

**Xiaochao Tang, Ph.D.**  
Assistant Professor  
Department of Civil Engineering  
Widener University  
One University Place, Chester, PA 19013

## **EDUCATION**

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**Ph.D. in Civil Engineering**, Pennsylvania State University, University Park, PA 2011  
**M.S. in Civil Engineering**, West Virginia University, Morgantown, WV 2006  
**B.S. in Mining and Geotechnical Engineering**, Central South University, Hunan, China 2002

## **EXPERIENCE**

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**08/2013 – present**

**Assistant Professor** Department of Civil Engineering, Widener University, Chester, PA

**01/2012 – 07/2013**

**Research Associate** Louisiana Transportation Research Center, Baton Rouge, LA

**07/2011 – 12/2011**

**Senior Engineer** SGI Testing Services LLC, Atlanta, GA

**08/2006 – 06/2011**

**Graduate Research Assistant** Pennsylvania State University, University Park, PA

**08/2004-08/2006**

**Graduate Research Assistant** West Virginia University, Morgantown, WV

## **PUBLICATIONS**

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### **Refereed Journal Papers**

1. **Tang, X.**, Stoffels, S. M., and Palomino, A. M. (2014). “Resilient and Permanent Deformation Characteristics of Unbound Pavement Layers Modified by Geogrids.” *Transportation Research Record: Journal of the Transportation Research Board*. Vol. 2369, pp. 3-10.
2. **Tang, X.**, Palomino, A. M., and Stoffels, S. M. (2013). “Reinforcement Tensile Behavior Under Cyclic Moving Wheel Loads.” *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2363, pp. 113-121.
3. **Tang, X.**, Stoffels, S.M., and Palomino, A.M. (2013). “Evaluation of Pavement Layer Moduli Using Instrumentation Measurements.” *International Journal of Pavement Research and Technology*. Vol. 6 (6), pp. 755-764.
4. **Tang, X.** and Yang, M. (2013) “Investigation of Flexural Behavior of Geocell Reinforcement Using Multi-Layered Beam Model Testing.” *Geotechnical and Geological Engineering*. Vol. 31 (2), pp. 1-13.
5. **Tang, X.** and Yang, X. (2013). “Inverse Analysis of Pavement Structural Properties Based on Dynamic Finite Element Modeling and Genetic Algorithm.” *International Journal of Transportation Science and Technology*, Vol. 2 (1), pp. 15-30.
6. Chehab, G.R. and **Tang, X.** (2012) “The Use of a Multi-Setup, Reduced-Scale Accelerated Trafficking Simulator for Evaluating Roadway Systems and Products.” *International Journal of Pavement Engineering*, Vol. 13 (6), pp. 535-552.
7. Donnell, E.T., Chehab, G.R., **Tang, X.**, and Schall, D. (2009). “Exploratory Analysis of Accelerated Wear Testing to Evaluate Performance of Pavement Markings.” *Transportation Research Record, Journal of the Transportation Research Board*, Vol. 2107, pp. 76-87.

8. **Tang, X.**, Chehab, G.R., and Palomino, A.M. (2008). "Evaluation of Geogrids for Stabilizing Weak Pavement Subgrade." *International Journal of Pavement Engineering*, Vol. 9 (6), pp. 413-429.

#### Refereed Conference Papers

1. **Tang, X.**, Stoffels, S. M., and Palomino, A. M. (2014). "Mechanistic-Empirical Performance Prediction of Geogrid-Modified Soft Soil Subgrade." *Proceedings of GeoCongress 2014*, Atlanta, GA. Feb. 23-26, 2014.
2. **Tang, X.**, Abu-Farsakh, M., Hanandeh, M., and Chen, Q. (2014). "Evaluation of Geosynthetics in Unpaved Roads Built over Natural Soft Subgrade using Full-Scale Accelerated Pavement Testing." *Proceedings of GeoCongress 2014*, Atlanta, GA. Feb. 23-26, 2014.
3. **Tang, X.** and Yuan, Z. (2013). "Boundary Effects of Gripping System on Internal Shear Strength Tests for Multi-Component Geosynthetic Clay Liners." *Current and Future Practices for the Testing of Multi-Component Geosynthetic Clay Liners*, STP 1562, Kent P. von Maubeuge and J. P. Kline, Eds., pp. 99-108, doi:10.1520/STP156220120075, ASTM International, West Conshohocken, PA. Third Symposium on Current and Future Practices for the Testing of Multi-Component Geosynthetic Clay Liners, June 27, 2012, San Diego, CA.
4. **Tang, X.**, Chehab, G.R., and Palomino, A.M (2008). "Accelerated Testing of Geogrid-Reinforced Subgrade in Flexible Pavements." ASCE Geotechnical Special Publication (GSP) No. 178, pp. 1049-1056.
5. **Tang, X.**, Chehab, G.R., Palomino, A.M, Allen, S., and Sprague J. (2008). "Effects of Geogrids Properties on Subgrade Stabilization of Flexible Pavements." ASCE Geotechnical Special Publication (GSP) No. 178, pp. 1089-1096.
6. **Tang, X.**, Chehab, G., and Kim, S. (2008) "Laboratory Study of Geogrid Reinforcement in Portland Cement Concrete." *Conference Proceedings , the 6<sup>th</sup> RILEM International Conference on Cracking in Pavements 2008*, Chicago, IL, June 16-18, 2008, pp. 769-778.
7. **Tang, X.**, Medeiros, M.S, and Chehab, G.R. (2008). "Numerical Modeling and Laboratory Testing of Geogrid-Reinforced Flexible Pavements." *Conference Proceedings, the 4<sup>th</sup> International Gulf Conference on Roads*, Doha, Qatar, November 10-13, 2008, pp.769-782.
8. **Tang, X.**, Palomino, A.M., and Chehab, G.R. (2008). "Laboratory Evaluation of Geogrids for Flexible Pavement Reinforcement." *The GeoAmericas 2008 Conference Proceedings*, Cancun, Mexico, March 2-5, 2008, pp. 973-982.
9. Wilson, T., Siriwardane, H., **Tang, X.** (2007). "Leakage Risks Associated with Coal Sequestration in Some Areas of the Central Appalachians: Subsurface, Seismic and Geomechanical Evaluations." American Association of Petroleum Geologists (AAPG) Annual Convention, Long Beach, California, April 1-4, 2007.

#### Research Reports

1. Palomino, A.M., **Tang, X.**, and Stoffels, S.M. (2010). Determination of Structural Benefits of PennDOT-Approved Geogrids in Pavement Design. *Report No. FHWA-PA-2010-012-PSU 018*, Final Report Submitted to Pennsylvania Department of Transportation, Harrisburg, PA, USA.
2. Chehab, G.R., Palomino, A.M., and **Tang, X.** (2007). Laboratory Evaluation and Specification Development for Geogrids for Highway Engineering Applications, *Report No. FHWA-PA-2007-009-050110*, Final Report Submitted to Pennsylvania Department of Transportation, Harrisburg, PA, USA.

## **PRESENTATIONS**

1. **Tang, X.**, Abu-Farsakh, M., Hanandeh, M., and Chen, Q. (2014). “Accelerated Load Testing of Geosynthetic–Reinforced and Stabilized Unpaved Roads Built over Native Soft Soil.” *93<sup>rd</sup> TRB Annual Meeting*, Washington, D.C., January 12-16, 2014.
2. **Tang, X.** (2013). “Research in Highway Infrastructure.” *School of Engineering Board of Advisors Meeting*, October 15, 2013, Old Main, Widener University.
3. **Tang, X.** and Abu-Farsakh, M. (2013). “Geosynthetics Stabilization for Soft Subgrade – Instrumentation and ME Approach.” *Louisiana Transportation Conference*, Baton Rouge, LA, Feb. 17-20, 2013.
4. **Tang, X.**, Stoffels, S.M., and Palomino, A.M. (2013). “Resilient and Permanent Characteristics of Unbound Pavement Layers Modified by Geogrids.” *92<sup>nd</sup> TRB Annual Meeting*, Washington, DC, Jan. 13-17, 2013.
5. **Tang, X.**, Palomino, A.M., and Stoffels, S.M. (2013). “Reinforcement Tensile Behavior under Cyclic Moving Wheel Loading.” *92<sup>nd</sup> TRB Annual Meeting*, Washington, DC, Jan. 13-17, 2013.
6. **Tang, X.** (2011). “Teaching and Research in Transportation Geotechnics.” *Invited presentation* at Department of Construction Management and Civil Engineering, Georgia Southern University, Aug. 5, 2011.
7. **Tang, X.**, Chehab, G.R., and Palomino, A.M (2008). “Accelerated Testing of Geogrid-Reinforced Subgrade in Flexible Pavements.” *ASCE GeoCongress 2008 Conference*, New Orleans, LA., March 9-12, 2008.
8. **Tang, X.**, Chehab, G., and Kim, S. (2008) “Laboratory Study of Geogrid Reinforcement in Portland Cement Concrete.” *6<sup>th</sup> RILEM International Conference on Cracking in Pavement*, Chicago, IL.
9. **Tang, X.**, Chehab, G.R., and Palomino, A.M (2008). “Laboratory Evaluation of Geogrids for Flexible Pavement Reinforcement.” *87<sup>th</sup> annual meeting of the Transportation Research Board*, Washington, DC.
10. **Tang, X.**, Chehab, G.R., and Palomino, A.M (2007). “Laboratory Evaluation & Specification Development for Geogrids for Highway Engineering Applications.” *86<sup>th</sup> annual meeting of the Transportation Research Board*. Washington, DC.

## **RESEARCH GRANTS AND PROPOSALS**

1. “Quantifying the Impact of Shale Gas Development-Related Traffic on Low-Volume Roads.” **PI: Tang, X.**, Widener University Provost Grant, 2014-2015.
2. “Accelerated Load Testing of Geosynthetic Base Reinforced Pavement Test Sections,” Funding Source: Louisiana Department of Transportation and Development (LA DOTD), **PI: Abu-Farsakh, M., Co-PI: Tang, X.**, Dec., 2011-Dec., 2013.

## **PROFESSIONAL SERVICES**

1. Member of Transportation Research Board (TRB) Committee on Pavement Monitoring and Evaluation (AFD20)
2. Young Member of TRB Committee on Subsurface Drainage (AFS60)
3. Member of TRB Subcommittee on Mechanistic Characterization of Pavement Layers (AFD80-1)
4. Voting Member of American Society for Testing and Materials (ASTM) Committee on Geosynthetics (D35)

5. Former Member, LTRC Report Review Committee
6. Reviewer, ASCE Journal of Materials in Civil Engineering, International Journal of Pavement Engineering, ASTM Advances in Civil Engineering Materials, KSCE Journal of Civil Engineering, TRB annual meetings, ASCE GeoCongress 2014, GeoFlorida 2010, GeoCongress 2008, Geosynthetics 2013, 2<sup>nd</sup> International Conference on Geotechnical and Earthquake Engineering, 2013
7. Grant Proposal reviewer, University Research Board, American University of Beirut, 2012

### **PROFESSIONAL DEVELOPMENT**

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Participated in NSF proposal writing workshop at University of Pennsylvania, October 1, 2013.  
 Participated in KEEN Foundation Integrating Curricula with Entrepreneurial Content workshop at University of New Haven, June 2-6, 2014.

### **PROFESSIONAL AFFILIATIONS**

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Associate Member of American Society of Civil Engineers (ASCE)  
 Associate Member of ASCE Geo-Institute

### **CERTIFICATE**

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Engineer-in-Training (E.I.T.), Pennsylvania, Certificate Num. ET013338

### **SERVICE**

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Member of the Graduate Committee, School of Engineering, Widener, 2013-present  
 Member of the Faculty Search Committee, Department of Civil Engineering, Widener, 2014  
 Student Representative of Graduate Students Association (GSA), CEE Department, Penn State, 05/2008-05/2009

### **AWARDS**

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Thomas D. Larson Pennsylvania Transportation Institute Tuition Grant	Penn State	2008
Thomas D. Larson Pennsylvania Transportation Institute Travel Grant	Penn State	2008
Harvey & Geraldine Brush Graduate Fellowship in Engineering	Penn State	2006