

CURRICULUM VITAE

LIN LI, Ph.D., P.E., F. ASCE

Professor and Interim Dean
College of Engineering
Tennessee State University
3500 John A. Merritt Blvd.
Nashville, TN 37209

Phone: (615) 963-5401 (O)
(615) 963-5399 (C)
Fax: (615) 963-5413
Email: lli1@tnstate.edu
website: <http://www.tnstate.edu/engineering>

EDUCATION

- Ph.D., Civil Engineering, University of Wisconsin-Madison, 2004
- M.S., Civil Engineering, Zhongshan University, Guangzhou, China, 1994
- B.S., Civil Engineering, Zhongshan University, Guangzhou, China, 1991

REGISTRATION

- Professional Engineer, State of Wisconsin, License No. 37691-006 (continuous since 2005)
- Professional Engineer, State of Mississippi, License No. 17597 (continuous since 2006)
- Professional Engineer, State of Tennessee, License No. 122207 (continuous since 2019)

ACADEMIC EXPERIENCE

Tennessee State University (TSU)

Professor and Interim Dean, College of Engineering 2021 to present
Professor and Department Head, Department of Civil and Architectural Engineering 2018 to 2021

Jackson State University (JSU)

Professor, Department of Civil and Environmental Engineering 2017 to 2018
Associate Professor, Department of Civil and Environmental Engineering 2011 to 2017
Assistant Professor, Department of Civil and Environmental Engineering 2005 to 2011

University of Wisconsin-Madison

Postdoctoral Research Associate, Geological Engineering Program 2004 to 2005

University of Wisconsin-Madison

Research Assistant, Department of Civil and Environmental Engineering 1999 to 2004

University of Hong Kong

Research Associate, Department of Civil Engineering 1997 to 1999

Chinese Academy of Science

Research Scientist, South China Sea Institute of Oceanology 1994 to 1997

RESEARCH AREAS

- *Sustainable and Resilient Infrastructure*: Rechargeable Concrete Battery, Innovative Materials and Design for Environmental Sustainability, Levee Strengthening and Protection, Recycling Infrastructure Materials, Infrastructure Resilience to Disasters
- *Bio-inspired Soil Modification*: Microbial-Induced Carbonate Precipitation, Bio-beams/bio-bricks

- *Geoenvironmental Engineering*: Subsurface Flow and Contaminant Transport, Waste Utilities Design, Soil Remediation, Reactive Transport Modeling

SELECTED RESEARCH GRANTS

1. **Principal Investigator** Development of Mining Engineering Education Curriculum at Tennessee State University to Prepare a Workforce for Critical Mineral Production, \$800,000, **US Department of Energy (DOE)**, 2024-2027.
2. **Principal Investigator** Energy Exploration Camp at Tennessee State University: Illuminating Clean Energy Education for Underrepresented Local High School Students in the Nashville Metro Areas, \$50,000, **US Department of Energy (DOE)**, 2024-2024.
3. **Principal Investigator**, 2024 Architectural and Engineering Grant, \$30,000, **Tennessee Department of Commerce and Insurance**, 2024-2024.
4. **Principal Investigator** Partnering to Improve Diversity in the Fusion Workforce, \$308,990, **US Department of Energy (DOE)**, 2023-2026.
5. **Principal Investigator** (Co-PIs: Armwood, C, McCurry, C., McMurray, N.), Implementation Project: Enhancement of CUREs-based Curriculum and Immersive Engineering Studio to Enhance Engineering Education and Retention of Underrepresented Engineers at TSU, \$2,250,000, **National Science Foundation (NSF)**, 2023-2028.
6. **Principal Investigator** (Co-PIs: Liu, S.), Development of Rechargeable Cement-based Battery to Store Energy in Building Structure, \$300,000, **US Department of Housing and Urban Development (HUD)**, 2021-2024.
7. **Principal Investigator**, 2023 Architectural and Engineering Grant, \$29,495, **Tennessee Department of Commerce and Insurance**, 2023-2023.
8. **Principal Investigator** (Co-PIs: Parthasarathy, R., McMurray, N, Yin, J.), STEM: Promoting Recruitment and Retention of Minority Transfer Students in Science & Engineering (PROMISE) Program through STEM Scholarships, \$1,000,000, **National Science Foundation (NSF)**, 2021-2026.
9. **Principal Investigator**, Waste Management of Solid Waste Reuse, \$50,000, **Waste Management Company**, 2022-2025.
10. **Principal Investigator** (Co-PIs: Painter, R., Sharpe, L, Wu, Y., Adesso, K.), MRI: Acquisition of a LC-MS/MS for Multidisciplinary Environmental Studies and Training at Tennessee State University, \$140,000, **National Science Foundation (NSF)**, 2020-2023.
11. **Principal Investigator**, Administration of the Minority Engineering Scholarship, \$130,000, **The State of Tennessee, Tennessee Student Associate Corporation**, 2021-2022.
12. **Principal Investigator** (Co-PIs: Painter, R., Sharpe, L.), Excellent in Research Project: Collaborative Research: Fate and Transport of Neonicotinoid Insecticides in Environment, \$434,618, **National Science Foundation (NSF)**, 2019-2024.
13. **Co-Principal Investigator** (PI: Williams, F., Co-PIs: Mu, R., Zhou, S., Wu, Y.), HBCU-RISE: Enhancement of Research Infrastructure for Advanced Functional Materials for Biotechnology Applications, \$1,000,000, **National Science Foundation (NSF)**, 2019-2024.
14. **Co-Principal Investigator** (PI: Wu, W.), Implementing Undergraduate Research Projects in STEM Education to Enhance Student Engagement and Close Retention Gap, \$49,280,000, **Tennessee Board of Regents (TBR)**, 2020-2021.
15. **Principal Investigator**, Evaluation of Hydrogel-stabilized Expansive Soils in Mississippi for Sustainable Maritime Infrastructure Design; \$50,000, **US Department of Transportation (USDOT) Maritime Transportation Research and Education Center (MarTREC)**, 2019-2020.
16. **Co-Principal Investigator** (PI: Amini, F., Co-PIs: Yin, J., Walters, W.), Experimenting with an Augmented Reality Facilitated Instructional Model to Enhance STEM Education, \$350,000, **National Science Foundation (NSF)**, 2018-2021.

17. **Principal Investigator**, National Summer Transportation Institute, \$62,000, **FHWA** and Mississippi **DOT**, 2017-2018.
18. **Principal Investigator** (Co-PIs: Yin, J., Amini, F., Kwembe, T.), Investigating the Effect of Active Flipped Learning in STEM Education, \$350,000, **National Science Foundation (NSF)**, 2016-2019.
19. **Principal Investigator**, National Summer Transportation Institute, \$62,000, **FHWA** and Mississippi **DOT**, 2016-2017.
20. **Principal Investigator** (Co-PIs: Amini, F., Hamme, A., Walters, W.), MRI: Acquisition of a Multi-Beam SEM/FIB for Multidisciplinary Materials Study and Training, \$800,014, **NSF**, 2015-2018.
21. **Principal Investigator**, National Summer Transportation Institute, \$58,500, **FHWA** and Mississippi **DOT**, 2015-2016.
22. **Principal Investigator**, National Summer Transportation Institute, \$58,500, **FHWA** and Mississippi **DOT**, 2014-2015.
23. **Principal Investigator**, National Summer Transportation Institute, \$58,447, **FHWA** and Mississippi **DOT**, 2013-2014.
24. **Co- Principal Investigator** (PI: Li, Y.), MRI: Acquisition of an ICP-OES for Multidisciplinary Environmental Studies and Training, \$245,877, **NSF**, 2010-2013.
25. **Co- Principal Investigator** (PI: Amini, F.), High Performance Turf Reinforcement Mat Strengthened Levee under Combined Wave and Storm Surge Turbulent Overtopping Conditions, \$450,000, **US Department of Homeland Security**, 2011-2013.
26. **Co- Principal Investigator** (PI: Amini, F.), Innovative Levee Strengthening and Testing under Full Scale Overtopping Conditions, \$1,000,000, **US Department of Homeland Security**, 2009-2011.
27. **Co- Principal Investigator** (PI: Wang, F.), Assessment of Critical Transportation Infrastructure, \$712,500, **US Department of Transportation**, 2010-2012.
28. **Principal Investigator**, Using WiscLEACH to Estimate Groundwater Impacts from Coal Combustion Products in Structural Fills, \$66,118, **FHWA Recycled Materials Resource Center**, 2010-2011.
29. **Principal Investigator**, Using WiscLEACH to Estimate Groundwater Impacts from Coal Combustion Products in Highway Construction, \$29,533, **FHWA Recycled Materials Resource Center**, 2008-2009.
30. **Co-Principal Investigator** (PI: Amini, F.), Lake Chicot Visitor Center Display, \$12,425, **U.S. Army Corps of Engineer**, 2007-2008.

Total Funding Amount = \$12,050,000.00

HONORS/AWARDS/RECOGNITION

- 2023 T.I.G.E.R. Research Award, Tennessee State University
- Excellence Leadership Award, Tennessee State University, 2023
- Report on Tennessee State University Newsroom on July 26, 2023 for TSU college of engineering receives \$2.25 Million Grant for incoming first year students.
<https://tnstatenewsroom.com/archives/32104>
- 2022 AMIE Board of Directors
- 2021 Peter G. Hoadley Award for Outstanding Engineering Educator (ASCE Tennessee Section)
- 2021 ASCE Nashville Branch Outstanding Engineering Educator
- WPLN (National Public Radio-affiliated station in Nashville, Tennessee) interviewed about the \$1M NSF grant on September 3, 2020 by Damon Mitchell, Emerging Voices Fellow.

- Report on Tennessee #1 new website [www. tntribune.com](http://www.tntribune.com) for the NSF S-STEM Scholarship \$1M grant on September 3, 2020. <https://tntribune.com/tsu-college-of-engineering-receives-1-million-grant-to-benefit-community-college-students/>
- Report on Tennessee State University Newsroom on September 1, 2020 for TSU college of engineering receives \$1 Million NSF Grant to benefit community college students. <https://tnstatenewsroom.com/archives/26708>
- 2019 Platinum Level \$1,000,000 of Research Award Recipient, Tennessee State University.
- State of Mississippi, HEADWAE Award for Excellence Faculty, February 2018.
- TRB Minority Student Fellow Advisor Award (Karayan Cole), January 2018.
- Selected as Fellow of ASCE, June 2017.
- High Grant Award Winner, Jackson State University, March 2017.
- Excellence Teaching/Advising Award, Jackson State University, April 2015.
- TRB Minority Student Fellow Advisor Award (Alesha Jackson), January 2015.
- Faculty Excellence Award, Jackson State University, April 2014.
- TRB Minority Student Fellow Advisor Award (Stacy Holton), January 2013.
- Richard S. Ladd D18 Standards Development Award, ASTM Committee D18 on Soil and Rock, June 2012.
- 2nd Best Paper Award, 9th National Conference on Access Management, 2010.
- Excellence Research Award, Jackson State University, August 2009.
- Report on Mississippi #1 new website www.clarionledger.com for the U.S Department of Homeland Security funded levee project on April 27, 2009.
- Outstanding Achievement Award for Teaching, College of Science, Engineering, and Technology, Jackson State University, December 2008.
- Cover story of *Vadose Zone Journal* on September 2006 (Volume 5, Issue 4)
- Report in *Crops, Soils, Acronomy CSA News* in December 2006 (Volume 51, Issue 12)
- Vilas Fellowship, University of Wisconsin-Madison (2003, 2002)
- Becker Travel Award, University of Wisconsin-Madison (2003)

SELECTED PUBLICATIONS

Chapters (Books)

1. **Li, L.** and Benson, C.H., 2005, Reactive Transport in the Saturated Zone: Case Histories for Permeable Reactive Barriers, *Water Encyclopedia, Volume I - Ground Water*, Jay Lehr and Jack Keeley, eds, John Wiley and Sons Inc., 518-524.
2. Cetin, B., and **Li, L.**, 2018, Waste Minimization and Reuse Technologies, *Handbook of Environmental Engineering*, Myer Kutz eds, John Wiley and Sons Inc., in Print.
3. **Li, L.**, Cetin, B., and Yang, X, 2018 (editors), Proceedings of GeoShanghai 2018: Ground Improvement and Geosynthetics, Springer, in print. 574 pages.
4. **Li, L.**, Amini, F., Pan, Y, Yuan, S, and Cetin, B., 2021, *Hydraulics of Levee Overtopping*, CRC Press, ISBN 978-0-367-27727-7. 225 pages.

Standards

5. **Li, L.**, Edil, T.B., and Benson, C.H., 2012, Standard Guide for Laboratory Mix Design for Stabilization of Soil and Soil-like Materials with Fly Ash, Annual Book of Standards, ASTM International, ASTM D7762-11, ISBN# 978-1-6220-4272-2.

Peer Reviewed Journal Articles (*: student supervised; underline: corresponding author; IF: 5-Year impact factor. The h-index is 20, and The i10-index is 33 by Google Scholar)

6. Yin, L., Liu, S., Yin, D., Du, K., Yan, J., Armwood-Gordon, C., and Li, L. 2024, Development of Rechargeable Cement-based Batteries with Carbon Fiber Mesh for Energy Storage Solutions, *Journal of Energy Storage*, 93, 112181.
7. Zhang, J., Han, K., Jiao, W., Su, P., Wang, D., Zhu, J., Zhu, M., and Li, L. 2024, Green Mechanochemical Activation of Solid Persulfate to remove PAHs in Soil: Performance and Mechanism, *Journal of Hazardous Materials*, 472 (2024) 134489.
8. Yin, D., Wang, L., Yin, L., Wang, Z., Liu, S., and Li, L. 2024, Enhancing Shear Resistance in Pavement Structures with Crumb Rubber Modified Asphalt Gravel as a Bonding Layer, *Construction and Building Materials*, 426, 136184, <https://doi.org/10.1016/j.conbuildmat.2024.136184>.
9. Lu, S., Liu, S., Yin, L., Yan, C., Yin, D., Liu, S., Li, L., and Wang, H. 2024, Evolution Characteristics of ECC Pore Structure and its Correlation with Tensile Property under Simulated Vehicle Vibration at an Early Age, *Journal of Materials Science*, 10.1007/s10853-023-09222-8.
10. Yan, J., Armwood-Gordon, C., and Li, L. 2023, Assessing the Impact of State Funding on Higher Education in the United States: Trends, Allocation, and Implications, *International Journal of Research Publications*, 139(1), 204-209; doi:10.47119/IJRP 10013911220235822 .
11. Lu, X., Bu, C, Li, Y., Liu, S., and Li, L. 2023, The Progress and Trend of Microbially Induced Calcite Precipitation (MICP) Research: a Bibliometric Analysis, *Environmental Earth Sciences*, accepted for publication, in print.
12. Yan, J., Liu, S., Armwood-Gordon, C., and Li, L. 2023, Factors Affecting Active Flipped Learning on Underrepresented students in Three STEM Courses, *Education and Information Technologies*, 10.1007/s10639-023-12234-1.
13. Painter, R., Parthasarathy, R., Li, L., Embry, I., Sharpe, L., Hargrove, S. 2023, A Deep Neural Network Regression of the Cahn-Hilliard Single-Particle Thermal Model for LiFePO₄ Batteries, *Preprints*, doi:10.20944/preprints202306.0283.v1.
14. Yin, L., Bai, R., Liu, S., Yan, C., Zhou, J., Lu, Li, and Li, L. 2023, Freeze-thaw Damage Assessment of Engineered Cementitious Composites using the Electrochemical Impedance Spectroscopy Method, *Materials & Design*, 230, 111965.
15. Zhang, J.*, Su, P*, and Li, L. 2023, Microbial Induced Carbonate Precipitation Modified Steel Slag: Mechanical Improvement and Erosion Resistance to Sulfate Attack, *Journal of Cleaner Production* (IF=11.1), 405, 136982.
16. Shao, W., He, L., Shi, D., and Li, L. 2023, Seismic Vulnerability Assessment of Deteriorating Pile Foundations Subject to Marine Chloride-induced Corrosion, *Geotechnical and Geological Engineering*, <https://doi.org/10.1007/s10706-023-02409-5> .
17. Liu, S.*, Du, K*, Wen, K., Armwood-Gordon, C., Li, Y., and Li, L. 2023, Stabilization of Expansive Clayey Soil through Hydrogel for Mechanical Improvements, *International Journal of Civil Engineering*, Volume 21, pages 1423–1431, (2023).
18. Li, Y., Li, Y., Bi, G., Ward, T., and Li, L. 2023, Adsorption and Degradation of Neonicotinoid Insecticides in Agricultural Soils, *Environmental Science and Pollution Research* (IF=5.1), <https://doi.org/10.1007/s11356-023-25671-9>
19. Yang, C. Yang, D., Huang, C., Huang, Z., Ouyang, L., Onyebueke, L., and Li, L. 2022, Effect of Silicone Rubber-sleeved Shear Studs Group on Reduction of Shear Stiffness of Steel-concrete Composite Structures, *Steel and Composite Structures* (IF=5.7), 44(5): 741-752.
20. Liu, S.*, Du, K*, Wen, K., Armwood-Gordon, C., and Li, L. 2022, Influence of Rainfall-induced Erosion on the Stability of Sandy Slopes Treated by MICP, *Advances in Civil Engineering* (IF=1.9), vol. 2022, <https://doi.org/10.1155/2022/5105206> .
21. Zhang, J.*, Su, P*, and Li, L. 2022, Bioremediation of Stainless Steel Pickling Sludge through Microbially Induced Carbonate Precipitation, *Chemosphere* (IF=7.1), 298, 134213.

22. Deng, Y., Gui, J., Zhang, H. Taliercio, A., Zhang, P., Wong, S., Sukontasukkul, P., Khan, A., Li, L., Tang, Y., and Chen X. 2022, Study on Crack Width and Crack Resistance of Eccentrically Tensioned Steel-Reinforced Concrete Members Prestressed by CFRP Tendons, *Engineering Structure* (IF=7.635), 252, 113651.
23. Liu, S.* , Du, K*, Huang, W., Wen, K.* , Amini, F., and Li, L. 2021, Enhanced Erosion-Resistance of Cement-treated Bricks using Multiple Bio-surface Treatment, *Advances in Cement Research* (IF=1.58), 1-10. <https://doi.org/10.1680/jadcr.20.00024>.
24. Zhang, J.* , Wen, K.* , and Li, L. 2021, Bio-modification of Coal Fly Ash using Urease-producing Bacteria, *Fuels* (IF=5.58), 286: 119386.
25. Liu, S.* , Du, K*, Huang, W., Wen, K.* , Amini, F., and Li, L. 2020, Improvement of Erosion-Resistance of Bio-bricks through Fiber and Multiple MICP Treatments, *Construction and Building Materials*, 271(11):121573, DOI:10.1016/j.conbuildmat. 2020.121573.
26. Zhang, J.* , Wen, K.* , and Li, L. 2020, Bio-modification of Coal Fly Ash using Urease-producing Bacteria, *Fuels* (IF=5.58), 286: 119386.
27. Li, Y*, Wen, K.* , **Li, L.**, Huang, W., Bu, C., and Amini, F. 2020, Experimental investigation on compression resistance of bio-bricks, *Construction & Building Materials* (IF=4.05), 265:120751.
28. Liu, S.* , Du, K*, Huang, W., Wen, K.* , Amini, F., and **Li, L.** 2020, Enhanced Erosion-Resistance of Cement-treated Bricks using Multiple Bio-surface Treatment, *Advances in Cement Research*, accepted, in Print.
29. Zhang, J.* , Y. Li, and **Li, L.** 2020, Environmental Investigation of Bio-modification of Steel Slag through MICP, *Journal of Environmental Sciences* (IF=4.3), 101: 282-292.
30. Zhang, J.* , Su, P*, Wen, K.* , Li, Y., and **Li, L.** 2020, Mechanical Performance and Environmental Effect of Coal Fly Ash on MICP-induced Soil Improvement, *KSCE Journal of Civil Engineering* (IF=1.984), DOI 10.1007/s12205-020-1931-z.
31. Zhang, J.* , Su, P*, Wen, K.* , Li, Y., and **Li, L.** 2020, Environmental Impact and Mechanical Improvement of MICP-treated Coal Fly Ash-Soil Mixture, *Journal of Environmental Geotechnics* (IF=1.62), DOI: 10.1680/jenge.19.00125.
32. Huang, W., Wen, K.* , Li, J., Fu, X., Liu, S., Li, Y.* , **Li, L.** and Amini, F. 2020, Mechanical Properties of Soft Soils Experiencing Lateral Unloading under Initial Excess Pore Water Pressure, *Arabian Journal of Geosciences*, 13:718, <https://doi.org/10.1007/s12517-020-05734-8>
33. Huang, W., Wen, K.* , Deng, X., Li, J., Jiang, Z., Li, Y*, **Li, L.** and Amini, F. 2020, Constitutive Model of Lateral Unloading Creep of Soft Soil under Excess Pore Water Pressure, *Mathematical Problems in Engineering*, Article ID 5017546, 13 pages, 2020. <https://doi.org/10.1155/2020/5017546>.
34. Liu, S.* , Wen, K.* , Amini, F., and **Li, L.** 2020, Investigation of Nonwoven Geotextiles for Full Contact Flexible Mold Used in Preparation of MICP-treated Geomaterial, *International Journal of Geosynthetics and Ground Engineering*, 6, 14 (2020). <https://doi.org/10.1007/s40891-020-00197-z>.
35. Wen, K.* , Li, Y.* , and **Li, L.** 2020, Impact of Bacteria and Urease Concentration on Precipitation Kinetics and Crystal Morphology of Calcium Carbonate, *Acta Geotechnica* (IF=3.25), 15: 17-27.
36. Yan, J. * , Wen, K., and **Li, L.** 2019, Effects of Summer Transportation Institute on High School Minority Students' Perception on STEM Learning, *Journal of STEM Education: Innovations and Research*, 20(2):5-11.
37. Huang, W., Wen, K.* , Li, D., Deng, X., **Li, L.**, Amini, F., and Jiang, H. 2019, Experiment Study on Influence of Excess Pore Water Pressure and Unloading Ratio on Unloading Mechanical Properties of Marine Sedimentary Soft Soils, *Ocean Engineering*, 195: 106680, (IF=2.73), <https://doi.org/10.1016/j.oceaneng.2019.106680>.
38. Liu, S.* , Du, K.* , Wen, K.* , Huang, W., Amini, F., and **Li, L.** 2019, Sandy Soil Improvement through Microbially Induced Calcite Precipitation (MICP) by Immersion. *Journal of Visualized Experiments* (IF=1.33), 151, e60059, doi:10.3791/60059.

39. Wen, K.*, Li, Y.*, Huang, W., Armwood, C., Amini, F, and **Li, L.** 2019, Mechanical Behaviors of Hydrogel-treated Sand, *Construction & Building Materials (IF=4.05)*, 207, 174-180.
40. Liu, S.*, Wen, K.*, **Li, L.**, Armwood, C., Bu, C., Li, C., and Amini, F. 2019, Environmental Durability of MICP-treated Sandy soils and Methods to Improve its Resistant Ability, *Journal of Materials in Civil Engineering, ASCE (IF=1.984)*, 31(12): 04019294.
41. Wen, K.*, Li, Y., Liu, S., Bu, C., and **Li, L.**, 2019, Evaluation of MICP Treatment through EC and pH Test in Urea Hydrolyzed Process, *Environmental Geotechnics, (IF=1.25)*, <https://doi.org/10.1680/jenge.17.00108>.
42. Shao, W, Shi, D., and **Li, L.**, 2019, Chloride Diffusion-Convection into Unsaturated RC Hollow Cylinder Piles in Marine Tidal Zones, *Geotechnical and Geological Engineering (IF=1.540)*, <https://doi.org/10.1007/s10706-018-00793-s>, 1-9.
43. Li, C.*, Wang, Y., Zhou, T., Bai, S., Gao, Y, Yao, D., and **Li, L.**, 2019, Surface Acid Corrosion Mechanism of Biogeomaterial Based on MICP Technology, *Journal of Materials in Civil Engineering, ASCE (IF=1.984)*, 31(7): 04019097.
44. Wen, K.*, **Li, L.**, R. Zhang, Li, Y.*, and Amini, F. 2019, Micro-Scale Analysis of Microbial-Induced Calcite Precipitation in Sandy Soil through SEM/FIB Imaging, *Microscopy Today*, 27:1, January 2019.
45. Huang, W., Wen, K.*, Li, D., Deng, X., **Li, L.**, Amini, F., and Jiang, H. 2019, Experiment Study of Lateral Unloading Stress Path and Excess Pore Water Pressure on Creep Behavior of Soft Soil, *Advances in Civil Engineering, (IF=1.104)*, <https://doi.org/10.1155/2019/9898031>, 1-9.
46. Wen, K.*, Li, Y., Liu, S., Bu, C. and **Li, L.**, 2018, Development of an Improved Immersing Method to Enhance Microbial Induced Calcite Precipitation Treated Sandy Soil through Multiple Treatments in Lower Cementation Media Concentration, *Geotechnical and Geological Engineering (IF=1.540)*, <https://doi.org/10.1007/s10706-018-0669-6>, 1-13.
47. Yan, J. *, **Li, L.**, Yin, J., and Nie, Y. 2018, A Comparison of Flipped and Traditional Classroom Learning: A Cast Study in Mechanical Engineering, *International Journal of Engineering Education*, 6(34):1876-1887.
48. Li, H., Li, C.*, Zhou, T., Liu, S.*, and **Li, L.** 2018, An Improved Rotating Soak Method for MICP-treated Fine Sand in Specimen Preparation, *Geotechnical Testing Journal, (IF=1.362)*, 41(4): doi:10.1520/GTJ20170109.
49. Bu, C. *, Wen, K.*, Liu, S. *, Ogbannaya, U. *, **Li, L.** and Amini, F., 2018, Development of a Rigid Full Contact Mold for Preparing Bio-Beams through Microbial Induced Calcite Precipitation, *Geotechnical Testing Journal, (IF=1.362)*, <https://doi.org/10.1520/GTJ20170148>. ISSN 0149-6115.
50. Wen, K.*, Bu, C. *, Liu, S. *, Li, Y., and Li, L., 2018, Experimental Investigation of Flexure Resistance Performance of Bio-Beams Reinforced with Discrete Randomly Distributed Fiber and Bamboo, *Construction and Building Materials (IF=4.05)*, 176: 241-249.
51. Bu, C. *, Wen, K.*, Liu, S. *, Ogbannaya, U. *, and **Li, L.**, 2018, Development of Bio-cemented Constructional Materials through Microbial Induced Calcite Precipitation, *Materials and Structures (IF=2.607)*, 51:30, <https://doi.org/10.1617/s11527-018-1157-4>
52. Li, C.*, Yao, D., Liu, S.*, Zhou, T., Bai, S., Gao, Y., and **Li, L.**, 2018, Improvement of Geomechanical Properties of Bio-remediated Aeolian Sand, *Geomicrobiology Journal (IF=1.609)*, DOI: 10.1080/01490451.2017.1338798.
53. Zhou, B., Anderson, C., Wang, F., and **Li, L.**, 2017, Perceptions and Preferences of High School Students in STEM: A Case Study in Connecticut and Mississippi, *Journal on Systemics, Cybernetics and Informatics*, 15(5):23-26.
54. Xu, Y.*, Li, J., Fan, H., Chen, L., Zhao, Y., and **Li, L.**, 2017, Stability Analysis of Clastic Rock Slope with Mudstone Interlayer under Rainfall Infiltration, *Journal of Geotechnical and Geological Engineering (IF=1.540)*, 35(4): 1871-1883.

55. Li, M.*, Wen, K. *, **Li, L.** and Tian, A., 2017, Mechanical Properties of Expanded Polystyrene Beads Stabilized Lightweight Soil, *Journal of Geomechanics and Geoengineering*, 13(3): 459-474.
56. Bao, R., Li, J., **Li, L.**, Cutright, T.J., Chen, L, Zhu, J. and Tao, J., 2017, Effect of Microbial Induced Calcite Precipitation on Surface Erosion of Granular Soils: Proof of Concept, *Journal of Transportation Research Board (IF=0.954)*, 2657: 10-18.
57. Li, C.*, Yao, D., Wang, Z., Liu, C., Wuliji, N., Yang, L., **Li, L.**, and Amini, F., 2016, Model Test on Rainfall-induced Loess–mudstone Interfacial Landslides in Qingshuihe, China, *Environmental Earth Sciences (IF=1.765)*, 75(9): 835, doi:10.1007/s12665-016-5658-6.
58. Li, C.*, Zhu, W., **Li, L.**, Lu, B, Yao, D., and Amini, F., 2016, Experimental Analysis for the Dynamic Initiation Mechanism of Debris Flows, *Journal of Mountain Science (IF=1.423)*, 13(4): 581-592.
59. Pan, Y.*, **Li, L.**, Amini, F., Kuang, C.P., and Chen, Y. 2016, New Understanding on the Distribution of Individual Wave Overtopping Volumes over a Levee under Negative Freeboard, *Journal of Coastal Research (IF=1.053)*, 75: 1207-1211.
60. Li, M.*, **Li, L.**, Ogbonnaya, U.*, Wen, K.*, Tian, A., and Amini, F., 2015, Impacts of Randomly Distributed Discrete Fiber on Geomechanical Properties of MICP-treated Sand, *Journal of Materials in Civil Engineering, ASCE (IF=1.984)*, 28(4): DOI: 10.1061/(ASCE)MT.1943-5533.0001442.
61. Yuan, S.*, Tang, H., **Li, L.**, Amini, F., 2015, Combined Wave and Surge Overtopping Erosion Failure Model of HPTRM Levees: Accounting for Grass-Mat Strength, *Ocean Engineering (IF=2.73)*, 109, 256-269.
62. Pan, Y.*, Kuang, C.P., **Li, L.**, and Amini, F., 2015, Full-scale Laboratory Study on Distribution of Individual Wave Overtopping Volumes over a Levee under Negative Freeboard, *Coastal Engineering (IF=3.85)*, 97: 11-20.
63. **Li, L.**, Shao, W.*, Cetin, B., and Li, Y., 2015, Effects of Climatic Factors on Mechanical Properties of Cement and Fiber Reinforced Clays, *Journal of Geotechnical and Geological Engineering (IF=1.540)*, 33, 537-548.
64. **Li, L.**, Rao, X.*, Amini, F., and Tang, H., 2015, SPH Modeling of Hydraulics and Erosion of HPTRM Levee, *Journal of Advanced Research in Ocean Engineering*, 1 (1), 1-13.
65. **Li, L.**, Yuan, S.*, Amini, F., Tang, H., 2015, Numerical Study of Combined Wave Overtopping and Storm Surge Overflow of HPTRM Strengthened Levee, *Ocean Engineering (IF=2.73)*, 97, 1-11.
66. Pan, Y.*, **Li, L.**, Amini, F., and Kuang, C.P., 2015, Overtopping Erosion and Failure Mechanics of Earthen Levees Strengthened by Vegetated HPTRM system, *Ocean Engineering (IF=2.73)*, 96, 139-148.
67. Li, C.*, Huang, H., **Li, L.**, Gao, Y., Ma, Y., and Amini, F., 2015, Geotechnical Hazards Assessment on Wind-eroded Desert Embankment in Inner Mongolia Autonomous Region, North China, *Natural Hazards (IF=2.604)*, 76 (1), 235-257.
68. **Li, L.**, Amini, F., and Wu, J.*, 2015, Turbulence and Seepage Effect on the Slope Stability of Earthen Levee Strengthened by High Performance Turf Reinforcement Mat, *Journal of Geotechnical and Geological Engineering (IF=1.540)*, 33 (1), 1-13.
69. Yuan, S.*, **Li, L.**, Amini, F., Tang, H., 2015, Sensitivity of Combined Turbulent Wave Overtopping and Storm Surge Overflow Response to Variations in Levee Geometry, *Journal of Coastal Research (IF=1.053)*, 31 (3), 702-713.
70. Li, Y., **Li, L.**, Cordero-Zayas, S.*, Santo, F.*, and Yaeger, J. H.*, 2014, Environmental Impact of Fly Ash Utilization in Roadway Embankments, *Journal of Material Cycles and Waste Management (IF=2.164)*, 16, 591-596.
71. Shao, W.*, **Li, L.**, Cetin, B., and Li, Y., 2014, Experimental Investigation of Mechanical Properties of Sands Reinforced with Discrete Randomly Distributed Fiber, *Journal of Geotechnical and Geological Engineering (IF=1.540)*, 32(4): 901-910.

72. Zhao, Q.*, **Li, L.**, Li, C., Zhang, H., and Amini, F., 2014, A Full Contact Flexible Mold for Preparing Samples Based on Microbial Induced Calcite Precipitation Technology, *Geotechnical Testing Journal* (IF=1.362), 37(5), DOI: 10.1520/GTJ20130090.
73. Yuan, S.*, **Li, L.**, Amini, F., and Tang, H., 2014, Numerical Study of Turbulence and Erosion of an HPTRM Strengthened Levee under Combined Storm Surge Overflow and Wave Overtopping, *Journal of Coastal Research* (IF=1.053), 30(1): 142-157.
74. Zhao, Q.*, **Li, L.**, Li, C., Li, M., Zhang, H., and Amini, F., 2014, Factors Effecting Improvement of Engineering Properties of MICP-treated Soil Catalyzed by Bacteria and Urease, *Journal of Materials in Civil Engineering*, ASCE (IF=1.984), 26 (12), 04014094.
75. Yuan, S.*, **Li, L.**, Amini, F., Tang, H., 2014, Turbulence Measurement of Combined Wave and Surge Overtopping over a Full Scale HPTRM Strengthened Levee, *Journal of Waterways, Coastal and Ocean Engineering*, ASCE (IF=1.625), 140(4): 04014014.
76. **Li, L.**, Amini, F., Pan, Y.*, Kuang, C.P., and Briaud, J., 2014, Erosion Resistance of HPTRM Strengthened Levee from Combined Wave and Surge Overtopping, *Journal of Geotechnical and Geological Engineering* (IF=1.540), 32(4):847-857.
77. **Li, L.**, Amini, F., Rao, X.*, and Tang, H., 2013, SPH Study of Surge Overflow and Hydraulic Erosion of Earthen Levee Armored by Articulated Concrete Blocks, *Current Development in Oceanography* (IF=0.675), 6(2): 61-80.
78. Cetin, B.*, Adyilek, A. H., and **Li, L.**, 2013, Trace Metal Leaching from Embankment Soils Amended with High Carbon Fly Ash, *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE (IF=1.696), 140(1): 1-13.
79. Cetin, B.*, Adyilek, A. H., and **Li, L.**, 2013, Leaching Behavior of Aluminum, Arsenic, and Chromium from Highway Structural Fills Amended with High-Carbon Fly Ash, *Journal of Transportation Research Board* (IF=0.954), 2349:72-80.
80. Amini, F., **Li, L.**, and Xu, Y.*, 2013, Two-Dimensional Slope Stability Analysis of Earthen Levee Strengthened by Articulated Concrete Block System under Hurricane Overtopping Flow Conditions, *International Journal of Geotechnical Engineering* (IF=0.77), 7(2):178-186.
81. Pan, Y.*, **Li, L.**, Amini, F., and Kuang, C.P., 2013, Comparison of the Hydraulic Performances of Three Levee-Strengthening Systems and Hydraulic Equivalency Analysis between Steady and Intermittent Overtopping, *Journal of Waterways, Coastal and Ocean Engineering*, ASCE (IF=1.625), 139(4): 256-266.
82. Pan, Y.*, **Li, L.**, Amini, F., and Kuang, C.P., 2013, Full Scale HPTRM Strengthened Levee Testing under Combined Wave and Surge Overtopping Conditions: Overtopping Hydraulics, Shear Stress and Erosion Analysis, *Journal of Coastal Research* (IF=1.053), 29(1): 182-200.
83. **Li, L.**, Amini, F., Rao, X.*, and Tang, H., 2012, SPH Modeling of Surge Overflow over RCC Strengthened Levee, *International Journal of Oceans Systems Engineering*, 2(4): 200-208.
84. **Li, L.**, Pan, Y.*, Kuang, C.P., and Amini, F., 2012, Full Scale Laboratory Study of Combined Wave and Surge Overtopping of a Levee with RCC Strengthening System, *Ocean Engineering* (IF=2.73), 54(1): 70-86.
85. Xu, Y.*, **Li, L.**, and Amini, F., 2012, Slope Stability Analysis of Earthen Levee Strengthened by Roller-Compacted Concrete under Hurricane Overtopping Flow Conditions, *Geomechanics and Geoengineering* (IF=0.87), 8(2): 76-85.
86. Xu, Y.*, **Li, L.**, and Amini, F., 2012, Slope Stability Analysis of Earthen Levee Strengthened by High Performance Turf Reinforcement Mat under Hurricane Overtopping Flow Conditions, *Journal of Geotechnical and Geological Engineering* (IF=1.540), 30: 893-905.
87. Rao, X.*, **Li, L.**, Amini, F., and Tang, H., 2012, Smoothed Particle Hydrodynamics Modeling of Combined Wave and Surge Overtopping and Hydraulic Erosion of an Articulated Concrete Block-Strengthened Levee System, *Journal of Coastal Research* (IF=1.053), 28(6):1500-1511.
88. Rao, X.*, **Li, L.**, Amini, F., and Tang, H., 2012, Numerical Study of Combined Wave and Surge Overtopping over RCC Strengthened Levee System using Smoothed Particle Hydrodynamics Method, *Ocean Engineering* (IF=2.73), 54: 101-109.

89. Cetin, B.*, Adyilek, A. H., and **Li, L.**, 2012, Experimental and Numerical Analysis of Metal Leaching from Fly Ash-amended Highway Bases, *Waste Management* (IF=3.22), 32(5): 965-978.
90. **Li, L.**, Peng, B.*, Santos, F.*, Li, Y., and Amini, F., 2011, Groundwater Impacts from Leaching of Coal Combustion Products in Roadways Embankment Constructions, *Journal of ASTM International* (IF=0.734), 8(8): 1-12.
91. **Li, L.**, and Benson, C.H., 2010, Evaluation of Five Strategies to Limit the Impact of Fouling in Permeable Reactive Barriers, *Journal of Hazardous Materials* (IF=7.65), 181: 170-180.
92. **Li, L.**, Benson, C.H., and Edil, T.B., 2009, Mechanical Performance of Pavement Geomaterials Stabilized with Fly Ash in Field Applications, *Coal Combustion and Gasification Products*, 1: 43-49.
93. Li, Y., Richardson, J.B.*, Niu, X.*, Yang, H., **Li, L.**, Bricka, R.M., Jackson, O.J., Jimenez, A., and Laster, J.D., 2009, Leaching of Heavy Metals from E-waste in Simulated Landfill Columns, *Waste Management* (IF=3.22), 29: 2147-2150.
94. **Li, L.**, Benson, C.H., Edil, T. B., and Hatipoglu, B., 2008, Sustainable Construction Case History: Fly Ash Stabilization of Recycled Asphalt Pavement Material, *Journal of Geotechnical and Geological Engineering* (IF=1.540), 26: 177-187.
95. **Li, L.**, Benson, C.H., Edil, T. B., and Hatipoglu, B., 2006, Groundwater Impact from Coal Ash in Highways, *Waste and Resource Management* (IF=0.79), 159(4): 151-162.
96. **Li, L.**, Benson, C.H., and Lawson, E.A., 2006, Modeling Porosity Reductions Caused by Mineral Fouling in Continuous-Wall Permeable Reactive Barriers, *Journal of Contaminant Hydrology* (IF=2.65), 83(1-2): 89-121.
97. **Li, L.**, Benson, C.H., and Lawson, E.A., 2005, Impact of Mineral Fouling on Hydraulic Behavior of Permeable Reactive Barriers, *Ground Water* (IF=2.322), 43(4): 582-596.
98. Eykholt, G.R. and **Li, L.**, 2000, Fate and Transport of Species in a Linear Reaction Networks with Different Retardation Coefficients, *Journal of Contaminant Hydrology* (IF=2.65), 46:163-185.
99. Lee, J., **Li, L.** and Cheung, V., 1999, Semianalytical Self-Similar Solution of Bent-Over Jet in Cross-Flow, *Journal of Engineering Mechanics*, ASCE (IF=2.264), 125 (7): 733-746.
100. Zhang, D., **Li, L.** and Huang, H., 1999, Stability of Multiple Equilibria in Thermohaline Double-Diffusive System, *Acta Mechanica Sinica* (IF=1.617), 31 (1): 21-28.
101. **Li, L.**, Huang, X., and Wen, W., 1997, Application of the Seawater Carbonate Buffer Model in the Prediction of Water Quality, *Tropic Oceanology*, 16 (3): 1-7.
102. Huang, H., Zhang, D., and **Li, L.**, 1997, The Second Order Nonlinear Periodic Convection & Its Stability Analysis of Thermohaline Double-Diffusive System, *Journal of Hydrodynamics, Ser. B.* (IF=1.855), 1: 24-33.
103. Huang, H., **Li, L.** and Zhang, D., 1996, FDM-FEM Operator-Splitting Method with High Order Accuracy for Convection-Diffusion Equation, *ACTA Scientiarum Naturalium Universitatis Sunyatseni*, 35 (2): 10-17.
104. Zhang, D., **Li, L.** and Huang, H., 1996, Stability Analysis of Linear and Nonlinear Periodic Convection in Thermohaline Double-Diffusive Systems, *Applied Mathematics and Mechanics* (IF=1.699), 17 (9): 869-877.
105. Zhang, D., Chen, H., and **Li, L.**, 1995, Penalty Upwind Finite Element Method for Diffusive Convection Problem in Double-Diffusive System, *Journal of Hydrodynamic, Ser, B.* (IF=1.855), 4: 63-71.
106. Zhang, D., **Li, L.**, and Huang, H., 1994, An Analytic Solution of Thermohaline Double-Diffusive System, *Journal of South China University of Technology (Nature Science)*, 22: 84-90.

Referred Conference Papers (*: student supervised; underline: corresponding author)

107. Parthasarathy, R., Ouyang L., Misra, A., Hodaei, M., Omotayo, K., Mikhaeil, A., Rawn, C., Painter, R., Li, L., Armwood, C., and Quick, Q., 2024, Determination of Atomic Level Residual

- Stresses in Spent Nuclear Fuel Storage Canisters, Waste Management, WM2024 Conference, March 10 – 14, 2024, Phoenix, Arizona.
108. Magombana, B., Li, L., Liu, S., and Machimu, D., 2024, Hydrogel Stabilization of Construction and Demolition (C&D) Waste: Enhancing Mechanical Behavior and Environmental Compatibility, Waste Management, WM2024 Conference, March 10 – 14, 2024, Phoenix, Arizona.
 109. Zhang, J. and Li, L., 2023, Experimental Study of Mechanical Properties of MICP-treated Coal Fly Ash Mixtures, Proceedings of the 15th JGS Symposium on Environmental Geotechnics, November 15-16, 2023, Kumamoto, Japan, Japanese Geotechnical Society. Page 459-466.
 110. Parthasarathy, R., Sivakumar, S., Misra, A., Roy, H., Resch, P., Omotayo, K., Mikhaeil, A., Hodaei, M., Li, L., Armwood, C., and Painter, R., 2024, Structural Phase Transformation in a Simplex Tensegrity, ASCE Earth and Space Sciences, The 19th ASCE ASD Biennial International Conference on Engineering, Science, Construction and Operations in Challenging Environment, April 15-18, Greater Miami, FL.
 111. Wen, K., Li, Y., and Li, L., 2021, Study of Mechanical Improvement of Hydrogel-Treated Sandy Soil, Geotechnical Special Publication 326: pp. 188-195, ASCE.
 112. Liu, S., Wen, K., and Li, L., 2021, Erosion Performance of Cement Brick after Surface-treated by Microbial Induced Calcium Carbonate Precipitation, Proceedings of the 10th International Conference on Scour and Erosion (ICSE-10), Arlington, Virginia, USA. 18-21 October, 2021. Rice, J., Liu, X., McIlroy, M., Sasanakul, I., and Xiao, M. (Eds), Page 1126-1135.
 113. Li, L., Wen, K., Bu, C., and Amini, F., 2020, Enhancement of Bio-Sandy Brick through Discrete Randomly Distributed Fiber, Proceeding of Geosynthetics Conference 2020 - Biogeotechnics, Geotechnical Special Publication 320: pp. 39-45, ASCE.
 114. Li, L., Liu, S., and Wen, K., 2019, Development of Nonwoven Geotextiles Flexible Mold for Sample Preparation in MICP, Proceeding of Geosynthetics Conference 2019, pp. 28-33.
 115. Zhang, J., Wen, K., and Li, L., 2019, Leaching Assessment of MICP-treated Coal Combustion Products in Roadways Embankment, Geo-Congress 2019, Geotechnical Special Publication 309: 273-279, ASCE.
 116. Bu, C., Dong, Q., Wen, K.*, and Li, L., 2018, Development of Innovative Bio-beam Using Microbial Induced Calcite Precipitation Technology, International Conference: Geoenvironment and Geohazard, GSIC 2018: 491-498.
 117. Wen, K.*, Li, Y.*, Li, L., and Amini, F., 2018, Development of Multiple Treatment Laboratory Method to Enhance Microbial-Induced Soil Stabilization, Geotechnical Special Publication, No. 296: 12-18, ASCE.
 118. Li, L., Wen, K., Li, C., and Amini, F., 2017, FIB/SEM Imaging of Microbial Induced Calcite Precipitation in Sandy Soil, Microscopy & Microanalysis Proceedings 23(Suppl 1), 310-311, doi: 10.1017/S1431927617002239.
 119. Li, L., and Amini, F., 2017, Concept of the Active Flipped Learning in Engineering Mechanics, International Scholarly and Scientific Research & Innovation, 4(7), 1999.36/75040.
 120. Zhou, B., Anderson, C., Wang, F., and Li, L., 2017, Perceptions and Preferences of High School Students in STEM: A Case Study in Connecticut and Mississippi, Proceedings of The 11th International Multi-Conference on Society, Cybernetics and Informatics (IMSCI), 175-180.
 121. Li, L., Li, M.*, Ogbonnaya, U., Wen, K.*, Xu, Y., and Amini, F., 2017, Study of a Discrete Randomly Distributed Fiber on the Tensile Strength Improvement of Microbial-Induced Soil Stabilization, Geotechnical Special Publication, No. 280: 12-19, ASCE.
 122. Li, L., Li, M.*, Ogbonnaya, U., Wen, K.*, Li, C.*, and Amini, F., 2016, Experimental Investigation of the Mechanical Properties of MICP-Treated Sands Reinforced with Discrete Randomly Distributed Fiber, Geotechnical Special Publication, No. 269: 52-61, ASCE.
 123. Akimana, R.M., Seo, Y., Li, L., Howard, L.J., Dewoolkar, M.M., and Bu, L.B., 2016, Exploring X-Ray Computed Tomography Characterization and Reactive Transport Modelling of

- Microbially-Induced Calcite Precipitation in Sandy Soils, Geotechnical Special Publication, No. 269: 62-71, ASCE.
124. Chen, J., Soleimanbeigi, A., Zhang, Y., Edil, T.B., and **Li, L.**, 2016, Leaching Characteristics of Recycled Asphalt Shingle Mixed with Industrial Byproducts as Structural Fills, Geotechnical Special Publication, No. 269: 62-71, ASCE.
 125. Amini, F., and **Li, L.**, 2015, Slope Stability of an Earthen Levee Strengthened by HPTRM under Turbulent Overtopping Conditions, International Journal of Environmental, Ecological, Geological and Geophysical Engineering, 9(5), 269-272.
 126. Pan, Y.* Amini, F., and **Li, L.**, 2015, Failure Mechanism of Earthen Levee Strengthened by Vegetated HPTRM System and Design Guideline for Hurricane Overtopping Conditions, Geotechnical Special Publication, No. 256: 2452-2461, ASCE.
 127. **Li, L.**, Amini, F., Zhao, Q.*, Li, C.*, Wen, K.*, Li, M.*, and Ogbonnaya, U.*, 2015, Development of a Flexible Mold for Bio-Mediated Soil Materials, Geotechnical Special Publication, No. 256: 2339-2348, ASCE.
 128. **Li, L.**, Zhao, Q.*, Li, C.*, and Amini, F. 2015, Development of Full Contact Flexible Mold for Bio-Mediated Soil Improvement, GeoSynthetics 2015, Portland, OR, February 15-18, 2015, Industrial Fabrics Association International, Roseville, MN, pp. 230-235.
 129. **Li, L.**, Amini, F., Pan, Y.* and Li, C.*, 2014, Stability Monitoring of Articulated Concrete Block Strengthened Levee in Combined Wave and Surge Overtopping Conditions, Geotechnical Special Publication, No. 234: 262-271, ASCE.
 130. **Li, L.**, Amini, F., Yuan, S.*, and Li, C.*, 2014, Modeling Study of Erosion of HPTRM Strengthened Levee in Turbulent Overtopping Flow Conditions, Geotechnical Special Publication, No. 234: 1052-1061, ASCE.
 131. Li, Y., **Li, L.**, Cordero-Zaya, S.*, Santos, F.*, and Yaeger, J. H.*, 2013, Environmental Impact of Fly Ash Utilization in Roadway Embankments, Proceedings of 8th International Conference on Waste Management and Technology, Shanghai, China, Oct. 22-25, 2013.
 132. **Li, L.**, Amini, F., and Pan, Y.*, 2013, Design of Earthen Levee Strengthening with HPTRM for Hurricane Overtopping Conditions, Proceeding of Geosynthetics 2013, Long Beach, CA, April 1-4, 2013, Industrial Fabrics Association International, Roseville, MN, pp. 230-234.
 133. Pan, Y., Kuang, C., **Li, L.**, and Amini, F., Discussion of the Failure Mechanics of Levees under Combined Wave and Surge Overtopping, Proceeding of 2013 IAHR World Congress, Chengdu, China, September 8-13, 2013, Tsinghua University Press, Beijing, pp. 1-7.
 134. Amini, F., **Li, L.**, Yuan, S.*, 2013, Overtopping Turbulent Flow over a Full Scale HPTRM Strengthened Levee, Proceedings of 23rd International Offshore and Polar Engineering, pg. 1217-1222.
 135. **Li, L.**, Amini, F., and Pan, Y.*, 2013, Design of Earthen Levee Strengthening with HPTRM for Hurricane Overtopping Conditions, Stability and Performance of Slopes and Embankment III, Geotechnical Special Publication, No. 231: 1892-1901, ASCE.
 136. Amini, F., **Li, L.**, and Xu, Y.*, 2013, Slope Stability Analysis of Three Innovative Earthen Levee Strengthening Systems under Hurricane Overtopping Flow Conditions, Stability and Performance of Slopes and Embankment III, Geotechnical Special Publication, No. 231: 1882-1891, ASCE.
 137. **Li, L.**, Amini, F., and Pan, Y.*, 2013, Erosion Resistance of Earthen Levee Strengthened by HPTRM System under Combined Wave and Surge Overtopping Conditions, Geotechnical Special Publication, No. 231: 1885-1894, ASCE.
 138. Amini, F. and **Li, L.**, 2013, Performance of RCC Strengthened Levee in Full-Scale Overtopping Tests, USSD 33rd Annual Meeting and Conference, Phoenix, AZ, February 11-15, 2013.
 139. Amini, F., **Li, L.**, and Pan, Y.*, 2012, Performance of HPTRM Strengthened Levee in Full-Scale Overtopping Tests, 5th Annual National Dam Security Forum, Denver, CO, September 16-20, 2012.

140. **Li, L.**, Santos, F.*, Wei, S.*, Qian, Z.*, and Amini, F., 2012, Evaluation of Fly Ash and Soil Mixtures for Use in Highway Embankments, Geotechnical Special Publication, No. 225, pg. 3672-3680.
141. Cetin, B., Aydilek, A., and **Li, L.**, 2012, Manganese and Chromium Leaching from High Carbon Fly Ash Amended Embankments, Geotechnical Special Publication, No. 225: 3756-3764, ASCE.
142. Santos, F*, **Li, L.**, Li, Y.*, and Amini, F., 2011, Geotechnical Properties of Fly Ash and Soil Mixtures for Use in Highway Embankments, 2011 World of Coal Ash (WOCA) Conference, May 9-12, 2011 in Denver, CO, USA, <http://www.flyash.info/>, pg. 1-10, ISBN 1946-0198.
143. Cetin, B., Aydilek, A., and **Li, L.**, 2011, Leaching of Chromium Metal from High Carbon Fly Ash Stabilized Highway Base Layers, Geotechnical Special Publication, No. 211:1066-1074, ASCE.
144. Rao, X.*, **Li, L.**, and Amini, F., 2010, Modeling of Surge Overtopping and Hydraulic Erosion of an Earthen Levee Using Smoothed Particle Hydrodynamics, Environmental Geotechnics for Sustainable Development, 1695-1698, Tata McGraw Hill.
145. Rao, X.*, **Li, L.**, and Amini, F., 2010, Numerical Simulation of Wave Overtopping and Erosion of Levee, 2010 CSCE Annual General Meeting and Conference "Engineering a Sustainable World"-2nd Specialty Conference on Disaster Mitigation, Winnipeg, Canada, June 9-12, 2010: DM-09-1-DM-09-5.
146. Rao, X.*, **Li, L.**, and Amini, F., 2009, Numerical Simulation of Surge Overflow at a Levee using Shallow water SPH Method, World Academy of Science, Engineering and Technology, 60: 331-334.
147. **Li, L.**, Edil, T.B., and Benson, C.H., 2009, Properties of Pavement Geomaterials Stabilized with Fly Ash, 2009 World of Coal Ash (WOCA) Conference, May 4-7, 2009 in Lexington, KY, USA, <http://www.flyash.info/>.
148. **Li, L.**, Tastan, O, Benson, C.H., and Edil, T.B., 2009, Field Evaluation of Fly Ash Stabilized Subgrade in US 12 Highway, Geotechnical Special Publication, No. 187: 385-392, ASCE.
149. **Li, L.** and Benson, C.H., 2008, Evaluation of Two Strategies to Enhance the Long-Term Hydraulic Performance of Permeable Reactive Barriers, Geotechnical Special Publication, No. 177: 587-594, ASCE.
150. **Li, L.**, 2008, Perspective of the state of geoenvironmental engineering, Proceedings of the U.S.-Japan Geoenvironmental Workshop, J. L. Hanson, N. Yesiller, T. Katsumi (Eds), page 70-73.
151. **Li, L.**, Benson, C.H., Edil, T. B., Hatipoglu, B., and Tastan, O., 2007, Evaluation of Recycled Asphalt Pavement Material Stabilized with Fly Ash, Geotechnical Special Publication, No. 169:1-10, ASCE.
152. **Li, L.**, Benson, C.H., Edil, T. B., and Hatipoglu, B., 2006, WiscLEACH: A Model for Predicting Ground Water Impacts from Fly-Ash Stabilized Layers in Roadways, Geotechnical Special Publication, No. 187: 1-8, ASCE.
153. **Li, L.** and Benson, C.H., 2005, Impact of Fouling on the Long-Term Performance of Permeable Reactive Barriers, Permeable Reactive Barrier, Boshoff, G. A., and Bone, B. D. (Eds), International Association of Hydrological Science, Oxfordshire, UK, Publication 298: 23-31.
154. **Li, L.**, Mergener, E.A., and Benson, C.H., 2003, Reactive Transport Modeling of Mineral Fouling in Permeable Reactive Barriers, MODFLOW and More 2003: Understanding Through Modeling, Poeter, D., Zheng, C., Hill, M., Doherty, H. (Eds), International Ground Water Modeling Center, 300-304.
155. **Li, L.**, Lee, J., and Cheung, V, 1999, A Semi-Analytical Self-Similar Solution of a Bent Over Jet in CrossFlow, Environmental Hydraulics, Lee, J., Jayawardena, A., Wang, Z. (Eds), Balkema, Rotterdam, 123-128.

Professional Reports

156. Li, L., 2017, Innovative Bio-Mediated Particulate Materials for Sustainable Maritime Transportation Infrastructure, Maritime Transportation Research and Education Center, U.S. Department of Transportation, August 15, 2017.
157. Amini, F., and Li, L., 2012, High Performance Turf Reinforcement Mat Strengthened Levee under Combined Wave and Storm Surge Turbulent Overtopping Conditions, U.S. Department of Homeland Security, September 30, 2012.
158. Amini, F., and Li, L., 2012, Full-Scale Overtopping Tests on Three Innovative Levee Strengthening Systems, U.S. Department of Homeland Security, August 30, 2012.
159. Li, L., Forster, P., and Amini, F., 2011, Mississippi Greenway Rating System: Moving the Concept of Sustainability Forward, Institute for Multimodal Transportation, Jackson State University, September 14, 2011.
160. Li, L., and Benson, C.H., 2009, Assessment of the Roadway Module in IWEM Version 2 (Beta), RMRC Report 09-03, Recycled Materials Resource Center, University of Wisconsin-Madison, Madison, Wisconsin, October 7, 2009, www.recycledmaterials.org.
161. Benson, C. H., Edil, T. B., Ebrahimi, A., Kootstra, B. , Li, L., and Bloom, P, 2009, Use of Fly Ash for Reconstruction of Bituminous Roads, Minnesota Department of Transportation , Report No. MN/RC 2009-27.
162. Edil, T.B., Benson, C.H., Li, L., Mickelson, D., Camargo, F. F., 2009, Comparison of Basic Laboratory Test Results with More Sophisticated Laboratory and In-situ Tests Methods on Soils in Southeastern Wisconsin, Wisconsin Highway Research Program #0092-06-05, Submitted to Wisconsin Department of Transportation, March 21, 2009.
163. Li, L., Edil, T.B., and Benson, C.H., 2008, Soil Test Data Analysis for Marquette Interchange Project, Geo Engineering Report, Department of Civil and Environmental Engineering, University of Wisconsin-Madison.
164. Li, L., Edil, T.B., Benson, C.H., and Hatipoglu, B., 2008, Use of Fly Ash for Reconstruction of Bituminous Roads: Monitoring a Fly-Ash Stabilized pavement material in Waseca, Minnesota, Geo Engineering Report, Department of Civil and Environmental Engineering, University of Wisconsin-Madison.
165. Li, L. and Benson, C.H., 2007, Maximum Leachate Flux Estimation for American Landfill, Geo Engineering Report, Department of Civil and Environmental Engineering, University of Wisconsin-Madison.
166. Li, L., Tastan, O., Benson, C.H., Edil, T.B., and Hatipoglu, B., 2006, Monitoring and Field Evaluation of Fly Ash Stabilization of Roadway Subgrade in US 12 Between Cambridge and Fort Atkinson, Wisconsin, Geo Engineering Report, Department of Civil and Environmental Engineering, University of Wisconsin-Madison, Madison, Wisconsin.
167. Li, L., Benson, C.H., and Edil, T.B., 2005, Assessment Groundwater Impact from Coal Combustion Products Used in Highways, Geo Engineering Report, No. 05-22, Department of Civil and Environmental Engineering, University of Wisconsin-Madison.
168. Li, L., Edil, T.B., and Benson, C.H., 2005, Fly ash Stabilization of Recycled Asphalt Pavement Material: Experience in Waseca, Minnesota, Geo Engineering Report, Department of Civil and Environmental Engineering, University of Wisconsin-Madison.
169. Li, L. and Benson, C.H., 2005, Total PCB Mass Estimation in a Paper Sludge Landfill, Geo Engineering Report, Department of Civil and Environmental Engineering, University of Wisconsin-Madison.
170. Li, L., Eykholt, G.R., and Benson, C.H., 2001, Groundwater Modeling: Semi-Analytical Approaches for Heterogeneity and Reaction Networks, *Groundwater Research Report WRI GRR 01-10*, Water Resource Institute, University of Wisconsin-Madison.

171. Siebke, A. **Li, L.**, and Eykholt, G.R., 1999, A Diffusive-Source Aquitard and Electrokinetic Remediation, Technical Report, Department of Civil and Environmental Engineering, University of Wisconsin-Madison.

COURSE TAUGHT AT TENNESSEE STATE UNIVERSITY

Undergraduate courses

- ENGR 1020: Freshman Engineering Seminar (1 credit, Fall 2018)
- ENGR 2110: Statics (3 credits, Fall 2018, 2019, Spring 2019, Summer 2019, 2020)
- CVEN 3120: Mechanics of Materials (3 credits, Summer 2019, 2020)
- CVEN 3130: Soil Mechanics (3 credits, Spring 2019, 2020, 2021)
- CVEN 3131: Soil Mechanics Lab (1 credit, Spring 2019, 2020, 2021)
- CVEN 4440: Foundation Engineering (3 credits, Fall 2019, 2020)
- ENGR 4500: Capstone Design I (1 credits, Spring 2023)
- ENGR 4510: Capstone Design II (1 credits, Spring 2020, 2021, 2023)
- ENGR 4201: Engineering in Training Lab (1 credit, Summer 2021)

Graduate courses

- CVEN 5410: Ground Water & Seepage (3 credits, Fall 2019)
- CVEN 5400: Theoretical Soil Mechanics (3 credits, Fall 2020)
- CVEN 5420: Advanced Foundation Engineering (3 credits, Fall 2021)

COURSE TAUGHT AT JACKSON STATE UNIVERSITY

Undergraduate courses

- CIV 222: Engineering Mechanics I (3 credits, Fall 2005, 2006, 2007, 2013, 2017, 2018)
- CIV 240: Strength of Materials (3 credits, every Spring 2006 – current)
- CIV 380: Introduction to Geotechnical Engineering (3 credits, every Spring 2006 – 2018)
- CIV 430: Foundation Engineering (3 credits, every Fall 2005 – 2018)

Graduate courses

- CIV 571: Principles of Geoenvironmental Engineering (3 credits, Fall 2008, 2010, 2011, 2013)
- CIV 672: Advanced Geomechanics (3 credits, Fall 2013, 2016)
- CIV 673: Advanced Foundation Engineering (3 credits, Fall 2015, 2017)
- CIV 674: Soil Dynamics (3 credits, Spring 2014)
- CIV 680: Unsaturated Soil Mechanics (3 credits, Spring 2009, Fall 2012, Fall 2014)

GRADUATE STUDENTS/POSTDOC SUPERVISED AT TSU

1. Beatrice Magombana (PhD student, 1/2023-current, topic: CBD Fines), co-advisor Dr. Liu.
2. Yongfei Li (PhD student, 1/2023-current, topic: Bio-inspired Materials), co-advisor Dr. Liu.
3. Xinyu Lu (PhD student, 8/2023-current, topic: Bio-inspired Materials), co-advisor Dr. Liu
4. Dandan Yin (PhD student, 8/2023-current, topic: Concrete Battery), co-advisor Dr. Liu
5. De-can Yang (PhD student, 1/2021-current, topic: Bio-inspired Materials).
6. Censor Kangogo (ME student, 8/2023-current, topic: Concrete Battery), co-advisor Dr. Liu
7. Doris Noah (ME student, 8/2023-current, topic: Pesticide Fate)
8. Fatima Ghanem (ME student, 8/2023-current, topic: Groundwater Modeling)
9. Dr. Liqiang Yin (Visiting Scholar from Inner Mongolia Institute of Technology, 1/2023-1/2024, topic: Concrete Battery).
10. Dorcas Machimu (ME student, 8/2022-05/2024, topic: Concrete Battery), co-advisor Dr. Liu

11. Mercy Kangogo (ME student, 1/2023-05/2024, topic: Neonicotinoid Insecticides and their Degradation Products in Environment)
12. Amairanny Espinosa (ME student, 1/2023-05/2024, topic: MODFLOW)
13. Dr. Jing Yan (Visiting Scholar from Nanjing Forestry University, 8/2022-8/2023, topic: Engineering Education).
14. Mercy Sammy (ME student, 1/2022-8/2023, topic: *Concrete Battery*), co-advisor Dr. Liu
15. Sylvia Kirwa (ME student, 8/2021-5/2023, topic: *Neonicotinoid Insecticides and their Degradation Products in Environment*), co-advisor Dr. Painter
16. Sanaz Behboodan (ME student, 8/2021-5/2023, topic: *Neonicotinoid Insecticides and their Degradation Products in Environment*), co-advisor Dr. Painter
17. Amani Al Janabi (ME student, 1/2020-05/2022, topic: *Neonicotinoid Insecticides and their Degradation Products in Environment*), co-advisor Dr. R. Painter
18. Rebecca Ransom (ME student, 8/2020-05/2022, topic: *Neonicotinoid Insecticides and their Degradation Products in Environment*), co-advisor Dr. R. Painter
19. Xiaoqi Lu (ME student, 1/2022-05/2022, topic: *Development of Virtual and Interactive Architectural Engineering Laboratory based on Building Information Modeling, Augmented Reality & Computational Fluid Dynamics*), co-advisor Dr. Wu
20. Dr. Shihui Liu (Postdoc, 8/2020-07/2021, topic: *Self-sealing construction materials*).
21. Zhenhua Luo (Visiting Professor from Southwest Petroleum University, 4/2019-5/2020, topic: *Rock Slope Stability*).
22. Zuan Tian (Visiting Professor from Chongqing University of Science & Technology, 3/2019-5/2020, topic: *Numerical Simulation of MICP*).
23. Beatrice Cherop (ME student, 9/2019-06/2021, topic: *Seal Effect of MICP-treated soil*).
24. Matthew Burns (ME student, 1/2020-12/2021, topic: *Seal Effect of MICP-treated Concrete*).

GRADUATE STUDENTS/POSTDOC SUPERVISED AT JSU

1. Dr. Shihui Liu (PhD student, 1/2017-05/2020, topic: Erosion Resistance of MICP-treated soil).
2. Dr. Wei Huang (Visiting Professor from Chongqing University of Science & Technology, 4/2018-4/2019, topic: Soft Clay Soil Improvement).
3. Dr. Kejun Wen (PhD student, 08/2013-12/2017, dissertation: *Enhancement of Microbial Induced Calcite Precipitation Treatment and Applications in Bio-inspired Constructional Materials Development*).
4. Dr. Ubani Ogbonnaya (PhD student, 01/2013-04/2018, dissertation: *The Effects of Particle Size Distribution on Microbial Induced Calcite Precipitation and Improvement of Biocement through Fiber Reinforcement and Confining Pressure*).
5. Dr. Juneke Zhang (PhD student, 01/2017-05/2021, topic: *Leaching properties of MICP-treated CCBs*).
6. Dr. Wei Huang (Visiting Professor from Chongqing University of Science & Technology, 04/2018-04/2019, topic: *Soft Clay Soil Improvement*).
7. Dr. Liang Fan (Visiting Professor from Chongqing Jiaotong University, 07/2016-07/2017).
8. Dr. Changming Bu (Visiting Professor from Chongqing University of Science & Technology, 09/2015-12/2016, topic: *Bending and Tension Performance Evaluation of MICP-modified Soil*).
9. Dr. Qian Dong (Visiting Professor from Chongqing University of Science & Technology, 7/2015-8/2016).
10. Charles McKenzie (MS student, 01/2014-05/2016, topic: *Measuring Bottom Sediment Erosion with Varying Bed Roughness*).
11. Stacy Holton (MS student, 01/2013- 12/2015, topic: *Bonding of Coated and Uncoated Steel Fiber Reinforcement in Portland Cement Mortar and Geopolymer-based Composite Materials*).
12. Dr. Zhengfang Wang (Visiting Professor from Zibo Vocational Institute, 9/2013-4/2014).
13. Dr. Mingdong Li (Visiting Professor from Huihai Institute of Technology, 11/2012-11/2013, topic: *Bio-Medicated Soil Improvement*).

14. Dr. Chi Li (Visiting Professor from Inner Mongolia Institute of Technology, 04/2012-04/2013, topic: *Dynamic Properties of Bio-Modified Sandy Soil*)
15. Dr. Qian Zhao (PhD student, 09/2011-12/2014, topic: *Bio-Medicated Soil Improvement*), co-advised with Amini, F.
16. Jianhua Wu (MS student, 01/2011-12/2012, topic: *Slope Stability of HPTRM Strengthened Levee under Turbulent Overtopping*), co-advised with Amini, F.
17. Vernon German (MS student, 09/2011-05/2013, topic: *Freeze-Thaw Effect on the Mechanical Properties of Cemented and Fiber Reinforced Clay Soils*)
18. Dr. Saiyu Yuan (PhD student, 02/2011-12/2014, topic: *Numerical Simulation of HPTRM Strengthened Levee in Turbulent Overtopping Conditions*), co-advised with Amini, F.
19. Shariana Cordero Zayas (MS student, 08/2010-05/2013, topic: *Leaching of Fly Ash in Highway Embankments*), co-advised with Li, Y.
20. Dr. Yingzi Xu (Visiting Professor, 08/2009-08/2011, topic: *Slope Stability Analysis of Levee Strengthening Systems*), co-advised with Amini, F.
21. Dr. Xin Rao (PhD student, 05/2009-10/2013, topic: *Numerical Simulation of Levee Strengthening Systems in Combined Surge and Wave Overtopping Conditions*), co-advised with Amini, F.
22. Dr. Yi Pan (PhD student, 07/2009-08/2012, topic: *Physical and Numerical Hydraulic Testing of Three Innovative Levee Strengthening Systems in Overtopping Conditions*), co-advised with Amini, F.
23. Wei Shao (MS student, 01/2011-12/2012, topic: *Effects of Freeze-Thaw Cycles on Mechanical Properties of Cement and Fiber Reinforced Clay Soils*).
24. Fabio Santos (MS student, 01/2010-12/2011, topic: *Optimization of Fly Ash-Soil Mixture for Highway Embankment*), co-advised with Li, Y.
25. Clifton Hulitt (MS student, 08/2008-08/2010, topic: *Full-Scale Testing of Three Innovative Levee Strengthening Systems under Overtopping Condition*).
26. Li Jin (MS student, 01/2008-02/2010, topic: *Assessment of the Roadway Module in IWEM*), co-advised with Li, Y.

SELECTED UNDERGRADUATE STUDENTS MENTORED IN PROJECTS

- Brandon Partee (5/2024-current), Jazzmarya Hamilton (3/2024-current), Elise Russ (1/2021-1/2022); Jeannine Mbabazi (1/2021-3/2022); Eyob Kebede (8/2021-3/2022); Jose Portillo (1/2021-1/2022); Karayan Cole (07/2016-03/2018); DeBorah Luckett (04/2017-07/2017); Katia LeLe Lagmago (04/2017-07/2017); Astride Tchakoua (04/2017-07/2017); Mason Gregory (04/2017-07/2017); Inez Williams (03/2016-08/2016); Alesha Jackson (09/2014-08/2016); Jasmine Douglas (04/2014-09/2015); Clemence Tchuisseu (03/2015-08/2015); Kenneth Washington (03/2015-08/2015); Mireille Tchuisseu (03/2014-08/2014); Ryan Swanier (07/2016-05/2017); Jonathan Malone (07/2016-05/2017); Amir Muhammad (01/2016-05/2016); Timothy Manyfield (08/2015-08/2016); Charles Davis (01/2014-05/2015, *LSMAMP assistant*); Benjamin Douglas (09/2014-08/2015); Ayanna Hardy-Fuller (09/2014-08/2015); Paul Forster (06/2010-05/2011); Abenezzer Nida (07/2010-12/2010); Justin Roberts (02/2009-05/2010); William McCleave (02/2009-05/2010); Nathan Kebede (01/2008-01/2009); DeAnna Dixon (01/2009-06/2009); Clayton LeLand (04/2011-09/2011)

CONSULTING ENGINEERING EXPERIENCE

- Evaluation of EPA model IWEM 3 (for Industrial Economics, Inc., May to June, 2014).
- Numerical Study of Honeywell Baltimore Works Sites (for Civil Engineering, Madison, WI 53706, March to August, 2013).
- Comparison of Conventional Liner and Alternative Liner for a new MSW landfill using Analytical Solution (for Civil Engineering, Madison, WI 53706, September 1-10, 2007).

- Numerical Analysis of Leachate Flux Generation for American Landfill and Expansion, Waynesburg, Ohio (for Waste Management, August to October, 2007).
- Estimation of Total PCB Mass in Arrowhead Park Landfill, Neenah, Wisconsin using Geostatistics Approach (for Craig H. Benson, February to June 2004).
- Analysis of Failure of Clay Caps for Sunrise Mountain Landfill, Clark County, Nevada (for Craig H. Benson, October to November 2004).
- Development of Windows Interface for WiseLEACH 2.0 Software (for RMRC, October to December 2011).

INVITED PRESENTATIONS

1. Invited seminar on “Modeling Mineral Precipitations in Granular Iron Permeable Reactive Barriers”, for the Department of Geohydrology Sandia National Laboratory, February 2003.
2. Invited seminar on “Metals Leaching and Ground Water Impact from Fly Ash Stabilized Soils in Highways”, for the Department of Civil and Environmental Engineering, Auburn University, April 2006.
3. Invited seminar on “Full-Scale Overtopping Testing for Levee Strengthening Systems”, for the O. H. Hinsdale Wave Research Laboratory, Oregon State University, November 2009.
4. Invited seminar on “Properties of Pavement Geomaterials Stabilized with Fly Ash”, for the AFP 40 Committee, 90th Annual Meeting of TRB, Washington DC, January 26, 2011.
5. Invited seminar on “High Performance Turf Reinforcement Mat Strengthened Levee under Combined Wave and Storm Surge Turbulent Overtopping Conditions”, for the O. H. Hinsdale Wave Research Laboratory, Oregon State University, October 2011.
6. Invited seminar on “Effects of Freeze–Thaw Cycles on Mechanical Properties of Cement and Fiber Reinforced Clay Soils”, for the AFP 40 Committee, 91th Annual Meeting of TRB, Washington DC, January 23, 2012.
7. Invited seminar on “Overtopping Hydraulics and Erosion of HPTRM Strengthened Levee in Turbulent Overtopping Flow Conditions”, for the Department of Hydraulic Engineering, Tongji University, China, June 2013.
8. Invited seminar on “Overtopping Hydraulics and Erosion of Three Levee Strengthening Systems under Full-Scale Overtopping Testing”, for the State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering, Hohai University, China, June 2013.
9. Invited seminar on “Overtopping Hydraulics and Erosion of HPTRM Strengthened Levee in Turbulent Overtopping Flow Conditions”, for the School of Engineering, Zhongshan University, China, December 2014.
10. Invited seminar on “Erosion Resistance of Earthen Levee Strengthened by HPTRM System under Turbulent Wave and Surge Overtopping Condition”, for the College of Civil Engineering, Guangxi University, China, December 2014.
11. Invited seminar on “Experimental Investigation of Mechanical Properties of MICP-Treated Sands Reinforced with Discrete Randomly Distributed Fiber”, for the College of Civil Engineering, Inner Mongolia Institute of Technology, China, July 2016.
12. Invited seminar on “Characterization of Bio-cemented Sandy Soil and Its Effect on Surface Erosion of Granular Soils”, for the Department of Hydraulic Engineering, Tongji University, China, May 2018.
13. Invited seminar on “Development of Bio-Bricks and Bio-Beam through MICP”, for the Department of Civil Engineering, University of Shanghai for Science and Technology, China, May 2018.
14. Invited seminar on “Bio-cementation for Soil Improvement and Constructional Material Development”, for the School of Engineering, Zhongshan University, China, May 2018.

15. Invited seminar on “Enhancement of Microbial Induced Calcite Precipitation Treatment and Applications in Bio-inspired Constructional Material Development”, for the College of Civil Engineering, Inner Mongolia Institute of Technology, China, May 2018.
16. Invited Keynote Speaker on “Development of Bio-Sandy Brick and Reinforcement with Fiber and Bamboo” at 1st International Conference on Microbial Biotechnology in Construction Materials and Geotechnical Engineering, Nanjing, China. 6-7 November 2020.
17. Invited Keynote Speaker on “Environmental Investigation of Bio-modification of Steel Slag and Coal Ash through Urease-producing Bacteria and MICP”, International Webinar Series (Jan-Feb 2021), Geoenvironmental Engineering: Polluted Land, Waste Management & Sustainability/Resiliency, Organized by Prof. Krishna Reddy at University of Illinois at Chicago, January 22, 2021.
18. Invited Panel “US DOE Featured Site: Oak Ridge Developing a New Cleanup Workforce” on Waste Management Symposia 2022 at Phoenix, AZ, March 7-8, 2022.
19. Invited Panel “DEAN’S Roundtable Discussion: Post Pandemic Challenges- The New Normal and Beyond” on AMIE 29th Annual Conference at Nashville, TN, September 25-27, 2022.
20. Invited Panel “How engineering and technical institutions are leveraging federal funding to prepare students for careers in the broadband industry-The role of apprenticeships as a Workforce Strategy” on Connect-X Annual Conference at Atlanta, GA, May 14-16, 2024.

SOCIETY MEMBERSHIPS

- Geo-Institute, American Society of Civil Engineers (ASCE), Member
- American Society for Testing and Materials (ASTM), Member
- International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), Member
- United States Universities Council on Geotechnical Education and Research (USUCGER), University representative
- National Society of Professional Engineers, Member

PROFESSIONAL ACTIVITIES AND SERVICE

Professional Service

- Board of Trustees, AMIE, 2019-2022
- Editor Board Member, Journal of Geotechnical and Geological Engineering, 2017- current
- Editor Board Member, Journal of ASTM International, 2011- 2013
- Editor Board Member, Biogeotechnics, 2023- current
- Guest Editor, Special Issue with the title "Advances in Sustainable Geotechnical Structure and Geomaterials", Journal Sustainability (ISSN 2071-1050) (Impact Factor: 3.889) 2023.01
- Committee member/vice chair, Physicochemical and biological processes in soils committee AKG30, Transportation Research Board, 2009- current
- Committee member, Committee on Waste Management and Resource Efficiency in Transportation ADC60, Transportation Research Board, 2012- 2015
- Committee Member, ASCE Geo-Institute, pavement committee, 2009- 2011
- Committee Member, Geotechnics of sustainable construction committee, ASTM 18.14, 2008-2011.
- Committee chairman, task group of coal combustion products in the Geotechnics of sustainable construction committee, ASTM 18.14, 2008-2011.
- Session moderator, session of Permeable Reactive Barrier at the ASCE GeoCongress 2008 Conference, New Orleans, Louisiana, March 9-12, 2008.

- Session chair, session of Characterization and Re-use of waste materials at the ASCE Geo-Frontiers 2011 Conference, Dallas, Texas, March 13-16, 2011.
- Session chair, session of Beneficial Reuse of Waste and Recycled Materials in Sustainable Geotechnical Construction at the ASCE GeoCongress 2012 Conference, Oakland, CA, March 25-29, 2012.
- Session chair, session of Innovative Levee Strengthening with GeoSynthetics in Dams and Levees at the GeoSynthetics 2013 Conference, Long Beach, CA, April 1-4, 2013.
- Session chair, session of Environmental Suitability of Recycled Materials for Transportation Applications in 92nd Annual Meeting of TRB, Washington DC, January 13–17, 2013.
- Session chair, session of Dams and Levees at the GeoSynthetics 2015 Conference, Portland, OR, February 15-18, 2015.
- Session chair, session of Bio-Mediated Soil at the ASCE GeoChicago 2016 Conference, Chicago, IL, August 14-16, 2016.
- Session chair, session of Bio-Mediated Soil Properties at the ASCE GeoShanghai 2018 Conference, Shanghai, China, May 27-30, 2018.
- Session chair, session of Advancement of Using Geosynthetics in Construction of Transportation Infrastructure at the GeoSynthetics 2019 Conference, Houston, TX, February 10-13, 2019.

Proposal Reviewer

- NSF Panel Review for 073Y.ECI program in June 2024
- NSF Panel Review for MsRI-2 program in October 2021
- NSF Panel Review for S-STEM program in May 2021
- NSF Panel Review for MRI program in March 2021
- National Center for Transportation Infrastructure Durability & Life-Extension (TriDurLE) at Washington State University (reviewed one proposal in April 2021).
- Pazy Foundation (reviewed one proposal in August 2018).
- Environmental Research & Education Foundation (EREF) (reviewed one proposal in April 2018).
- Center for Environmentally Sustainable Transportation in Cold Climates (CESTiCC) at University of Alaska Fairbanks (reviewed one proposal in April 2017).
- Center for Environmentally Sustainable Transportation in Cold Climates (CESTiCC) at Montana State University (reviewed one proposal in May 2014).
- Mountain-Plains Consortium (reviewed one proposal in February 2013).
- Kentucky Science and Engineering Foundation R& D Excellence Award program (reviewed one proposal in June 2010).
- NSF CMMI – Geoenvironmental Engineering & Geohazard Mitigation program (reviewed one proposal in June 2008).

Paper Reviewer for Journals/Conference Proceedings

- *ASCE: Journal of ASTM International; Journal of Geotechnical and Geoenvironmental Engineering; Journal of Hazardous, Toxic, and Radioactive Waste Management; Journal of Materials in Civil Engineering; Journal of Environmental Engineering; Journal of Waterway, Port, Coastal, and Ocean Engineering*
- *Geotechnical and Geological Engineering; Geotechnical Testing Journal; Engineering Geology; Journal of Coastal Research; Environmental Science and Technology; Canadian Geotechnical Journal;; Resources, Conservation & Recycling; Journal of Hazardous Materials; Journal of Ground Water; Journal of Hydrodynamics; Transport in Porous Media; Construction Material; Waste and Resource Management; Fresenius Environmental Bulletin; Journal of Oceanography; FUEL; Water, Air, & Soil Pollution; Environmental Geotechnics*

- *Conferences: TRB; International Symposium on Systematic Approaches to Environmental Sustainability in Transportation; ASCE Geo-Frontiers; GeoChicago, GeoCongress; Global Waste Management Symposium*

Book Reviewer

- John Scheirs (2007), *Guide to Geosynthetic Materials (A Practical Approach)*, John Wiley & Sons Ltd.
- P. Kumar (2016), *Mechanics of Material Through Dialoguing*, CRC Press - Taylor & Francis Group.
- Ning Lu and Jim Mitchell (2018), *Geotechnical Fundamentals for Addressing New World Challenges*, Springer.

Thesis Committee Participation at TSU

- Committee member, for ME student *Sotonye Ikiriko* from 2018.9 to 2018.12. Project title: Analyzing The Impact of Transit Signal Priority on Bus Travel Times, Late Bus Recovery, Delay and Level of Service. Advisor: Dr. Deo Chimba.
- Committee member, for ME student *Suhad Alzubaidi* from 2019.01 to 2019.05. Project title: Calibrating and Developing SPFs for Multiple & Single Crashes at Urban and Suburban Intersections in Tennessee. Advisor: Dr. Deo Chimba.
- Committee member, for ME student *Christian Mbuya* from 2019.01 to 2019.05. Project title: Investigating the Impact of Traffic Calming Strategies in Residential Roads. Advisor: Dr. Deo Chimba.
- Committee member, for PhD student *Abram Musunguzi* from 2018.9 to 2018.12. Project title: The Effect of Meteorological Forcing on Hurricane Storm Surge Generation and Propagation. Advisor: Dr. Muhammad Akbar.
- External Committee member, for PhD student *Masoud Nobahar* from 2017.8 to 2019.12. Dissertation title: Development of an Early Warning Protocol against Highway Slopes Failure on Yazoo Clay. Advisor: Dr. Sadik Khan.
- External Committee member, for PhD student *Junke Zhang* from 2017.1 to 2019.12. Dissertation title: Biomodification of Recycled Aggregate for Beneficial Reuse by MICP. Advisor: Dr. Yadong Li.
- External Committee member, for PhD student *John Ivoke* from 2020.05 to 2021.12. Dissertation title: Effect of Wet-dry Cycle on the Hydro-mechanical Properties of Expansive Yazoo Clay. Advisor: Dr. Sadik Khan.
- Committee member, for ME student Alex Weymoth Crowell from 2019.9 to 2021.05. Project title: Using ArcMap for COVID-19 Tracing in a Sewershed. Advisor: Dr. Roger Painter.
- Committee Chair, for ME student Beatrice Cherop from 2019.9 to 2021.05. Project title: Mechanical Improvement of Constructional Materials based on Biological Induced Calcite Precipitation. Advisor: Dr. Lin Li.
- Committee member, for ME student Yahaira Corona from 2019.9 to 2021.05. Project title: Homogenization-based Optimization of Lattice Structure Using Granular Micromechanics Approach. Advisor: Dr. Ranganathan Parthasarathy.
- Committee member, for ME student Emily Harris from 2019.01 to 2021.05. Project title: Dual Continuum Model of Flow in Karst Terrane. Advisor: Dr. Roger Painter.
- Committee member, for ME student Israr Khaibarullah from 2019.09 to 2021.05. Project title: Categorising Crash Patterns Along Urban Freeways. Advisor: Dr. Deo Chimba.
- Committee member, for ME student Kahlil Andrews from 2018.09 to 2021.05. Project title: Correlating the Remaining Fatigue Life of Steel Girder Bridges to Varying Percentage of Steel I-Beams. Advisor: Dr. Catherine K. Armwood-Gordon.

- Committee member, for PhD student Masoud Nobahar, from 2019.07 to 2022.05. Dissertation title: “Development of an Early Warning Protocol against Highway Slopes Failures on Yazoo Clay”. Advisor: Dr. Sadik Khan.
- Committee member, for PhD student Nur Mohammad Shuman, from 2023.05 to 2025.05. Dissertation title: “Efficient Machine Learning Models for Axial Compressive Capacity of Helical Piles from Field Tests and Numerical Study”. Advisor: Dr. Sadik Khan.
- Committee member, for PhD student Rakesh Salunke, from 2023.07 to 2023.12. Dissertation title: “Smart Geotechnical Asset Management Framework for Climate Adaptive Infrastructure”. Advisor: Dr. Sadik Khan.
- Committee Member, for ME student Mercy Sammy from 2022.1 to 2023.08. Project title: Development of Electrodes and Electroplating of a Cement Concrete-Based Battery Using Iron and Nickel as Anode and Cathode Materials. Advisor: Dr. Shihui Liu.
- Committee Chair, for ME student Sylvia Kirwa from 2021.8 to 2023.05. Project title: Photodegradation of imidacloprid in water environments with varying pH. Advisor: Dr. Lin Li.
- Committee Chair, for ME student Sanaz Behboodian from 2021.8 to 2023.05. Project title: Photodegradation of clothianidin in water environment by UV treatment with different pH. Advisor: Dr. Lin Li.
- Committee member, for PhD student Amber Spears, from 2023.07 to 2024.05. Dissertation title: “Hydrologic Balance of Earthen Embankments and Levees With Vetiver Grass”. Advisor: Dr. Sadik Khan.
- Committee Chair, for ME student Amairanny Espinosa from 2023.1 to 2024.05. Project title: Simulation of Groundwater Flow for Near-Surface Disposal Repository Using Hydrologic Model (MODFLOW). Advisor: Dr. Lin Li.
- Committee Chair, for ME student Mercy Kangogo from 2023.1 to 2024.05. Project title: Investigating the photodegradation rates for thiamethoxam, acetamiprid and thiacloprid under UVB (312nm) light source at 4, 7 and 9 pH. Advisor: Dr. Lin Li.
- Committee Member, for ME student Dorcas Machimu from 2022.8 to 2024.05. Project title: Mechanical Behaviors of Hydrogel-Treated Construction and Demolition Fines. Advisor: Dr. Shihui Liu.

Thesis Committee Participation at JSU

- Committee member, for MS student *Li Jin* from 2008.1 to 2009.12. Thesis title: Environmental Release of Mercury from Compact Fluorescent Light Bulbs. Advisor: Dr. Yadong Li.
- Committee Chair, for MS student *Jianhua Wu* from 2011.01-2012.12 Thesis title: Slope Stability of HPTRM Strengthened Levee under Turbulent Overtopping. Advisor: Dr. Lin Li
- Committee Chair, for MS student *Vernon Germon* from 2011.09-2013.05 Thesis title: Freeze-Thaw Effect on the Mechanical Properties of Cemented and Fiber Reinforced Clay Soils. Advisor: Dr. Lin Li.
- Committee co-Chair, for MS student *Fabio Santos* from 2009.02-2011.12 Thesis title: Mechanical Properties of Fly Ash Used in Embankment Constructions and Its Environmental Impact. Advisors: Dr. Lin Li and Dr. Y. Li.
- Committee Chair, for MS student *Clifton Hulitt* from 2008.06-2010.07 Thesis title: Full-Scale Testing of Three Innovative Levee Strengthening Systems under Overtopping Condition. Advisor: Dr. Lin Li.
- Committee member, for MS student *Andrew Hooker* from 2011.08 to 2013.08. Thesis title: Typhoon Surge Modeling with Advanced Numerical Models. Advisor: Dr. Das.
- Committee member, for MS student *Shariana Cordero Zayas* from 2010.08 to 2013.03. Thesis title: Leaching of Fly Ash in Highway Embankments. Advisor: Dr. Yadong Li.

- Committee member, for MS student *Divya Sinha* from 2015.01 to 2016.05. Thesis title: Removal of Heavy Metals from Highway Runoff through Modified Pervious Cement Pavement. Advisor: Dr. Yadong Li.
- Committee member, for MS student *Neha Sinha* from 2015.01 to 2016.12. Thesis title: An Efficient Data Oriented Method to Calculate Operational Storm Surge. Advisor: Dr. Himangshu Das.
- Committee member, for PhD student *Zhen Fan* from 2011.08 to 2014.05. Dissertation title: Theranostic Magnetic-Plasmonic Nanoshell for Detection, Isolation and Photothermal Destruction of Cancer Tumor Cells and Multi Drug Resistant Bacteria. Advisor: Dr. Ray.
- Committee Chair, for MS student *Stacy Holton* from 2013.01-2015.12 Thesis title: Bonding of Coated and Uncoated Steel Fiber Reinforcement in Portland Cement Mortar and Geopolymer-based Composite Materials. Advisor: Dr. Lin Li.
- Committee member, for PhD student *Yunfeng Lin* from 2014.08 to 2016.09. Dissertation topic: A Base Research on Full Spectrum Ultra-thin Silicon Membrane Solar Cells. Advisors: Dr. Hamme.
- Committee Chair, for MS student *Charles McKenzie* from 2014.01-2016.06 Thesis title: Measuring Bottom Sediment Erosion with Varying Bed Roughness. Advisor: Dr. Lin Li.
- Committee member, for PhD student *Suhas Reddy* from 2014.11 to 2016.06. Dissertation title: Fluorescent Graphene Oxide for Label-free Imaging and Selective Killing of Cancer Cells and Bacteria. Advisors: Dr. Ray.
- Committee member, for MS student *Ruipeng Dong* from 2014.12 to 2015.12. Thesis title: Adsorption Study of Cesium, Strontium, and Cobalt on Iron and Manganese Oxides under various Biogeochemical Conditions. Advisor: Dr. Han.
- Committee member, for PhD student *Rajashekhhar Kanchanapally*, from 2013.08 to 2015.09. Dissertation title: Developing Multifunctional Hybrid Graphene Oxide for Chemical and Biological Sensing. Advisor: Dr. Ray.
- Committee member, for PhD student *Bhanu Priya Viraka Nellore*, from 2013.12 to 2016.08. Dissertation title: Developing Hybrid Carbon Nanomaterial based Membranes for Biological and Environmental Applications. Advisors: Dr. Ray and Dr. Hamme.
- Committee member, for PhD student *Stacy Jones*, from 2014.12 to 2017.06. Dissertation title: Surface-enhanced Raman Probes for the Detection of Metal and Biological Targets. Advisor: Dr. Ray.
- Committee Chair, for PhD student *Kejun Wen* from 2013.08-2017.12 Dissertation title: Enhancement of Microbial Induced Calcite Precipitation Treatment and Applications in Bio-inspired Constructional Materials Development. Advisor: Dr. Lin Li.
- Committee member, for MS student *Carrie Sweet*, from 2017.1 to 2017.12. Thesis title: Two-Photon Fluorescent Molybdenum Disulfide Dots for Targeted Prostate Cancer Cell Imaging in the Biological II Window. Advisor: Dr. Ray.
- Committee member, for MS student *Ye Gao*, from 2017.5 to 2018.03. Thesis title: Multifunctional Biochar Derived Carbon Dots for Efficient Capture, Identification and Removal of Toxic Metal and Superbugs from Water. Advisor: Dr. Ray.
- Committee member, for PhD student *Aruna Vangara*, from 2016.1 to 2018.5. Dissertation title: Development of Multifunctional Fluorescent Magnetic Nanoprobes for Selective Capturing and Multicolor Imaging of Heterogeneous Circulating Tumor Cells. Advisor: Dr. Ray.
- Committee member, for PhD student *Yang Li*, from 2014.08 to 2018.10. Dissertation title: Environmental Fate and Transport of Insecticides Clothianidin and Thiamethoxam. Advisor: Dr. Yadong Li.
- Committee co-Chair, for PhD student *Shihui Liu*, from 2016.02 to 2020.05. Dissertation title: “Durability of MICP-treated Geomaterials and Reinforcement. Advisor: Dr. Lin Li and Dr. Farshad Amini.

- Committee co-Chair, for PhD student *Junke Zhang*, from 2017.01 to 2020.05. Dissertation title: “Biomodification of Recycled Aggregate for Beneficial Reuse by MICP”. Advisor: Dr. Lin Li and Dr. Yadong Li.

UNIVERSITY SERVICE AT TSU

- University Committee of Assessment and Improvement Committee on Educational Programs and Student Learning, 2019 to present.
- TSU College Undergraduate Curriculum Committee, 2018 to 2021
- TSU College Graduate Curriculum Committee, 2018 to 2021
- TSU College Financial Director Search Committee, 2019 to 2019

UNIVERSITY SERVICE AT JSU

- University Graduate Curriculum Committee, 2016 to present.
- University Research Advising Committee, 2015 to 2017.
- University Graduate Council Committee, Aug. 2016 to present.
- Global Board of Advisors, 2016 to 2017.
- University Undergraduate Curriculum Committee, 2007 to 2009.
- Associate Vice Provost Search Committee, 2014 to 2014.
- College Undergraduate Curriculum Committee, 2007 to 2009.
- College Graduate Curriculum Committee, 2006 to 2007.
- College Graduate Engineering Coordinator, 2016 to 2022.
- College Performance-Based Compensation, 2009 to 2022.
- College Scientific Review Committee for Mississippi Science & Engineering Fair, 2006.
- Department Coordinator for FE exam review courses, 2005 to 2012.
- Department ABET Committee, 2005 to 2022
- Faculty Search Committee Member for Transportation Engineering, 2007.
- Faculty Search Committee Member for Water Resources Engineering, 2008
- Faculty Search Committee Chair for Geotechnical Engineering, 2015

General Student Advising at TSU

- Concrete canoe project advising, 2018.09-2020.03
- Senior design project advising, 2018.09 to 2022.01
- ASCE student chapter activity faculty advisor, 2019 to 2022.01

General Student Advising at JSU

- Curriculum Advising – from 15 to 25 students per semester, 2005 to 2017
- Mississippi Engineering Society JSU Student Chapter faculty advisor, 2009-2017
- ASCE student chapter activity advising, 2006 to 2009
- Senior capstone design project advising, 2005 to 2017