

Mohamad N. JLILATI

Professor of Civil Engineering | Widener University, Chester, PA, USA

LinkedIn: [linkedin.com/in/nazieh-jlilati-5066723a](https://www.linkedin.com/in/nazieh-jlilati-5066723a)

Google Scholar: scholar.google.com/citations?user=6uwEOa4AAAAJ

AREAS OF SPECIALIZATION

Civil engineering, geotechnical engineering, foundation engineering, construction engineering, structural engineering, and reliability design.

RESEARCH INTERESTS

Three-dimensional printing and digital construction, modeling and simulation, soil and rock properties, geotechnical data analysis, dynamic soil-structure interaction, concrete mix design improvement, concrete quality control, and disaster risk analysis.

EXPERTISE

Structural design, structural execution, geotechnical design, drilling and penetration tests (SPT & CPT), structural and geotechnical inspection, construction and project management, cost estimation, reliable solutions, surveying (EDM & Transit), and maintenance.

EDUCATION

Ph.D. (D.Eng.), Civil/Geotechnical Engineering — Gifu University, Japan

April 2006 – March 2009 | Specializing in reliability-based design of piles and shallow foundations.

Dissertation: "General vs. Local Reliability-Based Design of Geotechnical Structures."

Recipient of the Japanese Ministry of Education, Science, and Culture (Monbusho) Scholarship, April 2003 – March 2009.

Master's Degree, Civil/Geotechnical Engineering — Gifu University, Japan

April 2004 – March 2006 | Specializing in soil properties and their effects on shallow foundations.

Dissertation: "Effects of Spatial Variability and Statistical Estimation Error in Predicting Settling of Shallow Foundations."

Bachelor of Civil Engineering — Damascus University, Syria

September 1988 – October 1993 | Department of Structural Engineering; specializing in structural engineering and high-rise buildings.

PROFESSIONAL EXPERIENCE

Professor — Widener University, Chester, PA, USA

May 2025 – Present

Construction Management Department Founder and Interim Chair — Widener University, Chester, PA, USA

March 2024 – December 2024

Associate Professor — Widener University, Chester, PA, USA

August 2019 – May 2025

Assistant Professor — Widener University, Chester, PA, USA

August 2014 – August 2019

Courses Taught: Introduction to Construction Management, Soil Mechanics, Structural Analysis, Structure and Construction Materials Lab, Surveying, Engineering Graphics, Statics, Dynamics, Senior Project.

Senior Engineer — GeoStructures INC, King of Prussia, PA, USA

December 2013 – November 2014

Geotechnical design and field supervision.

Assistant Professor — Yarmouk Private University, Syria

October 2011 – September 2013

Courses Taught: Soil Mechanics; Geotechnical Topics.

Visiting Senior Lecturer — Higher Institute of Earthquake Studies & Research, Damascus University, Syria

February 2011 – March 2013 | master's Level Courses Taught:

- "Introduction to Uncertainty & Reliability Engineering", Disaster Risk Management.
- "Soil Structure Interaction", Earthquake Engineering.

Master's Thesis Supervisor.

Assistant Professor — International University of Science & Technology, Syria

September 2010 – September 2011

Courses Taught: Engineering Geology; Soil Mechanics; Foundation Engineering.

Engineering Consultant (April 2003 – Present)

- Online consulting services for Japanese, Indian, Syrian, and American firms.
- Field project supervision.
- Evaluation of the effects of soil properties on structures.

Engineering Consultant — Ministry of Tourism, Engineering Department, Syria

November 1996 – April 2003

- Responsible for review, evaluation, and execution of restoration projects (historical and tourism-related buildings and sites).

Project Manager and Assistant Director, Construction Department — Ministry of Tourism, Syria

March 1994 – October 1996

- Organization, scheduling, and supervision of activities of engineers and workers maintaining, repairing, renovating, and completing public and sports building projects.
- Design calculations, cost and time estimation for the above activities.

PROFESSIONAL DEVELOPMENT (USA)

- May 2024: CIC Workshop for Department and Division Chairs, Baltimore, MD.
- July 2022: ACI Professors' Workshop.
- April 2021: ABET Symposium.
- April 2021: ABET Workshop on Basics of Program Assessment Planning.
- January 2020: Soil Mechanics training course on the new triaxial device and equipment, by Geocomp Corporation, Widener University.
- May 13 & June 12, 2019: EDM & GPS intensive training course on new surveying devices and equipment, Widener University.
- May 2017: ASEE/NETI 2017 Effective Teaching Workshop, Philadelphia, PA.
- January 2016: Temple University's 14th Annual Conference on Teaching Excellence, Philadelphia, PA.
- September 2015: The 1st Annual New American Colleges and Universities Early Career Faculty Institute, Bronx, NY.
- August 2015: Wired & Inspired! The Intelligent Use of Technology in Higher Education Virtual Mini-Conference.
- January 2015: Temple University's 13th Annual Conference on Teaching Excellence, Philadelphia, PA.
- October 2013 – January 2014: Cooper Union School of Engineering, NY — Structural Analysis and Strength of Materials; AISC Structural Steel Design & ACI Structural Concrete Design; Building Cost Estimating; Green Building Guidelines & Environmental Safety; AutoCAD & Revit.

PROFESSIONAL AFFILIATIONS

- American Concrete Institute (ACI)
- American Society of Civil Engineers (ASCE)
- Japanese Society of Civil Engineering (JSCE)
- Asia-Pacific Chemical, Biological & Environmental Engineering Society (APCBEEES)

ENGINEERING SOFTWARE

SELECTED PUBLICATIONS

- Jililati, M. N. & Masri, H. (2022): "Slope stability analysis under seismic loads (comparative between numerical and quasi-seismic methods)". EURO MED SEC-04 Proceedings: State-of-the-art Materials and Techniques in Structural Engineering and Construction, Leipzig, Germany.
- Al Sawaf, M. B., Kawanisi, K., Jililati, M. N., Xiao, C. & Bahreinimotlagh, M. (2021): "Extent of detection of hidden relationships among different hydrological variables during floods using data-driven models". Springer Nature Journal 2021.
- Jililati, M. N., Brown, V. L. & Tang, X. (2019): "Comparative Investigation of Two Design Methods for Slab-on-Grade Foundations Subjected to Concentrated Loads". ISCE-10 Proceedings: Interdependence between Structural Engineering and Construction Management, Chicago, IL.
- Tang, X., Higgins, I. & Jililati, M. N. (2018): "Behavior of Geogrid-Reinforced Portland Cement Concrete under Static Flexural Loading". MDPI Journal of Infrastructures 2018.
- Tang, X. & Jililati, M. N. (2017): "Load-Carrying Capacity of Slab-on-Grade Foundations Supporting Rack Post Loads". Geotechnical Frontiers Conf., Orlando, Florida.
- Jililati, M. N. (2015): "Effects of Spatial Variability of Soil Parameters on the Differential Settlement and the Internal Forces of a Frame Structures". Proc. 68th Canadian Geotechnical Conf., Quebec, Canada.
- Jililati, M. N. (2011): "Introduction to Uncertainty and Reliability Engineering". Academic Book for MSc in Disaster Risk Management, Damascus University, Syria.
- Jililati, M. N. (2009): "Effects of Spatial Variability on Settlement of a Shallow Foundation". Proc. 62nd Canadian Geotechnical Conf., Halifax, Canada, pp. 577-582.
- Jililati, M. N. (2009): "Effects of Spatial Variability on Ultimate Bearing Capacity of Piles". Proc. 11th International Summer Symposium of JSCE, pp. 89-92.
- Jililati, M. N. & Honjo, Y. (2009): "Effects of Spatial Variability of Soil Parameters on Settlement of a Shallow Foundation". Proc. of Theoretical and Applied Mechanics Japan, Vol. 57, pp. 49-56.
- Jililati, M. N. & Honjo, Y. (2008): "Effects of Spatial Variability of Soil Parameters on Settlement of a Shallow Foundation". Proc. 57th NCTAM, pp. 293-294.
- Honjo, Y., Machida, Y. & Jililati, M. N. (2008): "Modeling of Spatial Variability of Soil Property and Reliability Based Design of Piles". Proc. of Geotropika 2008 (Keynote).
- Honjo, Y., Tamaki, Y., Machida, Y., Suzuki, Y., Jililati, M. (2008): "Reliability Based Design of Piles based on the high-density data of CPT". Proc. 43rd JGS (In Japanese).
- Machida, Y., Honjo, Y., Tamaki, Y., Suzuki, Y., Jililati, M. (2008): "Statistical model of the ground based on high density data of CPT — site characterization". Proc. 43rd JGS (In Japanese).
- Jililati, M. N. (2008): "Effects of Spatial Variability of Soil on Settlement of a Shallow Foundation". Proc. 10th International Summer Symposium of JSCE, pp. 117-120.
- Honjo, Y., Jililati, M. N. & Ishino, J. (2007): "Effects of Spatial Variability and Statistical Estimation Error in Prediction of Settlement of a Shallow Foundation". Proc. 10th ICASP, pp. 173-174.