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Education

Ph.D.	Civil Engineering	**Lehigh University**	May 2016
M.S.	Civil Engineering	**Lehigh University**	Jan. 2014
B.S.	Civil Engineering	**Dalian University of Technology**	Jul. 2010

Academic Employment

Assistant Professor — Aug. 2018 - Present
Department of Civil and Environmental Engineering
Louisiana State University

Graduate Student Researcher — Aug. 2010 - Mar. 2016
Department of Civil and Environmental Engineering
Lehigh University

Industry Employment

Geotechnical Engineer — Mar. 2016 - Jun. 2018
Mueser Rutledge Consulting Engineers
New York City, NY

Publications

Refereed Journal Publications

1. **Lin, H.**, Ni, L., Suleiman, M., and Raich, A. (2015). "Interaction between laterally loaded pile and surrounding soil." *Journal of Geotechnical and Geoenvironmental Engineering*, doi: 10.1061/(ASCE)GT.1943-5606.0001259.
2. **Lin, H.**, Ni, L., Suleiman, M., and Raich, A. (2015). "Closure to interaction between laterally loaded pile and surrounding soil." *Journal of Geotechnical and Geoenvironmental Engineering*, doi: 10.1061/(ASCE)GT.1943-5606.0001513.
3. Suleiman, M., Ni, L., Davis, C., **Lin, H.**, and Xiao, S. (2015). "Installation effects of controlled modulus column ground improvement piles on surrounding soil." *Journal of Geotechnical and Geoenvironmental Engineering*, doi: 10.1061/(ASCE)GT.1943-5606.0001384.
4. **Lin, H.**, Suleiman, M., Brown, D., and Kavazanjian, E., Jr. (2015). "Mechanical behavior of sands treated by microbially induced carbonate precipitation." *Journal of Geotechnical and Geoenvironmental Engineering*, doi: 10.1061/(ASCE)GT.1943-5606.0001383.

5. **Lin, H.**, Suleiman, M., Jabbour, H., Brown, D., and Kavazanjian, E., Jr. (2016). "Enhancing the axial compression response of pervious concrete ground improvement piles using bio-grouting." *Journal of Geotechnical and Geoenvironmental Engineering*, doi: 10.1061/(ASCE)GT.1943-5606.0001515.
6. **Lin, H.**, Suleiman, M., Jabbour, H., and Brown, D. (2017). "Enhancing the axial pull-out response of pervious concrete ground improvement piles using bio-grouting." *Canadian Geotechnical Journal*, 55(1), 119-130, https://doi.org/10.1139/cgj-2016-0438.
7. **Lin, H.**, Suleiman, M., Helm, J., and Brown, D. (2018). "Sands cemented by microbial induced carbonate precipitation (MICP): from Micro to Macro." *Acta Geotechnica*, In Review.
8. **Lin, H.**, O'Donnell, S., Suleiman, M., Kavazanjian, E., Jr., and Brown, D. (2018). "Post-grouting of pervious concrete ground improvement piles using enzyme induced carbonate precipitation (EICP)." *Journal of Geotechnical and Geoenvironmental Engineering*, In Preparation.
9. Xiao, Y., Chen, H, Stuedlein, A.W., Evans, T.M., Cheng, L., Jiang, N.J., **Lin, H.**, Liu, H.L., and Chu, J. (2018). "Particle breakage of bio-cemented sand under one-dimensional compression." *Geotechnique*, In Preparation.

Refereed Conference Publications

1. **Lin, H.**, Cui, Q., Pervizpour, M., Pamukcu, S., and Mentzer, M. (2012). "Truly distributed measurement of impact strains in clay by use of embedded BOTDA/R Fiber Optic Sensors." *Geocongress 2012*, 3149-3158, Oakland, California.
2. **Lin, H.**, Suleiman, M., Helm, J., and Brown, D. (2014). "Measurement of bonding strength between glass beads treated by microbial induced calcite precipitation (MICP)." *Geocongress 2014*, 1625-1634, Atlanta, Georgia.
3. **Lin, H.**, Suleiman, M., Jabbour, H., and Brown, D. (2015). "Enhancement of pervious concrete pile subjected to uplift load using microbial induced carbonate precipitation." *IFCEE 2015*, 775-783, San Antonio, Texas.
4. **Lin, H.**, Suleiman, M., and Brown, D. (2018). "Behavior of biofilm-treated sand." *IFCEE 2018*, Orlando, Florida.

Technical Reports (Non-Referred)

1. Suleiman, M., Ni, L., Davis, C., **Lin, H.**, and Xiao, S. (2014). "Instrumented static load test of controlled modulus column (CMC)." *Final Report submitted to Menard Group USA*, Lehigh University, PA.
2. Suleiman, M., and **Lin, H.** (2015). "Collaborative research: enhancement of vertical elements for foundation support by ureolytic carbonate precipitation." *NSF Final Report for Grant #1233566*, Lehigh University, PA.

Other Publications (Non-Referred)

1. **Lin, H.**, and Xiao, S. (2014). "Lessons learned from Geo-Legends: Edward Kavazanjian, Jr., PhD, PE, GE, D. GE, NAE, F. ASCE." *Geo-Strata*, May/June issue.

2. **Lin, H.**, Xiao, S., Ni, L., and Dong, Y. (2015). "Lessons learned from Geo-Legends: J. Carlos Santamarina, PhD, Ing., AM ASCE." *Geo-Strata*, January/February issue.
3. **Lin, H.**, Xiao, S., and Jabbour, H. (2015). "Lessons learned from Geo-Legends: George J. Tamaro, PE, F. ASCE, Hon. M. ASCE, NAE." *Geo-strata*, May/June issue.
4. Xiao, S., **Lin, H.**, and Jabbour, H. (2016). "Lessons learned from Geo-Legends: Donald H. Gray, Ph.D. M.ASCE." *Geo-Strata*, January/February issue.
5. Xiao, S., **Lin, H.**, and Jabbour, H. (2016). "Lessons learned from Geo-Legends: Thomas Denis O'Rourke, PhD, D. ASCE, NAE." *Geo-Strata*, September/October issue.

Technical Presentations

Conference Presentations

1. "Truly distributed measurement of impact strains in clay by use of embedded BOTDA/R Fiber Optic Sensors." *Geo-Congress 2012*, Oakland, California, March 25-29, 2012.
2. "Measurement of bonding strength between glass beads treated by microbial induced calcite precipitation (MICP)." *Geo-Congress 2014*, Atlanta, Georgia, February 23-26, 2014.
3. "Enhancement of pervious concrete pile subjected to uplift load using microbial induced carbonate precipitation." *IFCEE 2015*, San Antonio, Texas, March 17-21, 2015.
4. "Behavior of biofilm-treated sand." *IFCEE 2018*, Orlando, Florida, March 5-10, 2018.

Invited Presentations

1. "Truly distributed measurement of impact strains in clay by use of embedded BOTDA/R Fiber Optic Sensors." *Department Graduate Student Seminar Series*, Lehigh University, Bethlehem, PA, August 17, 2011.
2. "Bio-cemented soil for pervious concrete pile enhancement." *Geo-Institute (G-I) Delaware Valley Geo-Institute Student Night*, Villanova University, Villanova, PA, February 18, 2014.
3. "Microbial stabilization of soil for ground improvement." *Geotechnical, Environmental and Water Resources Seminar*, Lehigh University, Bethlehem, PA, March 20, 2014.
4. "Enhancement of soil-pervious concrete pile interaction using MICP." *Geotechnical, Environmental and Water Resources Seminar*, Lehigh University, Bethlehem, PA, September 25, 2014.
5. "Enhancement of soil-permeable pile interaction using microbial induced carbonate precipitation (MICP)." *Earthquake Engineering Research Institute (EERI), Lehigh University Student Chapter*, Lehigh University, Bethlehem, PA, February 18, 2015.
6. "Improvement of foundation response using microbial induced calcite precipitation (MICP)." *Geo-Institute (G-I) Delaware Valley Geo-Institute Student Night*, Villanova University, Villanova, PA, February 9, 2016.
7. "Bio-mediated ground improvement." presented at George Mason University (March 2017) and Louisiana State University (April 2018).

Research Related Experience

Completed Research Projects

1. Microbial Modification of Soil for Ground Improvement (PhD Research), 2011 - 2016
2. Soil-Structure Interaction of Laterally Loaded Piles, 2011 - 2013
3. Controlled Modulus Column (CMC) Installation Effects on Surrounding Soil, 2012 - 2013
4. Fiber Optic Sensor Monitoring, 2010 – 2011

Supervision of Students

1. Devon Gallagher (2015), *undergraduate student*, Soil-pile interface tests under MICP treatment
2. Xi Qi (2015), *undergraduate student*, $CaCO_3$ content in the soil after MICP treatment
3. Hanna Moussa Jabbour (2014), *master student*, Bio-grouted pervious concrete pile ground improvement
4. Mathu Davis (2014), *master student*, Bio-grouted pervious concrete pile ground improvement
5. Juan Tzoc (2013), *undergraduate student*, Bender element fabrication and testing
6. Hang Dong (2013), *master student*, Mechanical behavior of MICP-and/or biofilm-treated soils
7. Yassira Alaziz (2012), *undergraduate student*, Behavior of MICP-treated sandy soils

Professional Development

2018 Early Career Geotech Faculty Workshop

The goal of this Workshop is to mentor early career junior faculty and to promote peer-to-peer interactions. The targeted outcome is to help young geotechnical scholars launch their academic career productively, avoid common pitfalls, and be successful in their academic journey.

Education Related Experience

Teaching

Fall 2018 Geotechnical Engineering II

Teaching Pedagogy Development

P.C. Rossin Doctoral Program

Professional Registration, Service, and Contributions

Professional Registration

Professional Civil Engineer – License No. C88715, California

Professional Service

President of Geo-Institute (G-I) Student Chapter at Lehigh University	2013 - 2015
Chair of Geo-Legends committee at G-I Graduate Student Leadership Council	2014 - 2015
Lehigh Representative at G-I Graduate Student Leadership Council	2013 - 2015
Coordinator of the CEE Department Student Seminar at Lehigh University	2014 – 2015

Professional Affiliations

American Society of Civil Engineers (ASCE)
Geo-Institute (G-I) of ASCE
Earthquake Engineering Research Institute (EERI)
Sigma Xi
Deep Foundation Institute (DFI)
The New York Academy of Sciences

Invited Reviewer

Geocongress 2012, Geo-Chicago 2016, Journal of Materials in Civil Engineering, Ecological Engineering, Geotechnical Testing Journal, Journal of Geotechnical and Geoenvironmental Engineering