

CURRICULUM VITAE

YUNING LOUIS GE

CONTACT INFORMATION

Assistant Professor
128 Butler-Carlton Hall
Department of Civil, Architectural, and Environmental Engineering
Missouri University of Science and Technology
(Formerly University of Missouri-Rolla)
1401 North Pine Street
Rolla, MO 65409-0030, USA

Phone: 573-341-7193
Fax: 573-341-4729
E-Mail: geyun@mst.edu
<http://web.mst.edu/~geyun>

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 Dobroslav Znidarcic

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

PROFESSIONAL EXPERIENCE

Assistant Professor

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

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.

Graduate Research Assistant

Department of Civil, Environmental, and Architectural Engineering, University of Colorado, Boulder, Colorado, May 1999 - August 2003.

Research Assistant

Rock Mechanics and Engineering Geology Laboratory, Department of Civil Engineering, National Taiwan

University, Taipei, Taiwan, October 1995 - July 1996.

PROFESSIONAL REGISTRATION

Engineer-In-Training

Registration No. E.I.T. 4304, Wyoming State Board of Registration for PE & PLS, June 2002.

Professional Engineer

Passed the Exam on April 11, 2008, currently applying for registration in Michigan.

PROFESSIONAL SOCIETIES

American Society of Civil Engineers, 2006 - present.

Transportation Research Board (TRB), 2006 - present.

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

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

PUBLICATION

JOURNALS - PUBLISHED AND ACCEPTED

1. Ge, L., Bao, Y., Ni, C.-K., and Ko, H.-Y., Seismic centrifuge modeling of earth dams, *Geomechanics and Geoengineering*. (accepted)
2. Chen, C., Ge, L., and Zhang, J., Modeling permanent deformation and resilient modulus of unbound granular materials under repeated loading, *International Journal of Geomechanics*. (accepted)
3. Luna, R., Hall, R., Hilgers, M., and Ge, L. (2009). A GIS learning tool for civil engineers, *International Journal of Engineering Education*. (accepted)
4. Chang, K.-T., Ge, L., and Sture, S., Evaluation of the stiffness and volumetric behaviors of medium dense sand under principal stress rotations, *Journal of Testing and Evaluation*. (in press)
5. Hotz, R.D., and Ge, L., Investigation of the thermal conductivity of compacted silts and its correlation to the elastic modulus, *Journal of Materials in Civil Engineering*. (in press)
6. Weidinger, D.M., and Ge, L. (2009). Laboratory evaluation of the Briaud Compaction Device, *Journal of Geotechnical and Geoenvironmental Engineering*, 135(10), 1543-1546.
7. 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.
8. 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.
9. Zhao, H., and Ge, L. (2008). Camera calibration using neural network for image-based deformation measurement systems, *Geotechnical Testing Journal*, 31(2), 192-197.

BOOK CHAPTERS

1. Iskander, M., Sadek, S., and Ge, L. (2010). Geotechnical Properties of Silica Gels, Book Chapter in: *Transparent Soils, Springer Series in Geomechanics and Geoengineering*. (to appear in February 2010)
2. Zhao, H., and Ge, L. (2010). Camera Calibration Using Neural Network, Book Chapter in: *Transparent Soils, Springer Series in Geomechanics and Geoengineering*. (to appear in February 2010)
3. 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.

EDITORSHIP

1. Guest Co-Editor (with R.A. Tarefder, and D.H. Chen), *Special Issue on Modeling in Geotechnical Engineering for Design and Materials, International Journal of Geomechanics*. (to appear in 2010)
2. *Soils and Rock Instrumentation Behavior and Modeling, ASCE Geotechnical Special Publication No. 194*, Eds. Louis Ge, Boming Tang, WeiHong Wei, and Renpeng Chen, 2009.
3. *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.

JOURNALS - UNDER REVIEW

1. Zhao, H., Ge, L., Cambio, D., and Luna, L., Shear moduli and damping ratios of silica gel in comparison with sands, *Geotechnical Testing Journal*. (submitted on October 23, 2009)
2. Ge, L., Chen, C., and Luna, R., Implementation of membership function to a cyclic plasticity model, *Mechanics Research Communications*. (submitted on September 25, 2009)
3. Zhao, H., Ge, L., and Luna, R., Low viscosity pore fluid to manufacture transparent soil, *Geotechnical Testing Journal*. (under re-review, submitted on September 20, 2009)
4. Zhao, H., Petry, T.M., and Ge, L., Effects of injection of chemical stabilizers on expansive clay, *Journal of Geotechnical and Geoenvironmental Engineering*. (submitted on July 5, 2009)
5. Weidinger, D.M., Ge, L., Stephenson, R.W., and Luna, R., Ultrasonic pulse velocity tests on compacted silts, *Canadian Geotechnical Journal*. (submitted on June 16, 2009)

MANUSCRIPTS IN PREPARATION

1. Chen, C., Luna, R., Ge, L., and Zhang, J., Modeling of loose sand under complex stress paths.
2. Ge, L., Thermomechanics constitutive equations of elastoplastic solids with anisotropic damage.
3. Ge, L., and Luna, R., Finite element slope stability analysis - strength reduction method and gravity method.
4. Ge, L., and Sture, S., Nonlinear least squares regression for constitutive model parameter identification.
5. Cambio, D., and Ge, L., Monotonic and cyclic stress-strain behavior of crushed rock-concrete interface.
6. Moronkeji, A., and Ge, L., A comparative finite element study on consolidation problems.
7. Ge, L., Sevi, A.F., and Take, A., Assessment of parallel gradation technique to large-size granular material testing.

PEER REVIEWED CONFERENCE PROCEEDINGS

1. 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. (under review)
2. 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.
3. Weidinger, W., Ge, L., and Stephenson, R.W. (2009). Ultrasonic pulse velocity tests on compacted soil, In: *GeoHunan, International Conference: Challenges and Recent Advances in Pavement Technologies and Transportation Geotechnics*, Hunan, China, August 3-6, 2009.
4. 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.
5. 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.
6. 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.

7. 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.
8. 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.
9. 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. (EI)
10. 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. (EI)
11. 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. (EI)
12. 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.
13. 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. (EI)
14. 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*, CD-ROM, 2005. (EI)
15. Ge, Y.-N., Bao, Y., and Ko, H.-Y. (2004). *Dynamic Centrifuge Model Testing of Jen-Yi-Tan Dam*, report submitted to National Taipei University of Technology, Taiwan, September, 2004.
16. 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.
17. 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.
18. Ge, Y.-N., Jacobson, L., Runesson, K., and Sture, S. (2000). "Cyclic behavior and elastic shakedown of coarsed-sized granular materials." In: *the 14th ASCE Engineering Mechanics Conference*, Austin, TX, May 21-24, 2000.
19. Jeng, F.-S., Chen, W.-Y., and Ge, Y.-N. (1996). *Research on The Technology of Long Tunnels in Northern Taiwan* (in Chinese), internal report, Department of Civil Engineering, National Taiwan University, 1996.

PRESENTATIONS

1. 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.
2. Ge, L., 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.

3. Ge, L., *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.
4. Cambio, D., and Ge, L. (2007). "Effects of parallel gradation on strength properties of ballast materials." In: *GeoDenver*, 2007.
5. Ge, L., *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.
6. Ge, L., *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.
7. Zhao, H., and Ge, Y.-N., *Visualization of Pile Response under Lateral Loading*, the 15th U.S. National Congress of Theoretical and Applied Mechanics, Boulder, Colorado, June 25-30, 2006.
8. Ge, Y.-N., *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.
9. Ge, Y.-N., *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.
10. Ge, Y.-N., *Cyclic Constitutive Modeling of Granular Materials*, invited presentation at University of Missouri-Rolla, March 26, 2004.
11. Ge, Y.-N., *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.
12. Ge, Y.-N., *Slope Stability Analysis in Plaxis*, invited presentation at URS, Denver, CO, March 16, 2004.
13. 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.
14. 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.

RESEARCH GRANTS

CURRENT FUNDING

1. 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, November 2008 - October 2010, Active.
2. Principal Investigator (with Richard Stephenson at Missouri S&T - Co-PI), *NUTC / MTI / MoDOT Transportation Geotechnics Research Program Task 1 (MS&T)*, National University Transportation Center at Missouri S&T , \$97,406, 50% share, November 2008 - October 2010, Active.
3. 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 - June 2009, Active.

PREVIOUS FUNDING

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.

PROPOSALS - PENDING

1. Co-Principal Investigator (with Norbert Maerz - PI, Ye Duan - Co-PI, John Myers - Co-PI, and Grzegorz Galecki - Co-PI), *Using LIDAR and 3D Image Reconstruction for Building and Infrastructure Measurement and Evaluation*, National Institute of Standards and Technology, \$988,349, 30% share, submitted on July 13, 2009.
2. Principal Investigator (with John McCartney at the University of Colorado at Boulder - PI, Brady Cox at the University of Arkansas - PI, and Judith Wang at the Colorado School of Mines - PI), *Collaborative Research: Dynamic Response of Unsaturated Soil-Geosynthetic Composite Systems*, National Science Foundation, \$217,247, 100% share, submitted on October 1, 2009.
3. Co-Principal Investigator (with Leslie Gertsch at Missouri S&T - PI), *Experimental Verification of Stress Concentrations Beneath Mechanical Rock Cutters*, National Science Foundation, \$277,412, 33% share, submitted on October 1, 2009.
4. Co-Principal Investigator (with Norbert Maerz at Missouri S&T - PI), *Development of a Model for the Mechanism of Raveling Failure in Rock Slopes and Cuts Using LIDAR and Modeling with PFC3D*

(*3D Particle Flow Code*), National Science Foundation, \$393,716, 50% share, submitted on October 1, 2009.

TEACHING

MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY (FORMERLY UNIVERSITY OF MISSOURI-ROLLA)

- CE 315 Intermediate Soil Mechanics, Fall 2009
- CE 229 Foundation Engineering, Spring 2009
- CE 412 Computer Modeling in Geotechnical Engineering, Spring 2009
- CE 229 Foundation Engineering, Fall 2008
- CE 413 Dynamics of Earth Materials, (including a distance education session), Fall 2008
- CE 415 Advanced Soil Mechanics, Spring 2008
- CE 229 Foundation Engineering, Fall 2007
- CE 412 Numerical Methods in Geotechnical Engineering, (including a distance education session), Fall 2007
- CE 229 Foundation Engineering, Spring 2007
- CE 413 Dynamics of Earth Materials, (including a distance education session), Spring 2007.
- CE 229 Foundation Engineering, Fall 2006
- CE 412 Numerical Methods in Geotechnical Engineering (including a distance education session), Fall 2006
- CE 314 Geosynthetics in Engineering (including a distance education session), Spring 2006
- CE 413 Dynamics of Earth Materials, (including a distance education session), Fall 2005
- CE 215 Fundamentals of Geotechnical Engineering, Spring 2005
- CE 314 Geosynthetics in Engineering (including a distance education session), Spring 2005,
- CE 413 Dynamics of Earth Materials (course developing), Spring 2005
- CE 215 Fundamentals of Geotechnical Engineering, Fall 2004
- CE 412 Numerical Methods in Geotechnical Engineering, Fall 2004

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

GRADUATE STUDENTS - THESIS SUPERVISED

Ph.D.: 2 completed plus 4 in progress (as of 11/2009)

M.S.: 3 completed plus 2 in progress (as of 11/2009)

Visiting Scholars: 1 in progress (as of 1/2009)

Completed - Ph.D.

1. 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.
2. 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.

Completed - M.S.

1. 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.
2. 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.
3. Adedotun Moronkeji, Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, August 2009.

In Progress

1. Domenica Cambio (Ph.D.), Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, expected completion, May 2012.
2. Site Onyejekwe (Ph.D.), Co-advise with Dr. Rick Stephenson), Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, expected completion, May, 2012.
3. Mingyan Deng (Ph.D.), Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, expected completion, May, 2014.
4. Xin Kang (Ph.D.), Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, expected completion, May, 2014.
5. Cheng Chen (Ph.D.), Visiting Scholar from Central South University under Sponsorship of China Scholarship Council (CSC), expected completion, January 2010.
6. Stephanie Rust (M.S.), Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, expected completion, May, 2011.
7. John Rajek (Non-Thesis M.S.), Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, expected completion, May, 2010.

GRADUATE STUDENTS - THESIS COMMITTEES

Completed

1. 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.
2. 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.
3. 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.
4. Wendy Moore (M.S.), "Fire-Damaged Prestressed Concrete Bridges", Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, August 2008.
5. Justin Carr (M.S.), Tentatively, "Estimation of Concrete Durability Factor", Department of Civil, Architectural, and Environmental Engineering, Missouri University of Science and Technology, July 2008.
6. 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.
7. 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.
8. 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.
9. 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.

In Progress

1. James Otoo (Ph.D. in Geological Engineering)
2. Shuying Wang (Ph.D.)
3. Kyle Kershaw (Ph.D.)
4. Mulugeta Kebede (M.S.)
5. Conor Watkins (Ph.D.), "Identification, Mapping, Dating, and Analysis of Composite Paleo-Megalandslides in the Colorado Plateau", Department of Geological Sciences and Engineering, Missouri University of Science and Technology, expected completion, July 2009.

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", UMR Opportunities 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.

UNDERGRADUATE SENIOR DESIGN PROJECT ADVISEES

1. Fall 2009: Steven Edwards; Charles Graham; Chris Redell; Matthew Ward; Samuel Vance; Dinko Vujic.
2. Spring 2009: Jon Beck; Mark Ezzell; Jason Herron; Kelsey Musselman; Cuong Nguyen; Katie Rose; Kyle Vogler; Michael Wolfe.
3. Fall 2008: Yasmin Hassen; Miranda Jones; Heather Parnell; Andrea Tyler.
4. Spring 2008: Kathy Metivier.
5. Fall 2007: Jamie Shepard; Brian Arnold; Jim Fulton; Dee Moronkeji; Eric Strack; David Baugher.
6. Spring 2007: Justin Carr; Robert Hotz; Andrea Meyer; David Weidinger.
7. Fall 2006: Reid Catt.

SERVICE

PROFESSIONAL SERVICE

Committee Activities

Unsaturated Soils Committee, Geo-Institute of ASCE, 2008 - present.

Soil Properties and Modeling Committee, Geo-Institute of ASCE, 2006 - present.

Soils and Rock Instrumentation Committee, TRB, 2006 - present.

Conference Organizing Activities

1. 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.
2. Session Chair, Tunneling in Soft Ground, Ground Conditioning and Modification, GeoHunan International Conference II: Emerging Technologies for Design, Construction, Rehabilitation, and Inspections of Transportation Infrastructures, Zhangjiajie, Hunan, China, June 6-8, 2011.
3. Session Chair, Special and Long tunnels, Case Histories, GeoHunan International Conference II: Emerging Technologies for Design, Construction, Rehabilitation, and Inspections of Transportation Infrastructures, Zhangjiajie, Hunan, China, June 6-8, 2011.
4. Session Co-Chair (with John McCartney at University of Colorado at Boulder), Unsaturated Soil Modeling in Engineering Practice, GeoFlorida, February 20-24, 2010.
5. Session Co-Chair (with Bill Yu at Case Western Reserve University), Non-Destructive Technologies for Geo-Materials and Infrastructure Assessment, GeoFlorida, February 20-24, 2010.
6. Session Chair and Moderator, GeoHunan, International Conference: Challenges and Recent Advances in Pavement Technologies and Transportation Geotechnics, Hunan, China, August 3-6, 2009.
7. Session Chair of Geo-Software Demonstrations, Geo-Denver 2007 Conference February 18-21, 2007.
8. 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.

Journal Reviewer

Canadian Geotechnical journal, NRC, ISSN: 1208-6010

International Journal for Numerical and Analytical Methods in Geomechanics, John Wiley & Sons, Online ISSN: 1096-9853, Print ISSN: 0363-9061

Journal of Geotechnical and Geoenvironmental Engineering, ASCE, ISSN: 1090-0241

Journal of Materials in Civil Engineering, ASCE, ISSN: 0899-1561

Journal of Testing and Evaluation, ASTM, ISSN: 0090-3973

Mechanics Research Communications, Elsevier, ISSN: 0093-6413

Ocean Engineering, Elsevier, ISSN: 0029-8018

Transportation Research Record, TRB, ISSN: 0361-1981

Conference Proceeding Reviewer

TRB; Geo-Shanghai; Geo-Denver 2007; 1st North American Landslide Conferenc, Vail, CO; GeoCongress 2008, New Orleans, LA; Geotechnical Earthquake Engineering and Soil Dynamics IV (GEESD IV) Conference, Sacramento, CA; 6th International Conference on Case Histories in Geotechnical Engineering; GeoHunan 2009; GeoFlorida 2010.

UNIVERSITY SERVICE

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

- Library Liaison, Department of Civil, Architectural, and Environmental Engineering, September 2009 - present.
- Member, Computer Committee, Department of Civil, Architectural, and Environmental Engineering, September 2009 - present.
- Member, Strategic Planning Committee, Department of Civil, Architectural, and Environmental Engineering, September 2009 - present.
- Member, Steuck Lectureship Committee, Department of Civil, Architectural, and Environmental Engineering, November 2008 - present.
- Phonathon 2009, Department of Civil, Architectural, and Environmental Engineering, September, 17, 2009.
- Open House Geotechnical Lab Demonstration, February 16, 2009.
- Faculty Senate Representative, January 2008 - August 2009.
- Member, Graduate Affairs Committee, Department of Civil, Architectural, and Environmental Engineering, September 2008 - August 2009.
- Open House Geotechnical Lab Demonstration, September 27, 2008. item Open House Geotechnical Lab Demonstration, November 8, 2008.
- Phonathon 2008 Coordinator.
- Freshman Engineering Advisor, January 2008 - August 2008.
- Member, Undergraduate Program Committee, Department of Civil, Architectural, and Environmental Engineering, January 2008 - August 2008.
- Academic Council Representative for Civil, Architectural, and Environmental Engineering, September 2007 - December 2007.
- Freshman Engineering Advisor, Freshman Engineering Program, August 2006 - December 2007.
- Member, Undergraduate Program Committee, Department of Civil, Architectural, and Environmental Engineering, September 2006 - December 2007.
- Chair, Computer Committee, Department of Civil, Architectural, and Environmental Engineering, September 2006 - December 2007.
- 2007 Phonathon, Department of Civil, Architectural, and Environmental Engineering, September, 19, 2007.
- Freshman Engineering Visit Presentation and Tour, Department of Civil, Architectural, and Environmental Engineering, November 6, 8, 14 and 16, 2006.
- 2006 Phonathon, Department of Civil, Architectural, and Environmental Engineering, September, 18, 2006.

- Member, Computer Committee, Department of Civil, Architectural, and Environmental Engineering, August 2004 - September 2006.
- Proctor, Mathcounts Competition, Rolla Chapter, February 12, 2005.

OUTREACH AND CONTINUED EDUCATION

1. Course Instructor for Short Course: Geotechnical Lab Testing - Permeability (Conductivity), Consolidation, Direct and Triaxial Shear, Rolla, MO, June 10-12, 2009.
2. Class Volunteer for Giving a talk on Chinese New Year to a 2nd-grade class, February 9, 2009.
3. Course Instructor for ASDSO Advanced Technical Seminar: Slope Stability Analysis for Embankment Dams, Salt Lake City, UT, October 21-23, 2008.
4. Course Instructor for ASDSO Advanced Technical Seminar: Slope Stability Analysis for Embankment Dams, Philadelphia, PA, July 22-25, 2008.
5. Course Instructor for ASDSO Advanced Technical Seminar: Slope Stability Analysis for Embankment Dams, Denver, CO, October 23-26, 2007.
6. Course Instructor for ASDSO Advanced Technical Seminar: Slope Stability Analysis for Embankment Dams, Rolla, MO, July 17-20, 2007.
7. Course Instructor for Short Course: Geotechnical Lab Testing - Permeability (Conductivity), Consolidation, Direct and Triaxial Shear, Rolla, MO, July 11-14, 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. Beverly Sears Graduate Student Grant, The Graduate School, University of Colorado at Boulder, November 2002.
2. Ph.D. Dissertation Grant, The Graduate School, University of Colorado at Boulder, October, 2002.
3. Conference Travel Grant The Graduate School, University of Colorado at Boulder, May 2000.

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