Ben Leshchinsky
Assistant Professor, Geotechnical Engineering
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Education
- B.S. in Civil Engineering, University of Delaware, 2007.
- M.S. in Civil Engineering, Columbia University, 2008.
- Ph.D. in Civil Engineering, Columbia University, 2012.

Academic Experience
- Research Assistant, Columbia University, 2008-2012, Full-time.
- Visiting Researcher, Tokyo University of Science, 2010, Full-time.
- Post-Doctoral Scholar, Department of Civil Eng. and Eng. Mech., Columbia University, Full-time, 2012, Full-time.
- Assistant Professor, Dept. of Forest Eng., Res. and Mgmt., OSU, 2012-Present, Full-time.
- Adjunct Faculty, School of Civil and Construction Engineering, OSU, 2016-Present, Full-time.

Non-Academic Experience
- Technical Support Consultant, LimitState, Ltd., September 2011 – Present
- Technical Support Consultant, ADAMA Engineering, Inc., January 2003 – Present

Certifications/ Professional Registrations
- Engineer in Training (EIT)

Membership in Professional Organizations
- Associate Member, American Society of Civil Engineers
- Member, International Geosynthetics Society
- Member, American Geophysical Union

Honors and Awards
- Dongju Lee Memorial Award, Columbia University, 2008.
- Dongju Lee Memorial Award, Columbia University, 2011.
- Aufderhide Undergraduate Mentoring Award, Oregon State University, 2015.

Service Activities
- Member, IGS Young Professionals
- Moderator/Session Chair, GeoCongress 2014, Atlanta, GA, March 17, 2014
- Member, ASCE Geosynthetics Committee, March 18th, 2014

Publications

1. **Leshchinsky, B.**, Evans, T. M., & Vesper, J. (2016). Microgrid inclusions to increase the strength and stiffness of sand. Geotextiles and Geomembranes, 44(2), 170-177.

2. Gao, Y., Yang, S., Zhang, F., & **Leshchinsky, B.** (2016). Three-dimensional reinforced slopes: Evaluation of required reinforcement strength and embedment length using limit analysis. Geotextiles and Geomembranes, 44(2), 133-142.
3. Ambauen, S., **Leshchinsky, B.,** Xie, Y., & Rayamajhi, D. (2015). Service-state behavior of reinforced soil walls supporting spread footings: a parametric study using finite-element analysis. Geosynthetics International, 1-15.
4. **Leshchinsky, B.** (2015). Bearing capacity of footings placed adjacent to c′-ϕ′ slopes. Journal of Geotechnical and Geoenvironmental Engineering, 141(6), 04015022.
5. **Leshchinsky, B.**, & Ambauen, S. (2015). Limit Equilibrium and Limit Analysis: Comparison of Benchmark Slope Stability Problems. Journal of Geotechnical and Geoenvironmental Engineering, 04015043.
6. **Leshchinsky, B.**, Sessions, J., & Wimer, J. (2015). Analytical design for mobile anchor systems. International Journal of Forest Engineering, 26(1), 10-23.
7. **Leshchinsky, B.**, Vahedifard, F., Koo, H.-B., & Kim, S.-H. (2015). Yumokjeong Landslide: an investigation of progressive failure of a hillslope using the finite element method. Landslides, 1-9.
8. **Leshchinsky, B.** , Olsen, M. J., & Tanyu, B. F. (2015). Contour Connection Method for automated identification and classification of landslide deposits. Computers & Geosciences, 74, 27-38.
9. Ruan, X., Leshchinsky, D., & **Leshchinsky, B.** A. (2015). Global Stability of Bilinear Reinforced Slopes. Transportation Infrastructure Geotechnology, 2(1), 34-46.
10. Vahedifard, F., **Leshchinsky, B.**, Mortezaei, K., & Lu, N. (2015). Active earth pressures for unsaturated retaining structures. Journal of Geotechnical and Geoenvironmental Engineering, 04015048.
11. Xie, Y., & **Leshchinsky, B.** (2015). MSE walls as bridge abutments: Optimal reinforcement density. Geotextiles and Geomembranes, 43(2), 128-138.
12. Zhang, F., Leshchinsky, D., Gao, Y., & **Leshchinsky, B.** (2014). Required unfactored strength of geosynthetics in reinforced 3D slopes. Geotextiles and Geomembranes, 42(6), 576-585.
13. Vahedifard, F., **Leshchinsky, B.**, Sehat, S., & Leshchinsky, D. (2014). Impact of cohesion on seismic design of geosynthetic-reinforced earth structures. Journal of Geotechnical and Geoenvironmental Engineering.
14. **Leshchinsky, B.** (2014). Limit analysis optimization of design factors for mechanically stabilized earth wall-supported footings. Transportation Infrastructure Geotechnology, 1(2), 111-128.
15. **Leshchinsky, B.**, & Ling, H. I. (2013). Numerical modeling of behavior of railway ballasted structure with geocell confinement. Geotextiles and Geomembranes, 36, 33-43.
16. **Leshchinsky, B.**, & Ling, H. (2012). Effects of geocell confinement on strength and deformation behavior of gravel. Journal of Geotechnical and Geoenvironmental Engineering, 139(2), 340-352.
17. Leshchinsky, D., Vahedifard, F., & **Leshchinsky, B.** (2012). Revisiting bearing capacity analysis of MSE walls. Geotextiles and Geomembranes, 34, 100-107.
18. Ling, H. I., Wu, M.-H., Leshchinsky, D., & **Leshchinsky, B.** (2009). Centrifuge modeling of slope instability. Journal of Geotechnical and Geoenvironmental Engineering.

Refereed Non-Journal Articles

1. Xie, Y. and **Leshchinsky, B.** (2015) "Optimization of Reinforcement Placement and Spacing for MSE Walls." Proceedings of Geosynthetics 2015. Portland, OR.
2. Ambauen, S. and **Leshchinsky, B**. (2015) "Numerical Simulation of Mechanically Stabilized Earth Walls under Surcharge Loading." Proceedings of Geosynthetics 2015. Portland, OR.
3. **Leshchinsky, B.,** Ambauen, S. and Y. Xie. (2015) "Effects of Surcharge Location on Serviceability of Mechanically Stabilized Earth Abutments." Proceedings of the XV PanAmerican Conference on Soil Mechanics and Geotechnical Engineering. Buenos Aires, Argentina.
4. Ben Leshchinsky. "Maximum Tensile Loads in Reinforcements for MSE Walls: A Comprehensive Stability Check Revisited with Limit Analysis." Proceedings of Geo-Congress 2014.
5. Ben Leshchinsky. "Mechanically Stabilized Earth Walls: Parametric Study of Reinforcement Tensile Loads under Limit State." Proceedings of International Symposium on Design and Practice of Geosynthetic-Reinforced Soil Structures 2013.
6. Ben Leshchinsky. "Comparison of Limit Equilibrium and Limit Analysis for Complex Slopes." Proceedings of Geo-Congress 2013.
7. Ben Leshchinsky. "Mechanically Stabilized Earth Walls: Parametric Study of Reinforcement Tensile Loads under Limit State." Proceedings of International Symposium on Design and Practice of Geosynthetic-Reinforced Soil Structures 2013. In press.
8. Ben Leshchinsky. "Enhancing Ballast Performance Using Geocell Confinement." Proceedings of Geo-Frontiers 2011. Pp 4693-4072 (2011).
9. Ben Leshchinsky and Hoe Ling. "Revisiting Deformation Analysis for the Kansai International Airport." Proceedings of the Fourth Biot Conference on Poromechanics. Pp. 1071-1076 (2009).

Presentations

1. "Enhancing Asset Management using a Consistent Digital Framework." Leshchinsky B. and J. Wartman. Transportation Research Board Workshop. January 10th, 2015. Washington, DC. (Invited).
2. "Effects of Surcharge Location on Serviceability of Mechanically Stabilized Earth Abutments." Leshchinsky, B., Ambauen, S. and Y. Xie. November 12th, 2015. XV PanAmerican Conference on Soil Mechanics and Geotechnical Engineering. Buenos Aires, Argentina. (Volunteered)
3. "Enhancing Landslide Inventorying using LiDAR." Leshchinsky, B. (2015). California Geological Survey Webinar. November 2015. (Invited)
4. "Enhancing Landslide Inventorying using LiDAR." Leshchinsky, B. (2015). CalTrans Webinar. November 2015. (Invited)
5. Leshchinsky, B. and Olsen, M. (2015). "Has the Earth moved and Will it Move again?" Academy for Lifelong Learning. Corvallis, OR. May 12, 2015.
6. Leshchinsky, B. (2015). "Contour Connection Method: Inventorying Landslides for Asset Management." 40th PNW Geotechnical Symposium. Gleneden Beach. August 4th, 2015.
7. "Enhancing Asset Management using a Consistent Digital Framework." Leshchinsky B. and J. Wartman. Transportation Research Board Workshop. January 10th, 2015. Washington, DC.
8. "Effects of Surcharge Location on Serviceability of Mechanically Stabilized Earth Abutments." Leshchinsky, B., Ambauen, S. and Y. Xie. November 12th, 2015. XV

PanAmerican Conference on Soil Mechanics and Geotechnical Engineering. Buenos Aires, Argentina.

9. Serviceability of MSE Wall True Abutments / Automated Detection of Landslide Deposits using LiDAR Mapping." Sacramento, CA. June 2014.
10. Ben Leshchinsky. "Analytical Design of Mobile Anchors." Conference on Forest Engineering. Eugene, OR. January 2014.
11. Ben Leshchinsky. "Analytical Design of Mobile Anchors." Oregon State University. Corvallis, OR. February 2014.
12. Ben Leshchinsky. "Aggregate Management: Evaluating Sediment Transport Impacts from Varying Unpaved Road Designs." Oregon State University. February 2014.
13. Ben Leshchinsky. "Limit Analysis Optimization of Design for Mechanically Stabilized Earth Wall-Supported Footings." Kobe University, Kobe, Japan. December 2013.
14. Ben Leshchinsky. "Mechanically Stabilized Earth Walls: Parametric Study of Reinforcement Tensile Loads under Limit State." International Symposium on Geosynthetic Structures: Bologna, Italy. October 2013.
15. Ben Leshchinsky. "Tools for Establishing Bearing Capacity of Complex Structures." NHI Short Course – Shallow Foundations Workshop. Salem, Oregon. February 2013.
16. Ben Leshchinsky. "Limit State Analysis: A Novel Tool for Evaluating Stability of Reinforced Earth Structures." GeoCongress 2013 – Short Course: Geosynthetics Reinforced Slopes and Embankments Design and Construction. San Diego, California. March 2013.
17. Ben Leshchinsky. "New Tools for Ultimate Limit State Bearing Capacity Design." Oregon Department of Transportation, February 1, 2013.
18. Ben Leshchinsky. "Use of Discontinuity Layout Optimization (DLO) in Stability Analyses". Oregon State University, October 4, 2012.
19. Ben Leshchinsky and Dov Leshchinsky. "New Tools for Ultimate Limit State Design." Delaware Valley Geo-Institute, May 15, 2012.
20. Ben Leshchinsky. "Department Seminar: Finite Element Modeling of Geocell-Confined Ballast." Tokyo University of Science, August 15, 2010.
21. Ben Leshchinsky. "Department Seminar: Improvement and Modeling of Railroad Foundations through Geocell Confinement." University of Sheffield. October 7, 2011.

Other Media - Apps

MACS 1.0: Mobile Anchor for Cable Logging Systems. Educational Design App for Android and Apple Devices.