Lima, Peru, 29 March 2017.
- 255) Invited lecture "Pavements over Highly Expansive Clays: Quantification of the Problem and Identification of Design Alternatives," CINTRA Technical Office, Austin, Texas, 18 April 2017.
- 256) Keynote lecture, "Geosynthetics in Roadway Infrastructure," International Conference on *Transportation Geotechnics and Geoecology*, TGG 2017, Saint Petersburg, Russia, 17 May 2017.
- 257) Presentation of "Evaluation of load transfer in geogrids for base stabilization using transparent soil," International Conference on *Transportation Geotechnics and Geoecology*, TGG 2017, Saint Petersburg, Russia, 17 May 2017.
- 258) Keynote lecture, "Exposed Geomembrane Covers," *Geosynthetic Technology in Water, Waste & Tunneling*, Australasians Chapter of the International Geosynthetics Society, Auckland, New Zealand, 26 June 2017.
- 259) Keynote lecture, "Exposed Geomembrane Covers," *Geosynthetic Technology in Water, Waste & Tunneling*, Australasians Chapter of the International Geosynthetics Society, Melbourne, Australia, 28 June 2017.
- 260) Presentation of "Experimental Approach to Characterize Soil-reinforcement Composite Interaction," *19<sup>th</sup> International Conference on Soil Mechanics and Geotechnical Engineering*, Seoul, Korea, 21 September 2017.
- 261) Presentation of "The Choice of Geosynthetics for Hydraulic Applications in Roadway Systems." *Third African Conference on Geosynthetics, GeoAfrica 2017*, Marrakesh, Morocco, 10 October 2017.
- 262) Presentation of "A Tale of Two Bridges: Comparison between the Seismic Performance of Flexible and Rigid Abut." *Third African Conference on Geosynthetics, GeoAfrica 2017*, Marrakesh, Morocco, 10 October 2017.

- 263) Invited lecture, “Ingenuity in Geotechnical Design using Geosynthetics.” Geotechnical Engineering program, Texas A&M University, College Station, Texas, 24 October 2017.
- 264) Invited lecture, “Ingenuity in Geotechnical Design using Geosynthetics.” Geotechnical Engineering program, University of Texas at El Paso, El Paso, Texas, 08 February 2018.
- 265) Keynote lecture, “Load-carrying MSE Bridge Abutments,” Iowa ASCE Geotechnical Engineering Conference, Ames, Iowa, 22 March 2018.
- 266) Invited lecture, “Geogrid for Base Reinforcement,” *2018 Construction, Pavements & Materials Conference*, Texas Department of Transportation, Austin, Texas, 24 May 2018.
- 267) Invited lecture, “Distribution with Height of Reinforcement Connection Loads,” *IGS TC-R GeoReinforcement Workshop*, Reinforcement Technical Committee, International Geosynthetics Society, Munich, Germany, 04 June 2018.
- 268) Invited lecture, “Reinforcement of Marginal Soils using Geosynthetics with In-plane Drainage Capabilities,” *IGS TC-R GeoReinforcement Workshop*, Reinforcement Technical Committee, International Geosynthetics Society, Munich, Germany, 04 June 2018.
- 269) Keynote lecture, “Growing Worldwide Emphasis on Load-carrying MSE Bridge Abutments,” *IGS TC-R GeoReinforcement Workshop*, Reinforcement Technical Committee, International Geosynthetics Society, Munich, Germany, 05 June 2018.
- 270) Invited lecture, “Selection of design alternatives for water and seismic actions on reinforced veneer stability,” *IGS TC-R GeoReinforcement Workshop*, Reinforcement Technical Committee, International Geosynthetics Society, Munich, Germany, 05 June 2018.
- 271) Invited lecture, “Identification and Quantification of a Property Suitable for Stabilization of Base Layers using Geosynthetics,” Federal Highway Administration Geotechnical Team Meeting, Austin, Texas, 20 June 2018.
- 272) Keynote lecture, “Geosynthetics in Roadway Applications.” *National Workshop on Geosynthetics*, Mexico City, Mexico, 09 July 2018.
- 273) Invited lecture, “Identification and Quantification of a Property Suitable for Stabilization of Base Layers using Geosynthetics,” *International Tensar Conference*, Roatan, Honduras, 26 July, 2018.
- 274) Keynote lecture, “Ingenuity in Geotechnical Design using Geosynthetics.” *XII National Costa Rican Congress on Geotechnics*, San Jose, Costa Rica, 05 September 2018.
- 275) Keynote lecture, “Geosynthetics in Roadway Applications.” *XII National Costa Rican Congress on Geotechnics*, San Jose, Costa Rica, 06 September 2018.
- 276) Keynote lecture “Geosynthetics in roadways: Impact in sustainable development,” *11<sup>th</sup> International Conference on Geosynthetics*, 11ICG, Seoul, South Korea, 17 September 2018.
- 277) Invited lecture “Identification and Quantification of a Property Suitable for Stabilization of Base Layers using Geosynthetics,” *11<sup>th</sup> International Conference on Geosynthetics*, 11ICG, Seoul, South Korea, 18 September 2018.
- 278) Presentation of “Effect of Soil-reinforcement Interface Shear Band,” *11<sup>th</sup> International Conference on Geosynthetics*, 11ICG, Seoul, South Korea, 19 September 2018.
- 279) Presentation of “A Study on the Effect of Scale and Testing Method on Soil-geosynthetic Interaction,” *11<sup>th</sup> International Conference on Geosynthetics*, 11ICG, Seoul, South Korea, 19 September 2018.
- 280) Invited lecture “Sustainability Benefits of Geosynthetics in Roadway Applications,” *GeoForum: Linking Practitioners and Geosynthetics*, Charlotte, North Carolina, 18 October 2018.
- 281) Invited lecture “Road Base Stabilization using Geosynthetics,” *Peruvian Ministry of Transportation and Communications*, Lima, Peru, 15 November 2018.
- 282) Invited lecture “Road Base Stabilization using Geosynthetics,” *Peruvian Geosynthetics Society*, Lima, Peru, 16 November 2018.

- 283) Special lecture “Road Base Stabilization using Geosynthetics: Design Properties,” *XXIX National Conference on Geotechnical Engineering*, Mexican Society of Geotechnical Engineering, Leon, Mexico, 22 November 2018.
- 284) Special lecture “Growing Worldwide Emphasis on Load-carrying GMSE Bridge Abutments,” *XXIX National Conference on Geotechnical Engineering*, Mexican Society of Geotechnical Engineering, Leon, Mexico, 23 November 2018.
- 285) Invited lecture “Load-carrying GMSE Bridge Abutments,” *Geotechnical Engineering Program*, Hunan University, Changsha, China, 23 December 2018.
- 286) Invited lecture “Geosynthetics in Roadway Applications,” *Geotechnical Engineering Program*, Hunan University of Science and Technology, Changsha, China, 24 December 2018.
- 287) Invited presentation “Educate the Educator Program by the International Geosynthetics Society,” *Geosynthetics 2019 Conference*, Industrial Fabrics Association International, Houston, 12 February 2019.
- 288) Keynote lecture “Base Stabilization using Geosynthetics to Confront TxDOT’s Roadway Challenges,” *Geosynthetics 2019 Conference*, Industrial Fabrics Association International, Houston, TX, 12 February 2019.
- 289) Keynote lecture “Geosynthetics in Roads built on Expansive Soils,” *2019 International Speakers Program*, Australasian Chapter of the International Geosynthetics Society, ACIGS, Melbourne, Australia, 19 February 2019.
- 290) Invited lecture “Load-carrying Geosynthetic-reinforced Bridge Abutments,” *2019 International Speakers Program*, Australasian Chapter of the International Geosynthetics Society, ACIGS, Melbourne, Australia, 19 February 2019.
- 291) Invited lecture “Base Stabilization using Geosynthetics,” *Educate the Educator Program*, Australasian Chapter of the International Geosynthetics Society, ACIGS, Gold Coast, Australia, 21 February 2019.
- 292) Keynote lecture “Geosynthetics in Mine Closures,” *2019 International Speakers Program*, Australasian Chapter of the International Geosynthetics Society, ACIGS, Brisbane, Australia, 22 February 2019.
- 293) Presentation of “Case History of a Geosynthetic-stabilized Base Roadway Founded over Expansive Clay Subgrade,” *ASCE Geo-Congress 2019*, Philadelphia, Pennsylvania, 26 March 2019.
- 294) Invited lecture “Base Stabilization using Geosynthetics,” *Center for Transportation Research (CTR) Symposium*, Austin, Texas, 10 April 2019.
- 295) Invited lecture “Geosynthetics in Roadways over Expansive Clays,” *Central Texas Infrastructure Design and Construction Symposium*, ACEA, Austin, Texas, 24 April 2019.
- 296) Invited lecture “Evaluation of Soil Geogrid Interaction using Transparent Soil,” *James K. Mitchell Symposium*, 37<sup>th</sup> Annual Geo-Engineering Distinguished Lecture Series, University of California at Berkeley, Berkeley, California, 26 April 2019.
- 297) Invited lecture “Geosynthetics for Roadways over Expansive and Collapsible Soils,” *Geotechnical Engineering Program*, National University of Cordoba, Cordoba, Argentina, 24 May 2019.
- 298) Invited lecture, “Elements in the Design of Roadways using Geosynthetics,” *Geosynthetics in Roadway Infrastructure*, Mexican Society of Geotechnical Engineering, Mexican Society of Geosynthetics, Mexico City, Mexico, 03 July 2019.
- 299) Keynote lecture, “Base Stabilization of Pavements using Geosynthetics,” *Mercer Lecture, Geosynthetics in Roadway Infrastructure*, Mexican Society of Geotechnical Engineering, Mexican Society of Geosynthetics, Mexico City, Mexico, 03 July 2019.
- 300) Invited lecture “Load-carrying Geosynthetic-reinforced Bridge Abutments,” *Federal University of Sao Carlos*, Civil Engineering Department, Sao Carlos, Brazil, 13 August 2019.
- 301) Keynote lecture “The Hidden Benefits of Close-spaced Geosynthetic Reinforcement,” *VIII Brazilian Conference on Geosynthetics*, Geossintéticos 2019, Sao Carlos, Brazil, 14 August 2019.

- 302) Keynote lecture, “Stabilization of Roadways using Geosynthetics,” The Mercer Lecture, *XVII European Conference on Soil Mechanics and Geotechnical Engineering*, ECSMGE-2019, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), Reykjavik, Iceland, 04 September 2019.
- 303) Invited presentation, “NCHRP 24-41 Defining the Boundary Conditions for Composite Behavior of Geosynthetic Reinforced Soil (GRS) Structures.” *T15 Committee of AASHTO*, Denver, CO, 08 October 2019.
- 304) Invited presentation “Load-carrying Geosynthetic-reinforced Bridge Abutments,” *Linking Practitioners and Geosynthetics*, GeoForum 2019, Philadelphia, PA, 17 October 2019.
- 305) Invited presentation “Stabilization Terminology.” Technical Committee on Stabilization Workshop, International Geosynthetics Society, Prague, Czech Republic, 17 November 2019.
- 306) Invited presentation “Relevant Geosynthetic Properties for Base Stabilization.” Technical Committee on Stabilization Workshop, International Geosynthetics Society, Prague, Czech Republic, 18 November 2019.
- 307) Keynote lecture “Centrifuge Technology for Characterization of Expansive Clays,” *Analytical and Physical Modeling in Geotechnics*, XVI PanAmerican Conference on Soil Mechanics and Geotechnical Engineering, Cancun, Mexico, 18 November 2019.
- 308) Invited lecture, “Geosynthetics in Roadway Applications,” *2019 Arizona Pavements/Materials Conference*, Arizona Department of Transportation, Phoenix, Arizona, 21 November 2019.
- 309) Invited lecture, “Characterization and Mitigation of Distress in Roadways Founded on Expansive Clays,” *Civil Engineering Department Lecture Series*, Arizona State University, Tempe, Arizona, 22 November 2019.
- 310) Invited lecture, “Characterization of Expansive Clays for Roadway Design,” *MLA Geotechnical*, Austin, Texas, 18 December 2019.
- 311) Invited lecture, “Geosynthetics in Roadway Applications,” 57<sup>th</sup> Annual Paving and Transportation Conference, 2020 Vision toward the future of transportation, Albuquerque, New Mexico, 09 January 2020.
- 312) Invited presentation, “Proposed AASHTO Modifications for Closely-spaced Reinforcement,” Geo-Congress 2020, Geo-Institute of ASCE, Minneapolis, Minnesota, 28 February 2020.
- 313) Keynote lecture, “Ingenuity in Geotechnical Design using Geosynthetics.” *XXXV National Engineering Congress*, Cartagena, Colombia, 13 March 2020.

## **PUBLISHED/BROADCAST INTERVIEWS**

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- Zornberg, J.G. (2014). *Geosynthetics in Pavements*. Illinois Center for Transportation, Kent Seminar Series, University of Illinois at Urbana-Champaign, Illinois, 06 November, <https://www.youtube.com/watch?v=BToGRdrsISU>
- Izzo, R., and Zornberg, J.G. (2016). *Best Practice: Geosynthetics in Paved Roads*. Center for Transportation Research (CTR), Best Practices Video Summary Report, Austin, Texas, 19 May, [https://youtu.be/Q\\_ONiywDxGI](https://youtu.be/Q_ONiywDxGI)
- Arellano, M., and Zornberg, J.G. (2016). *Best Practice: Expansive Clay Soils*. Center for Transportation Research (CTR), Best Practices Video Summary Report, Austin, Texas, 19 May, <https://youtu.be/Mo6JUNk1bj4>
- Zornberg, J.G. (2016). *Prediction of Clay Swelling and PVR Using Centrifuge Testing*. 2016 Transportation Short Course, Texas A&M, College Station, Texas, 11 October, <https://www.youtube.com/watch?v=sT78M10nvLw>
- Zornberg, J.G. (2017). *Podcast: Zornberg on Differing MSE Design Frameworks*. Interview by Geosynthetica.net during Geotechnical Frontiers Conference, Orlando, Florida, 15 March, <http://www.geosynthetica.net/mse-design-frameworks-podcast-zornberg/>
- Zornberg, J.G. (2018). *Use of Geosynthetics in Mine Closures*. Interview by Peruvian Activos Mineros. Lima, Peru, 17 November, <https://youtu.be/SEOOp2IF3Ds>

- Zornberg, J.G. (2019). *Geosynthetics in Roads built on Expansive Soils*. 2019 International Speakers Program, Australasian Chapter of the International Geosynthetics Society, ACIGS, Melbourne, Australia, 19 February, <https://youtu.be/xlHr3xAPZqA>
- Zornberg, J.G. (2019). *Load-carrying Geosynthetic-reinforced Bridge Abutments*. 2019 International Speakers Program, Australasian Chapter of the International Geosynthetics Society, ACIGS, Melbourne, Australia, 19 February, <https://youtu.be/8FxsrGxeqCg>
- Zornberg, J.G. (2019). *Geosynthetics in Mine Closures*. 2019 International Speakers Program, Australasian Chapter of the International Geosynthetics Society, ACIGS, Brisbane, Australia, 22 February, <https://youtu.be/tmWallNACaI>

## GRANTS AND CONTRACTS

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- Colorado Advanced Materials Institute (CAMI), “Use of Tire Shreds in Highway Embankments,” Jorge G. Zornberg (PI), \$45,000 (Additional matching funds in equivalent amount provided by Front Range Recycle, Inc., Sedalia, Colorado), July 1999 – June 2000.
- Colorado Advanced Software Institute (CASI), “Reinforced Soil Design: Integration of Digital Image Analysis, Numerical Modeling, and Limit Equilibrium,” Jorge G. Zornberg (PI), \$66,500 (20% of these funds provided in cash by Bowman Construction, Inc., Denver, Colorado), July 1999 – June 2001.
- Research Council of the State of Sao Paulo, “Study of Soil-Geogrid Interaction using Pullout Tests,” sponsored student GRA costs and international travel expenses (U. of Sao Paulo student, international exchange at UT Austin), March 2002-January 2003.
- Council on Research and Creative Work, Junior Faculty Development Award (JFDA), “Evapotranspirative Cover Systems in Waste Containment Applications,” Jorge G. Zornberg (PI), \$5,000, August 1999 – July 2000.
- Engineering Excellence Fund (EEF), College of Engineering and Applied Science, CU Boulder, “Environmental Geotechnics: Towards an Enhanced Class Design Experience,” Jorge G. Zornberg (PI), \$7,370, August 1999 – July 2000.
- Undergraduate Research Opportunity Program (UROP), complement to JFDA award, CU Boulder, “Evapotranspirative Cover Systems in Waste Containment Applications,” \$1,500, August 1999 – December 1999.
- Synthetic Industries, Geosynthetic Products Division, Gift through CU Foundation in support of research in the area of geosynthetics at the University of Colorado at Boulder. Jorge G. Zornberg (recipient), \$120,000 donation for years 1999-2001.
- College of Engineering, University of Colorado, “Digital Image Technology in CEAE Classrooms,” Jorge G. Zornberg (with Hearn, Muehleisen, Rajaram, Silverstein, and Songer), \$14,600, 1999.
- Colorado Advance Materials Institute (CAMI), “Optimization and Performance of Tire Shred-Reinforced Embankments,” Jorge G. Zornberg (PI), \$45,000 (Additional matching funds in equivalent amount provided by Front Range Recycle, Inc., Sedalia, Colorado), July 2000 – June 2001.
- National Science Foundation (NSF), “Strain Distribution within Geosynthetic Reinforced Soil Slopes,” Jorge G. Zornberg (PI), Grant CMS 0401494, \$198,040, August 2000 – August 2003.
- National Science Foundation (NSF), “Environmentally Benign Reuse of Waste Tires,” Jorge G. Zornberg (PI), Cross-cutting initiative on *Environmentally Benign Manufacturing/Processing and Materials*, Grant CMS 0086927, \$100,000, September 2000 – August 2004.
- Brazilian research council, “Scale factors for unsaturated flow in a geotechnical centrifuge,” sponsored student GRA costs and international travel expenses (U. of Colorado student), January 2001-December 2004.

- National Science Foundation (NSF), “Research Experiences for Undergraduates (REU),” Jorge G. Zornberg (PI), Grant CMS 0086927, \$12,000, January 2001 – December 2001.
- National Science Foundation (NSF), “PECASE: Alternatives in Waste Cover Systems and in Engineering Education,” Jorge G. Zornberg (PI), Grant CMS 0401488, \$365,000, July 2001 – August 2003.
- Engineering Excellence Fund (EEF), College of Engineering and Applied Science, CU Boulder, “Geosynthetics Laboratory: Integrating Material Characterization into Design Experiences,” Jorge G. Zornberg (PI), \$16,400, August 2001 – July 2002.
- Research Council of the State of Sao Paulo, “Performance of Buried Pipes Overlying a Void,” sponsored student GRA costs and international travel expenses (U. of Sao Paulo student, international exchange at U. of Colorado), March 2001-August 2005.
- Brazilian Department of Education, “Creep and Stress Relaxation in Reinforced Soil Walls,” sponsored student GRA costs and international travel expenses (U. of Sao Paulo student, international exchange at U. of Colorado), March 2001-December 2004.
- Private donation, donor: Kal Zeff. Gift through CU Foundation in support of geotechnical research equipment, University of Colorado at Boulder (with Amadei, Ko, Pak, Pfeffer, Sture, and Znidarcic), \$50,000 donation for period 2002-2003.
- Geosynthetics workshop, Organized by the Geosynthetic Institute, “Geosynthetics in Hydraulic Systems,” \$3,450, January 2003 – May 2003.
- Undergraduate Research Opportunity Program (UROP), CU Boulder, “A Feasibility Study of the Integration of Waste Tire-Shreds in Civil Engineering Applications,” \$1,200, August 2002 – December 2002.
- Federal Highway Administration (FHWA), “Mechanically Stabilized Earth (MSE) Shoring Systems,” (with Ko, Znidarcic, Golder Associates, and Yeh & Associates), \$260,272, October 2002 – September 2004.
- National Science Foundation (NSF), “Strain Distribution within Geosynthetic Reinforced Soil Slopes,” Jorge G. Zornberg (PI), Grant CMS 0401494, UT acct: 26-1123-60, \$146,548 (including \$21,000 equipment share), September 2003 – July 2006.
- Research Council of the State of Sao Paulo, “Field Performance of a Full-scale Retaining Wall Reinforced with Nonwoven Geotextiles,” sponsored student GRA costs and international travel expenses (U. of Sao Paulo student, international exchange at UT Austin), March 2002 – December 2005.
- National Science Foundation (NSF), “PECASE: Alternatives in Waste Cover Systems and in Engineering Education,” Jorge G. Zornberg (PI), Grant CMS 0401488, UT acct: 26-1124-09, \$368,922 (including \$29,000 equipment share), September 2003 – June 2008.
- Center for Polymers in Hydraulic Structures (CPHyS) of the Geosynthetic Institute (GSI), “Geosynthetics for Hydraulic Structures,” Graduate student fellowship (GSI Fellow) to the University of Texas at Austin, UT acct: 26-6250-22, \$21,000 fellowship for period September 2003 – August 2004.
- Texas Department of Transportation (TxDOT), “Validate the Effectiveness of Tire Bale Use in Slope Repairs and Embankment Construction,” Jorge G. Zornberg (PI), Project 5-9023, UT accts: 26-4212-78 & 26-4213-71, \$59,587, March 2004 – August 2005.
- Recycled Materials Resource Center (RMRC) of the Federal Highway Administration (FHWA), “Full-scale Monitoring of Mechanical and Exothermal Response of Tire-Soil Embankments,” Jorge G. Zornberg (PI), UT accts: 26-3955-36 & 20-3030-42, 4213-36, \$137,672, September 2003 – December 2005.
- US Department of Education, Fund for the Improvement of Postsecondary Education (FIPSE), US-Brazil Higher Education Consortia Program, “Consortium for Cooperation in Civil & Environmental Engineering Technologies,” Jorge G. Zornberg (PI, US Partner with U. Missouri), UT acct: 26-3956-13, \$204,000, September 2003 – August 2008.
- Texas Department of Transportation (TxDOT), “Quantify the Benefits of Using Geosynthetics for Unbound Base Courses,” Jorge G. Zornberg (PI), Jorge A. Prozzi and Kenneth Stokoe (Co-PIs), Project 0-4829, UT acct: 26-4213-36, \$266,628, September 2004 – August 2006.

- Texas Department of Transportation (TxDOT), “Determination of Field Suction Values in High PI Clays for Various Surface Conditions and Drain Installations,” Jorge G. Zornberg (PI), Stephen Wright (Co-PI), Project 0-5202, UT acct: 26-4213-64, \$205,674, September 2004 – August 2006.
- Center for Polymers in Hydraulic Structures (CPHyS) of the Geosynthetic Institute (GSI), “Geosynthetics for Hydraulic Structures,” Graduate student fellowship (GSI Fellow) to the University of Texas at Austin, UT acct: 26-6250-22, \$10,000 fellowship for period September 2005 – August 2006.
- Brazilian Department of Education/University of Texas Consortium (CAPES-UT Program), “Geosynthetics and other Recent Advances in Municipal and Hazardous Waste Containment Facilities,” Benedito S. Bueno (Co-PI), Two graduate student fellowship and two post-doctoral fellowships to the University of Texas at Austin, fellowships for period September 2005 – May 2011.
- Texas Department of Transportation (TxDOT), “Design of MSE Retaining Walls Placed in Front of a Stable Face,” Stephen Wright (PI), Jorge G. Zornberg (Co-PI), Project 0-5506, \$229,733, September 2005 – August 2007.
- Texas Department of Transportation (TxDOT), “Monitoring of Tire Bale Slope Repairs on IH30,” Jorge G. Zornberg (PI), Project IAC 6XXIA002, \$58,126, September 2005 – August 2006.
- National Science Foundation (NSF), “Research Experiences for Undergraduates (REU) – PECASE Project,” Jorge G. Zornberg (PI), Grant CMS 0401488, \$6,250, January 2006 – August 2007.
- Texas Department of Transportation (TxDOT), “Quantify the Benefits of Using Geosynthetics for Unbound Base Courses - Modification,” Jorge G. Zornberg (PI), Jorge A. Prozzi and Kenneth Stokoe (Co-PIs), Project 0-4829, UT acct: 26-4213-36, \$107,383, September 2006 – August 2007.
- Center for Polymers in Hydraulic Structures (CPHyS) of the Geosynthetic Institute (GSI), “Geosynthetics for Hydraulic Structures,” Graduate student fellowship (GSI Fellow) to the University of Texas at Austin, UT acct: 26-6250-22, \$10,000 fellowship for period September 2006 – August 2007.
- Texas Department of Transportation (TxDOT), “Correlation of Shallow, Low Blow Count Texas Cone Penetrometer Values and Shear Strength for Texas Soils,” Stephen Wright (PI), Jorge G. Zornberg (Co-PI), Project 0-5824, \$310,110, September 2006 – August 2008.
- Texas Research International (TRI), “GCL Testing Program,” Jorge G. Zornberg (PI), \$3,135, September 2006 – August 2007.
- Texas Department of Transportation (TxDOT), “Beneficial Use of Scrap Tire Bales in Highway Projects,” Jorge G. Zornberg (PI), Project 0-5517, \$238,571, September 2006 – August 2008.
- Texas Department of Transportation (TxDOT), “Soil Testing using Centrifuge Technology,” Jorge G. Zornberg (PI), Project 0-6048, \$139,736, September 2007 – August 2008.
- Texas Department of Transportation (TxDOT), “Development of Application Guide and Specifications for Geotextiles in Soil and Base,” Jorge G. Zornberg (PI), Jorge A. Prozzi (co-PI), Project 0-5812, \$175,005, September 2007 – August 2008.
- Center for Polymers in Hydraulic Structures (CPHyS) of the Geosynthetic Institute (GSI), “Geosynthetics for Hydraulic Structures,” Graduate student fellowship (GSI Fellow) to the University of Texas at Austin, UT acct: 26-6250-22, \$5,000 fellowship for period September 2007 – August 2008.
- Texas Department of Transportation (TxDOT), “Pilot Implementation to Quantify the Benefits of Using Geosynthetics for Unbound Base Courses,” Jorge G. Zornberg (PI), Project 5-4829, \$239,822, September 2007 – December 2009.
- Texas Department of Transportation (TxDOT), “Development of Application Guide and Specifications for Geotextiles in Soil and Base - Modification,” Jorge G. Zornberg (PI), Project 0-5812, \$93,284, September 2008 – August 2009.
- NordMack Corporation, “Fund for Geosynthetics Research of Tire Bales,” Fellowship for period September 2008 – August 2010, UT acct: 26-6250-22, \$11,920.

- Center for Polymers in Hydraulic Structures (CPHyS) of the Geosynthetic Institute (GSI), “Geosynthetics for Hydraulic Structures,” Graduate student fellowship (GSI Fellow) to the University of Texas at Austin, UT acct: 26-6250-22, \$5,000 fellowship for period September 2008 – August 2009.
- Texas Department of Transportation (TxDOT), “Validate Item 132 Draft Specification Using Tire Bales,” Jorge G. Zornberg (PI), Project 5-5517, \$171,932, September 2008 – December 2010.
- Brazilian Department of Education/University of Texas Consortium (CAPES), “Confined Creep of Geosynthetics,” Graduate student fellowship for period January 2010 – December 2010.
- Texas Research International (TRI), “Analysis of Slope Stability for Landfill Cover Systems,” Robert Gilbert (PI), Jorge G. Zornberg (co-PI), Fellowship for graduate student, \$50,000, September 2009 – August 2011.
- Texas Department of Transportation (TxDOT), “Long-Term Performance of Drilled Shaft Retaining Walls,” Robert Gilbert (PI), Jorge G. Zornberg (co-PI), Chadi El Mohtar (co-PI), Project 0-6603, \$578,444, September 2009 – August 2012.
- Geosynthetics Research Institute, Graduate student fellowship to the University of Texas at Austin, UT acct: 26-6250-22, \$1,920 fellowship for period September 2009 – August 2010.
- Texas Department of Transportation (TxDOT), “Pilot Implementation to Quantify the Benefits of Using Geosynthetics for Unbound Base Courses – Modification,” Jorge G. Zornberg (PI), Project 5-4829, \$148,066, October 2009 – August 2011.
- Fugro, “Long-Term Performance of Drilled Shaft Retaining Walls,” Robert Gilbert (PI), Jorge G. Zornberg (co-PI), Chadi El Mohtar (co-PI), \$60,000, September 2009 – August 2011.
- Geosynthetics Consortium, “Unsaturated Characterization of Geotextiles,” UT acct: 26-6250-22, \$50,000 fellowship for period January 2011 – December 2011.
- Texas Department of Transportation (TxDOT), “Pilot Implementation to Benefit from Centrifuge Technology for Characterization of Expansive Clays in the Austin District,” Jorge G. Zornberg (PI), Project 5-6048, \$194,842, September 2010 – December 2012.
- Geosynthetics Consortium, “Reinforcement of Pavement Asphaltic Layers,” UT acct: 26-6250-22, \$27,392 fellowship for period January 2011 – December 2011.
- Texas Department of Transportation (TxDOT), “Technical Assistance to the Austin District of the Texas Department of Transportation,” Interagency Cooperation Contract, multiple co-PIs, Jorge G. Zornberg (Co-PI), \$1,450,000, (Zornberg share: \$263,852), September 2011 – August 2013.
- Texas Department of Transportation (TxDOT), “Long-Term Performance of Drilled Shaft Retaining Walls (Modification),” Robert Gilbert (PI), Jorge G. Zornberg (co-PI), Chadi El Mohtar (co-PI), Project 0-6603, \$153,310, September 2011 – August 2012.
- Geosynthetics Consortium, “Pullout Resistance of Geogrids using Industrial Byproducts as Fill Material,” UT acct: 26-6250-22, \$40,000 fellowship for period September 2011 – August 2012.
- Fluor Foundation, “Adaptable Geotechnical Laboratory,” \$75,000 contribution to the Cockrell School of Engineering from Fluor’s budget for Engineering Higher Education, December 2011.
- Geosynthetic Institute, “Confined Soil-Geosynthetic Interaction Stiffness under Small Displacements,” UT acct: 26-6250-22, \$12,182 fellowship for period September 2011 – August 2012.
- Geosynthetics Consortium, “Soil-Geogrid Interaction Mechanisms,” UT acct: 26-6250-22, \$50,000 fellowship for period January 2012 – December 2012.
- Geosynthetics Consortium, “Unsaturated Properties of Geotextiles,” UT acct: 26-6250-22, \$100,000 fellowship for period January 2012 – December 2012.
- Texas Department of Transportation (TxDOT), “Pilot Implementation to Quantify the Benefits of Using Geosynthetics for Unbound Base Courses – Modification 2,” Jorge G. Zornberg (PI), Project 5-4829, \$110,836, September 2011 – August 2012.

- Texas Commission on Environmental Quality (TCEQ), “Closure of Uranium Tailings Impoundment,” \$20,000, Jorge G. Zornberg, Robert Gilbert, Randall Charbeneau (Co-PIs), January 2012 – August 2012.
- Geosynthetics Consortium, “Monitoring of Roads on Expansive Clays,” UT acct: 26-6250-22, \$11,997 fellowship for period September 2012 – August 2013.
- Texas Department of Transportation (TxDOT), “Pilot Implementation to Quantify the Benefits of Using Geosynthetics for Unbound Base Courses – Modification 3,” Jorge G. Zornberg (PI), Project 5-4829, \$34,445, September 2012 – December 2012.
- Geosynthetics Consortium, “Soil-Geogrid Interaction Mechanisms,” UT acct: 26-6250-22, \$50,000 fellowship for period January 2013 – December 2013.
- Geosynthetics Consortium, “Unsaturated Properties of Geotextiles,” UT acct: 26-6250-22, \$75,000 fellowship for period January 2013 – December 2013.
- Texas Department of Transportation (TxDOT), “Support to the San Antonio District in Expansive Clay Characterization and PVR Calculation,” Interagency Cooperation Contract, Jorge G. Zornberg (PI), \$240,000, June 2013 – August 2015.
- Geosynthetics Consortium, “Geosynthetic Reinforcement of Asphaltic Layers,” UT acct: 26-6250-22, \$26,998 fellowship for period January 2013 – December 2013.
- National Science Foundation (NSF), “Unsaturated Hydraulic Characterization of Expansive Clays,” Jorge G. Zornberg (PI), Grant CMMI 1335456, \$341,259, September 2013 – August 2017.
- Texas Department of Transportation (TxDOT), “Technical Assistance to the Austin District of the Texas Department of Transportation FY 2014-15,” Interagency Cooperation Contract, multiple co-PIs, Jorge G. Zornberg (Co-PI), \$1,801,532 (Zornberg share: \$255,000), October 2013 – August 2015.
- Texas Department of Transportation (TxDOT), “Implementation of Centrifuge Technology for Pavement Design on Expansive Clays,” Jorge G. Zornberg (PI), Project 5-6048-03, \$426,446, October 2013 – August 2016.
- Geosynthetics Consortium, “Geosynthetic Reinforcement of Asphaltic Layers,” UT acct: 26-6250-22, \$50,000 fellowship for period January 2014 – December 2014.
- Geosynthetics Consortium, “Unsaturated Properties of Geotextiles,” UT acct: 26-6250-22, \$75,000 fellowship for period January 2014 – December 2014.
- Geosynthetics Consortium, “Soil-Geogrid Interaction Mechanisms,” UT acct: 26-6250-22, \$50,000 fellowship for period January 2014 – December 2014.
- Texas Department of Transportation (TxDOT), “Implementation of Geosynthetic-reinforced Unbound Base Courses,” Jorge G. Zornberg (PI), Project 5-4829-03, \$496,976, September 2014 – August 2017.
- Transportation Research Board (TRB), National Academies, Project NCHRP 24-41 “Defining the Boundary Conditions for Composite Behavior of Geosynthetic Reinforced Soil (GRS) Structures,” Jorge G. Zornberg (PI), \$500,000, September 2014 – December 2017.
- Consortium on Petroleum Engineering, “Oil and Gas Gravity Drainage Experiments using Centrifuge Technology,” Jorge G. Zornberg (PI), \$50,000, September 2014 – August 2015.
- Geosynthetics Consortium, “Geosynthetic Reinforcement of Asphaltic Layers,” UT acct: 26-6250-22, \$50,000 fellowship for period January 2015 – December 2015.
- Geosynthetics Consortium, “Unsaturated Properties of Geotextiles,” UT acct: 26-6250-22, \$65,000 fellowship for period January 2015 – December 2015.
- Geosynthetics Consortium, “Soil-Geogrid Interaction Mechanisms,” UT acct: 26-6250-22, \$50,000 fellowship for period January 2015 – December 2015.
- Texas Department of Transportation (TxDOT), “Optimization of the Design of Flexible Pavements with Unbound Bases Reinforced with Geogrids using APT,” Jorge G. Zornberg (PI), Jorge A. Prozzi (Co-PI), Project 0-6834, \$468,937, September 2015 – December 2017.

- Texas Department of Transportation (TxDOT), “Technical Assistance to the Austin District of the Texas Department of Transportation FY 2016-17,” Interagency Cooperation Contract, multiple co-PIs, Jorge G. Zornberg (Co-PI), \$1,709,000 (Zornberg share: \$305,000), December 2015 – August 2017.
- Texas Department of Transportation (TxDOT), “Geotechnical Support to the San Antonio District,” Interagency Cooperation Contract, Jorge G. Zornberg (PI), \$390,000, November 2015 – August 2018.
- Geosynthetics Consortium, “Geosynthetic Reinforcement of Asphaltic Layers,” UT acct: 26-6250-22, \$50,000 fellowship for period January 2016 – December 2016.
- Geosynthetics Consortium, “Unsaturated Properties of Geotextiles,” UT acct: 26-6250-22, \$65,000 fellowship for period January 2016 – December 2016.
- Geosynthetics Consortium, “Soil-Geogrid Interaction Mechanisms,” UT acct: 26-6250-22, \$50,000 fellowship for period January 2016 – December 2016.
- Texas Department of Transportation (TxDOT), “Development of Integral/Semi-integral Abutments for Texas Bridges,” Jorge G. Zornberg (PI), Todd Helwig (Co-PI), Project 0-6936, \$404,203, September 2016 – August 2019.
- Texas Department of Transportation (TxDOT), “Implementation of Centrifuge Technology for Clay Stabilization and Equipment Deployment,” Jorge G. Zornberg (PI), Project 5-6048-05, \$489,782, September 2016 – August 2019.
- Geosynthetics Consortium, “Evaluation of Composite Behavior of Geosynthetic-reinforced Soil (GRS) Structures,” UT acct: 26-6250-22, \$5,000 fellowship for period September 2016 – August 2017.
- Geosynthetics Consortium, “Design Method for Cellular Confinement Systems,” UT acct: 26-6250-22, \$50,000 fellowship for period September 2016 – August 2017.
- Geosynthetics Consortium, “Geosynthetic Reinforcement of Asphaltic Layers,” UT acct: 26-6250-22, \$50,000 fellowship for period January 2017 – December 2017.
- Geosynthetics Consortium, “Unsaturated Properties of Geotextiles,” UT acct: 26-6250-22, \$65,000 fellowship for period January 2017 – December 2017.
- Geosynthetics Consortium, “Soil-Geogrid Interaction Mechanisms,” UT acct: 26-6250-22, \$50,000 fellowship for period January 2017 – December 2017.
- University Transportation Center, Center for Highway Pavement Preservation (CHPP), “Geosynthetic-reinforced Overlays as Preventive Maintenance Strategy,” Jorge A. Prozzi (PI), Jorge G. Zornberg (Co-PI), Project 0-6878, \$300,000 (Zornberg share: \$101,587), September 2017 – September 2018.
- Texas Department of Transportation (TxDOT), “Technical Assistance to the Austin District of the Texas Department of Transportation FY 2018-20,” Interagency Cooperation Contract, multiple co-PIs, Jorge G. Zornberg (Co-PI), \$3,925,500 (Zornberg share: \$465,000), September 2017 – August 2020.
- Geosynthetics Consortium, “Geosynthetic Reinforcement of Asphaltic Layers,” UT acct: 26-6250-22, \$50,000 fellowship for period January 2018 – December 2018.
- Geosynthetics Consortium, “Unsaturated Properties of Geotextiles,” UT acct: 26-6250-22, \$65,000 fellowship for period January 2018 – December 2018.
- Geosynthetics Consortium, “Soil-Geogrid Interaction Mechanisms,” UT acct: 26-6250-22, \$50,000 fellowship for period January 2018 – December 2018.
- Texas Department of Transportation (TxDOT), “Implementation of Geosynthetic-stabilized Roadways for Base Course Reduction: Field Monitoring and Design Recommendations,” Jorge G. Zornberg (PI), Project 5-4829-05, \$571,834, May 2018 - August 2021.
- Texas Department of Transportation (TxDOT), “Field Monitoring, Specification Development, and Implementation of Geosynthetic-stabilized Roadways and Centrifuge Technology for Potential

Vertical Rise,” Jorge G. Zornberg (PI), Interagency Cooperation Contract, TxDOT Materials Division, \$819,373, September 2018 – August 2021.

Texas Department of Transportation (TxDOT), “Evaluation of Geogrids for Asphalt Pavement Construction,” Jorge G. Zornberg (PI), Project 0-7002, \$698,544, April 2019 – May 2022.

Texas Department of Transportation (TxDOT), “Evaluation of Seamless Bridges,” Juan Murcia-Delso (PI), Todd Helwig and Jorge G. Zornberg (Co-PIs), \$810,497, May 2019 – June 2022.

Texas Department of Transportation (TxDOT), “Field Monitoring, Specification Development, and Implementation of Geosynthetic-reinforced Asphaltic Layers,” Jorge G. Zornberg (PI), Interagency Cooperation Contract, TxDOT Lubbock District, \$863,262, December 2019 – August 2022.

## CONSULTING AND EXPERT WITNESS

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Representative consulting and expert witness activities are listed below. Emphasis has been on forensic evaluations as well as on the stability of earth retaining structures, performance of liquid and waste containment systems, appropriate use of geosynthetics, and design of transportation systems.

*Albemarle Tailings Facility:* Provided assistance on litigation associated with characterization of materials used for liner system in mining facility (2019 - present).

*Rancho Viejo Waste Management:* Provided assistance on litigation associated with permit for a municipal and industrial waste containment facility (2018 - present).

*Pacific Western Technologies:* Evaluated post-construction monitoring data on capillary barrier, moisture sensors, and leakage monitoring at the Rocky Mountain Arsenal, Colorado (2008 - present).

*Altair Disposal Services:* Provided assistance on litigation associated with permit for a hazardous waste containment facility (2018 - 2019).

*Knight Piésold Consultants:* Provided assistance on the design of vertical expansion of mining waste disposal facility, involving reinforced soil structures for enhanced stability (2017 - 2018).

*Tecnologia de Reciclaje:* Provided assistance on development of new geosynthetic technologies (2016 - 2018).

*Terra Services:* Provided assistance on litigation associated with a liner system for liquid impoundment for the energy sector (2016 - 2018).

*Virginia Soil Water Conservation Board:* Provided assistance on the evaluation of geosynthetics in overtopping considerations in earth dam design (2017 - 2018).

*TechFab India Industries:* Provided assistance on development of new geosynthetic reinforcement technologies (2017 - 2018).

*Cintra, a subsidiary of Ferrovial:* Provided assistance on technologies to mitigate the impact of expansive clays on roadway systems (2017 - 2018).

*Schertz-Seguin Local Government Corporation:* Provided assistance on litigation associated with the design of a liner system for waste containment facility (2015 - 2017).

*Guadalupe County, Texas:* Provided assistance on litigation involving transportation issues related to the siting of a proposed waste containment facility (2015 - 2016).

*California Gulch Superfund Site:* Provided assistance on the feasibility study of cover systems for mining waste piles of historical significance (2009 - 2012).

*UTE Vertedero de Bailin:* Participated support to litigation involving assessment of leakage through the lining system of a hazardous waste containment facility involving thirteen geosynthetic layers in Huesca, Spain (2013 - 2014).

- Yamana Gold Inc:* Provided assistance in the assessment of closure systems, using alternative approaches, of tailings dams for a gold mine facility in Bahia, Brazil (2012 - 2013).
- Vulcan Construction Materials, LP:* Participated in the forensic evaluation of the collapse of an anchored bulkhead that failed during discharge of construction materials (2011 - 2013).
- US Environmental Protection Agency:* Evaluation of leak detection system and stability of triple-lined landfill for hazardous waste containment system (2008 - 2010).
- Texas Commission on Environmental Quality (TCEQ):* Provided peer review services for guidance document on unsaturated soil cover systems and closure of mining sites (2011-12)
- T.J. Lambrecht Construction:* Participated in the forensic evaluation of pavement failure in a location characterized by expansive clays in the subgrade (2011).
- Rocky Mountain Arsenal, Colorado:* Provided assistance to the U.S. Environmental Protection Agency, Region 8, on evaluation of the suitability of alternative cover systems for final closure of hazardous waste site (2000 - 2007).
- Tensar Corporation, Roswell, Georgia:* Provided assistance as expert witness in forensic investigation involving the collapse of a reinforced soil wall (US case) (2005 - 2007).
- Tensar Corporation, Roswell, Georgia:* Provided assistance as expert witness in forensic investigation involving the collapse of a reinforced soil wall (overseas case) (2004 - 2007).
- US Environmental Protection Agency:* Provided assistance on the review of technical guidance for the design of final cover systems (2006 - 2007).
- Feasibility of use of Tire Bales:* Provided assistance to the Colorado Department of Transportation on use of tire bales for highway construction (2002 - 2004).
- Founders/Meadows Bridge Abutment, Colorado:* Provided assistance to the Colorado Department of Transportation on evaluation of the performance of the first reinforced bridge abutment constructed in the US highway system (1999 - 2001).
- Synthetic Industries, Tennessee:* Provided assistance on research and development for geosynthetic products (1999 - 2001).
- Operating Industries Inc. (OII) Superfund Site, California:* Post-closure evaluation of evapotranspirative cover system (2000).
- Del Amo Superfund Site, California:* Unsaturated flow modeling to assess liquid infiltration through the evapotranspirative component of the cover system (1998).
- Operating Industries Inc. (OII) Superfund Site, California:* Developed design methodology for uniaxial reinforcement of steep soil cover veneers anchored into solid waste (1997 - 1998).
- OII Superfund Site, California:* Performed unsaturated flow modeling to assess liquid infiltration through an evapotranspirative cover. Demonstrated regulatory compliance of evapotranspirative cover. OII constitutes the first evapotranspirative cover approved by the US Environmental Protection Agency for a Superfund site (1997 - 1998).
- OII Superfund Site, California:* Evaluated cover alternatives for final closure of the site, including exposed geomembrane cover, prescriptive “resistive” cover, and evapotranspirative cover (1996 – 1997).
- McCull Superfund Site, California:* Designed containment system to isolate high-octane aviation fuel wastes disposed after W.W.II. Major hurdles in the design included the very low bearing capacity of the waste, seismic stability, and potential chemical incompatibility between the waste and the closure system components (1996 – 1997).
- Azusa Superfund Site, California:* Evaluated potential release of contaminants from the existing waste into the groundwater due to a landfill vertical expansion. Developed method for evaluation of the effect of confinement on the available moisture-holding capacity of waste (1995 – 1996).
- OII Superfund Site, California:* Performed nonlinear, large-strain finite element analyses to evaluate the seismic stability and long-term performance of landfill structures (1995 – 1996).

*Beirolas Landfill, Lisbon, Portugal:* Forensic investigation of a catastrophic slope failure in a landfill, which occurred during placement of waste in a former harbor facility. After closure, the landfill became an open space area for the Lisbon EXPO '98 International Fair (1995).

*Eagle Mountain Landfill, California:* Produced the seismic information summary report. After construction, this facility will constitute the largest municipal solid waste landfill in the United States (1995).

*Highway reinforced embankments, Redding, California:* Developed design guidelines for the California Department of Transportation regarding geosynthetic-reinforced embankments using decomposed granite as backfill material (1995).

## **PATENTS**

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U.S. Patent No. 7,367,218, “Centrifuge Permeameter for Unsaturated Soils System, Parent.” UT Reference: UTAU 1142. Issued on May 6, 2008.

U.S. Patent No. 7,412,875, “Centrifuge Permeameter for Unsaturated Soils System, Division 1.” UT Reference: UTAU 1092. Issued on September 19, 2008.

U.S. Patent No. 7,509,840, “Centrifuge Permeameter for Unsaturated Soils System, Division 2.” UT Reference: UTAU 1143. Issued on March 31, 2009.

## **PH.D. SUPERVISIONS COMPLETED**

---

- 1) Arriaga, Fabiana (Spring 2003). Ph.D. dissertation: “Response of Geosynthetic-Reinforced Structures under Working Stress and Failure Conditions.” University of Colorado at Boulder.
- 2) Teixeira, Sidnei (Spring 2003). Co-supervised with Prof. B. S. Bueno. Ph.D. dissertation: “Study of Soil-Geogrid Interaction using Pullout Tests.” University of Sao Paulo, Brazil.
- 3) Dell’Avanzi, Eduardo (Summer 2004). Ph.D. dissertation: “Unsaturated Flow under Increased Gravitational Field.” University of Colorado at Boulder.
- 4) Costa, Carina M.L. (Fall 2004). Co-supervised with Prof. B. S. Bueno. Ph.D. dissertation: “Time-dependent Deformations of Geotextile-Reinforced Soil Walls.” University of Sao Paulo, Brazil.
- 5) Li, Chunling (Spring 2005). Ph.D. dissertation: “Mechanical Response of Fiber-Reinforced Soil.” Department of Civil, Architectural, and Environmental Engineering, The University of Texas at Austin.
- 6) Costa, Yuri (Spring 2005). Co-supervised with Prof. B. S. Bueno. Ph.D. dissertation: “Performance of Buried Pipes Overlying a Void.” University of Sao Paulo, Brazil.
- 7) Benjamin, C. Vinicius (Spring 2006). Co-supervised with Prof. B. S. Bueno. Ph.D. dissertation: “Experimental Evaluation of Prototype Geotextile-Reinforced Retaining Walls.” University of Sao Paulo, Brazil.
- 8) McCartney, John S. (Summer 2007). Ph.D. dissertation: “Determination of the Hydraulic Characteristics of Unsaturated Soils Using a Centrifuge Permeameter.” Department of Civil, Architectural and Environmental Engineering, The University of Texas at Austin.
- 9) Weber, Christine T. (Summer 2008). Ph.D. dissertation: “Leakage through Defects in Geomembrane Liners under High Hydraulic Heads.” Department of Civil, Architectural and Environmental Engineering, The University of Texas at Austin.
- 10) Yang, Kuo-Hsin (Summer 2009). Ph.D. dissertation: “Stress Distribution within Geosynthetic Reinforced Structures.” Department of Civil, Architectural and Environmental Engineering, The University of Texas at Austin.
- 11) Gupta, Ranjiv (Fall 2009). Ph.D. dissertation: “A Study of Geosynthetic Reinforced Flexible Pavement System.” Department of Civil, Architectural, and Environmental Engineering, The University of Texas at Austin.

- 12) Freilich, Brian (Fall 2009). Ph.D. dissertation: “Mechanical And Physical Characterization Of Tire Bales.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 13) Kuhn, Jeffrey A. (Spring 2010). Ph.D. dissertation: “Characterization of the Swelling Potential of Expansive Clays using Centrifuge Technology.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 14) Franca, Fagner (Spring 2011). Co-supervised with Prof. B. S. Bueno. Ph.D. dissertation: “New equipment to conduct confined-accelerated creep tests on geosynthetics.” University of Sao Paulo, Brazil (visiting scholar at UT Austin).
- 15) Portelinha, Fernando (Fall 2012). Co-supervised with Prof. B. S. Bueno. Ph.D. dissertation: “Experimental Assessment of the Effect of Infiltration on the Behavior of Fine-Grained Soils Reinforced with Nonwoven Geotextiles.” University of Sao Paulo, Brazil (visiting scholar at UT Austin).
- 16) Ferreira, Julio Zambrano (Summer 2013). Ph.D. dissertation: “Evaluation of Soil-geogrid Interaction at Different Load Levels Using Pullout Tests and Transparent Soil.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 17) Plaisted, Michael (Fall 2014). Ph.D. dissertation: “Characterization of Soil Unsaturated Flow Properties Using Steady State Centrifuge Methods.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 18) Correia, Natalia (Fall 2014). Co-supervised with Prof. B. S. Bueno. Ph.D. dissertation: “Performance of Flexible Pavements Enhanced using Geogrid-reinforced Asphalt Overlays.” University of Sao Paulo, Brazil (visiting scholar at UT Austin).
- 19) Belchior, Ingrid M.R.M. (Summer 2016). Co-supervised with Prof. M. Casagrande. Ph.D. dissertation: “Behavior of a Lime-Treated Expansive Soil.” Pontifical Catholic University of Rio de Janeiro (PUC-Rio), Brazil (visiting scholar at UT Austin).
- 20) Roodi, G. Hossein (Summer 2016). Ph.D. dissertation: “Analytical, Experimental, and Field Evaluations of Soil-Geosynthetic Interaction under Small Displacements.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 21) Azevedo, Marcelo M. (Fall 2016). Ph.D. dissertation: “Performance of Geotextiles with Enhanced Drainage.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 22) Quaglia, Gaston (Fall 2017). Ph.D. dissertation: “Hydro-mechanical Characterization of Unsaturated Clays using Centrifuge Technology.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 23) Morsy, Amr M. (Fall 2017). Ph.D. dissertation: “Evaluation of Soil-reinforcement Composite Interaction in Geosynthetic-reinforced Soil Structures.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 24) Peng, Xin (Fall 2017). Ph.D. dissertation: “Evaluation of Load Transfer Mechanisms Between Soil and Geogrid using Transparent Soil.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 25) Armstrong, Christian, P. (Spring 2018). Ph.D. dissertation; “Characterization of Expansive Clay Behavior using Centrifuge and Field Evaluations.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 26) Zhang, Genbao (Fall 2018). Supervised US research component (Overall supervision by Prof. Changfu Chen); Ph.D. dissertation: “Interface Characterization and Load Transfer Analyses for Anchored Systems.” Hunan University, People’s Republic of China (visiting scholar at UT Austin).

## **M.S. SUPERVISIONS COMPLETED**

---

- 1) Blanco, Fabiana (Fall 1999). M.S. thesis: “Study of Strain Distribution in Geosynthetic-Reinforced Slopes using Digital Image Analysis.” University of Colorado at Boulder.

- 2) Viratjandr, Chardphoom (Summer 2000). M.S. thesis: "Shear Strength of Tire Shred-Sand Mixtures." University of Colorado at Boulder.
- 3) Takata, Satoshi (Summer 2000). M.S. thesis: "Upgrade of a Large Scale True Triaxial Apparatus for Shear Strength Characterization." University of Colorado at Boulder.
- 4) Kroll, Erich (Spring 2000). M.S. report: "Construction of a Prototype Embankment using Tire Shreds." University of Colorado at Boulder.
- 5) Onsugksun, Bunpot (Fall 2000). M.S. Report: "Experimental Research on Seismic Behavior of Geosynthetics."
- 6) Knudsen, Justin (Spring 2002). M.S. thesis: "Characterization of the Long-Term Behavior of Geosynthetics using Time-Temperature Superposition Methods." University of Colorado at Boulder.
- 7) McCartney, John S. (Spring 2002). M.S. thesis: "Internal and Interface Shear Strength of Geosynthetic Clay Liners (GCLs)." University of Colorado at Boulder.
- 8) Watcharamonthein, Jakraphob (Spring 2002). M.S. Report: "Geosynthetic-Reinforced Bridge Abutments." University of Colorado at Boulder.
- 9) Byler, Brett (Spring 2003). M.S. thesis: "Characterization of Creep, Stress Relaxation and Residual Strength of a Woven Polypropylene Geotextile." University of Colorado at Boulder.
- 10) Mathis, Curtis (Spring 2003). M.S. thesis: "A Study of the Residual Shear Strength of Clay Soils." University of Colorado at Boulder.
- 11) Woodruff, Ryan (Fall 2003). M.S. thesis: "Centrifuge Modeling for MSE-Shoring Composite Walls." University of Colorado at Boulder.
- 12) Fitzgerald, Timothy (Fall 2003). M.S. report: "Investigation of the Thermal Response of Tire Shred Fills." University of Colorado at Boulder.
- 13) Wappett, Hailey (Fall 2004). M.S. thesis: "Investigation of the Thermal Response of a Tire Shred-Soil Embankment." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 14) Kang, Young Cheol (Spring 2005). M.S. thesis: "Pullout of Geosynthetic Reinforcement with in-Plane Drainage Capacity in Cohesive Soil." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 15) Kuhn, Jeffrey A. (Fall 2005). M.S. thesis: "Effect of Cracking on the Unsaturated Hydraulic Properties of Highly Plastic Clays." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 16) LaRocque, Christopher J. (Fall 2005). M.S. thesis: "Mechanical Properties of Tire Bales." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 17) Freilich, Brian (Summer 2006). M.S. thesis: "Behavior of Fiber-Reinforced Highly Plastic Clay." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 18) Homes, Daniel (Summer 2007). M.S. thesis: "Passive Grouting with Colloidal Silica for Secondary Containment Systems." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 19) Plaisted, Michael (Summer 2009). M.S. thesis: "Centrifuge Testing of an Expansive Clay." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 20) Thompson, Nathan (Summer 2009). M.S. thesis: "Small Soil Column Investigation of Soil-Geotextile Capillary Barrier System." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 21) Tang, Yucao (Summer 2009). M.S. thesis: "Calibration of Water Content Reflectometer." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 22) Trevino, Artemio (Summer 2009). M.S. report: "Subgrade Restraint Using Geotextiles." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.

- 23) Na, Suk Joon (Fall 2009). M.S. Thesis: "Evaluation of Synergism between Creep and Defects in a Low Linear Density Polyethylene (LLDPE) Geomembrane." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 24) Pickles, Christopher B. (Fall 2009). M.S. Thesis: "Hydraulic Classification of Unsaturated Nonwoven Geotextiles for use in Soil Structures." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 25) Joshi, Rutuparna (Spring 2010). M.S. Thesis: "Field Performance of Geogrid Reinforced Low-Volume Pavements." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 26) Eun, Jongwan (Spring 2010). M.S. Report: "Effect of Geogrid Characteristics on Confined Stiffness." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 27) Guzman, Carlos (Summer 2010). M.S. Thesis: "Effect of Deformability of Ridges on Interface Shear Strength." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 28) Muhlenkort, Craig (Summer 2010). M.S. Report: "Monitoring of Time-dependent Deformations in a Geotextile-Reinforced Slope." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 29) Yates, Trevor B. (Summer 2011). M.S. Thesis: "Hydraulic Performance and Stability of Geosynthetic Landfill Cover Systems with Constrained Drainage at the Outlet." Co-supervised with Dr. Gilbert. Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 30) Walker, Trevor M. (Spring 2012). M.S. Thesis: "Quantification using Centrifuge of Variables Governing the Swelling of Clays." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 31) Azevedo, Marcelo M. (Summer 2012). M.S. Thesis: "Anti-capillary Barrier Performance of Wicking Geotextiles." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 32) Hutcherson, Shawn C. (Summer 2012). M.S. Thesis: "Analysis of a Database of Uniaxial Geogrid Pullout Resistance Results." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 33) Sheridan, Todd (Summer 2012). M.S. Thesis: "Closure of a Uranium Mills Tailings Dam." Co-supervised with Dr. Gilbert. Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 34) Marcotulli, Fabrizio (Spring 2013). M.S. Thesis: "Evaluation of Pullout Results using Crushed Glass and Dredged Materials." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 35) Kondo, Jacob (Spring 2013). M.S. Thesis: "Pullout Evaluation of Uniaxial Geogrids Embedded in Dredged Material." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 36) Hanumasagar, Sangameshwar S. (Summer 2013). M.S. Thesis: "Pullout Evaluation of Steel Slag Fines and Dredged Material Blends with Uniaxial Geogrids." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 37) Lewis, Kemp S. (Fall 2013). M.S. Thesis: "Analysis of Dredge Material and Crushed Glass Blends with Uniaxial Geogrids in Pullout Tests." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 38) Rebuck, Jonathan T. (Fall 2013). M.S. Thesis: "Performance of Anchored Bulkheads." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 39) Fransioli, Douglas P. (Fall 2013). M.S. Thesis: "Performance of Geotextile Capillary Barriers." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.

- 40) Armstrong, Christian, P. (Spring 2014). M.S. Thesis: "Effect of Fabric on the Swelling of Highly Plastic Clays." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 41) Das, Jasaswee T. (Fall 2014). M.S. Thesis: "Evaluation of the Rate of Secondary Swelling in Expansive Clays using Centrifuge Technology." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 42) Garcia Delgado, Ivan E. (Spring 2015). M.S. Thesis: "Use of Geotextiles with Enhanced Lateral Drainage in Roads over Expansive Clays." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 43) Snyder, Larson M. (Summer 2015). M.S. Thesis: "Determination of the Potential Vertical Rise in Expansive Soils Using Centrifuge Technology." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 44) Blake, Calvin (Summer 2016). M.S. Thesis: "Centrifuge Measurements of Two-Phase Transient Flow in Rigid Porous Media." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 45) Martinez, Jose A. (Fall 2016). M.S. Thesis: "Parametric Evaluation of Relevant Parameters Affecting the Soil-Geosynthetic Interaction under Small Displacements." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 46) Imamoglu, Sevket (Summer 2017). M.S. Thesis: "Investigation of Shear Band Mechanism in Reinforced Soil Retaining Wall using Pullout Tests." Co-supervised with Prof. Erol Guler, Bogazici University, Turkey.
- 47) Phillips, James Ryan (Fall 2017). M.S. Thesis: "Field Evaluation of Reinforced Asphalt Overlays using Strain Measurements." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 48) Walter, Jakob R. (Spring 2018). M.S. Thesis: "Experimental and Numerical Investigation of Integral/Semi-Integral Bridge Abutments for Texas Conditions." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 49) Ahmed, Mahmoud M. (Spring 2018). M.S. Thesis: "Effect of Orientation on In-situ and In-soil Geosynthetic Properties." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 50) Nelsen, Christopher R. (Summer 2018). M.S. Thesis: "Experimental Evaluation of Geocell Reinforcement Behavior using Transparent Soil Techniques." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 51) El Hachem, Anthony G. (Summer 2018). M.S. Thesis: "Moisture Drainage under Unsaturated Soil Conditions with the Aid of Enhanced Lateral Drainage (ELD) Geotextiles." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 52) Summerlin, Karly A. (Summer 2018). M.S. Thesis: "Potential Vertical Rise of Lime-Treated Expansive Clays Using Centrifuge Technology." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 53) Liu, Ziye (Summer 2018). M.S. Thesis: "An Analytical Model for Quantification of Geosynthetic Benefits in Roadway Base Stabilization." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 54) Yang, Luming (Summer 2018). M.S. Thesis: "A Study on Geosynthetic-Reinforced Asphalt Systems." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 55) Zheng, Liming (Summer 2018). M.S. Thesis: "Environmental Loads on Control and Geosynthetic Stabilized Pavements over Expansive Clay Subgrades." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- 56) Jain, Shivangi (Spring 2019). M.S. Report: "Lab Characterization of Near-surface Soils from Farm to Market Road 2." Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.

- 57) Hernandez-Urbe, Luis A. (Summer 2019). M.S. Thesis: “Advances in Cross-plane and In-plane Geosynthetic Drainage.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.

## **PH.D. SUPERVISIONS IN PROGRESS**

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### **Students Admitted to Candidacy**

- Sankaranarayanan, Subramanian (2015 - present). Topic: “Accelerated Pavement Testing of Geosynthetic-reinforced Pavements.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- Blake, Calvin (2016 - present). Topic: “Centrifuge Measurements of Two-Phase Transient Flow in Rigid Porous Media.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- Mofarraj, Behdad (2017 - present). Topic: “Geotechnical Evaluation of Integral Bridges.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.

### **Students Preparing to Take PhD Qualifying Exam**

- Marx, Dawie (2019 - present). Topic: “Soil Reinforcement Interaction.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- Acosta, Carlos (2019 - present). Topic: “Behavior of cellular confinement systems.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- Gonzalez, Etienne (2019 - present). Topic: “Geotextile Encased Columns.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.
- Yalcin, Yagizer (2020 - present). Topic: “Stiffening of Roadway Unbound Aggregates using Geosynthetics.” Department of Civil, Architectural, and Environmental Engineering. The University of Texas at Austin.

## **M.S. SUPERVISIONS IN PROGRESS**

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- Peve, Lorenzo (2018 - present). Topic: “Roadways over Expansive Clays.” The University of Texas at Austin.
- Sicha, Gino (2019 - present). Topic: “Geotextiles with Enhanced Drainage Capabilities.” The University of Texas at Austin.
- Rivas, Nicolas (2019 - present). Topic: “Swelling Characterization of Expansive Clays.” The University of Texas at Austin.
- Orellana, Susana (2019 - present). Topic: “Characterization of Unsaturated Hydraulic Properties of Clays.” The University of Texas at Austin.

## **UNDERGRADUATE RESEARCH STUDENTS SUPERVISED**

---

- Ashworth, Lindsay (1998 – 1999). Graduated Spring 2000. Undergraduate report: “Solid Waste Landfills in the Boulder Area.” University of Colorado at Boulder.
- Knudsen, Justin (1998 – 2000). Graduated Spring 2000. Undergraduate report: “Large Scale Triaxial Testing Apparatus.” University of Colorado at Boulder.
- Douglas, Preston (2000). Graduated Spring 2000. Undergraduate report: “Tensile Testing of Geosynthetics.” University of Colorado at Boulder.

- McCartney, John (1999 – 2000). Graduated Spring 2002. Undergraduate report: “Evapotranspirative Covers: Bibliography.” University of Colorado at Boulder.
- Argentati, Angela (2001 – 2002). Graduated Spring 2002. Topic: “Performance of a Prototype Embankment Reinforced with Tire Shreds.” University of Colorado at Boulder.
- Vollenweider, Brent (2001 – 2002). Graduated Fall 2002. Topic: “Exothermic Reactions in Tire Shred Embankments.” University of Colorado at Boulder.
- Friedrichsen, Joseph M. (2001 – 2003). Graduated Spring 2003. Topic: “Data Acquisition System for Geotechnical and Centrifuge Testing.” University of Colorado at Boulder.
- Sanchez, Sean (2002 – 2003). Graduated Spring 2003. Topic: “Pullout Testing of Geogrid Reinforcements.” University of Colorado at Boulder.
- Leung, Chun Pong (2004). Topic: “Fiber-reinforced Clay.” The University of Texas at Austin.
- Lopez Holdorf, Rafael (2004). Topic: “Pullout Testing of Geogrids.” The University of Texas at Austin.
- Da Costa Leite, Gustavo (2004). Topic: “Mechanical Properties of Tire Bales.” The University of Texas at Austin.
- Silveira Gomes, Lamartini (2004). Topic: “Engineering Properties of Monterey Sand.” The University of Texas at Austin.
- Kern, Kristi (Fall 2005). Topic: “Centrifuge Modeling of Unsaturated Soil Properties.” The University of Texas at Austin.
- Silveira, Bruna (Fall 2005). Topic: “Hydraulic Conductivity of Sands.” The University of Texas at Austin.
- Lemos, Flavia (Spring 2006). Topic: “Unsaturated Soils.” The University of Texas at Austin.
- Lazarus, Ernesto (Spring 2006). Topic: “Tensile Testing of Geogrids.” The University of Texas at Austin.
- Lima, Leonardo (Fall 2006). Topic: “Pullout Testing of Geosynthetics.” The University of Texas at Austin.
- Kluver, Karl (Spring 2007). Topic: “Tensile Testing of Geogrids.” The University of Texas at Austin.
- Bosley, Daniel (Summer 2008). Topic: “Testing on Large Scale Pullout Testing Device.” The University of Texas at Austin.
- Rodrigo, Sashan (Summer 2009). Topic: “Testing on Reduced Scale Pullout Testing Device.” The University of Texas at Austin.
- Wong, Edward (2008 - 2010). Topic: “Testing on Reduced Scale Pullout Testing Device.” The University of Texas at Austin.
- Martinez, Alejandro (2010). Topic: “Unsaturated Hydraulic Properties of Highly Plastic Clays.” The University of Texas at Austin.
- Agarwal, Neil (2010 - 2011). Topic: “Determination of the Moisture Retention Properties of Soils.” The University of Texas at Austin.
- Knight, Vanessa (2011). Topic: “Swell Testing of High Plasticity Clays.” The University of Texas at Austin.
- Armstrong, Christian P. (2011-2012). Topic: “Testing on Reduced Scale Pullout Testing Device.” The University of Texas at Austin.
- Martinez, Jose (2012). Topic: “Pullout Testing of Geogrids under Low Displacements.” The University of Texas at Austin.
- Tam, Chun Pong (2011 - 2012). Topic: “Testing on Reduced Scale Pullout Testing Device.” The University of Texas at Austin.
- Lewis, Kemp (2011 - 2012). Topic: “Field Monitoring of Geosynthetic-Reinforced Pavements.” The University of Texas at Austin.
- Rodriguez, Matthew J. (2012). Topic: “Characterization of Swelling of High Plasticity Clays.” The University of Texas at Austin.

- Juhl, Jordan (2012). Topic: "One-g Swelling Tests." The University of Texas at Austin.
- Smith, Sarah (2012). Topic: "Evaluation of Capillary Barriers." The University of Texas at Austin.
- Natale, Steven M. (2013). Topic: "Evaluation of Geosynthetic Capillary Barriers." The University of Texas at Austin.
- Snyder, Larson M. (2013). Topic: "Characterization of Swelling Clays." The University of Texas at Austin.
- Lawrence, Cameron D. (2013). Topic: "Characterization of Swelling of Highly Plastic Clays." The University of Texas at Austin.
- Corte, Diego C. (2014). Topic: "Evaluation of Capillary Barriers." The University of Texas at Austin.
- Phillips, James Ryan (2014 - 2015). Topic: "Centrifuge Testing of Expansive Clays." The University of Texas at Austin.
- Born, Katie (2014). Topic: "Characterization of Highly Plastic Clays in Texas." The University of Texas at Austin.
- Slattery, Doug (2014 - 2015). Topic: "Pullout Testing of Geogrids under Low Displacements." The University of Texas at Austin.
- Desai, Jigar (2014 - 2015). Topic: "Stiffness of Soil-Geosynthetic Interaction under Low Displacements." The University of Texas at Austin.
- Martins, Ivan C. (2015). Topic: "Database of High Plasticity Clays in Central Texas." The University of Texas at Austin.
- Lyra, Marcus M. de C. (2015). Topic: "Soil-Geosynthetic Interaction Characterization." The University of Texas at Austin.
- Domingos, Leandro G. C. (2015). Topic: "Swelling Characterization of Soils in Central Texas." The University of Texas at Austin.
- Dantas, Mateus M.V. (2015). Topic: "Geosynthetic Capillary Barriers." The University of Texas at Austin.
- Velloso, Priscilla (2015). Topic: "Characterization of Soil Hydraulic Properties using Pressure Plate Devices." The University of Texas at Austin.
- Angevine, James (2015 - 2016). Topic: "Pullout Testing of Geogrids under Low Displacements." The University of Texas at Austin.
- Wait, Christina (2015 - 2016). Topic: "Characterization of Soil Hydraulic Properties using Pressure Plate Devices." The University of Texas at Austin.
- Van Hoosier, Kristen J. (2015). Topic: "Swelling Characterization of Soils in Central Texas." The University of Texas at Austin.
- Yeates, Elissa (2015). Topic: "Swelling Characterization of Soils in Central Texas." The University of Texas at Austin.
- Lewis, Joel (2015). Topic: "Pullout Testing of Geogrids under Low Displacements." The University of Texas at Austin.
- Salinas, Daniel (2015 - 2016). Topic: "Characterization of Clays from Central Texas." The University of Texas at Austin.
- Neri, Diego (2015 - 2017). Topic: "Stiffness of Soil-Geosynthetic Interaction under Low Displacements." The University of Texas at Austin.
- Monteiro, Lucas Melo (2016). Topic: "Characterization of Geosynthetics for Asphalt Reinforcement." The University of Texas at Austin.
- Resende, Andre Matoso (2016). Topic: "Pullout Testing of Geogrids under Low Displacements." The University of Texas at Austin.
- Gomes da Silva, Bruno Willian (2016). Topic: "Characterization of Interfaces using Direct Shear." The University of Texas at Austin.

- Medeiros, Leonardo Souza (2016). Topic: "Soil-geosynthetic Interaction Mechanisms." The University of Texas at Austin.
- Araujo, Hudson (2016). Topic: "Characterization of Clays from Central Texas." The University of Texas at Austin.
- Pontes, Yan (2016). Topic: "Hydraulic Conductivity of Highly Plastic Clays." The University of Texas at Austin.
- Andrade, Isabel (2016). Topic: "Swelling Characterization of Soils in Central Texas." The University of Texas at Austin.
- Rossi, Paulo Henrique (2016). Topic: "Field Condition Survey of Pavements over Expansive Clays." The University of Texas at Austin.
- Bosa, Augusto Macarini (2016). Topic: "Accelerated Pavement Testing of Geosynthetic-stabilized Bases." The University of Texas at Austin.
- Deo, Isha P. (2016 - 2017). Topic: "Swelling Characterization of Soils in Central Texas." The University of Texas at Austin.
- Vu, Quyen (2016 - 2017). Topic: "Swelling Characterization of Soils in Central Texas." The University of Texas at Austin.
- Aasnes, Cassie (2017). Topic: "Evaluation of the stiffness of soil-geosynthetic interaction under small displacements." The University of Texas at Austin.
- Mahal, Amanraj (2016 - 2017). Topic: "Accelerated Pavement Testing of Geosynthetic-stabilized Bases." The University of Texas at Austin.
- Wilson, Brooke (2016). Topic: "Characterization of Clays from Central Texas." The University of Texas at Austin.
- Garfias, Bryan (2016 - 2017). Topic: "Characterization of Clays from Central Texas." The University of Texas at Austin.
- Veatch, Samuel J. (2015 - 2017). Topic: "Pullout Testing of Geogrids under Low Displacements." The University of Texas at Austin.
- Pourghaed, Mohammed (2016 - 2017). Topic: "Characterization of Clays from Central Texas." The University of Texas at Austin.
- Gonzalez, Jose (2017). Topic: "Evaluation of the stiffness of soil-geosynthetic interaction under small displacements." The University of Texas at Austin.
- Regalado, Luis (2017 - present). Topic: "Evaluation of the stiffness of soil-geosynthetic interaction under small displacements." The University of Texas at Austin.
- Knott, Alexander (2017). Topic: "Accelerated Pavement Testing of Geosynthetic-stabilized Bases." The University of Texas at Austin.
- Sargent, John Paul (2017). Topic: "Accelerated Pavement Testing of Geosynthetic-stabilized Bases." The University of Texas at Austin.
- Dang, Shannon (2017). Topic: "Characterization of Clays from Central Texas." The University of Texas at Austin.
- Varela, Luis (2017 - 2018). Topic: "Evaluation of the stiffness of soil-geosynthetic interaction under small displacements." The University of Texas at Austin.
- Escobedo, Julio (2017 - 2018). Topic: "Swelling Characterization of Soils in Central Texas." The University of Texas at Austin.
- Ramirez, Michael (2017 - present). Topic: "Accelerated Pavement Testing of Geosynthetic-stabilized Bases." The University of Texas at Austin.
- Jovel, Bryan A. (2017). Topic: "Accelerated Pavement Testing of Geosynthetic-stabilized Bases." The University of Texas at Austin.

- Tran, Quoc Co (2018). Topic: "Characterization of Clays from Central Texas." The University of Texas at Austin.
- Alvarez, Cristina (2018). Topic: "Accelerated Pavement Testing of Geosynthetic-stabilized Bases." The University of Texas at Austin.
- Lamas, Jose J. (2018). Topic: "Characterization of Clays from Central Texas." The University of Texas at Austin.
- Guajardo Clark, Mario (2018). Topic: "Evaluation of the stiffness of soil-geosynthetic interaction under small displacements." The University of Texas at Austin.
- Rodriguez, Carlos M. (2018). Topic: "Evaluation of the stiffness of soil-geosynthetic interaction under small displacements." The University of Texas at Austin.
- Ehioghae, Edesuwa (2018). Topic: "Characterization of Clays from Central Texas." The University of Texas at Austin.
- Yip, Pak Lam (2018). Topic: "Accelerated Pavement Testing of Geosynthetic-stabilized Bases." The University of Texas at Austin.
- Tam, Chian (2018 - 2019). Topic: "Evaluation of the stiffness of soil-geosynthetic interaction under small displacements." The University of Texas at Austin.
- Thomas, Samuel P. (2018 - 2019). Topic: "Accelerated Pavement Testing of Geosynthetic-stabilized Bases." The University of Texas at Austin.
- Heye, Van (2018 - 2019). Topic: "Time-dependent Response of Geosynthetics under Soil Confinement." The University of Texas at Austin.
- Song, Ji Hyeon (2018 - 2019). Topic: "Characterization of Clays from Central Texas." The University of Texas at Austin.
- Lentini, Anthony (2019). Topic: "Evaluation of the stiffness of soil-geosynthetic interaction under small displacements." The University of Texas at Austin.
- Robison, Flynn (2019). Topic: "Accelerated Pavement Testing of Geosynthetic-stabilized Bases." The University of Texas at Austin.
- Dimas, Ruben (2019). Topic: "Characterization of Clays from Central Texas." The University of Texas at Austin.
- Espey, Will (2019). Topic: "Evaluation of the stiffness of soil-geosynthetic interaction under small displacements." The University of Texas at Austin.
- Dalton, Maria (2019). Topic: "Characterization of Clays from Central Texas." The University of Texas at Austin.
- Bernal, Heraclio (2019). Topic: "Accelerated Pavement Testing of Geosynthetic-stabilized Bases." The University of Texas at Austin.
- Chen, Peter (2019). Topic: "Time-dependent Response of Geosynthetics under Soil Confinement." The University of Texas at Austin.
- Nguyen, Khanh (2019). Topic: "Evaluation of the stiffness of soil-geosynthetic interaction under small displacements." The University of Texas at Austin.
- Viteri, Alexander (2018 - present). Topic: "Evaluation of the stiffness of soil-geosynthetic interaction under small displacements." The University of Texas at Austin.
- Flores, Sergio (2019 - present). Topic: "Characterization of Clays from Central Texas." The University of Texas at Austin.
- Pastor, Samuel (2019 - present). Topic: "Accelerated Pavement Testing of Geosynthetic-stabilized Bases." The University of Texas at Austin.
- Harris, Sydney (2019 - present). Topic: "Evaluation of the unconfined stiffness of geosynthetics." The University of Texas at Austin.
- Kim, Alex (2019 - present). Topic: "Evaluation of the stiffness of soil-geosynthetic interaction under small displacements." The University of Texas at Austin.

Wang, Xiaohaobo (Eric) (2020 - present). Topic: "Evaluation of the stiffness of soil-geosynthetic interaction under small displacements." The University of Texas at Austin.

## **POST-DOCTORAL FELLOWS AND VISITING SCHOLARS SUPERVISED**

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Pugliese, Paula, (Ph.D. from U. of Sao Paulo, Brazil). Research topic: "Experimental Validation of the Discrete Framework for Fiber Reinforcement." University of Colorado at Boulder (1999 – 2000).

Cabral, Alexandre, (Ph.D. from McGill University, Canada). Visiting scholar in sabbatical leave from the University of Sherbrooke, Quebec, Canada. University of Colorado at Boulder (2001 – 2002).

Lins, Amaro H.P. (Ph.D. from Coppe/Oxford). Visiting scholar in sabbatical leave from the Federal University of Pernambuco, Recife, Brazil. University of Colorado at Boulder (2002).

Liu, Chia-Nan (Ph.D. from University of Texas at Austin). Visiting scholar in sabbatical leave from the Department of Civil Engineering, National Chi-Nan University, Taiwan. University of Texas at Austin (2006).

Villar, Lucio F. S. (Ph.D. from Pontifical Catholic University of Rio de Janeiro, PUC-Rio, Brazil). Visiting scholar in sabbatical leave from the Federal University of Minas Gerais, Belo Horizonte, Brazil. University of Texas at Austin (Fall 2006-Fall 2007).

Nogueira, Christianne (Ph.D. from Pontifical Catholic University of Rio de Janeiro, PUC-Rio, Brazil). Visiting scholar in sabbatical leave from the Federal University of Ouro Preto, Minas Gerais, Brazil. University of Texas at Austin (Fall 2006-Spring 2007).

Pozzato, Annarita (Ph.D. student from University of Trento, Trento, Italy). Visiting scholar in graduate student exchange program from the University of Trento. University of Texas at Austin (Spring 2007).

Lodi, Paulo (Ph.D. from University of Sao Paulo, Sao Carlos, Brazil). Visiting scholar in sabbatical leave from State University of Sao Paulo at Ilha Solteira, Sao Paulo, Brazil, University of Texas at Austin (2008 - 2009).

Li, Ming (Ph.D. student from Tsinghua University, China). Visiting scholar in graduate student exchange program from Tsinghua University, Beijing, China (2010 - 2011).

Liu, Feiyu (Ph.D. from Zhejiang University, China). Visiting scholar in sabbatical leave from Shanghai University, Shanghai, China. University of Texas at Austin (2011 - 2012).

Lima, Marlon J. (Ph.D. student from University of Brasilia, Brazil). Visiting scholar from National Council for Scientific and Technological Development (CNPq), University of Texas at Austin (2012-2013).

Castro, Carmen D. (Ph.D. from Federal University of Rio Grande do Sul, Brazil). Visiting scholar from Center of Mineral Technologies (CETEM), Rio de Janeiro, Brazil (2012 - 2013).

Sirade, Sireesh (Ph.D. from Indian Institute of Science, Bangalore, India). Visiting scholar from Indian Institute of Technology Hyderabad, India (2013).

Plaisted, Michael (Ph.D. from The University of Texas at Austin. Post-doctoral researcher. University of Texas at Austin (Spring 2015 – Summer 2015).

Brasil Cavalcante, Andre C. (Ph.D. from Federal University of Brasilia, Brazil). Visiting scholar in sabbatical leave from the Federal University of Brasilia, Brazil. University of Texas at Austin (Fall 2014 – Summer 2015).

Zhang, Chunlei C. (Ph.D. from Hohai University, China). Visiting scholar in sabbatical leave from Hohai University, China. University of Texas at Austin (Summer 2015 – Summer 2016).

Zhang, Genbao (Ph.D. Student from Hunan University, China). Visiting scholar in graduate student exchange program. University of Texas at Austin (Fall 2015 - Spring 2016).

Gurbuz, Ayhan (Ph.D. from University of Massachusetts at Lowell). Visiting scholar on sabbatical leave from Gazi University, Turkey. University of Texas at Austin (Spring 2016 – Fall 2017).

- Costa Carina (Ph.D. from University of Sao Paulo at Sao Carlos, Brazil). Visiting scholar from the Federal University of Rio Grande do Norte, Brazil. University of Texas at Austin (Summer 2017).
- Costa Yuri (Ph.D. from University of Sao Paulo at Sao Carlos, Brazil). Visiting scholar from the Federal University of Rio Grande do Norte, Brazil. University of Texas at Austin (Summer 2017).
- Morsy, Amr M. (Ph.D. from The University of Texas at Austin). Post-doctoral researcher. University of Texas at Austin (Spring 2018 – Summer 2018).
- Peng, Xin (Ph.D. from The University of Texas at Austin). Post-doctoral researcher. University of Texas at Austin (Spring 2018 – Summer 2018).
- Araujo, Gregorio (Ph.D. from Federal University of Brasilia, Brazil). Visiting scholar in sabbatical leave from the Federal University of Brasilia, Brazil. University of Texas at Austin (Summer 2017 - Summer 2018).
- Costa, Carina (Ph.D. from University of Sao Paulo at Sao Carlos, Brazil). Visiting scholar from the Federal University of Rio Grande do Norte, Brazil. University of Texas at Austin (Summer 2018 – Spring 2019).
- Costa, Yuri (Ph.D. from University of Sao Paulo at Sao Carlos, Brazil). Visiting scholar from the Federal University of Rio Grande do Norte, Brazil. University of Texas at Austin (Summer 2018 – Spring 2019).
- Ahmadi, Hamzeh (Ph.D. student from Ghent University, Belgium). Visiting scholar. University of Texas at Austin (Spring 2019 – Summer 2019).
- Roodi, G. Hossein (Ph.D. from The University of Texas at Austin). Post-doctoral researcher. University of Texas at Austin (Fall 2016 – present).
- Pierozan, Rodrigo (Ph.D. from University of Brasilia, Brazil). Post-doctoral researcher. University of Texas at Austin (Spring 2019 – present).
- Kumar, Vinay (Ph.D. from Indian Institute of Technology, Hyderabad). Post-doctoral researcher. University of Texas at Austin (Spring 2019 – present).
- Almikati, Abdurrahman (Ph.D. student from American University of Beirut, Lebanon). Visiting scholar. University of Texas at Austin (Fall 2019 – present).
- Chen, Kangwei (Ph.D. student from Tongji University, China). Visiting scholar. University of Texas at Austin (Fall 2019 – present).

## **PARTICIPATION IN STUDENTS' EXAMINATION COMMITTEES**

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- External member of Christianne Nogueira's Ph.D. examination committee, Pontifical Catholic U. of Rio de Janeiro (PUC-Rio), Brazil (April 24, 1998).
- Member of Yong-II Kim's Ph.D. examination committee, U. of Colorado at Boulder (November 19, 1998).
- Member of Fu-Jen Chi's M.S. examination committee, U. of Colorado at Boulder (November 11, 1999).
- Member of James Kiernan's M.S. examination committee, U. of Colorado at Boulder (April 18, 2000).
- Member of Charles Bishop's M.S. examination committee, U. of Colorado at Boulder (April 20, 2000).
- Member of Fawzi A. Alkandari's Ph.D. examination committee, U. of Colorado at Boulder (August 2, 2000).
- Member of Gordan Gjerapic's Ph.D. examination committee, U. of Colorado at Boulder (January 12, 2001).
- Member of Christina Winckler's M.S. examination committee, U. of Colorado at Boulder (April 16, 2001).
- Member of Jeremy Whener's M.S. examination committee, U. of Colorado at Boulder (April 17, 2001).
- Member of Philip Metzler's M.S. examination committee, U. of Colorado at Boulder (April 18, 2001).
- Member of Christopher Slaven's M.S. examination committee, U. of Colorado at Boulder (April 19, 2001).
- Member of Lijian Gong's Ph.D. examination committee, U. of Colorado at Boulder (June 15, 2001).

Member of Tae-Hyung Kim's Ph.D. examination committee, U. of Colorado at Boulder (June 22, 2001).

External member of Luiz C. S. Baras' M.S. examination committee, U. of Sao Paulo, Brazil (July 04, 2001).

Member of Susan Batiste's Ph.D. examination committee, U. of Colorado at Boulder (August 20, 2001).

Member of Bryan Hoffman's M.S. examination committee, U. of Colorado at Boulder (November 5, 2001).

Member of Wanja Lee's Ph.D. examination committee, U. of Colorado at Boulder (December 17, 2001).

Member of Young Jae Choi's M.S. examination committee, U. of Colorado at Boulder (April 5, 2002).

Member of Kiung Park's M.S. examination committee, U. of Colorado at Boulder (April 9, 2002).

Member of Kitidech Santichianant's Ph.D. examination committee, U. of Colorado at Boulder (April 19, 2002).

Member of Changsoo Hwang's Ph.D. examination committee, U. of Colorado at Boulder (May 23, 2002).

Member of Taehoon Kim's Ph.D. examination committee, U. of Colorado at Boulder (May 29, 2002).

Member of Seung-Cheol Lee's Ph.D. examination committee, U. of Colorado at Boulder (May 30, 2002).

Member of Louis Ge's Ph.D. examination committee, U. of Colorado at Boulder (May 30, 2002).

External member of Lucio Flavio de Souza Villar's Ph.D. examination committee, Pontifical Catholic U. of Rio de Janeiro (PUC-Rio), Brazil (August 2, 2002).

Member of Jeff Taylor's M.S. examination committee, U. of Colorado at Boulder (November 11, 2002).

External member of Thaveesak Vangpaisal's Ph.D. examination committee, Monash U., Melbourne, Australia (November 19, 2002).

Member of Taehoon Kim's Ph.D. examination committee, U. of Colorado at Boulder (February 13, 2003).

Member of Jeff Wormer's M.S. examination committee, U. of Colorado at Boulder (March 18, 2003).

External member of Paulo M. F. Viana's Ph.D. examination committee, U. of Sao Paulo, Brazil (May 27, 2003).

External member of Leong Kam Weng's Ph.D. examination committee, National U. of Singapore, Singapore, (March 30, 2004).

External member of Leonardo Meneses' M.S. examination committee, U. of Sao Paulo, Brazil (July 9, 2004).

Member of Abhishek Jain's M.S. examination committee, The U. of Texas at Austin (May 2004).

Member of Yong Woo Lee's M.S. examination committee, The U. of Texas at Austin (Fall 2004).

Member of Shadi Sam Najjar's Ph.D. examination committee, The U. of Texas at Austin (May 2005).

Member of Lei Wang's M.S. examination committee, The U. of Texas at Austin (May 2005).

Member of Josiele Patias' M.S. examination committee, U. of Sao Paulo, Brazil (May 2005).

Member of Francis Kakuda's M.S. examination committee, U. of Sao Paulo, Brazil (May 2005).

Member of Celestino Valle-Molina's Ph.D. examination committee, The U. of Texas at Austin (January 2006).

Member of Jennifer Aguetant's M.S. examination committee, The U. of Texas at Austin (May 2006).

Member of Aiman Abusaid's M.S. examination committee, The U. of Texas at Austin (May 2006).

Member of Thelma Kamiji's M.S. examination committee, U. of Sao Paulo, Brazil (June 2006).

Member of Carlos Vinicius Benjamim's Ph.D. examination committee, U. of Sao Paulo, Brazil (June 9, 2006).

Member of Yin-Cheng Lin's Ph.D. examination committee, The U. of Texas at Austin (May 2007).

Member of Kenneth Kniss' M.S. examination committee, The U. of Texas at Austin (July 2007).

Member of Young Jae Choi's Ph.D. examination committee, The U. of Texas at Austin (July 2007).

Member of Jung Jae Lee's Ph.D. examination committee, The U. of Texas at Austin (July 2007).

Member of Rong Luo's Ph.D. examination committee, The U. of Texas at Austin (July 2007).

- Member of Yonghoon Lee' M.S. examination committee, The U. of Texas at Austin (July 2007).
- Member of Lance Finnefrock's M.S. examination committee, The U. of Texas at Austin (July 2008).
- Member of Heejun Youn's Ph.D. examination committee, The U. of Texas at Austin (Fall 2008).
- External member of Satosh Rimal's Ph.D. examination committee, Geoengineering Program, Queen's University, Kingston, Ontario, Canada (Fall 2008).
- External member of Joel R. Gniel's Ph.D. examination committee, Geotechnical Engineering, Monash University, Melbourne, Australia (Spring 2009).
- Member of Rachelle Howell's M.S. examination committee, The U. of Texas at Austin (Summer 2009).
- Member of Seong Wan Bae's M.S. examination committee, The U. of Texas at Austin (Summer 2009).
- Member of Antonio Marinucci's Ph.D. examination committee, The U. of Texas at Austin (Spring 2010).
- Member of Hansic Hwang's M.S. examination committee, The U. of Texas at Austin (Spring 2010).
- Member of Nicholas Johnny's M.S. examination committee, The U. of Texas at Austin (Spring 2010).
- External member of Matthew R. Sentry's Ph.D. examination committee, Geotechnical Engineering, Monash University, Melbourne, Australia (July 2010).
- Member of Karan Ganjoo's M.S. examination committee, The U. of Texas at Austin (Summer 2010).
- Member of Ran Chen's Ph.D. examination committee, The U. of Texas at Austin (Summer 2010).
- Member of Sang Yeon Seo's Ph.D. examination committee, The U. of Texas at Austin (Summer 2010).
- Member of Seung Han Kim's Ph.D. examination committee, The U. of Texas at Austin (Summer 2010).
- Member of David Saldana's M.S. examination committee, The U. of Texas at Austin (Summer 2010).
- Member of Jeong Yeon Cheon's Ph.D. examination committee, The U. of Texas at Austin (Fall 2010).
- Member of Byoung Hooi Cho's Ph.D. examination committee, The U. of Texas at Austin (Spring 2010).
- External member of Vinicius Gomes Pereira's M.S. examination committee, U. of Sao Paulo, Brazil (December 08, 2010).
- Member of Gergory F. Dellinger's M.S. examination committee, The U. of Texas at Austin (Summer 2011).
- Member of Jisuk Yoon's Ph.D. examination committee, The U. of Texas at Austin (Fall 2011).
- Member of Rachelle Howell's Ph.D. examination committee, The U. of Texas at Austin (Spring 2013).
- Member of Andrew Brown's Ph.D. examination committee, The U. of Texas at Austin (Summer 2013).
- Member of Mahdi Heidari Moghadam's Ph.D. examination committee, The U. of Texas at Austin (Summer 2013).
- Member of Ching-Hsiang Chen's Ph.D. examination committee, The U. of Texas at Austin (Fall 2013).
- Member of James W. West's M.S. examination committee, The U. of Texas at Austin (Spring 2013).
- Member of Ghadi Mechleb's M.S. examination committee, The U. of Texas at Austin (Spring 2013).
- Member of Amber Spears' M.S. examination committee, The U. of Texas at Austin (Spring 2014).
- Member of Andrew J. Jouben's M.S. examination committee, The U. of Texas at Austin (Fall 2014).
- Member of Alexander Brewster's M.S. examination committee, The U. of Texas at Austin (Spring 2015).
- External member of Hamed Mirmoradii's Ph.D. examination committee, Geotechnical Engineering, Federal University of Rio de Janeiro, COPPE, Rio de Janeiro, Brazil (May 2015).
- External member of Iman Hosseinpour 's Ph.D. examination committee, Geotechnical Engineering, Federal University of Rio de Janeiro, COPPE, Rio de Janeiro, Brazil (May 2015).
- Member of Matthew Gore's Ph.D. examination committee, The U. of Texas at Austin (Summer 2015).

- Member of Ali M. Helwa's Ph.D. examination committee, The U. of Texas at Austin (Spring 2016).
- Member of Lucas Borges' M.S. examination committee, University of Brasilia, Brazil (Summer 2016).
- Member of Ritika Sagoya's Ph.D. examination committee, The U. of Texas at Austin (Spring 2017).
- Member of Hussein Hachem's M.S. examination committee, The U. of Texas at Austin (Spring 2017).
- Member of Mateus B.A. Costa's M.S. examination committee, University of Brasilia, Brazil (Summer 2017).
- Member of Rodrigo Pierozan's Ph.D. examination committee, University of Brasilia, Brazil (Summer 2018).
- Member of Genbao Zhang's Ph.D. examination committee, Hunan University, People's Republic of China (Fall 2018).
- Member of Lucas Melo Monteiro's M.S. examination committee, The U. of Texas at Austin (Spring 2019).
- Member of Ahmet A. Mert's M.S. examination committee, The U. of Texas at Austin (Spring 2019).
- Member of Farizh Diaz's Ph.D. examination committee, EWRE, The U. of Texas at Austin (in progress).
- Member of Yunhan Huang's Ph.D. examination committee, The U. of Texas at Austin (in progress).
- Member of Michael Yust's Ph.D. examination committee, The U. of Texas at Austin (in progress).

## TEACHING

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### Courses Taught

- CE 387R.4 - *Earth Retaining Structures* (Graduate level, The University of Texas at Austin). Types of earth retaining systems, Earth pressure theory, Design of externally stabilized fill walls, Reinforcing elements, Design of internally stabilized fill walls, Design of internally stabilized cut walls, Design of externally stabilized cut walls, Advances in earth retention systems, Advances in soil reinforcement.
- CE 387C - *Geoenvironmental Engineering* (Graduate level, The University of Texas at Austin). The environmental geotechnics field, Compacted clay barriers, Unsaturated soil barriers, Geosynthetic barriers, Contaminants and solid waste, Contaminant transport through barrier systems, Liquid drainage layers, Stability and settlement of landfills, Emerging aspects in geoenvironmental engineering, Remediation of contaminated ground.
- CE 357 - *Geotechnical Engineering* (Undergraduate level, The University of Texas at Austin). Basic characteristics of geological materials; soil classifications; physical, mechanical, and hydraulic properties; the effective stress principle; seepage, consolidation; stress distribution; settlement analysis; shear strength.
- CE 375 - *Earth Slopes and Retaining Structures* (Undergraduate level, The University of Texas at Austin). Soil compaction: laboratory compaction tests, properties of compacted soils, compaction specifications; Seepage and drainage: principles of water flow through soils, water pressures and stresses in soil, flow net solutions; Slope stability: principles of soil shear strength, fundamentals of limit equilibrium analyses, ordinary method of slices; Earth pressures and retaining structures: at-rest earth pressures, Rankine active and passive pressures, retaining structures, modes of instability.
- CE 397 - *Geotechnical Engineering Seminar* (Graduate level, The University of Texas at Austin). Compilation of effective summary reports and abstracts; Evaluation of motivations and objectives in geotechnical research; Scope and organization of research reports; Critical evaluation of the literature; Presentation of research results; Analysis of results; Compilation of conclusions.
- CVEN 3708 - *Geotechnical Engineering I* (Undergraduate level, University of Colorado at Boulder). Basic characteristics of geological materials; soil and rock classifications; physical, mechanical, and hydraulic properties; the effective stress principle; soil and rock improvement; seepage, consolidation; stress distribution; settlement analysis.

CVEN 4728/5728 - *Foundation Engineering* (Undergraduate level, University of Colorado at Boulder). Geotechnical design of shallow and deep foundation, including spread footings, mats, driven piles, and drilled piers. Coverage includes bearing capacity, settlement, group effects, and lateral load capacity of the various foundation types. Analysis of pile behavior using wave equation and dynamic monitoring methods.

CVEN 5688 - *Environmental Geotechnics* (Graduate level, University of Colorado at Boulder). Regulatory framework. Solid waste. Soils in waste containment. Geosynthetics in waste containment. Waste containment systems. Stability of landfills. Contaminant transport through barrier systems. Mining geotechnics. Remediation of contaminated ground.

CVEN 5678 - *Soil Improvement and Reinforcement* (Graduate level, University of Colorado at Boulder). Principles of in-situ soil improvement: vibrocompaction, heavy tamping and blasting, consolidation by pre-loading, electro-osmosis, injection and grouting, admixture stabilization, thermal stabilization. Geosynthetics in reinforcement applications. Retaining structures: design overview, external and internal stability. Reinforced soil retaining walls, reinforced soil slopes, reinforced embankments on soft foundations, new concepts in soil reinforcement.

## Short Courses Taught

Short course on *Geosynthetics in the Design of Geoenvironmental Systems*. Geotechnical Program, Federal University of Ouro Preto, Ouro Preto, Minas Gerais, Brazil, April 27 – 28, 1998.

Short course on *Constructing with PVC Geomembranes*, PVC Geomembrane Institute. Component taught: “Design of Exposed Geomembrane to Wind Action,” Table Mountain Inn, Golden, Colorado, March 17, 2000.

Short course on *Environmental Geotechnics*, Geotechnical Engineering Department, University of Sao Paulo, Sao Carlos, Brazil, June 12 – 16, 2000.

Short course on *Geosynthetic-Reinforced Soil Structures*. Component taught: “New Advances in Soil Reinforcement,” GeoDenver 2000 Congress, Denver, Colorado, August 3, 2000.

Short course on *Environmental Geotechnics*, Civil Engineering Department, University of Cordoba, Cordoba, Argentina, July 12 – 14, 2001.

Short course on *Environmental Geotechnics*, Doctoral Program in Civil Engineering, School of Civil Engineering, Technical University of Catalonia, Barcelona, Spain, June 17 – 21, 2002.

Short course on *Waste Containment Drainage Systems and Drainage Geocomposite Design*, Technology Transfer Seminar, Four Points Sheraton, Austin, TX, November 11, 2003.

Short course on *Geosynthetics in Environmental Applications*, Sao Paulo Institute of Technology, Sao Paulo, Brazil, June 1, 2005.

Short course on *Geosynthetics in Hydraulic Applications*. Yokohama, Japan, September 18, 2006.

Short course on *Geosynthetics in Pavement Applications*. Mexican Society of Transportation, Mexico City, November 28, 2007.

Short course on *Geosynthetic-Reinforced Pavement*. *GeoAmericas 2008*, the First PanAmerican Geosynthetics Conference and Exhibition, Cancún, Mexico 3 March, 2008.

Short course on *Geosynthetic-Reinforced Pavement* (in Spanish). *GeoAmericas 2008*, the First PanAmerican Geosynthetics Conference and Exhibition, Cancún, Mexico 3 March, 2008.

Short course on *Geosynthetics in Waste Containment Applications*. *Geosynthetics Asia 2008*, the Fourth Asian Conference on Geosynthetics, Shanghai, China, June 16, 2008.

Short course on *Earth Retaining Structures*. Geotechnical Engineering Program, University of Sao Paulo, Sao Carlos, August 5, 2008.

- Short course on *Use of Geosynthetics to Reinforce Unbound Base Courses*. Texas Department of Transportation, Bryan District, Bryan, Texas, September 8, 2008.
- Short course on *Beneficial Use of Scrap Tire Bales in Highway Projects*. Texas Department of Transportation, Riverside Campus, Austin, Texas, September 18, 2008.
- Short course on *Design of Geocomposite Drainage Layers*. Structure, Testing, Performance and Application of Drainage Geocomposites in Landfills, Texas Research International (TRI), Austin, Texas, November 5, 2008.
- Short course on *Design and Construction of Cover Systems*. Geosynthetics 2009 Conference, Salt Lake City, Utah, February 26, 2009.
- Short course on *Design of Transportation Systems using Geosynthetics*. Mexican Institute of Transportation, Querétaro, Mexico, August 10-11, 2010.
- Short course on *Design of Drainage Systems*. Structure and Drainage Design with Geosynthetic Drains, Texas Research International (TRI), Austin, Texas, May 02, 2011.
- Short course on *Geosynthetic Applications*. Borges Cultural Center, Buenos Aires, Argentina, June 13-14, 2011.
- Short course on *Introduction to Geosynthetics*. Engineering Laboratory, Maputo, Mozambique, July 21, 2011.
- Short course on *Design of Geosynthetic-reinforced Cover Systems for Waste Containment*. *GeoAmericas 2012*, the Second Pan-American Geosynthetics Conference and Exhibition, Lima, Peru, 02 May, 2012.
- Short course on *Introduction to Geosynthetics*. Ministry of Infrastructure, Cordoba, Argentina, June 26, 2012.
- Short course on *Geosynthetics for Earth Retaining Structures*. Department of Civil Engineering, Universidad de los Andes, Bogotá, Colombia, July 23-27, 2012.
- Short course on *Design of Waste Containment Facilities using Geosynthetics*. 5<sup>th</sup> European Geosynthetics Congress, EuroGeo5, Valencia, Spain, September 16, 2012.
- Short course on *Geosynthetics*. *Educate the Educators* Program, International Geosynthetics Society, Carlos Paz, Argentina, May 26-27, 2013.
- Short course on *Geosynthetics in Roadway Applications*, *Second African Regional Conference on Geosynthetics*, GeoAfrica 2013, Accra, Ghana, 18 November 2013.
- Short course on *Geosynthetics*. *Educate the Educators* Program, International Geosynthetics Society, Cieszyn, Poland, June 23-24, 2014.
- Short course on *Geosynthetics*. *Educate the Educators* Program, International Geosynthetics Society, Lisbon, Portugal, June 29-30, 2015.
- Short course on *Geosynthetics*. *Educate the Educators* Program, International Geosynthetics Society, Austin, Texas, July 28-29, 2015.
- Short course on *Geosynthetics for Soil Reinforcement*, *XV Pan-American Conference on Soil Mechanics and Geotechnical Engineering*, Buenos Aires, Argentina, November 15, 2015.
- Short course on *Geosynthetics in Pavement Systems* (in Spanish), 3<sup>rd</sup> Pan-American Conference on Geosynthetics, *GeoAmericas 2016*, Miami, FL, April 11, 2016.
- Short course on *Geosynthetics in Pavement Systems*, 3<sup>rd</sup> Pan-American Conference on Geosynthetics, *GeoAmericas 2016*, Miami, FL, April 12, 2016.
- Short course on *Geosynthetics*. *Educate the Educators* Program, International Geosynthetics Society, Belo Horizonte, Brazil, July 27-29, 2016.
- Short course on *Prediction of Clay Swelling and PVR Using Centrifuge Testing*, 90<sup>th</sup> Annual Transportation Short Course, Texas Department of Transportation, College Station, Texas, October 11, 2016.
- Short course on *Pavement Distress and Repair Alternatives over Highly Expansive Soils*, 1<sup>st</sup> Global CINTRA'S Technical Webinar Series, CINTRA Technical Office, Austin, Texas, 18 April 2017.

Short course on *Geosynthetics. Educate the Educators* Program, International Geosynthetics Society, Kingston, Ontario, Canada, December 4-5, 2017.

Short course on *Hydraulic Behavior of Unsaturated Soils*, Geotechnical Engineering Program, Hunan University, Changsha, People's Republic of China, 25 December 2018.

Short course on *Geosynthetics. Educate the Educators* Program, International Geosynthetics Society, Lima, Peru, January 14-16, 2019.

Short course on *Geosynthetics. Educate the Educators* Program, International Geosynthetics Society, Gold Coast, Australia, February 20-21, 2019.

Short course on *Geosynthetics. Educate the Educators* Program, International Geosynthetics Society, Puebla, Mexico, July 04-05, 2019.

Short course on *Design of Walls, Earth Slopes, and Roadways using Geosynthetics*, Costa Rican Geotechnical Society, San Jose, Costa Rica, September 24-25, 2019.

Short course on *Geosynthetics for the Design of Pavements, Railways and Airfields*, Geo-Structural Aspects of Pavements, Railways and Airfields 2019, Colorado Springs, CO, November 04, 2019.

### **Participation in Activities of the National Academies**

National Academy of Science's Fifth Japanese-American *Frontiers of Science Symposium*, Beckman Center, Irvine, California, December 6 – 8, 2002.

National Academy of Engineering's Ninth Annual Symposium on *Frontiers of Engineering*, Beckman Center, Irvine, California, September 18 – 20, 2003.

National Research Council of the National Academies, Workshop of the *Committee on Geological and Geotechnical Engineering in the New Millennium: Opportunities for Research and Technological Innovation*, Beckman Center, Irvine, California, February 4 – 5, 2004.

### **Participation in Teaching Development Programs**

Faculty Teaching Excellence Program, The University of Colorado at Boulder, Office of the Vice Chancellor for Academic Affairs, *The Summer Institute on Technology, Scholarship, and New Media Pedagogy*, Boulder, Colorado, May 24 – June 4, 1999.

*New Century Scholars: Teaching, Learning, and Academic Career*, sponsored by the National Science Foundation, Stanford University, California, August 1 – 7, 1999.

International Association of Foundation Drilling, *Workshop for Civil Engineering Faculty*, Colorado State University, Fort Collins, Colorado, July 9 – 15, 2000.

*Workshop on Role of Geotechnical Physical Modeling in Education*, sponsored by the National Science Foundation, Memorial University of Newfoundland, St. John's, Canada, July 9, 2002.

## **MEMBERSHIP IN PROFESSIONAL AND HONORARY SOCIETIES**

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Member, International Geosynthetics Society (IGS)

Member, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE)

Fellow, American Society of Civil Engineers (ASCE)

Member, North American Geosynthetics Society (IGS-NA)

Member, International Association of Foundation Drilling (ADSC)

Member, American Society for Testing and Materials International (ASTM)

## SERVICE ACTIVITIES

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### Services in Editorial Board of Technical Journals

- Member of the Editorial Board, *Geosynthetics International*, Institution of Civil Engineers Publishing, an official journal of the International Geosynthetics Society (IGS) (2003-present)
- Member of the Editorial Board, *Geotextiles and Geomembranes*, Elsevier, an official journal of the International Geosynthetics Society (IGS) (2007-present)
- Member of the Editorial Board, *Transportation Geotechnics*, Elsevier (2014-present)
- Member of the Editorial Board, *International Journal of Geosynthetics and Ground Engineering*, Springer (2017-present)
- Member of the Editorial Board, *Soils and Rocks*, Brazilian and Portuguese Geotechnical and Engineering Geology Societies (2006-present)
- Member of the Advisory Board, *Journal of GeoEngineering*, Taiwan Society of Geotechnical Engineering (2011-present)
- Member of the Editorial Board, *Geotecnia*, Portuguese, Brazilian and Spanish Geotechnical Societies (2016-present)
- Member of the Editorial Board, *Environmental Geotechnics*, Institution of Civil Engineers Publishing, UK (2012-2016)
- Guest Editor, *Geosynthetics International*, Special Issue on Unsaturated Geosynthetics, Vol. 17, No. 5, October 2010.
- Member of the Editorial Board, *Journal of Geotechnical and Geoenvironmental Engineering*, American Society of Civil Engineers (ASCE) (1995-2007).

### Services in International Professional Organizations

- Co-Chair, Technical Committee on Stabilization, *International Geosynthetics Society* (IGS) (2017 – present)
- Member of the Board of Trustees, *International Geosynthetics Society Foundation* (2019 – present)
- Member of the Advisory Committee, *Third Pan-American Conference on Unsaturated Soils, PanAm UNSAT 2021*, to be held in Rio de Janeiro, Brazil, in July 2021, International Society of Soil Mechanics and Geotechnical Engineering (2019 – present)
- Member of the International Advisory Committee, *Fourth Pan-American Conference on Geosynthetics, GeoAmericas 2020*, to be held in Rio de Janeiro, Brazil, in February 2020, International Geosynthetics Society (2018 – present)
- Member, Technical Committee TC218, Reinforced Fill Structures, *International Society of Soil Mechanics and Geotechnical Engineering* (ISSMGE) (2016 – present)
- Member of the Scientific Committee, *Seventh European Conference on Geosynthetics, EuroGeo 2020*, to be held in Warsaw, Poland, in September 2020, International Geosynthetics Society (2019 – present)
- Chair, Task Force on Outreach, *Fourth Pan-American Conference on Geosynthetics, GeoAmericas 2020*, to be held in Rio de Janeiro, Brazil, in February 2020, International Geosynthetics Society (2019)
- Member of the International Advisory Committee, *Transportation Soil Engineering in Cold Regions, TransSoilCold 2019*, held in St. Petersburg, Russia, in May 2019, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) (2018 – 2019)
- Chair, Mercer Lecture Selection Committee, *International Geosynthetics Society* (IGS) and *International Society of Soil Mechanics and Geotechnical Engineering* (ISSMGE) (2017 – 2019)

- Member of the International Advisory Committee, *8<sup>th</sup> International Congress on Environmental Geotechnics*, Hangzhou, China, October 2018, International Society of Soil Mechanics and Geotechnical Engineering (2016 – 2018)
- Officer, Immediate Past-president and member of the IGS Executive Board, *International Geosynthetics Society* (IGS) (2014 – 2018).
- Chair, Technical Committees Coordination Board, *International Geosynthetics Society* (IGS) (2014 – 2018)
- Council Member, *Federation of International Geo-Societies* (FedIGS) (2014 – 2018)
- Member, Pan-American Activity Committee, *International Geosynthetics Society* (IGS) (2010 – 2018)
- Member, Education Committee, *International Geosynthetics Society* (IGS) (2004 – 2018)
- Member of the Council, *International Geosynthetics Society* (IGS) (2004 – 2018)
- Member of the Organizing Committee, *4<sup>th</sup> International Symposium on Geo-mechanics from Micro to Macro in Research and Practice, IS-Atlanta*, held in Atlanta, Georgia, in September 2018, International Society of Soil Mechanics and Geotechnical Engineering (2017 – 2018)
- Member of the International Advisory Committee, *11<sup>th</sup> International Conference on Geosynthetics*, held in Seoul, Korea, in September 2018, International Geosynthetics Society (2016 – 2018)
- Member of the International Promotions Committee, *11<sup>th</sup> International Conference on Geosynthetics*, held in Seoul, Korea, in September 2018, International Geosynthetics Society (2016 – 2018)
- Member of the Technical Committee, PanAm-UNSAT 2017, the *2<sup>nd</sup> Pan American Conference on Unsaturated Soils*, held in Dallas, Texas, November 2017, International Society of Soil Mechanics and Geotechnical Engineering (2016 – 2017)
- Member, American Society for Testing and Materials International (ASTM) Committee *D35 on Geosynthetics* (2010 – 2017)
- Member of the International Advisory Committee, *International Conference on Transportation Geotechnics and Geocology*, held in St. Petersburg, Russia, in May 2017, International Society of Soil Mechanics and Geotechnical Engineering (2016 – 2017)
- Member of the Technical Committee, EuroGeo6, the *6<sup>th</sup> European Geosynthetics Congress*, held in Ljubljana, Slovenia, September 2016, International Geosynthetics Society (2013 – 2016)
- Member of the International Advisory Committee, *3<sup>rd</sup> International Conference on Transportation Geotechnics, 3<sup>rd</sup> ICTG*, held in Guimaraes, Portugal, September 2016, International Society of Soil Mechanics and Geotechnical Engineering (2014 – 2016)
- Member of the Advisory Committee, GeoAmericas 2016, the *3<sup>rd</sup> Pan-American Geosynthetics Conference*, held in Miami, Florida, April 2016, International Geosynthetics (2013 – 2016)
- President of the *International Geosynthetics Society* (IGS) (2010 – 2014).
- Chair, International Advisory Committee, *10<sup>th</sup> International Conference on Geosynthetics*, held in Berlin, Germany, in September 2014, International Geosynthetics Society and the German Geotechnical Society (2011 – 2014)
- Member of the International Advisory Committee, *8<sup>th</sup> International Conference on Physical Modeling in Geotechnics*, ICPMG 2014, held in Perth, Australia, January 2014, International Society of Soil Mechanics and Geotechnical Engineering (2012 – 2014)
- Member of the International Advisory Committee, *XV Pan American Conference on Soil Mechanics and Geotechnical Engineering*, to be held in Buenos Aires, Argentina, November 2015, International Society of Soil Mechanics and Geotechnical Engineering (2012 – 2014)
- Member of the International Advisory Committee, *8<sup>th</sup> International Conference on Physical Modeling in Geotechnics*, ICPMG 2014, held in Perth, Australia, January 2014, International Society of Soil Mechanics and Geotechnical Engineering (2012 – 2014)

- Member of the International Advisory Committee, *3<sup>rd</sup> International Conference on Geotechnical Engineering, ICGE'13*, held in Tunis, Tunisia, January 2013 (2012 – 2013)
- Honorary Member of the Advisory Committee, *GeoAmericas 2012, the 2<sup>nd</sup> Pan-American Geosynthetics Conference*, held in Lima, Peru, May 2012, International Geosynthetics (2010 – 2012)
- Member of the Technical Committee, *XIV Pan-American Conference on Soil Mechanics and Geotechnical Engineering*, held in Toronto, Canada, October 2011, International Society of Soil Mechanics and Geotechnical Engineering (2009 – 2011)
- Member of the International Advisory Committee, *UNSAT 2010, the 5<sup>th</sup> International Conference on Unsaturated Soils*, held in Barcelona, Spain, September 2010, International Society of Soil Mechanics and Geotechnical Engineering (2008 – 2010)
- Vice-President of the *International Geosynthetics Society (IGS)* (2006 – 2010)
- Chair, North American Activities Committee, *International Geosynthetics Society (IGS)* (2004 – 2010)
- Chair, International Promotions Committee, *9<sup>th</sup> International Conference on Geosynthetics*, held in Guarujá, Brazil, May 2010, International Geosynthetics Society (2009 – 2010)
- Member, South American Activity Committee, *International Geosynthetics Society (IGS)* (2004 – 2010).
- Member of the International Advisory Committee, *International Symposium on New Techniques for Design and Construction in Soft Clays*, held in Guarujá, Brazil, May 2010, International Geosynthetics Society and the International Society of Soil Mechanics and Geotechnical Engineering (2009 – 2010)
- Member of the International Advisory Committee, *7<sup>th</sup> International Conference on Physical Modeling in Geotechnics, ICPMG 2010*, held in Zurich, Switzerland, June 2010, International Society of Soil Mechanics and Geotechnical Engineering (2009 – 2010)
- Member of the International Advisory Committee, *GeoAfrica 2009, the 1<sup>st</sup> African Conference on Geosynthetics*, held in Cape Town, South Africa, October 2009, International Geosynthetics Society (2008 – 2009)
- Member of the International Advisory Committee, *12<sup>th</sup> IACMAG Conference, International Association of Computer Methods and Advances in Geomechanics*, held in Goa, India, October 2008 (2005 – 2008)
- Conference Chair, *GeoAmericas 2008: The First Pan-American Geosynthetics Conference and Exhibition*, held in Cancún, Mexico, March 2008, International Geosynthetics Society (IGS) (2005 – 2008)
- Member of the International Advisory Committee, *Geosynthetics Asia 2008, the 4<sup>th</sup> Asian Conference on Geosynthetics*, held in Shanghai, China, June 2008, International Geosynthetics Society (2006 – 2008).
- Member of the Technical Committee, *Experus 2005, International Symposium on Advanced Experimental Unsaturated Soil Mechanics*, held in Trento, Italy, June 2005 (2004 – 2005)
- Member of the Technical Committee, *UNSAT2006: Third International Conference on Unsaturated Soils*, held in Carefree, Arizona, June 2006, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) (2005 – 2006)
- Core member, *Earth Reinforcement Committee (TC9)*, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) (2000 – 2006).
- Member, Task Force 1 (Design Basics and Performance Criteria), *Environmental Geotechnics Committee (TC 5)*, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) (2000 – 2006).
- Member, Task Force 3 (Innovative Barrier and Barrier Materials), *Environmental Geotechnics Committee (TC 5)*, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) (2000 – 2006)

## Services in National Professional Organizations

- Chair, Geosynthetics Technical Committee, Geo-Institute of the American Society of Civil Engineers (ASCE) (2015 – present)
- Past-Chair and member of the Council, International Activities Council, Geo-Institute of the American Society of Civil Engineers (ASCE) (2015 – present)

- Liaison Board Member, North American Geosynthetics Society, IGS North America (2019 – present)
- Member, Advisory Board, Southern Plains Regional Transportation Center (SPTC) (2013 - present)
- Member, *Unsaturated Soils* Technical Committee, Geo-Institute of the American Society of Civil Engineers (ASCE) (2008 – present)
- Member, *Environmental Geotechnics* Technical Committee, Geo-Institute of the American Society of Civil Engineers (ASCE) (1998 – present)
- Co-Chair of the 2017 Geo-Congress, *Geotechnical Frontiers 2017*, held in Orlando, Florida, in March 2017, Geo-Institute of the American Society of Civil Engineers (ASCE) (2015 – 2017)
- Chair, *International Activities Council*, Geo-Institute of the American Society of Civil Engineers (ASCE) (2008 – 2015)
- Vice-Chair, *Geosynthetics* Committee, Geo-Institute of the American Society of Civil Engineers (ASCE) (2004 – 2015)
- Corresponding Member, *International Activities Committee*, American Society of Civil Engineers (ASCE) (2009 – 2015)
- Member, Transportation Research Board (TRB) Subcommittee on Latin American Activities, Committee A0010, *International Activities* (2005 – 2012)
- Member, Transportation Research Board (TRB) Committee AFP40, *Physicochemical Phenomena in Soils* (2004 – 2011)
- Vice-President, *North American Geosynthetics Society (NAGS)* (2005 – 2011)
- Member, *International Activities Council*, Geo-Institute of the American Society of Civil Engineers (ASCE) (2006 – 2008)
- Co-Chair, *Center for Polymers in Hydraulic Structures (CPHyS)*, *Geosynthetic Institute (GSI)*, Folsom, Philadelphia (2003 – 2008)
- Member, *Alternative Landfill Technologies* Team, Interstate Technology Regulatory Council (ITRC) (2002 – 2007)
- Secretary of the 2005 Geo-Congress (*Geo-Frontiers 2005*), held in Austin, Texas, in January 2005, Geo-Institute of the American Society of Civil Engineers (ASCE) and the Geosynthetics Manufacturers Association (GMA)
- Member, *Task Force for Geotechnical Student Competition*, Geo-Institute of the American Society of Civil Engineers (ASCE) (2002 – 2005)
- Chair, Sub-committee on *Reinforced Soil Slope Design*, Los Angeles Committee on Soil Reinforcement, American Society of Civil Engineers (1999 – 2003)
- Member, *Task Force for Geo-Activity*, Geo-Institute of the American Society of Civil Engineers (ASCE) (2002 – 2003)
- Member, *Task Force on Education*, Geo-Institute of the American Society of Civil Engineers (ASCE). (2000 – 2001)
- Member of the Steering Committee, *GeoDenver 2000 Congress*, held in Denver, Colorado, in August 2000 Geo-Institute of the American Society of Civil Engineers (ASCE)
- Chair, Student Activities Committee, 2000 Geo-Congress (*GeoDenver 2000*), held in Denver, Colorado, in August 2000, Geo-Institute of the American Society of Civil Engineers (ASCE)

## Services in Organization of Technical Events

- Chair of Session “Geosynthetics,” Geo-Congress 2020, Geo-Institute of ASCE, Minneapolis, Minnesota, 27 February 2020.

- Chair of Session “Base Stabilization: Approaches for Design and Selection of Geosynthetics,” *First Technical Committee Workshop on Stabilization*, International Geosynthetics Society, Prague, Czech Republic, 11 November 2019.
- Member of Round Table Discussion “Reinforcement using Geosynthetics” *VIII Brazilian Conference on Geosynthetics*, Geossinteticos 2019, Sao Carlos, Brazil, 16 August 2019.
- Chair of Session “The Benedito Bueno Lecture from the Brazilian Society of Geosynthetics,” *VIII Brazilian Conference on Geosynthetics*, Geossinteticos 2019, Sao Carlos, Brazil, 15 August 2019.
- Chair of Round Table Discussion “Incorporating Geosynthetics in Civil Engineering Education” *Geosynthetics 2019 Conference*, 12 February 2019, Houston, Texas.
- Chair of Session “Barrier Systems 2” *11<sup>th</sup> International Conference of Geosynthetics*, 11ICG, 19 September 2018, Seoul, South Korea.
- Chair of Session “Keynote Lectures, Geotechnical Infrastructure for Megacities and New Capitals.” *The Second Geo-Institute-Kazakhstan Geotechnical Society Joint Workshop*, 07 March 2018, Orlando, Florida.
- Chair of Session “Transportation Infrastructure,” *Third African Conference on Geosynthetics, GeoAfrica 2017*, 10 October 2017, Marrakesh, Morocco.
- Chair of Session “Stabilization of Roadways using Geosynthetics,” International Conference on *Transportation Geotechnics and Geoecology*, TGG 2017, 17 May 2017, Saint Petersburg, Russia.
- Chair of Session “Terzaghi Lecture.” Geotechnical Frontiers 2017, Geo-Institute of ASCE, Orlando, Florida, 14 March 2017.
- Chair of Session “Geosynthetics in Foundations.” Geotechnical Frontiers 2017, Geo-Institute of ASCE, Orlando, Florida, 14 March 2017.
- Chair of Session “Student Paper Award.” 6<sup>th</sup> Asian Regional Conference on Geosynthetics, New Delhi, India, 10 November 2016.
- Chair of Keynote Session, “Geosynthetic Reinforced Applications,” *6<sup>th</sup> European Conference on Geosynthetics, EuroGeo6*, International Society of Geosynthetics (IGS), Ljubljana, Slovenia, 27 September 2016.
- Co-Chair of International Workshop on “Geosynthetics in Transportation Geotechnics.” *3<sup>rd</sup> International Conference on Transportation Geotechnics (3<sup>rd</sup> ICTG)*, Guimaraes, Portugal, 04 September 2016.
- Panelist in Discussion Session “Geosynthetics in the Americas: What is Holding Back their Growth?” *3<sup>rd</sup> Pan-American Conference on Geosynthetics*, GeoAmericas 2016, Miami Beach, Florida, 12 April 2015.
- Panelist in Discussion Session “Transportation Geotechnics.” *XV Pan-American Conference on Soil Mechanics and Geotechnical Engineering*, Buenos Aires, Argentina, November 16, 2015.
- Panelist in Discussion Session, “Advances in Geosynthetic Applications.” *2<sup>nd</sup> Iberic Conference on Geosynthetics*, Madrid, Spain, October 07, 2015.
- Chair of Technical Session, Geosynthetic Applications Lecture, *2<sup>nd</sup> Iberic Conference on Geosynthetics*, Madrid, Spain, October 07, 2015.
- Chair of Keynote Session, Welcome Lecture, *2<sup>nd</sup> Iberic Conference on Geosynthetics*, Madrid, Spain, October 07, 2015.
- Panelist in Discussion Session “We Will See a Significant Growth in Geosynthetic Use if...” *Geosynthetics 2015 Conference*, Portland, Oregon, 18 February, 2015.
- Panelist in Discussion Session, “Recent Educate The Educator Events.” *Geosynthetics 2015 Conference*, Portland, Oregon, 17 February, 2015.
- Chair of Keynote Session, Welcome Lecture, of the International Geosynthetics Society. *Tenth International Conference on Geosynthetics*, Berlin, Germany, September 22, 2014.
- Chair of Keynote Session, Giroud Lecture, of the International Geosynthetics Society. *Tenth International Conference on Geosynthetics*, Berlin, Germany, September 22, 2014.

- Panelist of Specialty Session “Geosynthetics in Roads over Challenging Subgrades.” *2<sup>nd</sup> African Regional Conference on Geosynthetics*, GeoAfrica 2013, Accra, Ghana, 20 November 2013.
- Panelist in Discussion Session “Federation of International Geo-Societies.” *18<sup>th</sup> International Conference on Soil Mechanics and Geotechnical Engineering*, FedIGS Workshop, Paris, France, September 05, 2013.
- Keynote Speaker of Session, “Geosynthetic Innovations in Geotechnical Engineering.” *18<sup>th</sup> International Conference on Soil Mechanics and Geotechnical Engineering*, Geosynthetics Workshop, Paris, France, September 05, 2013.
- Chair of Awards Session of the International Geosynthetics Society. *Fourth Asian Conference on Geosynthetics, Geosynthetics Asia 2012*, Bangkok, Thailand, December 14, 2012.
- Chair of Awards Session of the International Geosynthetics Society. *Fifth European Conference on Geosynthetics, EuroGeo5*, Valencia, Spain, September 18, 2012.
- Panelist in Discussion Session “Teaching and Learning Geotechnical Engineering in the Americas.” *Fourteenth Panamerican Conference of Soil Mechanics and Geotechnical Engineering*, Toronto, Canada, October 05, 2011.
- Chair of Session “Environmental Geotechnics 3.” *Fourteenth Panamerican Conference of Soil Mechanics and Geotechnical Engineering*, Toronto, Canada, October 04, 2011.
- Panelist in Discussion Session “Innovation in Geotechnical Engineering.” *Fifteenth African Regional Conference on Soil Mechanics and Geotechnical Engineering*, Maputo, Mozambique, July 19, 2011.
- Chair of Session “Mercer Lecture.” *Fifteenth African Regional Conference on Soil Mechanics and Geotechnical Engineering*, Maputo, Mozambique, July 18, 2011.
- Chair of Session “Mercer Lecture.” *GeoFrontiers 2011 Conference*, Geo-Institute of ASCE, Dallas, Texas, March 16, 2011.
- Chair of Session “Mercer Lecture.” *Sixth International Conference on Environmental Geotechnics*, 6ICEG, New Delhi, India, November 09, 2010.
- Chair of Session “Shear and Mechanical Behaviour of GCLs.” *Third International Symposium on Geosynthetic Clay Liners*, GBR-C 2k10, Fortress Marienberg, Wuerzburg, Germany, September 16, 2010.
- Chair of Session “Engineering Applications and Case Histories: Soil-atmosphere interaction, Geoenvironmental Applications.” *Fifth International Conference on Unsaturated Soils*, UNSAT 2010, Barcelona, Spain, September 8, 2010.
- Chair of Session “Scaling Laws.” *7th International Conference on Physical Modelling in Geotechnics (ICPMG 2010)*, Zurich, Switzerland, June 30, 2010.
- Chair of Keynote Lecture Session “Geosynthetics in Pavement Reinforcement Applications” *9th International Conference on Geosynthetics*, 9ICG, Guarujá, Brazil, May 26, 2010.
- Chair of Opening Session, *First Mexican Conference on Geosynthetics*, Mexican Society of Geotechnical Engineering (SMIG), Colegio de Ingenieros, Mexico City, Mexico, March 11, 2010.
- State of the Art Lecture (with Mayne, Coop, Springman and Huang) “Material Behavior and Testing.” *XVII International Conference on Soil Mechanics and Geotechnical Engineering*, Alexandria, Egypt, 5 October, 2009.
- Panelist in discussion session “Municipal Solid Waste Updates.” *Environmental Trade Fair and Conference*, Texas Commission on Environmental Quality, Austin, Texas, May 14, 2009.
- Chair of Keynote Lecture Session “30 Years of Geosynthetics Use – What May Be in Store for the Next 30 Years?” *Geosynthetics 2009*, Salt Lake City, Utah, February 25, 2009.
- Panelist in Keynote Lecture Session, “Geosynthetic-Reinforced Soil Structures: A Cost-Effective Solution Combining Two Engineering Disciplines.” Nabor Carrillo Lecture, *24<sup>th</sup> National Conference on Soil Mechanics*, Mexican Society of Soil Mechanics, Aguascalientes, Mexico, November 29, 2008.
- Chair of Session “Geoenvironmental Engineering.” *Twenty-fourth Mexican Conference on Soil Mechanics*, Aguascalientes, Mexico, November 27, 2008.

- Panelist in Discussion Session “Geosynthetics in Environmental Engineering.” *Geosynthetics Asia 2008*, the Fourth Asian Conference on Geosynthetics, Shanghai, China, June 19, 2008.
- Chair of Keynote Lecture Session “Geosynthetics Engineering: Combining Two Disciplines.” *Geosynthetics Asia 2008*, the Fourth Asian Conference on Geosynthetics, Shanghai, China, June 17, 2008.
- Organizer of Series of Sessions “Track 9: Pavements.” *GeoAmericas 2008*, the First PanAmerican Geosynthetics Conference and Exhibition, Cancún, Mexico, 2-5 March 2008.
- Chair of Session “Geosynthetics for Crack Mitigation of Pavements.” *GeoAmericas 2008*, the First PanAmerican Geosynthetics Conference and Exhibition, Cancún, Mexico, 3 March 2008.
- Chair of Session “Tensile Loading of Geosynthetics and their Creep Behavior.” *Eighth International Conference on Geosynthetics*, Yokohama, Japan, September 21, 2006.
- Discussion Leader of “Workshop 8: Remediation.” *Fifth International Conference on Environmental Geotechnics*, International Society of Soil Mechanics and Geotechnical Engineering, Cardiff, U.K., June 26-29, 2006.
- Chair of Session “Modeling of Waste Repositories and Laboratory Testing: Temperature Effects.” *Fourth International Conference on Unsaturated Soils*, Carefree, Arizona, April 3, 2006.
- Chair of Session “International Perspectives on Soil Reinforcement Applications.” State-of-the-art session, *Geo-Frontiers 2005 Conference*, Austin, Texas, January 25, 2005.
- Organizer of Session “Advances in Soil Reinforcement Applications II.” *Geo-Frontiers Conference*, Austin, Texas, January 25, 2005.
- Organizer of Session “Innovative Barriers and Barrier Materials.” *Geo-Frontiers 2005 Conference*, Austin, Texas, January 24, 2005.
- Organizer of Session “Advances in Soil Reinforcement Applications I.” *Geo-Frontiers Conference*, Austin, Texas, January 24, 2005.
- Co-chair of Session “Advances in Erosion Mitigation: Processes, Geosynthetic Products, and Applications.” *Geo-Frontiers 2005 Conference*, Austin, Texas, January 24, 2005.
- Co-chair of Session “Outlook, Opportunities, and Research Needs.” *Designing, Building, & Regulating Evapotranspiration (ET) Landfill Covers*, USEPA Remediation Technology Development Forum Program, Denver, Colorado, March 10, 2004.
- Co-chair of Session “Geoenvironmental Projects.” *2003 North American Conference on Geosynthetic*, Winnipeg, Canada, September 30, 2003.
- Discussion Leader of Session “Ground Reinforcement.” *Fourth International Workshop on Applications of Computational Methods in Geotechnical Engineering*, Ouro Preto, Brazil, August 19, 2003.
- Co-chair of Session “Ground Improvement.” *Twelfth PanAmerican Conference on Soil Mechanics and Geotechnical Engineering and 39th US Rock Mechanics Symposium*, Cambridge, Massachusetts, June 23, 2003.
- Keynote Speaker of Session “Geosynthetics in Geoenvironmental Applications.” *Fifth Brazilian Conference on Geosynthetics*, Porto Alegre, Brazil, May 21, 2003.
- General Reporter of Session “Geosynthetics in Geoenvironmental Applications.” *Fifth Brazilian Conference on Geosynthetics*, Porto Alegre, Brazil, May 21, 2003.
- Keynote Speaker of Session “Geosynthetics in Waste Containment Facilities: Recent Advances.” *Seventh International on Geosynthetics*, Nice, France, September 23, 2002.
- General Reporter of Session “Applied Unsaturated Soil Mechanics,” *Third International Congress on Unsaturated Soils*, UNSAT 2002, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), TC6, Recife, Brazil, March 11, 2002.
- Co-chair of Session “Design Methods for Soil Reinforcement,” and member of the Scientific Committee, *International Congress on Earth Reinforcement*, IS Kyushu 2001, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), TC9, Fukuoka, Japan, November 16, 2001.

- Chair of Session “Walls, Slopes, and Embankments.” *Geosynthetics 2001 Conference*, North American Geosynthetics Society (NAGS), Portland, Oregon, February 12, 2001.
- Moderator of Panel Discussion “Views of the 21st Century: Geosynthetics in Geotechnical Engineering.” *GeoDenver 2000 Congress*, Geo-Institute of the American Society of Civil Engineers (ASCE), Denver, Colorado, August 7, 2000.
- Chair of Session “Advances in Monitoring of Systems Reinforced using Geosynthetics.” *GeoDenver 2000 Congress*, Geo-Institute of the American Society of Civil Engineers (ASCE), Denver, Colorado, August 6, 2000.
- Chair of Session “Advances in Geoenvironmental Systems using Geosynthetics.” *GeoDenver 2000 Congress*, Geo-Institute of the American Society of Civil Engineers (ASCE), Denver, Colorado, August 5, 2000.
- General Reporter of Session “Case Histories Involving Geosynthetics.” *First Panamerican Conference on Geosynthetics*, International Geosynthetics Society (ISSMGE), Rio de Janeiro, Brazil, October 22, 1999.
- General Reporter of Special Session “Soil Improvement and Reinforcement.” *XI Panamerican Conference on Soil Mechanics and Geotechnical Engineering* (PCSMGE), International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), Foz do Iguassu, Brazil, August 9, 1999.
- Chair of Session “Reinforced Soil Slopes.” *Geosynthetics’99 Conference*, North American Society of Geosynthetics (NAGS), Boston, Massachusetts, April 28, 1999.
- Chair of Session “Numerical Modeling.” Third International Workshop on *Applications of Computational Mechanics in Geotechnical Engineering*, Porto, Portugal, September 5, 1998.

### **Services in Professional Reviews**

- Review of proposals submitted to the *National Science Foundation* (NSF), Natural Sciences and Engineering Research Council of Canada (NSERC), Qatar National Research Fund, Academic Research Program (ARP) of the Department of National Defence (DND) of Canada, and U.S. Civilian Research & Development Foundation.
- Review of papers submitted to *Journal of Geotechnical and Geoenvironmental Engineering* (ASCE), *Soils and Foundations* (Japanese Society of Geotechnical Engineering), *Geosynthetics International* (Telford, International Geosynthetics Society), *Geotextiles and Geomembranes* (Elsevier, International Geosynthetics Society), *Transportation Geotechnics* (Elsevier), *Geotechnical Testing Journal* (ASTM), *Canadian Geotechnical Journal*, *Géotechnique*, *Geotechnical Fabrics Report* (IFAI), *Journal of Geotechnical and Geological Engineering* (Kluwer AP), *Transportation Research Board* (TRB), *Waste Management*, *Water Resources Research*, *Advances in Water Resources*.
- Review of papers submitted to conferences organized by the American Society of Civil Engineers (ASCE), International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), International Geosynthetics Society (IGS), Transportation Research Board (TRB), and North American Geosynthetics Society (NAGS).
- Review of book manuscripts submitted for possible publication by *Prentice Hall* and *Wiley Interscience*.

### **Services to the Department of Civil, Architectural and Environmental Engineering, The University of Texas at Austin**

- Member, Curriculum and Accreditation Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2019 – present).
- Area Coordinator and member of the Advisory Committee, Geotechnical Engineering, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2013 – present).
- Chair, Faculty Evaluation Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2018 – 2019).

- Member, Faculty Evaluation Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2017 – 2018).
- Member, Faculty Search Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2017 – 2018).
- Chair, Curriculum Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2016 – 2017).
- Member, Undergraduate Recruiting and Retention Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2016 – 2017).
- Member, Graduate Curricula and Policies Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2014 – 2016).
- Chair, Undergraduate Recruiting and Retention Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2014 – 2015).
- Member, Advisory Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2013 – present).
- Budget Council, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2011-present)
- Member, Faculty Evaluation Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2011 – 2013).
- Member, Graduate Fellowships, Financial Aid and Recruiting Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2010 – 2013).
- Graduate Student Advisor, Geotechnical Group, Department of Civil, Architectural, and Environmental Engineering, The University of Texas at Austin (2010 – 2011).
- Member, Outreach Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2009 – 2011).
- Member, Graduate Curricula and Policies Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2009 – 2010).
- Coordinator, Geotechnical web site, Department of Civil, Environmental and Architectural Engineering, Chair, ABET Subcommittee for Program Objective 11, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2009 – 2010).
- Member, Curriculum Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2008 – 2009).
- Member, Graduate Fellowships, Financial Aid and Recruiting Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2005 – 2008).
- Coordinator, Graduate student recruiting, Geotechnical Engineering group, Department of Civil, Environmental and Architectural Engineering, University of Texas at Austin (2004 – 2008).
- Member, Graduate Curricula and Policies Committee, Department of Civil, Architectural and Environmental Engineering (2007 – 2008).
- Member, External Advisory Committee Liaison, Department of Civil, Architectural and Environmental Engineering (2006 – 2007).
- Member, CE and ARE Curriculum Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2005 – 2006).
- Member, Graduate Curricula and Policies, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2003 – 2005).
- Member, Undergraduate Recruiting and Retention Committee, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2003 – 2005).

Study abroad advisor, Department of Civil, Architectural, and Environmental Engineering, University of Texas at Austin (2003 – 2004).

### **Services to the Cockrell School of Engineering, The University of Texas at Austin**

Chair, Faculty Research Assignment (FRA) 2013-14 Engineering Selection Committee, Cockrell School of Engineering (2012).

Member, Faculty Research Assignment (FRA) 2012-13 Engineering Selection Committee, Cockrell School of Engineering (2011).

Member, Faculty Advisory Committee, 2005 Graduate Engineering Student Research Conference, UT Austin.

Faculty instructor, Minority Introduction to Engineering (MITE), Equal Opportunity in Engineering (EOE) Program, College of Engineering (2005 – 2007).

Member, Global Engineering Education Committee (2003 – 2009).

### **Services to the University of Texas at Austin**

Faculty Associate, Brazil Center, The Teresa Lozano Long Institute of Latin American Studies (2003 – present).

### **Services to the Department of Civil Environmental and Architectural Engineering, University of Colorado at Boulder**

Member, Computer Committee, Department of Civil, Environmental and Architectural Engineering, University of Colorado at Boulder (1999 – 2003).

Member, Facilities Committee, Department of Civil, Environmental and Architectural Engineering, University of Colorado at Boulder (2001 – 2003).

Coordinator, Departmental web site, Department of Civil, Environmental and Architectural Engineering, University of Colorado at Boulder (1999 – 2003).

Coordinator, Digital Image Laboratory (DIL), Department of Civil, Environmental and Architectural Engineering, University of Colorado at Boulder (1999 – 2003).

Member, Faculty Search Committee, Construction Engineering and Management group, Department of Civil, Environmental and Architectural Engineering, University of Colorado at Boulder (2000 – 2001).

Coordinator, Laboratory of Geosynthetics and Geoenvironmental Engineering, Department of Civil, Environmental and Architectural Engineering, University of Colorado at Boulder (2000 – 2003).

### **Services to the College of Engineering, University of Colorado at Boulder**

Presenter, *Success Institute*, a pre-engineering outreach minority program coordinated by the Multicultural Engineering Program (MEP), College of Engineering and Applied Sciences (1999 – 2003).

Member, web task force, College of Engineering and Applied Sciences (2000 – 2003).

Affiliated faculty member, Environmental Engineering Program, College of Engineering and Applied Sciences (1999 – 2003).

Member, Faculty Leadership Advancement Group (FLAG), College of Engineering and Applied Sciences (2002 – 2003).

### **Services to the University of Colorado at Boulder**

Member, Faculty Affairs Committee, Boulder Faculty Assembly (BFA), University of Colorado (2001 – 2003).

Mentor, Summer Multicultural Access to Research Training (S.M.A.R.T.) program, University of Colorado (2002 – 2003).