

# CURRICULUM VITAE

## YUNING LOUIS GE

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### CONTACT INFORMATION

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### EDUCATION

**Ph.D.** in Civil Engineering, University of Colorado, Boulder, Colorado, August 2003.

Dissertation: *Cyclic Constitutive Modeling of Granular Materials*

Thesis Advisor: Stein Sture; Committee: Hon-Yim Ko, Kaspar Willam, Yun-Ping Xi, and Carlos Felippa

**M.S.** in Civil Engineering, University of Colorado, Boulder, Colorado, August 2000.

Thesis: *Finite Element Analysis for Staged Construction*

Thesis Advisor: Stein Sture; Committee: Hon-Yim Ko, and Dobroslov Znidarcic

**B.S.** in Civil Engineering, National Taiwan University, Taipei, Taiwan, June 1995.

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### PROFESSIONAL EXPERIENCE

#### **Vice President for General Affairs**

Office of General Affairs, National Taiwan University, Taipei, Taiwan, August 2018 - present.

#### **Professor**

Department of Civil Engineering, National Taiwan University, Taipei, Taiwan, August 2015 - present.

#### **Deputy Director**

National Taiwan University Cancer Center, Taipei, Taiwan, November 2015 - December 2019.

#### **Deputy Vice President for General Affairs**

Office of General Affairs, National Taiwan University, Taipei, Taiwan, August 2013 - July 2018.

**Associate Professor**

Department of Civil Engineering, National Taiwan University, Taipei, Taiwan, August 2011 - July 2015.

**Associate Professor**

Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology (formerly University of Missouri-Rolla), Rolla, Missouri, September 2011 - June 2012.

**Assistant Professor**

Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology (formerly University of Missouri-Rolla), Rolla, Missouri, August 2005 - August 2011.

**Lecturer**

Department of Civil, Architectural, and Environmental Engineering, University of Missouri-Rolla, Rolla, Missouri, August 2004 - May 2005.

**Lecturer and Research Associate**

Department of Civil, Environmental, and Architectural Engineering, University of Colorado, Boulder, Colorado, September 2003 - July 2004.

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**EDITORSHIP****Associate Editor**

Journal of Materials in Civil Engineering, ASCE, ISSN: 0899-1561, March 2010 - present.

**Editorial Board Member**

Journal of Testing and Evaluation, ASTM, ISSN: 0090-3973, May 2011 - present.

**Editorial Board Member**

Marine Georesources & Geotechnology, Taylor & Francis, ISSN: 1064-119X, February 2015 - present.

**Associate Editor**

International Journal of Geomechanics, ASCE, ISSN: 1532-3641, March 2015 - present.

**Editorial Board Member**

Chinese Journal of Geotechnical Engineering, ISSN: 1000-4548, April 2016 - present.

**Editorial Board Member**

Journal of GeoEngineering, Taiwan Geotechnical Society, ISSN: 1990-8326, April 2013 - March 2019.

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**PROFESSIONAL SOCIETIES**

Taiwan Geotechnical Society, 2012 - present.

American Society of Civil Engineers, 2006 - 2019.

American Society for Testing and Materials, 2011 - 2012.

Transportation Research Board (TRB), 2006 - 2011.

American Society for Engineering Education (ASEE), 2006 - 2010.

International Association for Computer Methods and Advances in Geomechanics, (IACMAG), 2006 - 2008.

## PUBLICATIONS

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### JOURNALS - PUBLISHED AND IN PRESS

1. Wang, S., Hu, Q., Wang, H. Thewes, M., Ge, L., Yang, J. and Liu, P. (2021) Permeability Characteristics of Sand-Foam Mixtures in Different Conditioning States, *Journal of Testing and Evaluation*, 49 (Published ahead of print, 25 March 2020 <https://doi.org/10.1520/JTE20190539>)
2. Wang, C., Deng, A., Taheri, A., and Ge, L. (2020) A mesh-free approach for multiscale modeling in continuum-granular systems, *International Journal of Computational Methods*. 17(10), 2050006.
3. Jhuo, Y.S., Yeh, Y.H., and Ge\*, L. (2020) Shear strength and volume change behavior of binary granular mixtures, *Journal of GeoEngineering*, 15(2), 103-108.
4. Ng, T.T. and Ge, L. (2020) Packing void ratios of very dense ternary mixtures of similar ellipsoids, *Granular Matter* (22), 1-13.
5. Yeh, F.-H., Chuang, T.-S., Tsai, F.-J., and Ge\*, L. (2020) Calibration of advanced constitutive model using optimization methods, *Journal of Testing and Evaluation*, 48(3), 2196-2212.
6. Hung, W.Y., Tran, M.C., Yeh, F.H., Lu, C.W., and Ge, L. (2020) Centrifuge modeling of failure behavior of sandy slope caused by gravity, rainfall, and base shaking, *Engineering Geology*., 271(20), 105609.
7. Lu, C.W., Chu, M.C., Ge, L., and Peng, K.S. (2020) Settlement estimation of structures on shallow foundation due to soil liquefaction, *Soil Dynamics and Earthquake Engineering*., 129, 105916.
8. Hsieh, H.S., Wang, Z.Y., Lin, T.M., and Ge, L. (2019) The system stiffness and wall displacement of a deep excavation strengthened with cross walls in soft clay, *Journal of GeoEngineering*, 14(4), 203-217.
9. Kang, X, Xia, Z., Chen, R., Ge, L., and Liu, X. (2019) The critical state and steady state of sands: a literature review, *Marine Georesources & Geotechnology*, 37(9), 1105-1118.
10. Jhuo, Y.-S., Guan Y., Ge\*, L., Xia, Z. and Kang, X. (2019) Assessment of direct tension tests on compacted sand-clay mixtures, *Journal of Materials in Civil Engineering*, 31(10): 04019236.
11. Hwang, Y.W., Chiou, J.S., and Ge, L. (2019) Application of system identification for dynamic properties of rocking foundations, *Journal of GeoEngineering*, 14(3), 167-178.
12. Weidinger, D.M., Zhao, H., Kwok, A.O.L., Kang, X., and Ge, L. (2019) Small strain moduli of compacted silt by ultrasonic pulse velocity measurements, *Marine Georesources & Geotechnology*, DOI: 10.1080/1064119X.2019.1657209
13. Ge, L., Hwang, Y.W., Sun, H., He, G.D., Chen, R., and Kang, X. (2019) Effective tensile strength of lightly cemented sand, *Journal of Materials in Civil Engineering*, 31(1): 04018350.
14. Ge, L., Wang, C.C, Hung, C.W., Liao, W.C., and Zhao, H. (2018) Assessment of strength development of slag cement stabilized kaolinite, *Construction and Building Materials*, 184, 492-501.
15. Lu, C.W., Ge\*, L., Chu, M.C., and Chin, C.T. (2018) Liquefaction-induced settlement of structures on shallow foundation, *Geotechnical Engineering Journal of the SEAGS & AGSSEA*, 49(2), 138-141.

16. Liu, P., Wang, S., Ge, L., Thewes, M., Yang, J. and Xia, Y. (2018) Changes of Atterberg limits and electrochemical behaviors of clays with dispersants as conditioning agents for EPB shield tunnelling, *Tunnelling and Underground Space Technology*, 73, 244-251.
17. Hsiung B.C.B., Yang, K.H., Aila, W., and Ge, L. (2018) Three-dimensional effects of a deep excavation on wall deflections in central Jakarta, *Tunnelling and Underground Space Technology*, 72, 84-96.
18. Ueng, T.S., Wang, Z.F., Chu, M.C., and Ge, L. (2017) Laboratory tests for permeability of sand during liquefaction, *Soil Dynamics and Earthquake Engineering*, 100, 249-256.
19. Hsieh, H.-S., Huang, Y.-H., Hsu, W.-T., and Ge, L. (2017). On the system stiffness of deep excavation in soft clay, *Journal of GeoEngineering*, 12(1), 21-34.
20. Onyejekwe, S., Kang, X., and Ge\*, L. (2016). Evaluation of the scale of fluctuation of geotechnical parameters by autocorrelation function and semivariogram function, *Engineering Geology*, 214, 43-49.
21. Chang, C.S., Wang, J.-Y., and Ge, L. (2016). Maximum and minimum void ratios for sand-silt mixtures, *Engineering Geology*, 211(23), 7-18.
22. Kang, X., Ge\*, L., and Liao, W.-C. (2016). Cement hydration based micromechanics modeling of the time-dependent small-strain stiffness of fly ash stabilized soils, *International Journal of Geomechanics*, 16(3), 04015071.
23. Kang, X., Ge\*, L., Chang, K.-T., and Kwok, A.O.L. (2016). Strain-controlled cyclic simple shear tests on sand with radial strain measurements, *Journal of Materials in Civil Engineering*, 28(4), 04015169.
24. Ni, J.C., Cheng, W.-C., and Ge, L. (2016). Assessment of concrete maturity and overturning mechanism of primary diaphragm walls in very soft clay during cold winter, *KSCE Journal of Civil Engineering*, 20(4), 1314-1322. doi: 10.1007/s12205-015-0043-7
25. Kang, X., Ge\*, L., Kang, Gi-Chun, and Mathews, C. (2015). Laboratory investigation on the strength, stiffness, and thermal conductivity of fly ash and lime kiln dust stabilized clay subgrade materials, *Road Materials and Pavement Design*, 16(4), 928-945.
26. Kang, X., Cheng, Y., and Ge, L. (2015). Radial strain behaviors in direct simple shear and its stress state interpretation, *Journal of Testing and Evaluation*, 43(6), 1594-1601, doi:10.1520/JTE20140202.
27. Chang, K.-T., Kang, Y.-M., Ge, L., and Cheng, M.-C. (2015). Mechanical properties of gravel deposits evaluated by non-conventional methods, *Journal of Materials in Civil Engineering*, 27(11), 040150321–04015032-11.
28. Kang, X. and Ge\*, L. (2015). Enhanced series-parallel model for estimating the time-dependent thermal conductivity of fly ash soil mixtures, *Granular Matter*, 17(5), 579-592.
29. Chang, C.S., Wang, J.-Y., and Ge\*, L. (2015). Modeling of minimum void ratio for sand-silt mixtures, *Engineering Geology*, 196, 293-304.
30. Onyejekwe, S., Kang, X., and Ge\*, L. (2015). Assessment of empirical equations for compression index of fine-grained soils in Missouri, *Bulletin of Engineering Geology and the Environment*, 74(3), 705-716.
31. Kang, X., Kang, G.-C., Chang, K.-T., and Ge\*, L. (2015). Chemically Stabilized Soft Clays for Road Base Construction, *Journal of Materials in Civil Engineering*, 27(7), 04014199-1–04014199-9.

32. Chang, K.-T., Ge, L., and Lin, H.-H. (2015). Slope creep behavior: observations and simulations, *Environmental Earth Sciences*, 73(1), 275-287.
33. Zhao, H., and Ge\*, L. (2014). Investigation on the shear moduli and damping ratios of silica gel, *Granular Matter*, 16(4), 449-456.
34. Zhao, H., Ge\*, L., Petry, T.M., and Sun, Y.-Z. (2014). Investigation of the effects of chemical stabilizers on an expansive clay, *KSCE Journal of Civil Engineering*, 18(4), 1009-1017.
35. Ni, J.C., Cheng, W.-C., and Ge, L. (2013). A simple data reduction method for pumping tests with tidal, partial penetration, and storage effects. *Soils and Foundations*, 53(6), 894-902.
36. Kang, G.-C., Tobita, T., Iai, S., and Ge, L. (2013). Centrifuge modeling and mitigation of manhole uplift due to liquefaction, *Journal of Geotechnical and Geoenvironmental Engineering*, 139(3), 458-469.
37. Kang, X., Kang, G.-C. and Ge\*, L. (2013). Modified time of setting test for fly ash paste and fly ash-soil mixtures, *Journal of Materials in Civil Engineering*, 25(2), 296-301.
38. Sevi, A. and Ge\*, L. (2012). Cyclic behaviors of railroad ballast within the parallel gradation scaling framework, *Journal of Materials in Civil Engineering*, 24(7), 797-804.
39. Kim, T.-H., Kim, T.-H., Kang, G.-C., and Ge, L. (2012). Factors influencing crack-induced tensile strength of compacted soil, *Journal of Materials in Civil Engineering*, 24(3), 315-320.
40. Kang, X., Cambio, D., and Ge, L. (2012). Effect of parallel gradations on crushed rock-concrete interface behaviors, *Journal of Testing and Evaluation*, 40(1), 119-126.
41. Ni, J.C., Cheng, W.-C., and Ge, L. (2011). A case history of field pumping tests in a deep gravel formation of Taipei basin, Taiwan, *Engineering Geology*, 117(1-2), 17-28.
42. Ge\*, L., Bao, Y., Ni, C.-K., and Ko, H.-Y. (2010). Seismic centrifuge modeling of earth dams, *Geomechanics and Geoengineering: An International Journal*, 5(4), 247-257.
43. Zhao, H., Ge\*, L., and Luna, R. (2010). Low viscosity pore fluid to manufacture transparent soil, *Geotechnical Testing Journal*, 33(6), 463-468.
44. Chen, C., Ge\*, L., and Zhang, J. (2010). Modeling permanent deformation and resilient modulus of unbound granular materials under repeated loading, *International Journal of Geomechanics*, 10(6), 236-241.
45. Chang, K.-T., Ge\*, L., and Sture, S. (2010). Evaluation of the stiffness and volumetric behaviors of medium dense sand under principal stress rotations, *Journal of Testing and Evaluation*, 38(3), 319-323.
46. Hotz, R.D., and Ge\*, L. (2010). Investigation of the thermal conductivity of compacted silts and its correlation to the elastic modulus, *Journal of Materials in Civil Engineering*, 22(4), 408-412.
47. Luna, R., Hall, R., Hilgers, M., and Ge, L. (2010). GIS learning tool for civil engineers, *International Journal of Engineering Education*, 26(1), 52-58.
48. Weidinger, D.M., and Ge\*, L. (2009). Laboratory evaluation of the Briard Compaction Device, *Journal of Geotechnical and Geoenvironmental Engineering*, 135(10), 1543-1546.
49. Sevi, A.F., Ge, L., and Take, A. (2009). A large-scale triaxial apparatus for prototype railroad ballast testing, *Geotechnical Testing Journal*, 32(4), 297-304.

50. Kim, T.-H., Nam, J.-M., Ge, L., and Lee, K.-I. (2008). Settlement characteristics of beach sand and its evaluation, *Marine Georesources & Geotechnology*, 26(2), 67-85.
51. Zhao, H., and Ge\*, L. (2008). Camera calibration using neural network for image-based deformation measurement systems, *Geotechnical Testing Journal*, 31(2), 192-197.

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## JOURNALS - UNDER REVIEW OR REVISION

1. Chu, M.C. and Ge\*, L. Stiffness degradation of coarse and fine sand mixtures due to cyclic loading, *Engineering Geology*. (under re-review, submitted on October 2, 2020)
2. Yeh, F.H. and Ge\*, L. Interpreting static behavior of binary mixtures considering the effect of fines content, *Acta Geotechnica*. (submitted on September 27, 2020)
3. Huang, F.K., Tsai, C.C., Ge, L., Lu, C.W., and Chi, C.C. Experimental study on dynamic soil properties and soil liquefaction resistance of a site in Taiwan subjected to recurring liquefaction, *Engineering Geology*. (under re-review, submitted on September 27, 2020)
4. Ge, L. and Chu, M.C. Excess pore water pressure generation model of nonplastic sandy materials, *Geotechnique*. (submitted on June 15, 2020)
5. Lai, Y.C., Yeh, F.H., and Ge, L. MPM simulation of the post-failure behavior of a landslide (in preparation)
- 6.

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## BOOK CHAPTERS

1. Lee, W.F., Chen, C.C., Chang, M.H., and Ge, L.Y.N. (2015). A Case Study on Silty Sand Liquefaction- 2010 Hsin Hwa Liquefaction in Taiwan, Book Chapter in: *Perspectives on Earthquake Geotechnical Engineering*, Geotechnical, Geological and Earthquake Engineering Series 37, Springer, 391-414, DOI: 10.1007978-3-319-10786-8 15
  2. Iskander, M., Sadek, S., and Ge, L. (2010). Geotechnical Properties of Silica Gels, Book Chapter in: *Modelling with Transparent Soils*, Springer Series in Geomechanics and Geoengineering, ISBN: 978-3-642-02500-6.
  3. Zhao, H., and Ge, L. (2010). Camera Calibration Using Neural Network, Book Chapter in: *Modelling with Transparent Soils*, Springer Series in Geomechanics and Geoengineering, Springer, ISBN: 978-3642-02500-6.
  4. Ge, Y.-N., and Sture, S. (2003). Cyclic constitutive model based on fuzzy set concepts. In: *Constitutive Modeling of Geomaterials*, CRC Press, pp. 108-112, 2003, ISBN-10: 0849315948. (note: from dissertation with advisor)
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## GUEST EDITORSHIP

1. Special Issue: Experimental and Computational Geomechanics for Unsaturated Soils, *International Journal of Geomechanics*, Eds. K.K. "Muralee" Muraleetharan, Laureano Hoyos, and Louis Ge, 2016.
  2. Special Issue: Innovative and Sustainable Technologies and Materials in Civil Engineering Infrastructures, *Journal of Testing and Evaluation*, 43(2), Eds. Mansour Solaimanian, Jia-Ruey Chang, Louis Ge, and Dar Hao Chen, 2015.
  3. *Characterization, Modeling, and Evaluation of Geotechnical Engineering Systems*, ASCE Geotechnical Special Publication No. 248, Eds. Louis Ge, James C. Ni, Antonio Gomes Correia, and Mingzhou Bai, 2014.
  4. Special Issue: Constitutive, Physical, and Numerical Modeling in Transportation Geotechnics, *International Journal of Geomechanics*, 13(4), Eds. Tong Qiu, Louis Ge, and Dar-Hao Chen, 2013.
  5. *Instrumentation, Testing and Modeling of Soil and Rock Behavior*, ASCE Geotechnical Special Publication No. 222, Eds. Louis Ge, Xiong Zhang, Antonio Gomes Correia, and Jason Wu, 2011.
  6. Special Section: Advanced Modeling and Numerical Simulations in Geomechanics, *International Journal of Geomechanics*, Volume 11, Issue 3, Eds. Louis Ge, Dar-Hao Chen, and Rafiqul Tarefder, 2011.
  7. Special Issue: Modeling in Geotechnical Engineering for Design and Materials, *International Journal of Geomechanics*, Volume 10, Issue 6, Eds. Rafiqul Tarefder, Louis Ge, and Dar-Hao Chen, 2010.
  8. *Slope Stability, Retaining Walls, and Foundations*, ASCE Geotechnical Special Publication No. 197, Eds. Louis Ge, Jinyuan Liu, James -C. Ni, and Zhao Yi He, 2009.
  9. *Soils and Rock Instrumentation Behavior and Modeling*, ASCE Geotechnical Special Publication No. 194, Eds. Louis Ge, Boming Tang, WeiHong Wei, and Renpeng Chen, 2009.
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## PEER REVIEWED CONFERENCE PROCEEDINGS

1. Lin, Y.H., Yeh, Y.H., Jhuo, Y.S., and Ge, L. (2019) Effects of fines content on the mechanical properties of binary mixtures, the 32<sup>nd</sup> KKHTCNN Symposium on Civil Engineering, Daejeon, Korea, October 24-26, 2019.
2. Yang, Y.H., Li, Y.R., Chu, M.C., and Ge, L. (2019) Investigation of post cyclic behavior of sands under the framework of binary packing, the 32<sup>nd</sup> KKHTCNN Symposium on Civil Engineering, Daejeon, Korea, October 24-26, 2019.
3. Yang, M.Y. and Ge, L. (2019) Predicting natural frequency of piled raft foundation by finite element method, the 32<sup>nd</sup> KKHTCNN Symposium on Civil Engineering, Daejeon, Korea, October 24-26, 2019.
4. Hsiao, C.H. and Ge, L. (2019) Stability analysis of unsaturated slope using random finite element and Monte-Carlo methods, the 32<sup>nd</sup> KKHTCNN Symposium on Civil Engineering, Daejeon, Korea, October 24-26, 2019.
5. Yeh, F.H., Weng, M.C., and Ge, L. (2019) Implementation of a nonlinear elastoplastic model for tunneling in sandstone, the 16<sup>th</sup> Asian Regional Conference on Soil Mechanics and Geotechnical Engineering, Taipei, Taiwan, October 14-18, 2019.



6. Ge, L., Cheng, W.C., and Lu, C.W. (2019) Developing a flow pump apparatus for soil-water characteristics curve measurement, 7th Asia-Pacific Conference on Unsaturated Soils (AP-UNSAT2019), Japanese Geotechnical Society Special Publication, EA25.
7. Cheng, W.C., Jin, X., Wang, L., Xue, Z.F., Ge, L., and Zhou A. (2019) Investigation into mechanical behaviour of loess-wheat straw mixtures, 7th Asia-Pacific Conference on Unsaturated Soils (AP-UNSAT2019), Japanese Geotechnical Society Special Publication, 418-423.
8. Yeh, F.H., Chuang, T.S., and Ge, L. (2018) Calibration of advanced constitutive model using an optimization method, the 31st KKHTCNN Symposium on Civil Engineering, Kyoto, Japan, November 22-24, 2018.
9. Chu, M.C. and Ge, L. (2018) The effect of cyclic loading on monotonic stress-strain behaviour of saturated granular materials, the 31st KKHTCNN Symposium on Civil Engineering, Kyoto, Japan, November 22-24, 2018.
10. Wang, Z.Y., Ge, L., Hsiung, B.C.B., and Hsieh, H.S. (2018). Effects of buttress wall and cross wall to the system stiffness of deep excavations in soft clay, the 20<sup>th</sup> Southeast Asian Geotechnical Conference & 3<sup>rd</sup> AGSSEA Conference, Jakarta, Indonesia, November 5-8, 2018.
11. Hung, C.W., Chen, Y.C., and Ge, L. (2018) Effects of curing time on dynamic properties and strength developments of slag cement stabilized clay. The Second Kazakhstan-Taiwan Geotechnical Seminar on TC 305 Geotechnical Infrastructure for Megacities and New Capitals, Astana and Almaty, Kazakhstan, August 3-6, 2018.
12. Cheng, W.C., Ni, J.C., and Ge, L. (2018). An alternative method for soil characterisation using pipejacking parameters and spoil characteristics, GeoShanghai 2018, Shanghai, China, May 27-30, 2018.
13. Yeh, F.H., Huang, C.J., Han, J.Y., and Ge, L. (2018). Modeling slope topography using unmanned aerial vehicle image technique, MATEC Web of Conferences 147, 07002.
14. Wu, H.P., Hsieh, H.S., Ge, L., Hsiung, B.C.B., Hung, C., and Yang, K.H. (2017). Simplified approach to analyze diaphragm wall deflection considering buttress walls, the 2nd International Symposium on Asia Urban GeoEngineering, Changsha, China, November 25-26, 2017.
15. Yeh, F.H., Huang, C.J., Han, J.Y., and Ge, L. (2017). Modeling slope topography using unmanned aerial vehicle image technique, In: Proceedings of the Third International Conference on Sustainable Infrastructure and Built Environment, Bandung, Indonesia, September 26-27, 2017.
16. Tsai, E., Ge, L., Ueng, T.S., and Kwok, O.L.A. (2017). Energy based pore water pressure formulation in a cyclic plasticity model for sand, In: Proceedings of the 19th International Conference on Soil Mechanics and Geotechnical Engineering, Seoul, South Korea, September 17-22, 2017.
17. Lu, C.W., Ge, L., Chu, M.C., and Chin, C.T. (2017). Liquefaction-induced settlement of structures on shallow foundation, In: Proceedings of the SEAGS 50th Anniversary Symposium, Thailand, September 14-15, 2017. (invited presentation)
18. Chen, Y.W., Chu, M.C., and Ge, L. (2017). Determination of drying and wetting soil water characteristic curves by flow pump technique, In: Proceedings of the 5th International Conference on Geotechnical Engineering for Disaster Mitigation and Rehabilitation, Taipei, September 12-13, 2017.
19. Hsiung, B.C.B., Yang, K.H., Ge, L., Hung, C., and Yong, T.H. (2017). Deep excavation in Kaohsiung, Taiwan and Central Jakarta, Indonesia, Southeast Asian Conference and Exhibition in Tunnelling and Underground Space 2017 (SEACETUS2017) Subang Jaya, Malaysia 18-19 April 2017.

20. Zhao, H., Yang, Y., Ge, L., and Deng, A. (2016). Influences of stiffness ratio, friction coefficient and strength ratio on the macro behavior of cemented sand based on DEM, the 7th International Conference on Discrete Element Methods, Dalian, China, August 1-4, 2016.
21. Chu, M.C., Lu, C.W., and Ge, L. (2016). Estimating the settlement of structure with shallow foundation due to liquefaction, the 29th KKHTCNN Symposium on Civil Engineering, December 3-5, 2016, Hong Kong, China.
22. Wu, H.P. and Ge, L. (2016). Three-dimensional finite element analysis of a deep excavation, the 29th KKHTCNN Symposium on Civil Engineering, December 3-5, 2016, Hong Kong, China.
23. Chen, Y.W. and Ge, L. (2016). Use of flow pump method for soil permeability measurement, the 29th KKHTCNN Symposium on Civil Engineering, December 3-5, 2016, Hong Kong, China.
24. Tsai, E. and Ge, L. (2016). Calibration of a fuzzy set plasticity model for intact rock under monotonic loading, the 29th KKHTCNN Symposium on Civil Engineering, December 3-5, 2016, Hong Kong, China.
25. Yeh, F.-H., Ge, L. (2016). Implementation of membership function in a cyclic plasticity model for granular materials, the 7th Taiwan-Japan Workshop on Geotechnical Hazards from Large Earthquakes and Heavy Rainfall, September 22-23, 2016, Ping Tung, Taiwan.
26. Hung, C.W., and Ge, L. (2015). Effects of curing time and water content on strength properties of slag cement stabilized clay, The Twenty-Eight KKHTCNN Symposium on Civil Engineering November 16-18, 2015, Bangkok, Thailand.
27. Chen, Y.C. and Ge, L. (2015). Effects of curing time on dynamic properties of slag cement stabilized clay, The Twenty-Eight KKHTCNN Symposium on Civil Engineering November 16-18, 2015, Bangkok, Thailand.
28. Shang, T., Ge, L., and Ni, C.N. (2015). Equations used for predicting jacking force - slurry pressure balance method, The Twenty-Eight KKHTCNN Symposium on Civil Engineering November 16-18, 2015, Bangkok, Thailand.
29. Huang, Y.W., Chiou, J.S., and Ge, L. (2015). Rocking behavior of column-footing model under shaking table testing, The Twenty-Eight KKHTCNN Symposium on Civil Engineering November 16-18, 2015, Bangkok, Thailand.
30. Chang, C.P. and Ge, L. (2015). Three-dimensional finite element analysis of deep excavations, The Twenty-Eight KKHTCNN Symposium on Civil Engineering November 16-18, 2015, Bangkok, Thailand.
31. Tonglian, Z.Q. and Ge, L. (2015). Tensile strength of compacted sand-clay mixture, The Twenty-Eight KKHTCNN Symposium on Civil Engineering November 16-18, 2015, Bangkok, Thailand.
32. Ueng, T.S., Wang, Z.F., and Ge, L. (2015). Tests of permeability in saturated sand during liquefaction, 6th International Conference on Earthquake Geotechnical Engineering, Christchurch, New Zealand, November, 1-4, 2015.
33. Guan, Y. and Ge, L. (2014). Tensile strength measurement and its affecting factors in a direct tension apparatus, 27th KKHTCNN Symposium on Civil Engineering, Tongji University, Shanghai, China, November 10-12, 2014.
34. Chu, M.C., Wang, Z.-F., Ueng, T.-S., and Ge, L. (2014). Laboratory-scale experiment on measuring permeability of sand during liquefaction, 27th KKHTCNN Symposium on Civil Engineering, Tongji University, Shanghai, China, November 10-12, 2014.
35. Wang, J.-Y., Chang, C.S., and Ge, L. (2014). Modeling of minimum void ratio for silty sand, 27th KKHTCNN Symposium on Civil Engineering, Tongji University, Shanghai, China, November 10-12, 2014.

36. Hsu, Y.-H, Ge, L., and Chou, H.-Y. (2014). Effect of effective confining pressure and overconsolidation ratio on liquefaction behavior of low-plastic silt, 27th KKHTCNN Symposium on Civil Engineering, Tongji University, Shanghai, China, November 10-12, 2014.
37. Lee, Y.-H and Ge, L. (2014). Influence of particle sizes in assembly packing, 27th KKHTCNN Symposium on Civil Engineering, Tongji University, Shanghai, China, November 10-12, 2014.
38. Chang, K.-T. and Ge, L. (2014). Application of strength reduction method and gravity method in slope stability analysis, 2014 Taiwan Rock Engineering Symposium (2014 TRES), Wufeng, Taichung, Taiwan, October 23-24, 2014.
39. Ni, J.-C, and Ge, L. (2014). Soil classification and thrust force prediction using slurry pipe jacking in gravel formation - a case study, International No-Dig Innovation and Underground Engineering Safety High-Level Forum, Zhengzhou, Henan, September 13-14, 2014.
40. Hsu, Y.-H., Ge, L., and Chiang, M.-H. (2014). Effects of cyclic triaxial loading rates on liquefaction behavior of fine-grained soils, the Sixth Japan-Taiwan Joint Workshop on Geotechnical Hazards from Large Earthquakes and Heavy Rainfall, Fukuoka, Japan, July 12-15, 2014.
41. Kang, X., Bate, B, and Ge, L. (2014). Characterization of shear wave velocity and anisotropy in granular materials, 2014 Geo-Congress, Geo-Characterization and Modeling for Sustainability, Atlanta, GA, February 23-26, 2014.
42. Ge, L. and Chiang, Meng-Heng (2013). Effects of loading rate on cyclic triaxial tests for low-plasticity silt, The Second International Conference on Sustainable Infrastructure and Built Environment, Bandung, Indonesia, November 19-20, 2013.
43. Ge, L. and Yang, K.-H. (2013). Tensile strength of lightly cemented sand through indentation tests, Proceedings of the 18th International Conference on Soil Mechanics and Geotechnical Engineering, Paris, France, September 2-6, 2013.
44. Loehr, J.E., Bowders, J.J., Rosenblad, B.L., Luna, R., Maerz, N., Stephenson, R.W., Likos, W.J., and Ge, L. (2013). Implementation of LRFD methods to quantify value of site characterization activities, Proceedings of the 18th International Conference on Soil Mechanics and Geotechnical Engineering, Paris, France, September 2-6, 2013.
45. Onyejekwe, S. and Ge, L. (2013). Scale of fluctuation of geotechnical parameters estimated from CPT and laboratory test data, 2013 Geo-Congress, Stability and Performance of Slopes and Embankments III, San Diego, CA, USA, March 3-6, 2013.
46. Ge, L. (2012). Cyclic triaxial tests on prototype railroad ballast, Proceedings of the Twenty-Fifth KKHTCNN Symposium on Civil Engineering, Busan, Korea, October 22-24, 2012, 398-401.
47. Ge, L., Zhao, H. and Bate, B. (2012). Implementation of numerical optimization techniques in constitutive model calibration, 2nd International Symposium on Constitutive Modeling of Geomaterials, Beijing, China.
48. Onyejekwe, S. and Ge, L. (2011). Influence of geotechnical dataset on the range of influence of undrained shear strength, GeoRisk 2011, Geotechnical Special Publication No. 224, 193-200.
49. Conte, O., Rust, S., Ge, L., and Stephenson, R. (2011). Evaluation of pre-consolidation stress determination methods, Geotechnical Special Publication No. 222, GeoHunan International Conference II: Emerging Technologies for Design, Construction, Rehabilitation, and Inspections of Transportation Infrastructures, Hunan, China, June 9-11, 2011.

50. Cambio, D. and Ge, L. (2011). Shear modulus and damping correction factors for an analytical method of pile foundation response subjected to horizontal dynamic vibrations, Geotechnical Special Publication No. 217, GeoHunan International Conference II: Emerging Technologies for Design, Construction, Rehabilitation, and Inspections of Transportation Infrastructures, Hunan, China, June 9-11, 2011.
51. Cambio, D., Kang, X., and Ge, L. (2011). Characterization of crushed rock-concrete interface behavior through the parallel gradation technique, Geotechnical Special Publication No. 222, GeoHunan International Conference II: Emerging Technologies for Design, Construction, Rehabilitation, and Inspections of Transportation Infrastructures, Hunan, China, June 9-11, 2011.
52. Deng, M. and Ge, L. (2011). Effectiveness of objective functions in soil model calibration through numerical optimization, Geotechnical Special Publication No. 211, 3878-3886, Geo-Frontiers 2011, Dallas, TX, March 13-16, 2011.
53. Onyejekwe, S., Kang, X., Ge, L., and Stephenson, R. (2011). Variability analysis of undrained shear strength for reliability-based design, Geotechnical Special Publication No. 211, 3029-3039, GeoFrontiers 2011, Dallas, TX, March 13-16, 2011.
54. Kang, X., Onyejekwe, S., Ge, L., and Stephenson, R. (2011). Spatial variation and correlation between undrained shear strength and plasticity index, Geotechnical Special Publication No. 211, 2631-2639, Geo-Frontiers 2011, Dallas, TX, March 13-16, 2011.
55. Chen, C., Ge, L., and Zhang, J.S. (2010). Finite element modeling of a field-scale shored mechanically stabilized earth wall, GeoShanghai 2010, Shanghai, China, June 3-5, 2010.
56. Slavova, S.Z., Weidinger, D.M., Sevi, A.F., and Ge, L. (2010). Evaluation of compacted silt characteristics by ultrasonic pulse velocity testing, *GeoFlorida 2010*, West Palm Beach, FL, February 20-24, 2010.
57. Weidinger, W., Ge, L., and Stephenson, R.W. (2009). Ultrasonic pulse velocity tests on compacted soil, Geotechnical Special Publication No. 189, 150-155, GeoHunan International Conference: Challenges and Recent Advances in Pavement Technologies and Transportation Geotechnics, Hunan, China, August 3-6, 2009.
58. Chen, C., Ge, L., and Zhang, J. (2009). Modeling resilient modulus of unbound granular materials under repeated loading, In: *Soils and Rock Instrumentation, Behavior, and Modeling*, Geotechnical Special Publication 194, 9-15, GeoHunan, International Conference: Challenges and Recent Advances in Pavement Technologies and Transportation Geotechnics, Hunan, China, August 3-6, 2009.
59. Hettiarachchi, H., and Ge, L. (2009). "Use of geogrids to enhance slope stability of bioreactor landfills: a conceptual method." In: *The International Foundations Congress and Equipment Expo'09 (IFCEE09)*, Orlando, FL, March 15-19, 2009.
60. Yan, D., Wang, W., Chen, G., Ge, L., and Hartnagel, B. (2008). "Seismic performance evaluation of the Bill Emerson cable-stayed bridge with field measured acceleration records." In: *the 14th World Conference on Earthquake Engineering*, Beijing, China, October 12-17, 2008.
61. Petry, T., Han, Y.-P., and Ge, L. (2008). "Use of total soil suction to predict a more reasonable field moisture condition for resilient modulus testing." In: *Transportation Research Board (TRB) 87th Annual Meeting*, Washington, DC., January 13-17, 2008.
62. Han, Y.-P., Petry, T., and Ge, L. (2008). "Determination of Pavement Subgrade Field Moisture Condition through Soil Suction." In: *the 3rd International Conference on Site Characterization*, Taipei, Taiwan, April 1-4, 2008.

63. Cambio, D., and Ge, L. (2007). "Effects of parallel gradation on strength properties of ballast materials." In: *Advances in Measurement and Modeling of Soil Behavior, ASCE Geotechnical Special Publication No. 173*, Eds. J.A. Yamamuro, V.N. Kaliakin, and P.V. Lade, CD-ROM, 2007.
64. Carr, L., Sevi, A., and Ge, L. (2007). "Calibration of soil moisture probes in saline conditions." In: *Advances in Measurement and Modeling of Soil Behavior, ASCE Geotechnical Special Publication No. 173*, Eds. J.A. Yamamuro, V.N. Kaliakin, and P.V. Lade, CD-ROM, 2007.
65. Zhao, H., and Ge, L. (2007). "Dynamic properties of transparent soil." In: *Dynamic Response and Soil Properties, ASCE Geotechnical Special Publication No. 160*, Eds. M.M. Dewoolkar and J.P. Koester, CD-ROM, 2007.
66. Bao, Y., Ge, Y.-N., and Sture, S. (2005). "Computational modeling of cyclic mobility in saturated sand." In: *Poromechanics III, Biot Centennial (1905-2005)*, Taylor & Francis Publication, New York, 2005, pp. 353-359, 2005.
67. Bao, Y., Ge, Y.-N., and Sture, S. (2005). "Unconstrained optimization and calibration of a kinematic cyclic plasticity model." In: *Soil Constitutive Models: Evaluation, Selection, and Calibration, ASCE Geotechnical Special Publication No. 128*, Eds. J.A. Yamamuro and V.N. Kaliakin, pp. 45-68, 2005.
68. Bao, Y., Ge, Y.-N., Sture, S., and Ko, H.-Y. (2005). "Numerical modeling of cyclic mobility in saturated soil." In: *Calibration of Constitutive Models, ASCE Geotechnical Special Publication No. 139*, CDROM, 2005.
69. Ge, Y.-N., and Sture, S. (2003). "Integration and application of a cyclic plasticity model for geomaterials." In: *the 16th ASCE Engineering Mechanics Conference*, Seattle, WA, July 16-18, 2003.
70. Ge, Y.-N., and Sture, S. (2002). "A cyclic constitutive model for granular materials." In: *the 15th ASCE Engineering Mechanics Conference*, New York City, June 2-5, 2002.
71. Ge, Y.-N., Jacobson, L., Runesson, K., and Sture, S. (2000). "Cyclic behavior and elastic shakedown of coarsely-sized granular materials." In: *the 14th ASCE Engineering Mechanics Conference*, Austin, TX, May 21-24, 2000.

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## PRESENTATIONS

1. Ge, L. (2019) Developing a flow pump apparatus for soil-water characteristics curve measurement, the 7th Asia-Pacific Conference on Unsaturated Soils, Nagoya, Japan, August 23-25, 2019.
2. Ge, L. (2019) Modeling maximum and minimum void ratios for sand-silt binary mixtures, Xi'an University of Architecture and Technology, June 6, 2019.
3. Ge, L. (2019) Development of a cyclic constitutive model for liquefaction simulation, Xi'an University of Science and Technology, June 4, 2019.
4. Ge, L. (2019) Effects of curing time on strength developments of slag cement stabilized clay, the 6<sup>th</sup> Cross-Strait Forum on Sustainable Urban Development, Tongji University, Shanghai, China, May 17-18, 2019.
5. Ge, L. (2018) Effects of curing time on dynamic properties and strength developments of slag cement stabilized clay. The Second Kazakhstan-Taiwan Geotechnical Seminar on TC 305 Geotechnical Infrastructure for Megacities and New Capitals, Astana and Almaty, Kazakhstan, August 3-6, 2018.
6. Ge, L. (2017). Determination of drying and wetting soil water characteristic curves by flow pump technique, National Kaohsiung First University of Science and Technology, December 7, 2017.

7. Ge, L. (2017). Liquefaction-induced settlement of structures on shallow foundation, Chang'an University, November 22, 2017. Xi'an
8. Ge, L. (2017). Liquefaction behavior of low-plasticity silt, Xi'an University of Science and Technology, November 21, 2017.
9. Ge, L. (2017). Determination of drying and wetting soil water characteristic curves by flow pump technique, November 20, 2017.
10. Ge, L. (2017). Liquefaction-induced settlement of structures on shallow foundation - field observation and numerical analysis, the 2nd Bilateral Workshop on Research Exchange between National Taiwan University of Kobe University, Taipei, Taiwan, November 7-9, 2017.
11. Ge, L. (2017). Liquefaction-induced settlement of structures on shallow foundation, the SEAGS 50<sup>th</sup> Anniversary Symposium, Thailand, September 14-15, 2017. (invited presentation)
12. Ge, L. (2017) Modeling maximum and minimum void ratios for sand-silt mixtures, Hong Kong University of Science and Technology, August 8, 2017.
13. Ge, L. (2015). Evaluation of the fly ash stabilized subgrade materials, the 3rd Cross-Strait Forum on Sustainable Urban Development, Chengdu, China, November 23, 2015.
14. Ge, L. (2014). Liquefaction behavior of low plasticity silt, Seminar at Department of Civil Engineering, Tamkang University, November 28, 2014.
15. Ge, L. (2014). Liquefaction behavior of low plasticity silt, Seminar at Department of Civil Engineering, National Taipei University of Technology, November 5, 2014.
16. Ge, L. (2014). Tensile strength of lightly cemented sand under the framework of unsaturated soil mechanics, Seminar at Department of Civil Engineering, Chung Yuan Christian University, February 26, 2014.
17. Ge, L. (2013). A large-scale triaxial apparatus for prototype railroad ballast, Seminar at Department of Civil Engineering, National Central University, April 10, 2013.
18. Ge, L. (2012). A large-scale triaxial apparatus for prototype railroad ballast, Seminar at Department of Construction Engineering, National Yunlin University of Science and Technology, September 26, 2012.
19. Ge, L. (2012). Computer modeling in slope stability analysis, Seminar at Department of Soil and Water Conservation, National Chung Hsing University, May 2, 2012.
20. Ge, L. (2011). Influence of geotechnical dataset on the range of influence of undrained shear strength, Seminar at MAA Group Consulting Engineers, October 19, 2011.
21. Ge, L. (2011). Fatigue and shakedown behaviors of railroad ballast within the parallel gradation scaling framework, Seminar at National Taipei University of Technology, October 12, 2011.
22. Ge, L. (2011). Fatigue and shakedown behaviors of railroad ballast within the parallel gradation scaling framework, Seminar at National Chiao-Tong University, September 29, 2011.
23. Ge, L. (2011). Application of numerical optimization in constitutive model calibration, Seminar at National Taiwan University, September 23, 2011.
24. Onyejekwe, S. and Ge, L. (2011). Influence of geotechnical dataset on the range of influence of undrained shear strength, GeoRisk 2011.

25. Ge, L. (2011). Fatigue and shakedown behaviors of railroad ballast within the parallel gradation scaling framework, Seminar at National Taiwan University, April 1, 2011.
26. Ge, L. (2010). An Elastoplastic constitutive model for geomaterials based on fuzzy set plasticity theory, Seminar given at the University of Florida Research and Engineering Education Facility (REEF), Shalimar, Florida, July 27, 2010.
27. Ge, L. (2010). Cyclic plasticity model for geomaterials based on fuzzy set plasticity, Seminar given at the University of Florida Research and Engineering Education Facility (REEF), Shalimar, Florida, June 16, 2010.
28. Chen, C., Ge, L., and Zhang, J. (2009). Modeling resilient modulus of unbound granular materials under repeated loading, GeoHunan, International Conference: Challenges and Recent Advances in Pavement Technologies and Transportation Geotechnics, Hunan, China, August 3-6, 2009.
29. Petry, T., Han, Y.-P., and Ge, L. (2008). Use of total soil suction to predict a more reasonable field moisture condition for resilient modulus testing, Transportation Research Board (TRB) 87th Annual Meeting, Washington, DC., January 13-17, 2008.
30. Ge, L. (2007). Experience as a graduate student in United States, invited Seminar in the Department of Environmental Informatics, Minghsin University of Science and Technology, Hsin-Chu, Taiwan, December 18, 2007.
31. Ge, L. (2007). Cyclic Plasticity Model for Geo-Materials Based on Fuzzy Set Plasticity, invited Seminar in the Department Mining Engineering, University of Missouri-Rolla, Rolla, MO, September 10, 2007.
32. Cambio, D., and Ge, L. (2007). Effects of parallel gradation on strength properties of ballast materials, GeoDenver, 2007.
33. Ge, L. (2006). Cyclic Plasticity Model for Geo-Materials Based on Fuzzy Set Plasticity, invited Geotechnical Seminar in the Department of Civil Engineering, Case Western Reserve University, Cleveland, OH, November 28, 2006.
34. Ge, L. (2006). Effects of Parallel Gradation on Strength Properties of Ballast Materials, the 23rd Annual Conference of Midwest Chinese American Science and Technology Association (MCASTA 2006), St. Charles, MO, September 16, 2006.
35. Ge, Y.-N. (2006). Modeling of Pore Pressure Generation within the Framework of Fuzzy Set Plasticity, invited presentation at the 22nd Annual Conference of the Midwest Chinese American Science and Technology Association (MCASTA 2005), St. Louis, MO, October 15, 2005.
36. Ge, Y.-N. (2006). Centrifuge Modeling of Jen-Yi-Tam Dam Subjected to the Chi-Chi Earthquake, invited presentation at the 22nd Annual Conference of the Midwest Chinese American Science and Technology Association (MCASTA 2005), St. Louis, MO, October 15, 2005.
37. Ge, Y.-N. (2004). Cyclic Constitutive Modeling of Granular Materials, invited presentation at University of Missouri-Rolla, March 26, 2004.
38. Ge, Y.-N. (2004). Cyclic Constitutive Modeling of Granular Materials, Doctoral Workshop in Transportation Geotechnics, the 2004 Transportation Research Board Annual Meeting, Washington, D.C., January 11-15, 2004.
39. Ge, Y.-N., and Sture, S. (2004). Slope Stability Analysis in Plaxis, invited presentation at URS, Denver, CO, March 16, 2004.

40. Ge, Y.-N., and Sture, S. (2003). Integration and application of a cyclic plasticity model for geomaterials, the 16th ASCE Engineering Mechanics Conference, Seattle, WA, July 16-18, 2003.
41. Ge, Y.-N., and Sture, S. (2002). A cyclic constitutive model for granular materials, the 15th ASCE Engineering Mechanics Conference, New York City, June 2-5, 2002.



## RESEARCH GRANTS

1. Principal Investigator, *2019 International Training Courses on Geo-disaster Reduction and Sustainability*, Ministry of Science and Technology, Taiwan, (Project Number: 108-2911-I-002-301-) \$3,800,000 (NTD), June 2019 - May 2020, In Progress.
2. Principal Investigator, *The Executive Yuan Program on Innovative Technology for Disaster Reduction - Program Office 2019-2021*, Ministry of Science and Technology, Taiwan, (Project Number: 108-2119-M-002-016-MY3) \$24,574,000 (NTD), January 2019 - December 2021, In Progress.
3. Principal Investigator, *Mechanical Properties of Granular Materials under Binary Packing*, Ministry of Science and Technology, Taiwan, (Project Number: 107-2221-E-002-044-MY3) \$2,631,000 (NTD), August 2018 - July 2021, In Progress.
4. Principal Investigator, *Investigation, assessment and analysis of soil liquefaction induced disasters in Meinung earthquake – settlement prediction of existing buildings and risk assessment of underground lifeline system*, Ministry of Science and Technology, Taiwan, (Project Number: 106-2119-M-002-020-) \$1,311,000 (NTD), January 2017 - December 2017, Completed.
5. Principal Investigator, *Permeability of Sand at Liquefaction*, Ministry of Science and Technology, Taiwan, (Project Number: 105-2221-E-002-076-) \$739,000 (NTD), August 2016 - July 2017, Completed.
6. Principal Investigator, *A cyclic plasticity model for liquefaction-induced lateral spreading simulation - development, calibration, and verification, a sub-project of Seismic performance and simulation of civil structures subjected to liquefaction -induced lateral spreading*, Ministry of Science and Technology, Taiwan, (Project Number: 104-2625-M-002-025-) \$781,000 (NTD), August 2015 - August 2016, Completed.
7. Principal Investigator, *Deformation and Failure Behavior of Soils under Erosion*, Ministry of Science and Technology, Taiwan, \$1,450,000 (NTD), August 2014 - January 2015, Completed.
8. Principal Investigator, *Liquefaction Behavior of Silts and Low Plasticity Silts*, Ministry of Science and Technology, Taiwan, \$835,000 (NTD), August 1, 2013 - July 31, 2014, Completed.
9. Principal Investigator, *Liquefaction and Post-Cyclic Behavior of Silts*, National Science Council, Taiwan, \$683,000 (NTD), 100% share, August 1, 2012 - July 31, 2013, Completed.
10. Principal Investigator, *Critical State and Post Elastic Shakedown Behavior of Granular Materials*, National Science Council, Taiwan \$468,000 (NTD), 100% share, January 1, 2012 - October 31, 2012, Completed.
11. Co-Principal Investigator (with Norbert Maerz at Missouri S&T - PI), *Development of a Quantitative Model for the Mechanism of Raveling Failure in Highway Rock Slopes and Cuts*, University of Missouri System Research Board, \$27,350, 50% share, February 1, 2011 - May 31, 2012, Completed.
12. Principal Investigator (with Richard Stephenson at Missouri S&T - Co-PI, Brent Rosenblad at University of Missouri-Columbia - Co-PI), *Use of Coal Fly Ash and Other Waste Products in Soil Stabilization and Road Construction - Including Non-Destructive Testing of Roadway*, \$120,000, 40% share, and National University of Transportation Center, \$60,000, 80% share, November 30, 2010 - December 31, 2011, Completed.
13. Principal Investigator (with Genda Chen at Missouri S&T - Co-PI), *Validation on the Mechanical Models of Asphalt Pavement Structures with Field Measured Data Associated with Increasing Freight Movements*, Mid-America Transportation Center, \$73,708, 50% share, July 2008 - May 2011, Completed.

14. Principal Investigator (with Richard Stephenson at Missouri S&T - Co-PI), *Transportation Geotechnics Research Program - Site Characterization for Lowest Cost Transportation Products*, Missouri Department of Transportation, \$97,405, 50% share, and National University Transportation Center at Missouri S&T, \$97,406, 50% share, November 2008 - October 2010, Completed.
15. Co-Principal Investigator (with Ronaldo Luna - PI, Richard Stephenson - Co-PI, and Richard Frueh- Co-PI), *ASDSO Advanced Technical Seminar on Slope Stability for Embankment Dams*, Association of State Dam Safety Officials, July 17-20 (Rolla), and October 12-26 (Denver), \$66,915, 20% share, January 2007 - December 2008, Completed.
16. Principal Investigator (with Thomas Petry - Co-PI), *Optimizing Equipment and Methods to Evaluate the Quality of Pavement Subgrades*, Senator Bond Fund in Transportation Research, Missouri Transportation Institute, \$93,846, 75% share, February 2007 - October 2008, Completed.
17. Co-Principal Investigator (with Thomas Petry - PI and David Richardson - Co-PI), *Resilient Moduli of Typical Missouri Soils and Unbound Granular Base Materials*, Missouri Department of Transportation, \$165,004, 33% share, April 2006 - December 2007, Completed.
18. Principal Investigator, *Using PIV and Silica Gels in Soil Mechanics Research - Focusing on Identifying Proper Pore Fluids in Transparent Soils*, University of Missouri System Research Board, \$26,225, 100% share, August 2006 - July 2007, Completed.
19. Co-Principal Investigator (with Genda Chen - PI and Frank Liu - Co-PI), *Assessment of the Bill Emerson Memorial Bridge Based on Seismic Instrumentation Data*, Missouri Department of Transportation, \$150,000, 10% share, December 2005 - June 2007, Completed.

# TEACHING

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## NATIONAL TAIWAN UNIVERSITY

- CIE 7028 Soil Behavior, Spring 2014.
  - CIE 7003 Seminar on Geotechnical Engineering, Fall 2013, Spring 2015.
  - CIE 5004 Numerical Methods in Geotechnical Engineering, Spring 2012.
  - CIE 3028 Foundation Engineering, Fall 2012, Fall 2014.
  - CIE 3026 Soil Mechanics, Spring 2013, Spring 2015.
  - CIE 2012 Engineering Material and Soil Mechanics Lab, Spring 2012, Spring 2013, Spring 2014.
  - CIE 2006 Mechanics of Materials, Fall 2011, Fall 2012, Fall 2013, Fall 2014.
  - CIE 1001 Student Service Education I, Fall 2011.
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## MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY (FORMERLY UNIVERSITY OF MISSOURI-ROLLA)

- CE 215 Fundamentals of Geotechnical Engineering, Fall 2004, Spring 2005, Spring 2010, and Summer 2011.
  - CE 229 Foundation Engineering, Fall 2006, Spring 2007, Fall 2007, Fall 2008, Spring 2009, and Spring 2011.
  - CE 314 Geosynthetics in Engineering, Spring 2005 and Spring 2006.
  - CE 315 Intermediate Soil Mechanics, Fall 2009, Fall 2010.
  - CE 316 Geotechnical Earthquake Engineering, Spring 2011.
  - CE 412 Numerical Methods in Geotechnical Engineering, Fall 2004, Fall 2006, and Fall 2007.
  - CE 412 Computer Modeling in Geotechnical Engineering, Spring 2009.
  - CE 413 Dynamics of Earth Materials, Spring 2005 (course developing), Fall 2005, Spring 2007, Fall 2008, and Spring 2010.
  - CE 415 Advanced Soil Mechanics, Spring 2008, Fall 2010.
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## UNIVERSITY OF COLORADO AT BOULDER

- CVEN 3708 Geotechnical Engineering I, Spring 2004
- CVEN 4511/5511 Introduction to the Finite Element Method, Fall 2003 • Instructor for finite element code PLAXIS, 1999 - 2004
  - CVEN 7718 Engineering Properties of Soils, Spring 1999 - 2004

- CVEN 4728/5728 Foundation Engineering, Fall 2000, 2001, and 2003
- CVEN 4511/5511 Introduction to the Finite Element Method, Fall 2000

## ADVISING

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### GRADUATE STUDENTS - SUPERVISED

#### Completed - Ph.D.

1. Adam F. Sevi, "Physical Modeling of Railroad Ballast Using the Parallel Gradation Scaling Technique within a Cyclical Triaxial Testing Framework", Department of Civil, Architectural, and Environmental Engineering, University of Missouri-Rolla, December 2007.
2. Honghua Zhao, "Development and Assessment of Transparent Soil and Particle Image Velocimetry(PIV) in Dynamic Soil-Structure Interaction", Department of Civil, Architectural, and Environmental Engineering, University of Missouri-Rolla, February 2007.
3. Site Onyejekwe, "Characterization of Soil Variability for Reliability-Based Design", Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, December 2011.
4. Domenica Cambio, "Prediction and Performance of Single Piles in Clay Soils under Dynamic Loading: Non-Linear Equivalent Analysis", Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, December 2011.
5. Chia-Han Chen, Pile-soil Interaction of a Single Pile in Liquefiable Ground During 1-g Shaking Table Tests, Department of Civil Engineering, National Taiwan University, July 11, 2017 (with Prof. Tzou-Shin Ueng and Prof. Cheng-Hsin Chen) (陳家漢：以振動台試驗探討液化地盤中單樁受震樁土互制關係)
6. Yu-Syuan Jhuo, Mechanical Behaviors of Granular Materials under the Framework of Binary Packing Theory, Department of Civil Engineering, National Taiwan University, June 23, 2020. (卓雨璇：顆粒材料於二元組構理論下之力學行為)
7. Min-Chien Chu, Stiffness Degradation and Excess Pore Water Pressure Generation of Coarse and Fine Sand Mixture due to Cyclic Loading, Department of Civil Engineering, National Taiwan University, September 9, 2020. (朱民虔：循環荷載下粗細砂混和土壤之勁度變化與水壓激發)

#### In Progress - Ph.D.

1. Fu-Hsuan Yeh
2. Yan-Hsiang Chang
3. Amali

#### Completed - M.S.

1. Yu-Hsuan Yang (M.S.), Soil Stiffness Reduction due to Undrained Cyclic Loading under the Framework of Binary Packing, Department of Civil Engineering, National Taiwan University, July 2020. (楊予瑄：土壤於二元組構理論下受振勁度折減之探討)

2. Marvin Eduardo Rodriguez Marcia (M.S.), Investigation of Photoelastic Technique in Geotechnical Model Tests, Department of Civil Engineering, National Taiwan University, July 2020. (神龍：光彈技術於大地工程模型試驗應用之初探)
3. Yi-Chun Lai (M.S.), Post-failure Simulation of Freeway No.3 3.1K Landslide in Taiwan Using MPM Code Anura3D, Department of Civil Engineering, National Taiwan University, July 2020. (賴宜群：Anura3D 質點法探討國道三號 3.1K 邊坡破壞歷程)
4. Yi-Hsiu Lin (M.S.), Dynamic Properties of Binary Mixtures by Resonant Column Test, Department of Civil Engineering, National Taiwan University, July 2020. (林宜修：以共振柱試驗探討二元混和物之動態特性)
5. Min-Yun Yang (M.S.), The Deformation Behavior and Dynamic Characteristics of Piled Raft Foundation in Clay Subjected to Vertically Cyclic Load, Department of Civil Engineering, National Taiwan University, January 2020. (楊敏昀：垂直循環荷載下樁筏基礎於黏土層之變形行為與動態特性)
6. Jing Han (M.S.), Simulation of Soil Liquefaction by Using UBC3D-PLM Model in PLAXIS, Department of Civil Engineering, National Taiwan University, January 2020. (韓靖：利用 PLAXIS 中的 UBC3D-PLM 組成律模擬土壤液化)
7. Jun-Min Wang (M.S.), Rainfall Induced Unsaturated Slope Stability Analysis, Department of Civil Engineering, National Taiwan University, July 2019. (王竣民：降雨引致之非飽和邊坡穩定性分析)
8. Ya-Ru Li (M.S.), Investigation of Post Cyclic Behavior of Sands under the Framework of Binary Packing, Department of Civil Engineering, National Taiwan University, July 2019. (李亞儒：以二元混和物之框架探討砂土於動態荷載後之行為)
9. Zih-Yun Wang (M.S.), Effect of Cross Walls on System Stiffness and Wall Displacement for Excavations in Soft Clay, Department of Civil Engineering, National Taiwan University, July 2019. (王姿勻：地中壁於黏土層中深開挖對系統勁度及壁體變位之影響)
10. Jung-Cheng Tsai (M.S.), Assessment of Undrained Behavior of Sands Containing Fines with Effective Parameters, Department of Civil Engineering, National Taiwan University, July 2018. (蔡容正：以有效應力參數評估含細粒料砂土不排水之力學行為)
11. Tzi-His Wang (M.S.), Modification of a Cyclic Simple Shear Apparatus, Department of Civil Engineering, National Taiwan University, July 2018. (王子熙：反覆單剪試驗儀器之改良)
12. Cheng-His Hsiao (M.S.), Development of Wireless Alarm Modulus to Railway Slope Monitoring, Department of Civil Engineering, National Taiwan University, July 2018. (蕭承熙：無線警示模組於鐵路邊坡監測之開發)
13. Yi-Hsuan Yeh (M.S.), Effects of Fines Content on the Mechanical Properties of Binary Mixtures, Department of Civil Engineering, National Taiwan University, July 2018. (葉憶萱：細顆粒含量對於粗細砂混合物之力學性質的影響)
14. Po-Ting Li (M.S.), Measurement of Drying and Wetting SWCCs by Flow Pump Method, Department of Civil Engineering, National Taiwan University, July 2018. (李柏廷：以定流量幫浦法量測乾溼側之土壤水分特性曲線)
15. Hsuan-Pin Wu (M.S.), Simplified Approach to Analyze Diaphragm Wall Deflection Considering Buttress Walls, Department of Civil Engineering, National Taiwan University, July 19, 2017. (吳軒蘋：考慮扶壁效應於開挖行為之簡化分析)

16. Yung-Wen Chen (M.S.), Use of Flow Pump Method for Soil-Water Characteristic Curve Measurement, Department of Civil Engineering, National Taiwan University, July 19, 2017. (陳湧文：定流量幫浦法應用於不飽和土壤水份特性曲線之量測)
17. Erda Tsai (M.S.), Implementation of a Simplified Fuzzy Set Plasticity Model in Finite Element Analysis, Department of Civil Engineering, National Taiwan University, July 19, 2017. (蔡筑因：模糊集組成律之簡化模式發展及其有限元素法之分析應用)
18. Yi-Chen Tsai (M.S.), Effect of Vibration-induced Water Pressure Generation on Lateral Earth Pressure at Rest in Saturated Sand, Department of Civil Engineering, National Taiwan University, June 30, 2017. (with Prof. Tzou-Shin Ueng) (蔡易辰：飽和砂土受振引致水壓激發對靜止側向土壓之影響)
19. Guan-Lin Huang (M.S.), The Effect of Pore Pressure Change on Lateral Earth Pressure at Rest in Saturated Sand, Department of Civil Engineering, National Taiwan University, July 1, 2016. (with Prof. Tzou-Shin Ueng) (黃冠霖：飽和砂土孔隙水壓變化對側向靜止土壓力之影響)
20. Chao-Ju Chou (M.S.), A Simplified Approach to Analyze the Excavation Behavior of Small Sites in Soft Clay, Department of Civil Engineering, National Taiwan University, October 26, 2016. (周昭如：小型基地於軟弱黏土層開挖行為之簡化分析)
21. Yu-Wei Hwang (M.S.), Analysis of Shaking Table Tests on a Rocking Foundation Model, Department of Civil Engineering, National Taiwan University, July 15, 2016. (with Prof. Jiunn-Shyang Chiou) (黃郁惟：搖擺基礎受震行為之振動台模型試驗分析)
22. Chih-Po Chang (M.S.), The Effect of Three Dimensional Configurations on the Diaphragm Wall Displacements Due to Deep Excavation, Department of Civil Engineering, National Taiwan University, June 3, 2016. (張智博：深開挖基地三維幾何配置於連續壁壁體變位之影響)
23. You-Cheng Chen (M.S.), Dynamic Properties of Slag Cement Stabilized Kaolinite, Department of Civil Engineering, National Taiwan University, July 15, 2016. (陳又誠：爐石水泥改良高嶺土之動態性質)
24. Chen-Wei Hung (M.S.), Strength Properties of Slag Cement Stabilized Kaolinite, Department of Civil Engineering, National Taiwan University, July 15, 2016. (洪晨瑋：爐石水泥改良高嶺土之強度特性)
25. Tonglin Shang (M.S.), Analysis of Jacking Force of Small Diameter Micro-Tunnel-Boring Machine by Slurry Pressure Balance Method in Short Distance, Department of Civil Engineering, National Taiwan University, August 8, 2016. (with Prof. James C.K. Ni) (商桐林：小口徑短距離泥水壓平衡式微型掘進機推力分析)
26. Lian-Zhi-Qi Tong (M.S.), Direct Tension Test on Compacted Sand-Clay Mixture with Different Ratio of Sand to Clay and Factors Affecting Its Measurements, Department of Civil Engineering, National Taiwan University, August 8, 2016. (童連致齊：夯實土壤之直接張力試驗與其影響因子之研究)
27. Min-Chien Chu (M.S.), Measuring the Coefficient of Permeability of Sand during Liquefaction in Soil Column Tests, Department of Civil Engineering, National Taiwan University, July 31, 2015. (with Prof. Tzou-Shin Ueng) (朱民虔：砂土在液化時滲透係數之量測)
28. Yu Guan (M.S.), Direct Tension Tests on Compacted Sand-Clay Mixture, Department of Civil Engineering, National Taiwan University, June 25, 2015. (官禹：夯實土壤直接張力試驗之初探)

29. Ya-Han Hsu (M.S.), Experimental Study and Analysis for Tensile Strength of Compacted Sand-Clay Mixtures through Unconfined Penetration Tests, Department of Civil Engineering, National Taiwan University, July 2015. (徐雅涵：無圍壓貫入法於張力強度之試驗與分析)
30. Jia-Yi Wang (M.S.), Modelling of Maximum and Minimum Void Ratio for Sand-Silt Mixtures, Department of Civil Engineering, National Taiwan University, June 30, 2015. (王嘉驊：砂土粉土混合物最大最小孔隙比之模擬)
31. Yu-Hsuan Lee (M.S.), The influence of Particle Vibration on Water Pressure in Fixed Constraining Boundaries, Department of Civil Engineering, National Taiwan University, July 31, 2015. (李幼萱：侷限固定邊界中顆粒振動對水壓造成之影響)
32. Tsan-Shen Chuang (M.S.), Optimization Techniques in Soil Constitutive Model Calibration, Department of Civil Engineering, National Taiwan University, June 20, 2014. (莊贊申：最佳化方法於土壤組成律模式參數校正之應用)
33. Yu-Ting Cho (M.S.), The study of GCTS triaxial apparatus function and mixing sand void ratio, Department of Civil Engineering, National Taiwan University, June 26, 2014. (卓玉庭：GCTS 三軸儀功能研究與混和砂孔隙比變化之分析)
34. Xuan-Hao Bai (M.S.), Safety Factor of Homogeneous Unsaturated Slope by Slice Method, Department of Civil Engineering, National Taiwan University, June 20, 2014. (白軒豪：切片法分析均質不飽和邊坡抗滑動安全係數之研究)
35. Wun-Yuan Li (M.S.), Verification of Tensile Strength of Lightly Cemented Sand, Department of Civil Engineering, National Taiwan University, June 26, 2014. (李文淵：低黏性砂土張力強度之驗證)
36. Guan-De He (M.S.), Tensile Strength of Lightly Cemented Sand through Unconfined Penetration Tests, Department of Civil Engineering, National Taiwan University, July 16, 2013. (何冠德：低黏性砂土張力強度之探討)
37. Huan-Yu Chou (M.S.), Effects of Confining Pressure and Overconsolidation Ratio on Liquefaction of Low Plasticity Silt, Department of Civil Engineering, National Taiwan University, July 9, 2013. (周桓宇：有效圍壓與過壓密比對低塑性粉土液化之影響)
38. Meng-Heng Chiang (M.S.), Liquefaction Resistance of Low Plasticity Fine-Grained Silt, Department of Civil Engineering, National Taiwan University, July 9, 2013. (江孟衡：低塑性細粒料土壤抗液化強度之研究)
39. Lu-Cun Chen (M.S.), Critical State and Constitutive Behavior of Quartz Sand under Conventional Triaxial Compression Tests, Department of Civil Engineering, National Taiwan University, July 16, 2013. (陳律村：傳統三軸應力路徑下石英砂之臨界狀態與其力學行為)
40. Christopher Mathews (Non-Thesis), Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, May 2012.
41. Dinko Vujic (Non-Thesis), Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, December 2010.
42. Stephanie Rust (Non-Thesis), Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, December 2010.
43. John Rajek (Non-Thesis), Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, May 2010.

44. Adedotun Moronkeji (Non-Thesis), Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, August 2009.
  45. Robert Hotz, "Thermal Conductivity of Compacted Silts and Field Evaluation of the Briaud Compaction Device and Light Falling Weight Deflectometer", Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, November 7, 2008.
  46. David M. Weidinger, "Laboratory Analysis of Small Strain Moduli of Compacted Silts", Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, July 2008.
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## **POST-DOCTORAL RESEARCHERS - SUPERVISED**

### **Completed**

1. Dr. Gi-Chun Kang, Post-doctoral Research Fellow, Division of Geotechnics, Disaster Prevention Research Institute, Kyoto University, Japan, November 2010 - October 2011.
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## **VISITING SCHOLARS**

### **At National Taiwan University**

1. Percy Ng, Visiting Professor, University of New Mexico, November 2017 - June 2018.
2. Ching-Shung Chang, Visiting Professor, University of Massachusetts Amherst, September 2014 - January 2015.

### **At Missouri S&T**

1. Cheng Chen, Visiting Scholar, Ph.D. Student from Central South University under Sponsorship of China Scholarship Council (CSC), January 2008 - January 2010.
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## **GRADUATE STUDENTS - THESIS COMMITTEES**

### **Completed**

1. Levi Smith (M.S.), "Laboratory Studies of Compatibility of Tamper Detection Materials with Improvised Explosive Device Crater Repairs", Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, April 2011. (Major advisor: Dr. J. Myers of Civil Engineering)
2. Shuying Wang (Ph.D.), "Postcyclic Behavior of Low Plasticity Silt", Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, March 2011. (Major advisor: Dr. R. Luna of Civil Engineering)
3. Kerry Magner (M.S.), "Characterization of Geotechnical Variability Based Upon Sampling Frequency: A Study of the kciCON Project", Department of Geological Sciences and Engineering, Missouri University of Science and Technology, November 2010. (Major advisor: Dr. N. Maerz of Geological Engineering)



4. Daniel Kienitz (M.S.), "IED Crater Repair for Enduring Route Remediation", Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, October 2010. (Major advisor: Dr. J. Myers of Civil Engineering)
5. Mulugeta Kebede (M.S.), "Calibration of Resistance Factors for Axial Capacity of Driven Pile into Missouri Soil", Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, March 2010. (Major advisor: Dr. R. Luna of Civil Engineering)
6. Gary Davis (M.S.), "Estimation of Aggregate Deleterious Content", Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, November 10, 2008. (Major advisor: Dr. D. Richardson of Civil Engineering)
7. Ece Karadeniz (M.S.), "Ground Motion Sensitivity Analyses for the Diverse Geologic Units in St. Louis Metro Area", Department of Geological Sciences and Engineering, Missouri University of Science and Technology, October 27, 2008. (Major advisor: Dr. D. Rogers of Geological Engineering)
8. Ramesh Chembeti (M.S.), "A Coarse-Grain Molecular Dynamics Study of the Nanotribological Properties of Nanoparticle Solutions.", Department of Chemical and Biological Engineering, Missouri University of Science and Technology, August 2008. (Major advisor: Dr. J. Wang of Chemical Engineering)
9. Wendy Moore (M.S.), "Fire-Damaged Prestressed Concrete Bridges", Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, August 2008. (Major advisor: Dr. J. Myers of Civil Engineering)
10. Justin Carr (M.S.), "Estimation of Concrete Durability Factor", Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, July 2008. (Major advisor: Dr. D. Richardson of Civil Engineering)
11. Ali Izadi (Ph.D.), "Liquefaction and Postliquefaction Behavior of Low Plasticity Silts Using Cyclic Triaxial Tests", Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, March 2008. (Major advisor: Dr. R. Stephenson of Civil Engineering)
12. Deniz Karadeniz (Ph.D.), "Pilot Seismic Hazard Assessment of the Granite City, Monks Mound, and Columbia Bottom Quadrangles, St. Louis Metropolitan Area", Department of Geological Sciences and Engineering, University of Missouri-Rolla, November 2007. (Major advisor: Dr. D. Rogers of Geological Engineering)
13. Wenjian Wang (Ph.D.), "Structural Condition Assessment of the Bill Emerson Memorial Cable-Stayed Bridge Using Neural Networks", Department of Civil, Architectural, and Environmental Engineering, University of Missouri-Rolla, January 2007. (Major advisor: Dr. G. Chen of Civil Engineering)
14. Quentin Gehring (M.S.), "Investigation of the Taum Sauk Upper Reservoir Failure", Department of Civil, Architectural, and Environmental Engineering, University of Missouri-Rolla, July 2006. (Major advisor: Dr. R. Luna of Civil Engineering)

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## UNDERGRADUATE STUDENTS DIRECTED

1. Dinko Vujic (B.S.), CE400 - Special Problems, Dual Enrolled, Fall 2009
2. David Baugher (B.S.), Research topic: "Parallel Gradation Triaxial Testing of Railroad Ballast", UMROpportunities for Undergraduate Research (OURE) Program, 2006-2007.

3. Lucas Carr (B.S.), Research topic: "Moisture Content and Salinity Measurement Calibration of ECHO2 Soil Probe Products", UMR Opportunities for Undergraduate Research (OURE) Program, 2006-2007.
  4. Jim Fulton (B.S.), Research topic: "Cyclic Triaxial Tests on Prototype Railroad Ballast", CE300 Special Problems, Fall 2007.
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## **UNDERGRADUATE SENIOR DESIGN PROJECT ADVISEES**

1. Spring: Marcus Ray; Thomas McCormic; Ryan Roth; Joseph "Brooks" Stephens; Chenghu Li; Jason White.
  2. Fall 2010: Aaron Redecker; Nathan Muncy; Peter Bryant.
  3. Spring 2010: Cory Brennan; Brian Rickert; Steven Scallion; Lucas Sudkamp.
  4. Fall 2009: Steven Edwards; Charles Graham; Chris Redell; Matthew Ward; Samuel Vance; Dinko Vujic.
  5. Spring 2009: Jon Beck; Mark Ezzell; Jason Herron; Kelsey Musselman; Cuong Nguyen; Katie Rose; Kyle Vogler; Michael Wolfe.
  6. Fall 2008: Yasmin Hassen; Miranda Jones; Heather Parnell; Andrea Tyler.
  7. Spring 2008: Kathy Metivier.
  8. Fall 2007: Jamie Shepard; Brian Arnold; Jim Fulton; Dee Moronkeji; Eric Strack; David Baugher.
  9. Spring 2007: Justin Carr; Robert Hotz; Andrea Meyer; David Weidinger.
  10. Fall 2006: Reid Catt.
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## **STUDENT COMPETITIONS**

1. GeoPrediction 2010, national competition held in GeoFlorida, West Palm Beach, February 20-24, 2010. Team members were Taylor Hall and Michelle Deng. Won first place.

## **SERVICE**

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### **UNIVERSITY SERVICE**

*Missouri University of Science and Technology (formerly University of Missouri-Rolla)*

#### **Campus Level**

1. Faculty Senate Representative, January 2008 - August 2009.
2. Academic Council Representative for Civil, Architectural, and Environmental Engineering, September 2007 - December 2007.
3. Freshman Engineering Advisor, Freshman Engineering Program, August 2006 - August 2008.

### **Departmental Level**

1. Open House Coordinator, April 22, 2011.
  2. Member, Architectural Engineering (AE) Undergrade Program Committee, Department of Civil, Architectural, and Environmental Engineering, September 2010 - present.
  3. Library Liaison, Department of Civil, Architectural, and Environmental Engineering, September 2009 - present.
  4. Member, Computer Committee, Department of Civil, Architectural, and Environmental Engineering, September 2009 - present; August 2004 - September 2006; Committee Chair, September 2006 - December 2007.
  5. Member, Steuck Lectureship Committee, Department of Civil, Architectural, and Environmental Engineering, November 2008 - present.
  6. Member, Strategic Planning Committee, Department of Civil, Architectural, and Environmental Engineering, September 2009 - August 2010.
  7. Phonathon Mentor, Department of Civil, Architectural, and Environmental Engineering, 2006 - 2010; Coordinator, 2008.
  8. Open House Geotechnical Lab Demonstration, 2009, 2008.
  9. Member, Graduate Affairs Committee, Department of Civil, Architectural, and Environmental Engineering, September 2008 - August 2009.
  10. Member, Civil Engineering (CE) Undergrade Program Committee, Department of Civil, Architectural, and Environmental Engineering, September 2006 - August 2008.
  11. Freshman Engineering Visit Presentation and Tour, Department of Civil, Architectural, and Environmental Engineering, November 6, 8, 14 and 16, 2006.
  12. Proctor, Mathcounts Competition, Rolla Chapter, February 12, 2005.
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### **PROFESSIONAL COMMITTEES**

1. Unsaturated Soils Committee, Geo-Institute of ASCE, 2008 - present
  2. Soil Properties and Modeling Committee, Geo-Institute of ASCE, 2006 - present
  3. Soils and Rock Instrumentation Committee, TRB, 2006 - present
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### **CONFERENCE ORGANIZING**

1. Conference Secretariat, The 16th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering (16ARC), October 14-18, 2019.
2. Conference Chair, The 30th KKHTCNN Symposium on Civil Engineering, National Taiwan University, November 2-4, 2017.
3. Conference Chair, The 17th Geotechnical Engineering Conference, Ilan, August 30 - September 1, 2017.

4. Course Organizer, The 2017 Summer Training Course for Slope Land Disaster Reduction, August 13-24, 2017.
5. Course Organizer, The 2016 Summer Training Course for Slope Land Disaster Reduction, August 14-25, 2016.
6. Session Chair on Ground Improvement: Testing, Modeling & Evaluation, Geotechnical & Structural Engineering Congress, Phoenix, Arizona, USA, February 14-17, 2016. (with Dr. An Deng)
7. Technical Organizing Committee, GeoHubei International Conference, Hubei, China, July 20-22, 2014.
8. Session Chair, GeoHubei International Conference, Hubei, China, July 20-22, 2014.
9. Session Chair, Characterization and Modeling of Reinforced Soil, Geo-Congress 2013, San Diego, CA, March 3-6, 2013. (with An Deng)
10. Session Co-Chair, Impact of Desiccation Cracking and Tensile Strength on the Stability and Performance of Slopes and Embankments, Geo-Congress 2013, San Diego, CA, March 3-6, 2013. (with Marcelo Sanchez, Kuo-Hsin Yang, and Lyesse Laloui)
11. Session Co-Chair, Sustainable Slope Engineering, Geo-Congress 2013, San Diego, CA, March 3-6, 2013. (with Bate Bate, Dipanjan Basu, Jeff Keaton, and Anand Puppala)
12. Moderator, Geo-Risk 2011, Geotechnical Risk Assessment & Management, Atlanta, GA, June 26-28, 2011.
13. Session Chair, Statistical, Reliability, and Risk analysis, Geo-Frontiers, Dallas, TX, March 13-16, 2011.
14. Technical Organizing Committee Member, GeoHunan International Conference II: Emerging Technologies for Design, Construction, Rehabilitation, and Inspections of Transportation Infrastructures, Zhangjiajie, Hunan, China, June 6-8, 2011.
15. Session Chair, Forensic Engineering, GeoHunan International Conference II: Emerging Technologies for Design, Construction, Rehabilitation, and Inspections of Transportation Infrastructures, Zhangjiajie, Hunan, China, June 6-8, 2011.
16. Session Co-Chair (with John McCartney at University of Colorado at Boulder), Unsaturated Soil Modeling in Engineering Practice, GeoFlorida, West Palm Beach, FL, February 20-24, 2010.
17. Session Co-Chair (with Bill Yu at Case Western Reserve University), Non-Destructive Technologies for Geo-Materials and Infrastructure Assessment, GeoFlorida, West Palm Beach, FL, February 20-24, 2010.
18. Session Chair and Moderator, GeoHunan, International Conference: Challenges and Recent Advances in Pavement Technologies and Transportation Geotechnics, Hunan, China, August 3-6, 2009.
19. Session Chair, Geo-Software Demonstrations, Geo-Denver 2007, February 18-21, 2007.
20. Program Co-Chair and Engineering and Applied Science Session Chair, the 23rd Annual Conference of the Midwest Chinese American Science & Technology Association, September 16, 2006.

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## JOURNAL REVIEWING

1. Computers and Geotechnics
2. Engineering Geology

3. Construction and Building Materials
4. KSCE Journal of Civil Engineering
5. Journal of GeoEngineering
6. Marine Georesources & Geotechnology
7. Canadian Geotechnical journal, NRC, ISSN: 1208-6010
8. International Journal for Numerical and Analytical Methods in Geomechanics, John Wiley & Sons, Online ISSN: 1096-9853, Print ISSN: 0363-9061
9. Journal of ASTM International, ISSN: 1546-962X
10. Journal of Geotechnical and Geoenvironmental Engineering, ASCE, ISSN: 1090-0241
11. Journal of Materials in Civil Engineering, ASCE, ISSN: 0899-1561
12. Journal of Testing and Evaluation, ASTM, ISSN: 0090-3973
13. Mechanics Research Communications, Elsevier, ISSN: 0093-6413
14. Ocean Engineering, Elsevier, ISSN: 0029-8018
15. Transportation Research Record, TRB, ISSN: 0361-1981

## **OUTREACH AND CONTINUED EDUCATION**

1. Course Instructor for ASDSO Advanced Technical Seminar: Soil Mechanics for Dam Safety, New Orleans, LA, February 2-4, 2010.
2. Course Instructor for Short Course: Geotechnical Lab Testing - Permeability (Conductivity), Consolidation, Direct and Triaxial Shear, Rolla, MO, June 10-12, 2009; July 11-14, 2007.
3. Class Volunteer for Giving a talk on Chinese New Year to a 2nd-grade class, February 9, 2009.
4. Course Instructor for ASDSO Advanced Technical Seminar: Slope Stability Analysis for Embankment Dams, Salt Lake City, UT, October 21-23, 2008; Philadelphia, PA, July 22-25, 2008; Denver, CO, October 23-26, 2007; Rolla, MO, July 17-20, 2007.

## **PROFESSIONAL DEVELOPMENT**

1. The 4th PDCA Professors' Driven Pile Institute, Utah State University, Logan, UT, June 18-22, 2007.
2. New Faculty Teaching Scholar, University of Missouri-Rolla, 2006-2007.
3. NSF NEES Lifelines Research and Training Workshop, Cornell University, Ithaca, NY, July 25-26, 2006.
4. ASCE Excellence in Civil Engineering Education Teaching Workshop (ExCEED), University of Arkansas Fayetteville, Fayetteville, AR, July 9-14, 2006.

5. NSF NEES 2nd Centrifuge Research and Training Workshop, Rensselaer Polytechnic Institute, Troy, NY, November 14-17, 2005.

## **AWARDS**

1. Marquis Who's Who in America, 2011.
2. Air Force Summer Faculty Fellowship, June 7 - July 30, 2010.
3. Beverly Sears Graduate Student Grant, The Graduate School, University of Colorado at Boulder, November 2002.
4. Ph.D. Dissertation Grant, The Graduate School, University of Colorado at Boulder, October, 2002.
5. Conference Travel Grant The Graduate School, University of Colorado at Boulder, May 2000.

Last updated on October 4, 2020.