

Curriculum Vitae

Luis Alexander Mata, PhD, PE, LEED AP

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Education

North Carolina State University, Raleigh, NC: Ph.D., Civil Engineering, 2008.

North Carolina State University, Raleigh, NC: M.S., Civil Engineering, 2005.

Andrés Bello Catholic University, Caracas, Venezuela: B.S., Civil Engineering, 2002.

Professional Appointments

- University of Toledo, Assistant Professor, 2015 – present.
- Partner, IQ Engineering and Consulting, PLLC, 2018 – present.
- Lawrence Technological University, Assistant Professor, 2009-2015
- North Carolina State University, Teaching/Research Assistant, 2003-2008.
- Sancio Consultores (Engineering consultants): Civil Engineer, 2002.
- Sancio Consultores (Engineering consultants): Intern, 2000-2002.

Licensure and Accreditations

- Professional Engineer, State of Ohio [License No. 83044] State of Michigan [License No. 6201062135], State of North Carolina [License No. 045069]
- Accredited Professional: US Green Building Council LEED Building Design and Construction Accreditation [GBCI#: 10490728].
- Approved Inspector, National Ready Mixed Concrete Association Plant and Facilities Inspector [NRMCA ID no. 821003]
- Trainer, Occupational Safety and Health Standards for the Construction Industry [ID No. GL-1000565].

Journal Publications

1. Gaedicke, C., Marines, A., **Mata, L.A.**, Miankodila, F., “Effect of Recycled Materials and Compaction Methods on the Mechanical Properties and Solar Reflectance Index of Pervious Concrete,” *Ingeniería de Construcción (Journal of Construction Engineering)*, Pontificia Universidad Católica de Chile, Chile, V. 30. No.2, December 2015. pp. 159-167.
2. **Mata, L.A.**, Leming, M., “Vertical Distribution of Sediments in Pervious Concrete Pavement Systems,” *ACI Materials Journal*, American Concrete Institute, Farmington Hills, Michigan, V. 109. No.2, March-April 2012. pp.149-155.
3. Reis, E. M., **Mata, L.A.**, and Dilek, U., “An analytical Model for Estimating Load-Test Deflections in Fire-Damaged Precast, Prestressed Concrete Members,” *PCI Journal*, Vol. 54, No. 3, 2009. pp. 129-142.

Conference Publications (Peer Reviewed)

1. **Mata, L.A.**, Carpenter, D., “Innovative Incorporation of Industry Certifications to Enhance Recruiting and Retention in Civil Engineering,” Proceedings of the 2014 Frontiers in Education Conference, Madrid, Spain, October 2014.
2. Tocco, J., **Mata, L.A.**, “The Mentor Initiative: A Framework for Industry Involvement in the Capstone,” Proceedings of the 2012 Capstone Design Conference, Champaign-Urbana, Illinois, June 2012
3. Zia P., Nunez, R.A., **Mata, L.A.**, and Dwairi, H.M., “Implementation of Self-Consolidating Concrete for Prestressed Concrete Girders,” Seventh International Symposium on the Utilization of High-Strength/High-Performance Concrete, Washington D.C., June 2005, American Concrete Institute, Special Publication, Volume 228, 2005, pp. 297- 316.

Conference Presentations/Publications

1. **Mata, L.A.**, Aboujrad, H., “Removal of Nutrients in Pervious Concrete,” American Concrete Institute Spring Convention, Salt Lake City, UT March 26, 2018.
2. Nunez, R., **Mata, L.A.**, McCauley, L., “Successful Integration of Engineering Universities and Trade Associations for Student Career Development,” Colloquium of International Engineering Education, Flagstaff, AZ., November 3, 2017.
3. **Mata, L.A.**, “Frost Resistance of Pervious Concrete,” Proceedings of the 2014 International Concrete Sustainability Conference, Boston, Massachusetts, May 2014.
4. Aboujrad, H., **Mata, L.A.**, Villeneuve, N., “Removal of Nutrients in Pervious Concrete,” Proceedings of the 2014 International Concrete Sustainability Conference, Boston, Massachusetts, May 2014.
5. **Mata, L.A.**, “Pervious Concrete Pavement Systems: Design and Construction Fundamentals,” 7th annual SOS Conference, Lawrence Technological University, Southfield Michigan, February 25, 2011.
6. **Mata, L.A.**, Leming, M.L., “Sediment Capture in Pervious Concrete Pavement Systems: Effects on Hydrological Performance and Suspended Solids Discharge,” presentation, Concrete Sustainability Conference, National Ready Mixed Concrete Association, Tempe, Arizona, April 14, 2010.
7. **Mata, L.A.**, Leming, M.L., “Sedimentation Effects on Pervious Concrete Pavement Systems,” presentation, American Concrete Institute, Fall Convention, New Orleans, La, November 9, 2009.

8. **Mata, L.A.**, Leming, M. L., “Sedimentation Effects on Pervious Concrete,” presentation, Concrete Technology Forum, National Ready Mixed Concrete Association, Denver, Colorado, May 2008.

Invited Speaker

1. **Mata, L.A.**, "Design and Construction of Pervious Concrete Pavement Systems," International Conference on Concrete Technology, March 10-11, Panama City, Panama, 2016.
2. **Mata, L.A.**, "Sediment Capture in Pervious Concrete Pavement Systems," 8th International Construction Conference, May 11-12, Quito, Ecuador, 2016.
3. **Mata, L.A.**, "LEED Certification Process," 8th International Construction Conference, May 11-12, Quito, Ecuador, 2016.
4. **Mata, L.A.**, “Effect of Fly Ash on Concrete Mixtures,” Masonry and Concrete Design and Construction, Novi, MI May 2015
5. **Mata, L.A.**, Pervious Concrete Pavement Systems: Design Fundamentals and Serviceability.” Michigan Concrete Association 2015 Winter Conference/Workshop, Plymouth, MI, February 2015.
6. **Mata, L.A.**, Leming, M.L., “Serviceability of Pervious Concrete Pavements,” PCA Fall Meetings Fellowship Session, Portland Cement Association Fall Meetings, Chicago, Illinois, August 2008.
7. **Mata, L.A.**, “Pervious Concrete Pavements,” VI National and I Biannual Conference of Transportation Engineering, Technical University of Loja, Loja, Ecuador, November 7, 2007. Travel sponsored by Technical University of Loja.
8. **Mata, L.A.**, “Implementation of Self-Consolidated Concrete for Prestressed Concrete Girders,” VI National and I Biannual Conference of Transportation Engineering, Technical University of Loja, Loja, Ecuador, November 7, 2007. Travel sponsored by Technical University of Loja.
9. **Mata, L.A.**, “Fundamentals of Pervious Concrete Pavements: Applications, Properties and Design,” UCAB Civil Engineering Conference, Andrés Bello Catholic University, Caracas, Venezuela, November 2, 2007. Travel sponsored by Andrés Bello Catholic University.

Technical Reports

1. **Mata, L.A.**, Leming., M. L., “Permeability of Pervious Concrete: a case study,” Technical report, Carolinas Ready Mixed Concrete Association (2008).
2. Zia P., Nunez, R.A., **Mata, L.A.**, “Implementation of Self-Consolidating Concrete for Prestressed Concrete Girders,” Technical Report, North Carolina Department of Transportation, Research and Analysis Group (2005).
3. **Mata, L.A.**, “Identifying Soils Susceptible to Soil Failure by Liquefaction in the Central Districts of the City of Adapazari, Turkey,” [title translated from Spanish] research study report, Andres Bello Catholic University (2002)

Professional and Scientific Society Memberships

- Member, American Concrete Institute.
- Member, U.S. Green Building Council.

Professional Service

- Organizer. *International Conference on Concrete Technology*, March 10-11, Panama City, Panama.
- Committee Member and Research Subcommittee: American Concrete Institute Committee 522: Pervious Concrete (2008 – present).
- Journal Reviewer: *Construction and Building Materials* (2013 – present).
- Journal Reviewer: American Concrete Institute (2008 – present).
- National Science Foundation (NSF) Transforming Undergraduate Education in Science, Technology, Engineering and Mathematics (TUES) Panel Reviewer (Type 1).
- Journal Reviewer: Precast/Prestressed Concrete Institute (2008-2011).
- Reviewer: 2012 Capstone Design Conference, Champaign-Urbana, Illinois, June, 2012.
- Organizer and facilitator. *In-Place Recycling and Reclamation Seminar*, Asphalt Recycling and Reclaiming Association, Lawrence Technological University, January 26, 2011.

Institutional Service

University of Toledo

- Search Committee: University of Toledo Department of Engineering Technology Laboratory Coordinator (Fall 2017)
- Participant: Inaugural Cohort of the University of Toledo Leadership Institute.
- Committee Member: College of Engineering Diversity and Inclusion Committee (2016 – present).
- Member of Leadership Council: Association of Latino Faculty and Staff (2015 – present).
- Search Committee: University of Toledo Intermodal Transportation Institute (2015 – 2016).

Lawrence Technological University

- eLearning Services Advisory Committee (2013 – present).
- Committee Member: Transition from Commuter to Residential Campus (2014).
- Faculty Senate (2011 – 2014).
- Engineering Faculty Council (2010 – 2014).
- Task Force on Design Thinking (2012 – 2013).
- American Society of Civil Engineers: Faculty Advisor of Student Chapter (2011 – 2015).
- American Concrete Institute: Founder and Faculty Advisor of Student Chapter (2012 – 2015).

Professional Conferences, Workshops, and Seminars Attended

- American Concrete Institute Conventions (March 2017, October 2016, November 2015, April 2015, October 2010, November 2009, March 2008, October 2007, April 2007, April 2005).
- OSHA 502 Trainer Course in Occupational Safety and Health Standards for the Construction Industry (2014, 2017).
- Workshop participant: American Society of Civil Engineers' Practitioner and Faculty Advisor Training Workshop, ASCE Headquarters, Reston, Virginia, August 3-4, 2012.
- Workshop participant: Innovating Curriculum with Entrepreneurial-Mindset-Focus on Materials Engineering and Science, KEEN Workshop, Gonzaga University, March 30, 2012.
- Workshop participant. Innovating Curriculum with Entrepreneurial-Mindset-Focus on Structural Mechanics, KEEN Workshop, St. Louis University, October 7-8, 2011.
- Kern Innovative Teaching Faculty (May 2011).
- ASCE Excellence in Civil Engineering Education workshop (July 2009).
- OSHA 500 Trainer Course in Occupational Safety and Health Standards for the Construction Industry (2009).

Awards and Recognitions

- Lawrence Technological University Online Programs, Certificate of Appreciation (2014).
- Kern Innovative Teaching Faculty (2011).
- American Society of Civil Engineers Excellence in Civil Engineering Education (2009).
- North Carolina State University Certificate of Accomplishment in Teaching (2008).
- Portland Cement Association Education Foundation Research Fellowship (2006).
- Southeastern Transportation Consortium Fellowship (2005).

Courses Taught

Undergraduate Courses

University of Toledo

- CET-1150 Construction Materials and Codes
- CET-2110 Materials Testing
- CET-2060 Construction Estimating
- CET-3160 Contracts and Specifications
- CET-4460 Construction Management and Scheduling
- CET-4350 Soils, Foundations and Retaining Structures

Lawrence Technological University

- ECE-1413 Civil Engineering Materials
- ECE-3213 Construction Engineering
- ECE-4623 Cost Estimating Bidding and Contracting
- ECE-4022 Civil Engineering Design Project 1 (Capstone)
- ECE-4032 Civil Engineering Design Project 2 (Capstone)

Graduate Courses

Lawrence Technological University

- ECE-5223 Techniques of Project Planning and Control
- ECE-5263 Construction Safety Management
- ECE-5113 Sustainable Construction Practices
- ECE-6113 Concrete Engineering

Languages

Fluent in English and Spanish