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Assistant Professor of Civil, Environmental and Construction Engineering
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Professional Preparation

B.S. Civil, Urban, and Geosystem Engineering, Seoul National University, 2000
M.S. Civil, Urban, and Geosystem Engineering, Seoul National University, 2002
Ph.D. Civil Engineering (Geotechnical Engineering), Purdue University, 2012

Professional Chronology

Assistant Professor of Civil Engineering, Texas Tech University (2013-present)
Senior Project Professional, Fugro Consultant, Inc., Houston (2009-2012)
Research Assistant, Civil Engineering, Purdue University (2004-2009)
Graduate Engineer, Korea Infrastructure Safety and Technology Corporation, Ilsan, Korea (2002-2003)
Research Assistant, Civil Engineering, Seoul National University (2000-2002)

Research Interests

Deep and shallow foundations
Analytical and numerical methods in geomechanics
Geotechnical instrumentation and monitoring
Development of in situ-test- and reliability-based design methods
Geotechnical engineering in cold regions
Soil-structure interactions
Granular mechanics
Rock mechanics and rock engineering
Water jet applications in construction engineering

Honors/Awards

ASCE Excellence in Civil Engineering Education (ExCEEEd) Fellowship (July 2013)
Fugro Graduate Fellowship Award (August 2006 to July 2007)
Scholarship from Seoul National University (September 1993 to February 2002)

Synergistic Activities/Committee Membership

Member of American Society of Civil Engineers (ASCE)
Member of Deep Foundation Institute (DFI)
Member of International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)
Member of Korean-American Scientists and Engineers Association (KSEA)
Member of the United States Universities Council on Geotechnical Education and Research (USUCGER)
Reviewer of

- Journal of Geotechnical and Geoenvironmental Engineering (ASCE)
- International Journal for Numerical and Analytical Methods in Geomechanics (John Wiley & Sons)
- Geotechnical and Geological Engineering: An International Journal (Springer)
- Journal of Architectural Engineering (ASCE)
- Journal of Materials in Civil Engineering (ASCE)

- Transportation Research Record: Journal of the Transportation Research Board (TRB)

Selected Publications (Last 10 years)

Journal articles (Underline: Texas Tech University student; *: Corresponding author)

1. Gunerathne, S. and Seo*, H. (2015). "Settlement Analysis of Circular Steel Tank Foundation on a Semi-Infinite Elastic Medium Using Variational Methods." Canadian Journal of Civil Engineering (submitted)
2. Seo*, H., Moghaddam, R. B., and Lawson, W. D. (2015). "Assessment of Methods for Construction of an Equivalent Pile Head Load-Settlement Curve from O-Cell Test Data" Soils and Foundations (submitted)
3. Wood, T. A., Lawson, W. D., Surlles, J. G., Jayawickrama, P. W., and Seo, H. (2015). "Improved Load Rating of Reinforced Concrete Box Culverts using Depth-Calibrated Live Load Attenuation" Journal of Bridge Engineering (submitted)
4. Seo*, H., Prezzi, M., and Salgado, R. (2015). "Closure to "Instrumented Static Load Test on Rock-Socketed Micropile" by Hoyoung Seo, Monica Prezzi, and Rodrigo Salgado." Journal of Geotechnical and Geoenvironmental Engineering, Vol. 141, No. 6, pp.07015003-1 to 07015003-9
5. Kim, D., Kim, H., Shin, K. J., and Seo*, H. (2015). "The Effect of Concrete Deformation on Displacement of an Axially Loaded Drilled Shaft." Marine Georesources and Geotechnology, DOI:10.1080/1064119X.2014.969413 (in-press, published online: 10/15/2014)
6. Bica, A., Prezzi, M., Seo*, H., Salgado, R., and Kim, D. (2014). "Instrumentation and Axial Load Testing of Displacement Piles" Proceedings of the ICE - Geotechnical Engineering, Vol. 167, No. 3, pp. 238-252
7. Seo*, H., Prezzi, M., and Salgado, R. (2013). "Instrumented Static Load Test on Rock-Socketed Micropile." Journal of Geotechnical and Geoenvironmental Engineering, Vol. 139, No. 12, pp. 2037-2047
8. Salgado, R., Seo, H., and Prezzi, M. (2013). "Variational Elastic Solution for Axially Loaded Piles in Multilayered Soil." , International Journal for Numerical and Analytical Methods in Geomechanics, Vol. 37, No. 4, pp. 423-440
9. Seo, H., Yildirim, I. Z., and Prezzi, M. (2009). "Assessment of the Axial Load Response of an H Pile Driven in Multilayered Soil." Journal of Geotechnical and Geoenvironmental Engineering, Vol. 135, No. 12, pp. 1789-1804 (cited as a major reference in 2nd DeMello Lecture by Dr. Poulos in 2010)
10. Seo, H., Basu, D., Prezzi, M., and Salgado, R. (2009). "Load-Settlement Response of Rectangular and Circular Piles in Multilayered Soil." Journal of Geotechnical and Geoenvironmental Engineering, Vol. 135, No. 3, pp. 420-430
11. Seo, H., and Prezzi, M. (2007). "Analytical Solution for a Vertically Loaded Pile in Multilayered Soil." Geomechanics and Geoengineering: An International Journal, Vol. 2, No. 1, pp. 51-60
12. Seo, H., Han, S. S., and Lee, C. -I. (2005). "Horizontal Drilling of Hard Rocks Using Abrasive Suspension Water Jet." Journal of Jet Flow Engineering, Vol. 22, No. 3, pp. 13-20

Peer reviewed conference papers (Underline: Texas Tech University student; *: Corresponding author)

1. Kim, M., Seo*, H., Lawson, W. D., and Jayawickrama, P. W. (2015). "Tangential Heave Stress for Design of Deep Foundations Revisited." Proceedings of 16th International Conference on Cold Regions Engineering, Salt Lake City, Utah, July 2015, pp. 404-415
2. Seo*, H., Prezzi, M., and Salgado, R. (2014). "Instrumented Static Load Test on Micropile Socketed into Limestone." Proc. of GeoCongress 2014: Geo-Characterization and Modeling for Sustainability, Atlanta, Georgia, February 2014, pp. 572-581

3. Gudavalli, S. R., Safaqah, O., and Seo*, H. (2013), "Effect of Soil Plugging on Axial Capacity of Open-Ended Pipe Piles in Sands." Proc. of 18th International Conference on Soil Mechanics and Geotechnical Engineering, Paris, France, September 2013, pp. 1487-1490