

CARLTON LOUIS HO, PhD, PE
CURRICULUM VITAE

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Registration: Professional Engineer, Massachusetts, 1998, #40566, Original examination passed California, 1982, #34799

Education:

1/85 Ph.D. Civil Engineering, Geotechnical Engineering, Stanford University, Stanford, California. **Dissertation:** "Probabilistic Evaluation of Seismic Pore Pressure Development from Uniform Cyclic Laboratory Tests," E. Kavazanjian, Jr., Advisor.
6/80 M.S., Civil Engineering, Geotechnical Engineering, Stanford University.
6/76 B.S., Civil Engineering, Stanford University.

Professional Experience:

9/20-present Professor, Department of Civil and Environmental Engineering, University of Massachusetts, Amherst, MA.
6/96-8/20 Associate Professor, Department of Civil and Environmental Engineering, University of Massachusetts, Amherst, MA.
8/92-6/96 Associate Professor, Department of Civil and Environmental Engineering, Washington State University, Pullman, WA
8/87-8/92 Assistant Professor, Department of Civil and Environmental Engineering, Washington State University, Pullman, WA
8/84-8/87 Assistant Professor, Department of Civil Engineering, the Illinois Institute of Technology, Chicago, IL
6/81-6/84 Research Assistant, Department of Civil Engineering, Stanford University, Stanford, CA
9/80-6/81 Teaching Assistant, Department of Civil Engineering, Stanford University, Stanford, CA
6/80-9/80 Associate Engineer, Dames and Moore, San Francisco, CA
2/79-9/79 Junior Civil Engineer, City of Milpitas, CA
8/76-2/78 Research Engineer, Okubo Instruments, Colorado Springs, CO

Visiting Research Experience:

- 6/92 Faculty Research Appointment, Research Civil Engineer, Branch of Geologic Risk Assessment, United States Geological Survey, Menlo Park, CA (GS-14).
- 1/95-7/95 Visiting Faculty (sabbatical leave), Centre d'Enseignement et Recherche de la Mécanique de Sol (CERMES), École Nationale des Ponts et Chaussées (ENPC), Noisy-le-Grand, France. Supported by a Bourse de Haut Niveau (High Level Fellowship) from the Ministère de l'Enseignement Supérieur et de la Recherche (MESR).
- 6/15-1/16 Visiting Scholar (sabbatical leave), Institute of Infrastructure and Environment, University of Edinburgh, United Kingdom.
- 7-8/17 Visiting Research Faculty, Department of Transit and Railroad Engineering, Tongji University, Shanghai, China.

Professional Affiliation:

ASCE, Member, Life Member (2019)

Engineering Geology Committee of the Geo-Institute, Chairman 1993-1997, Control Group Member 1989-2000, Member 1988-present

Geotechnical Institute Temporary Technical Coordinators Committee 1996-1997

Earth Retention Structures Committee of the Geo-Institute, Member 1998-2002

Committee on Scour and Erosion of the Geo-Institute, Chairman 2002-2003, Member 2003-Organizing Committee, Performance Confirmation of Constructed Geotechnical Systems, Geo-Institute Specialty Conference, 9-12 April 2000, Chairman 1998-2000

Continuing Education Committee of the Geo-Institute, Chairman 2009-2010

ASEE, Associate Member

Professional Practices Committee of the Civil Engineering Section, Chairman 1988-89

EERI, Member

ISGE, Member

Committee on Scour and Erosion, Member, 2002-

Seismological Society of America, Member

Sigma Xi, Associate Member

Transportation Research Board, Ad Hoc Member

Member 1989-2002, Committee on Engineering Geology (A2L05)

Member 1999-2002, Subcommittee of the Committee on Engineering Geology on Bridge Scour (A2L05-2)

Member 2004-present, Committee on Railroad Track Structure System Design (AR050)

Member 2005-present, Committee on Railway Maintenance (AR060)

University Representative 1992-1994

USUCGER, Representative for Member University 1990-1993, 1998-2002

Professional Service:

8/10-11/2020 NSF NHERI EF Virtual Site Visit, University of California, Davis.

2018-2019 International Scientific Committee for Railway Engineering-2019, Edinburgh, UK.

2017-2018 The 8th International Symposium on Environmental Vibration and Transportation Geodynamics (ISEV 2018) Scientific Committee, Changsha, China.

2/23-24/17 NSF NHERI EF Site Visit, University of California, Davis.

2017-present Associate Editor, *Construction and Building Materials*.

2/22-23/16 NHERI RAPID Facility Reverse Site Visit Panel for the program solicitation NSF 15-598, Arlington, VA.

1/28-29/16 NHERI RAPID Facility Reverse Proposal Review Panel for the program solicitation NSF 15-598, Arlington, VA.

7/10/13 Co-chair, Session on High Speed Rail—1, Railway Engineering 2013, Imperial College, London, England.

1/16/13 Co-chair, Session 755, 92nd Annual Meeting of TRB, Washington, DC.

1/14/13 Co-chair, Session 378, 92nd Annual Meeting of TRB, Washington, DC.

5/31-6/1/12 Panelist, NSF review panel for Geotechnical Engineering of CMS.

1/12/10 Co-chair, Session 410, 89th Annual Meeting of TRB, Washington, DC.

6/2-3/10 Panelist, NSF review panel for Engineering Directorate.

5/12/10 Invited expert on rail safety research for the US Government Accountability Office; served as one of 20 invited experts in the field to comment on the state of research and practice

6/26-27/07 Panelist, NSF review panel for Geotechnical Engineering of CMS.

6/26-27/07 Panelist, NSF review panel for Geotechnical Engineering of CMS.

5/25/05 Panelist, NSF review panel for NEECR.

6/2-29/04 Panelist, NSF review panel for NEESR.

4/4-5/04 Panelist, NSF review panel for CMS.

4/15-16/02 Panelist, NSF review panel for NEES.

10/18/98 Organizer, Session, Geo Congress at ASCE National Convention, Boston, MA.

10/25-26/96 Participant (guest), Planning Committee, GeoLogan 1997, Geo-Institute/ASCE.

6/17/96 Panelist, NSF review panel for Earthquake Hazard Mitigation proposals, Arlington, VA.

7/13/95 Moderator, Session T4, 7th Int. Conf. Application of Statistics and Probability., Paris, France.

2/21/95 Participant, Comité Scientifique, Projet FOREVER, Paris, France.

10/28/93 Moderator, Session 4C, "Advances in Site Characterization II - Data Management and Interpretation," ASCE National Convention, Dallas.

9/28/92 Panelist, NSF review panel for Small Business Innovation Research, Phase I proposals, Washington, DC.

2/27-28/92 Participant, NSF/USGS Workshop on Hazardous Mass-Flow, Rolla, Missouri.

8/19-21/91 Participant, NSF Workshop on Soil Improvement and Foundation Remediation with Emphasis on Seismic Hazard, Seattle, Washington.

10/19/90 Participant, Washington State Department of Construction and Materials Research Workshop, Olympia, Washington.

11/7/90 Presiding Chair, Session W3, "Landslide Hazard Identification, Monitoring, and Warning," ASCE National Convention, San Francisco.

6/15-16/89 Participant, TransNOW, annual meeting and Board of Directors meeting, Seattle, Washington.

11/17/88 Participant, Washington State Department of Transportation, Pavement and Material, Geotechnical and Construction Research Workshop, Tumwater, Washington.

5/23/88 Moderator, Technical Session, Hazardous Waste Conference, Spokane, Washington.

3/1/88 Chairman, Technical Session VI, "Slope Stability Analysis," 24th Symp.

Engrg. Geo. and Soils Engrg., Coeur d'Alene, Idaho.
8/4-5/86 Participant, NSF workshop on Earthquake Hazard Mitigation: Siting and Geotechnical Systems, Chicago, Illinois.

Research Grants:

1/20-6/20 Co-Principal Investigator, "Small Business Innovative Research, Phase I: Ballast Seismic Property Analyzer (BSPA) for Railway Substructure Modulus and Assessments," subcontract, 1/2/20-5/1/20 (\$8,189).
9/19-9/21 Principal Investigator, "Probabilistic Approach to Evaluate Ballast Life Using Large Data Sets, Phase I" Federal Railroad Administration (\$253,925).
9/16-9/18 Co-Principal Investigator, "Moisture Sensitive Ballast Fouling Measurement Tool," Subcontract from Pennsylvania State University, Federal Railroad Administration (\$149,917).
9/16-3/19 Principal Investigator, "Laboratory Study of the Failure Characteristics of Fouled Ballast: Phase II," Federal Railroad Administration (\$247,385).
9/16-12/17 Co-Principal Investigator, "Moisture Sensitive Ballast Fouling Measurement Tool," Subcontract from Earth Science Systems, LLC, Federal Railroad Administration (\$81,072).
9/16-9/18 Principal Investigator, "Laboratory Study of the Failure Characteristics of Fouled Ballast," Federal Railroad Administration (\$52,492).
2/16-12/17 Principal Investigator, "Evaluation for Compost for Erosion Control when Used in Actual Highway Related Applications," Massachusetts DOT (\$363,408).
9/13-10/14 Co-Principal Investigator, "Moisture Sensitive Ballast Fouling Measurement Tool," Subcontract from Earth Science Systems, LLC, Federal Railroad Administration (\$34,147).
10/12-10/14 Co-Principal Investigator, "Seismic Testing for Track Substructure (Ballast and Subgrade) Assessment," Subcontract from University of Illinois, Federal Railroad Administration (\$20,000).
9/12-9/15 Co-Principal Investigator, "Field Investigation and Modeling of Track Substructure Performance Under Trains Moving at 'Critical Speeds,'" Federal Railroad Administration (\$213,487).
8/09-7/11 Principal Investigator, "RAPID: Spectral Analysis of Sub-Track Accelerations Subjected to Long Term Heavy Axle Load Conditions," National Science Foundation Grant No. CMMI-0956960 (\$119,188).
6/05-6/07 Principal Investigator, "Evaluation of Compost for Erosion Control," Massachusetts Highway Department (\$172,133).
10/03-1/04 Principal Investigator, "Strategy for Implementing Bridge Scour Management," Korean Institute of Construction Technology (\$1,500).
9/99-3/01 Principal Investigator, "Development of Priority Based Statewide Scour Monitoring Systems in New England," New England Transportation Consortium (\$80,000).
5/99-12/99 Co-principal Investigator, "Subsurface Evaluation of Railway Track Using Ground Penetrating Radar," Federal Railroad Administration (\$126,999).
6/99-6/00 Co-principal Investigator, "Fractal Analysis of Geometry Data for Railway Track Condition Assessment," Federal Railroad Administration (\$95,882).
1/99-4/00 Principal Investigator, "Phase 2: Long-term Drainage Demonstration of a Retaining Wall Constructed with Recycled Plastic Landscaping Timbers," Chelsea Center for

- Recycling and Economic Development, Commonwealth of Massachusetts (\$20,985).
- 9/98-12/98 Principal Investigator, "Phase 1: Material Testing of Recycled Plastic Landscaping Timbers," Chelsea Center for Recycling and Economic Development, Commonwealth of Massachusetts (\$3,000).
- 6/98-5/99 Principal Investigator, "Prediction of Seismically Induced Landslides Motion Using GIS-based Analysis," Faculty Research Grant, University of Massachusetts Amherst (\$5,000).
- 7/94-7/97 Principal Investigator, "Collaborative Research: Unstable Behavior of the Southern Margin of the Laurentide Ice Sheet and Implications for Ice-sheet Dynamics and Climate Change," National Science Foundation Grant No. EAR-9410262 (\$99,000), transferred portion EAR-9796083 (\$39,700).
- 6/94-5/95 Principal Investigator, "Reconnaissance Trip After the Northridge, California Earthquake of January 17, 1994 to Inspect Retaining Walls and Slopes," National Science Foundation Grant No. CMS-9413277 (\$4,790).
- 8/93-8/96 Principal Investigator, "Instrumentation of Permanent Reinforced Earth Structures and Tied-back Walls for Seismic Response," National Science Foundation Grant No. BCS-9222669 (\$195,295), REU Supplements (+\$10,000), transferred portion with \$15,000 supplement CMS-9796226 (\$78,201).
- 11/92-5/93 Principal Investigator, "Blast Densification at South Coldwater Creek Bridge No. 12, SR-504," Washington State Department of Transportation (\$5,000).
- 7/92-12/94 Principal Investigator, "Subglacial Till Genesis and Ice Sheet Dynamics, Lake Michigan Lobe Area: Subcontract," subcontract from Oregon State University, National Science Foundation Grant No. EAR-9205274 (\$11,665).
- 1/92-3/94 Co-principal Investigator, "Development of Rheological Parameters for the Modeling of Pile Foundations for Seismic Analysis," Washington State Department of Transportation Agreement No. T9234-7 (\$75,000).
- 8/91-6/93 Principal Investigator, "Update of Design Seismic Response Spectra for Washington State Bridges," Washington State Department of Transportation Agreement No. T9234-4 (\$39,224), modification 5/27/92 (+\$4,971).
- 8/91-12/91 Principal Investigator, "Field Study of Copalis Beach Liquefaction Deposits," United States Geological Survey Service Order 602483-91 (\$2,500).
- 5/91-12/92 Principal Investigator, "Pilot Study of an Unstable Slope Management System," Washington State Department of Transportation Agreement No. GC8720-16 (\$63,253).
- 7/89-6/91 Principal Investigator, "Development of an Unstable Slope Management System," Washington State Department of Transportation Agreement No. GC8720-02 (\$74,999).
- 1/89-12/90 Principal Investigator, "Test of a Rheological Slope Stability Model," National Science Foundation Grant No. BCS-8815704 (\$56,162), REU Supplement awarded 4/10/89 (+\$5,000).
- 7/88-8/89 Principal Investigator, "Effect of Construction Techniques on the Diffusion of Solutes Through Compacted Clay Liners," New Faculty Grant-in-Aid Program, Washington State University (\$9,160).
- 6/88-10/88 Principal Investigator, "Determination of Strength Parameters for Palouse Loess," funded by Schnabel Foundation Company, Bethesda, Maryland (\$3,000).

- 9/87-4/88 Co-principal Investigator, "Performance of Soil Nailing in Loess Soil," funded by Schnabel Foundation Company, Bethesda, Maryland (\$5,000).
- 3/88-9/89 Co-principal Investigator, "Response of Tied-Back Walls During the Whittier Narrows Earthquake of October 1, 1987," grant awarded to GeoEngineers, Bellevue, Washington, Washington State University awarded subcontract, National Science Foundation Grant No. CES-8804304 (\$29,999).
- 11/86-8/88 Principal Director, "Engineering Research Equipment: Computer-Controlled Soil Testing System," equipment currently in place at the Illinois Institute of Technology, National Science Foundation Grant No. ECE-8604929 (\$93,333).
- 4/86-12/86 Co-principal Investigator, "Characterization of Diffusion of Solutes through Compacted Clays," Milligan Venture Fund for Faculty Research, awarded by the Illinois Institute of Technology (\$10,000).
- 6/85-10/87 Principal Investigator, "Research Initiation: Strain Controlled Tests for Liquefaction Potential Analysis," National Science Foundation Grant No. ECE-8504904 (\$60,000).

Research Appointments:

- 6/92 Faculty Appointment, Research Civil Engineer, Branch of Geologic Risk Assessment, United States Geological Survey, Menlo Park, CA (GS-14).
- 1/95-7/95 Visiting Faculty (sabbatical leave), Centre d'Enseignement et Recherche de la Mécanique de Sol (CERMES), École Nationale des Ponts et Chaussées (ENPC), Noisy-le-Grand, France. Supported by a Bourse de Haut Niveau (High Level Fellowship) from the Ministère de l'Enseignement Supérieur et de la Recherche (MESR) (14,000 FF/mo.)
- 6/15-1/16 Visiting Professor (sabbatical leave), Institute of Infrastructure and Environment, School of Engineering, University of Edinburgh, UK.
- 7/17-8/17 Visiting Scholar, Department of Transit and Railway Engineering, Tongji University, Shanghai, China.
- 5/18-6/18 Visiting Scholar, Department of Transit and Railway Engineering, Tongji University, Shanghai, China.
- 7/19-8/19 Visiting Scholar, Department of Transit and Railway Engineering, Tongji University, Shanghai, China.

Teaching Grants:

- 7/87-6/88 Principal Investigator, " Grant for Professional Development in Teaching: Technology to Improve Graduate Program Recruitment and Teaching," UMass PMYR Grant (\$3,000).
- 7/87-6/88 Co-principal Investigator, "Incorporation of Field Testing in Geotechnical Classes," WSU College of Engineering Teaching Grant (\$4,000).

Classes Taught:

At the Illinois Institute of Technology:

CE 185	Statics for Architects
CE 285	Strength of Material for Architects
CE 413	Engineering Geology
CE 457	Foundation Engineering
CE 486	Site and Soil Improvement
CE 552	Soil Dynamics
CE 583	Advanced Soil Mechanics

At Washington State University:

CE 215	Strength of Materials (previously number CE 314)
CE 317	Geotechnical Engineering
CE 410/510	Experimental Soil Mechanics
CE 425/525	Soil and Site Improvement
CE 435	Foundation Engineering
CE 511	In Situ Testing and Field Instrumentation
CE 527	Advanced Soil Mechanics

At the École Nationale des Ponts et Chaussées

T5	Enseignement de Mécanique des Sols et des Roches (Soil and Rock Mechanics, English language class)
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At the University of Massachusetts:

CEE 121	Civil Engineering Measurements
CEE 260A	Probability and Statistics
CEE 320	Soil Mechanics
CEE 320H	Honors Colloquium on Soil Mechanics
CEE 365	Civil and Environmental Engineering Laboratory
CEE 421	Foundation Engineering
CEE 423	Engineering Geology
CEE 486	Civil and Environmental Engineering Design
CEE 527	Geotechnical Earthquake Engineering
CEE 623	Advanced Foundation Design
CEE 627	Rock Mechanics
CEE 690E	Earth Retaining Structures
ENGIN 297	Engineering in a Global Economy

Project, Thesis, Dissertation Advising:

Bachelors of Science Honor Students Advised:

Vanderheiden, Amy, *Effects of Water Content on the Diffusion Coefficient of Clay Soils*, BSCE Honors Program thesis, May 1991, Washington State University.

Snyder, Jerrod, *Liquefaction and Pore Pressure Development Mechanisms*, BSCE Honors Program thesis, May 1992, Washington State University.

Tooley, Jennifer, *Sediment Properties and Strengths Sampled from the Canadian Shelf*, BSCE Honors Thesis, Commonwealth College, January 2003, University of Massachusetts Amherst

Wong, Kelvin, *Evaluation of Compost for Erosion Control*, BSCE Honors Thesis, Commonwealth College, July 2005, University of Massachusetts Amherst

Lambert, Ryan, *An Inquiry into the Degradation and Fouling of Railway Ballast*, BSCE Honors Thesis, Commonwealth College, May 2009, University of Massachusetts Amherst

Seltzer, Justin, *Shear Strength Characterization of Wood Waste Compost*, BSCE Honors Thesis, Commonwealth College, May 2010, University of Massachusetts Amherst

Light, Timothy, *Triaxial Compression Testing of Fouled and Wetted Rail Ballast*, BSCE Honors Thesis, Commonwealth College, April 2013, University of Massachusetts Amherst

Masters of Science Students Advised:

Salvatore, Antonino Riccobono Longo, *Void Ratio Effect on the Diffusion Prediction of Non-reactive Solutes*, MSCE, May 1987, Illinois Institute of Technology.

Wong, Wylie, *Strain Controlled Cyclic Triaxial Test for Liquefaction Potential Analysis*, MSCE, August 1987, Illinois Institute of Technology.

Hovind, Cynthia L., *Determination of Time-Dependent Soil Parameters by Triaxial Tests*, MSCE, May 1990, Washington State University.

Shebl, Maher Abdel-Aal, *Effect of Compaction Technique on the Diffusion Characteristics in Clay Liners*, MSCE, May 1990, Washington State University.

Norton, Sonja S., *Development of an Unstable Slope Management System*, MSCE, December 1990, Washington State University.

Shawish, Khaled, *Update of Seismic Response Spectra for Bridge Design*, MSCE, August 1992, Washington State University.

Vela, Julio, C., *Rheological Testing of Subglacial Till Material*, MSCE, May 1994, Washington State University.

Herbel, Wayne, A., *Development of a GIS Based Landslide Hazard Map*, MSCE, May 1994, Washington State University.

Rodriguez, Adrian, *Discrete Element Method for Slope Stability Analysis*, MSCE, December 1995, Washington State University.

Coyne, Anthony, *Direct Shear Modeling of Micropile Networks*, MSCE candidate, degree expected August 1999, Washington State University.

Miles, Scott, *Rigorous Landslide Hazard Zonation using Newmark's and Stochastic Ground Motion Simulation*, MSCE, May 1997, University of Massachusetts Amherst.

Jozwicki, Katie, *GIS Based Risk Assessment for Seismically Induced Landslides*, MSCE candidate, degree expected August 1999, University of Massachusetts Amherst.

Skeels, Jason, *Long-term Rheological Testing of Glacial Till Material*, MSCE candidate, degree expected December 2003, University of Massachusetts Amherst.

Frankl, Raymond, *Material Testing of Coarse-grained Material for Dynamic Properties*, MSCE candidate, degree not completed, University of Massachusetts Amherst (co-chair with E. Selig)

O'Hara, Katherine, *Substructure Maintenance Management Approach For The Condition Assessment Of Railway Track*, MSCE, August 2002, University of Massachusetts Amherst.

Amidon, Kurt, *Geotechnical Engineering Report, Amherst, Wastewater Treatment Facility Upgrade*, MSCE, January 2003, University of Massachusetts Amherst.

Wong, Kelvin C, *Suitability of Compost for Erosion Control: Evaluation and Analysis*, MSCE August 2008, University of Massachusetts Amherst.

Tupper, Michael, *Geotechnical Engineering Report, Evaluation of Unquomok Reservoir Dams*, MSCE, May 2008, University of Massachusetts Amherst.

Lambert, Ryan, *Triaxial Compression Testing of Fouled Rail Ballast*, MSCE May 2012, University of Massachusetts Amherst.

Humphrey, Dennis, *Material Testing and Modeling of Resiliently Bound Ballast for Track Substructure Modification*, January 2014, University of Massachusetts Amherst.

Gnatek, Daniel, *Field Measurement of Ground Response to the Passage of High-Speed Trains Over Soft Soil*, MSCE, December 2014, University of Massachusetts Amherst.

Fontaine, Christopher J., M.S., May 2019, University of Massachusetts Amherst.

Doctoral Students Advised:

Gausseres, Richard, *Generalized Time-Dependent Behavior of Clays Consolidated Under Different Stress Ratios*, Ph.D. CE, May 1988, Illinois Institute of Technology, (co-chair with R. Finno).

Alwail, Tahir Ahmed, *The Mechanisms and Effects of Fines on Compacted Sandy Soil*, Ph.D. CE, December 1990, Washington State University, (co-chair with R. Fragasz).

Wong, Wylie W.-H., *Evaluation of Time-rate Slope Movement Based on Laboratory Tests*, Ph.D. CE, December 1992, Washington State University.

Shebl, Maher Abdel-Aal, *In Situ Treatment of Contaminated Soil Using Catalyzed Hydrogen Peroxide*, December 1993, Washington State University.

Vela, Julio, C., *Instrumentation of a Tied-back or PRES Wall to Measure Seismic Response*, Ph.D. CE, August 1999, Washington State University.

Faghihi Kashani, Hamed, *Evaluating the Influence of Breakdown Fouling and Moisture Content on Mechanical and Electromagnetic Properties of Ballasted Railroad Track*, Ph.D. CE, September 2017, University of Massachusetts Amherst.

Yang, Zhenning, *Experimental Investigation of Hydraulic Fracturing Fluid on Shale and Soil*, Ph.D. CE, September 2018, University of Massachusetts Amherst.

Rubin, Aaron J., *Application of Ground Penetrating Radar for use in Thermal Conductivity Site Investigations*, Ph.D. CE, September 2018, University of Massachusetts Amherst.

Rohrman, Andrew K., *Laboratory Study of the Geotechnical Properties of Abraded Railway Ballast with Natural and Clay Mix Fouling*, Ph.D. CE, May 2019, University of Massachusetts Amherst.

Goodarzi, Saeed, *Probabilistic Approach to Evaluate Ballast Life Using Large Data Sets*, working title, University of Massachusetts Amherst.

At the University of Massachusetts:

2/11 & 4/8/18 Open House-- Participated in Open House planning and participation.
2018 Member, Professional Practice Faculty Search Committee.

2/12 & 4/9/17 Open House-- Participated in Open House planning and participation.

4/10/16 Open House-- Participated in Open House planning and participation.

2016-present Program Coordinator, Geotechnical Engineering, Department of Civil and Environmental Engineering.

2015 Civil and Environmental Engineering Undergraduate Scholarship Committee.

4/4/2014 Open House-- Participated in Open House planning and participation.

2013-15 Area Coordinator, Geotechnical Engineering, Department of Civil and Environmental Engineering.

2012-13 Member, Faculty Search Committee (Geotechnical Engineering), Department of Civil and Environmental Engineering.

2011-13 Member, Scholarship Committee, Department of Civil and Environmental Engineering.

2010-2012 Member, Undergraduate Curriculum Committee, Department of Civil and Environmental Engineering.

2009 Volunteer, Campus Appreciation Day.

2008-2008 Faculty Advisor, Student Chapter of the ASCE.

2008 Panelist, College of Engineering REU Summer Program.

2008 Volunteer, Campus Appreciation Day.

2007-2008 Member, Faculty Search Committee (Structural Engineering and Mechanics), Department of Civil and Environmental Engineering.

2007-2013 Member, Department Personnel Committee, Department of Civil and Environmental Engineering (Chair, 2008-2009, part of 2010-11, 2012-13).

2006-2008 Member, Scholarship Committee, Department of Civil and Environmental Engineering

2002-2004 Member, Curriculum Committee, College of Engineering

2002-2003 Member, Baden-Württemberg Committee, University International Program Office.

2000 Participant, NEAGEP program.

2000-2008 Graduate Program Director, Civil and Environmental Engineering

2000 Member, College of Engineering/School of Management Undergraduate Initiative Committee, College of Engineering.

1999-1999 Member, Committee and Initiatives in the International Program

1999 Member, ABET Concerns Committee, College of Engineering.

1999 Chair, Capstone Design Course Committee, Department of Civil and Environmental Engineering.

1999-2000 Member, Structural Engineering Faculty Search Committee, Department of Civil and Environmental Engineering.

1999 Member, Geotechnical Engineering Faculty Search Committee, Department of Civil and Environmental Engineering.

1999-2000 Department Representative, Minority Engineering Program, College of Engineering.

1998-99 Member, Geotechnical Engineering Faculty Search Committee, Department of Civil and Environmental Engineering.

1999-2001 Mentor, Minority Engineering Program, College of Engineering.

1997 Participant, College of Engineering Open House, October 18, 1997.

1997-2000 Area Coordinator, Geotechnical Engineering, Department of Civil and Environmental Engineering.

1997-1996 Member, Civil and Environmental Department Head Search Committee.

1996 Member, University Fulbright Fellowship Screening Committee, October 9, 1996.

1 Member, Alumni Relations Committee, Department of Civil and Environmental Engineering.

- 1996 Participant, College of Engineering Open House, October 5, 1996.
- At Washington State University:***
- 1995-96 Member Scholarship Committee, Honors Council.
- 1995-96 Undergraduate Curriculum Committee, Department of Civil and Environmental Engineering.
- 1995 Chairman, Committee to Review the Teaching of T. Papagiannakis, Department of Civil and Environmental Engineering.
- 1994 Participant, Focus Group for WSU Foundation Fund Raising Campaign, 9/22/94.
- 1994 Chairman, Committee to Review the Teaching of R. Taha, Department of Civil and Environmental Engineering.
- 1993 Committee to Review the Teaching of T. Papagiannakis, Department of Civil and Environmental Engineering.
- 1993 Member, Undergraduate Environmental Task Group, Department of Civil and Environmental Engineering.
- 1992-94 Chairman, Faculty Committee for Distinguished Lecture Series, College of Engineering.
- 1992-93 Member, Search Committee for Assistant/Associate Professors of Civil and Environmental Engineering in the areas of Structural Engineering and Geotechnical Engineering.
- 1992-94 Senator, University Faculty Senate.
- 1992-96 Member, Honors Council, University President's Standing Committee.
- 1992 Committee to Review the Teaching of Dr. R. Nakib, Department of Civil and Environmental Engineering.
- 1992 Committee to Review the Teaching of Dr. B. Muhunthan, Department of Civil and Environmental Engineering.
- 1992-94 Program Coordinator, Geotechnical and Pavement Engineering, Department of Civil and Environmental Engineering.
- 1991-92 Member, Faculty Committee for Distinguished Lecture Series, College of Engineering.
- 1991 Participant, Faculty Panel Discussion, 1991 Fall College of Engineering and Architecture Advisory Board Meeting, October 11, 1991.
- 1991 Participant, Graduate Education Workshop, September 19, 1991
- 1991-92 Member, Search Committee for Assistant/Associate Professor of Civil and Environmental Engineering in the area of Geohydrology, Department of Civil and Environmental Engineering.
- 1991-92 Chairman, Search Committee for Assistant/Associate Professor of Civil and Environmental Engineering in the area of Pavement Design/Geotechnical Engineering, Department of Civil and Environmental Engineering.
- 1990 Participant, workshop sponsored by the President's Commission on the Status of Minorities, November 27, 1990.
- 1990-95 Official, NCAA intercollegiate track and field competition.
- 1990-92 Program Coordinator, Geotechnical Engineering, Department of Civil and Environmental Engineering.
- 1990-91 Member, Search Committee for Assistant/Associate Professors of Civil and Environmental Engineering in the areas of Geotechnical Engineering,

- Environmental Engineering, Hydraulic Engineering, and Structural Engineering, Department of Civil and Environmental Engineering.
- 1990 Member, Ad Hoc Committee for Computing Facilities, Department of Civil and Environmental Engineering.
- 1990 Member, Ad Hoc Committee for a 4-Year Curriculum in Civil Engineering, Civil Engineering Department.
- 1990 Participant, NSF Young Scholars Program, Summer 1990.
- 1989- Member, Graduate Studies Committee, Department of Civil and Environmental Engineering.
- 1989- Member, Committee on Computing, Department of Civil and Environmental Engineering.
- 1988-89 Member, Search Committee for Chairman of the Department of Civil and Environmental Engineering.
- 1988-92 Lecturer, MESA minority recruitment program, at WSU 11/10/88, at Sunnyside High School, Sunnyside, WA, 2/25/89, 2/24/90, and 2/22/92.
- 1987-88 Member, Search Committee for Assistant Professor of Civil and Environmental Engineering in the area of Transportation Engineering, Department of Civil and Environmental Engineering.

At the Illinois Institute of Technology:

- 1986-87 Member, Institute Curriculum Committee.
- 2/25/86 Invited presentation on the engineering curriculum for architects for the College of Architecture accreditation review board.
- 1985-86 Instructor, Women in Science and Engineering Summer Program.
- 1985-87 Faculty Advisor, Student Chapter of the ASCE.

Honors:

- 5/87 Honorary Member, Chi Epsilon, IIT Chapter.
- 12/89 Most Admired Faculty Member, ASCE Student Chapter WSU.
- 1994 Fulbright Fellowship First Alternate for France Program.
- 1995 Bourse de Haut Niveau (High Level Fellowship) from the Ministère de l'Enseignement Supérieur et de la Recherche (MESR).

Presentations:

- 4/13/1984 "Probabilistic Analysis of Pore Pressure Development," Ill. Inst. Tech., Chicago, IL.
- 11/21/1986 "Probabilistic Approach to Liquefaction Potential," Wash. St. Univ., Pullman, WA.
- 7/26/1991 "Evaluation of Landslide Movements Using Laboratory Tests," Northwestern University, Evanston, IL.
- 2/27/1992 "Rheological Slope Stability Model Based Upon Laboratory Tests," NSF/USGS Workshop on Hazardous Mass-Flow, University of Missouri, Rolla, MO.
- 11/19/1992 "Characteristics of Seismically Induced Landslides," combined meeting of the Geotech. Tech. Group, Seattle Sect., ASCE and Wash. St. Sect., AEG, Seattle WA.
- 11/20/1992 "Evaluation of Time-rate Slope Movement Based on Laboratory Tests," Univ. of Wash., Seattle, WA.
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