# SAMI O. AKBAS, PhD

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Orlando, FL 32803

CITIZENSHIP: US Permanent Resident
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## EDUCATION

2007/02 **Doctor of Philosophy (PhD)** in Civil (Geotechnical) Engineering
School of Civil and Environmental Engineering
Cornell University, USA
Major: Geotechnical Engineering
Double Minors: Structural Engineering and Geology
Advisor: Professor Fred H. Kulhawy
Thesis Title: Deterministic and Probabilistic Assessment of Settlements of Shallow Foundations in Cohesionless Soils
GPA: 3.94 / 4.00

1999/05 **Master of Engineering (MEng)** in Civil Engineering
School of Civil and Environmental Engineering
Cornell University, USA
Major: Geotechnical Engineering
GPA: 3.89 / 4.00

1997/07 **Bachelor of Science (BS)** in Civil Engineering
Middle East Technical University, Turkey (ABET Accredited)
Major: Structural Engineering
GPA: 3.44 / 4.00

## ACADEMIC & PROFESSIONAL EMPLOYMENT HISTORY

2006/09 – 2016/11 Associate Professor/Assistant Professor/Lecturer
Department of Civil Engineering
Gazi University, Turkey

2008/04 – 2009/04 Marie Curie Postdoctoral Research Fellow
Department of Environmental Science & Institute for the Dynamic Environmental Processes
University of Milano-Bicocca & National Research Council of Italy
Milan, Italy

2005/12 - 2006/09 Geotechnical Engineer
Mueser Rutledge Consulting Engineers
New York City, USA

2002/01 - 2005/12 PhD Researcher
School of Civil and Environmental Engineering
Cornell University, USA

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|---|---|
| 1999/06 - 2002/01 | Geotechnical Engineer<br>Dams and Hydroelectric Power Plants Division<br>State Hydraulic Works, Turkey |
| 1997/07 - 1998/08 | Teaching Assistant<br>Civil Engineering Department<br>Middle East Technical University, Turkey |

## HONORS AND AWARDS

- Erasmus Scholar, University of Bratislava, Slovakia, May 2014
- Invited Speaker, 15th National Geotechnical Engineering Symposium, Ankara, Turkey, 2014
- Japanese International Cooperation Agency (JICA) Fellow, Natural Catastrophe Management, May-July 2010
- The Best Paper for a First Time Presenter Award, ASCE International Foundation Congress (IFCEE'09), Orlando, Florida, 2009
- European Commission Marie Curie Post–Doctoral Research Fellow, 2008-2009
- The Scientific and Technological Research Council of Turkey Travel and Publication Grants, 2009, 2010, 2011, 2012, & 2014
- European Council Travel and Conference Fellowships, 2007 & 2008 (for various meetings, field trips, and workshops in Lausanne, Switzerland; Kempten, Germany; Barcelonnette, France; Offida, Italy, and Barcelona, Spain)
- The Higher Education Council of Turkey Doctoral Fellowship, 2002-2006
- Outstanding Service Award, Turkish Armed Forces Corps of Engineers, 2000
- Fellow of the Turkish Ministry of National Education: 1998-1999
- Honor Student, Middle East Technical University, 1993-1997

## PROFESSIONAL AFFILIATIONS

- Member, American Society of Civil Engineers (ASCE) and Geo-Institute
- Member, Association of Engineers and Architects, Turkey
- Member, Intl. Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)
- Member, Geotechnical Safety Network

## PUBLICATIONS

*A. Peer-Reviewed Journal Papers (Indexed in Web of Science)*

1. O Anil, SO Akbas, S Babagiray, AC Gel & C Durucan, "Experimental and Finite Element Analyses of Footings of Varying Shape on Sand", *Geomechanics and Engineering (Techno Press)*, (accepted for publication).
2. O Anil, SO Akbas, O Gezer & CM Yilmaz, "Investigation of Impact Behaviour of Steel and Composite Pipes with Protective Layer", *Structural Concrete (Wiley)*, (accepted for publication).
3. YB Sonmezer, SO Akbas & NS Isik, "Assessment of the Peak Acceleration, Amplification Ratio, and Fundamental Period Properties for the Kirikkale Province Settlement Area", *Journal of the Faculty of Engineering of Gazi University*, 30(4), 2015, 711-721.
4. YZ Ozturk, SO Akbas & N Unsal, "Assessment of the Swelling and Lime Stabilization Potential of Golbasi (Ankara) Residential Area Clays", *Journal of the Faculty of Engineering of Gazi University*, 30(2), 2015, 309-318.
5. O Anil, SO Akbas, E Kantar & AC Gel, "Vibration Measurement and Vulnerability Analysis of a Power Plant Cooling System", *Smart Structures and Systems (Techno Press)*, 11(2), 2013, 199-215.
6. G Babagiray, SO Akbas & O Anil, "The Effect of a Shallow Rigid Layer on the Bearing Capacity of Footings on Cohesionles Soils*", Journal of the Faculty of Engineering of Gazi University*, 28(1), 2013, 187-198.

7. O Dogan, O Anil, SO Akbas, E Kantar & RT Erdem, "Evaluation of Blast-Induced Ground Vibration Effects in a New Residential Zone", *Soil Dynamics and Earthquake Engineering (Elsevier)*, 50, 2013, 168-181.
8. SO Akbas & I Sak, "Predicted and Observed Deformation Behavior of Akkopru Dam", *Journal of the Turkish Society of Civil Engineers*, 23(3), 2012, 6063-6087.
9. B Quan-Luna, J Blahut, C J Van Westen, S Sterlacchini, TWJ Van Asch, SO Akbas, "The Application of Numerical Debris Flow Modelling for the Generation of Physical Vulnerability Curves", *Natural Hazards and Earth System Sciences*, 11, 2011, 2047-2060.
10. E Tekin & SO Akbas, "Artificial Neural Networks Approach for Estimating the Groutability of Granular Soils with Cement-Based Grouts", *Bull. Eng. Geol. Environ. (Springer)*, 70(1), 2011, 153-161.
11. SO Akbas & FH Kulhawy, Closure to "Axial Compression of Footings in Cohesionless Soils – II. Bearing Capacity", *J. Geotech. & Geoenv. Eng. (ASCE)*, 137(9), 2011, 856-857.
12. E Tekin & SO Akbas, "Estimation of the Groutability of Granular Soils with Cement-Based Grouts Using Discriminant Analysis", *Journal of the Faculty of Engineering of Gazi University,* 25(3), 2010, 625-633.
13. SO Akbas & FH Kulhawy, "Characterization and Estimation of Geotechnical Variability in Ankara Clay: A Case History", *Geotech. & Geological Eng. (Springer)*, 28(5), 2010, 619-631.
14. SO Akbas & FH Kulhawy, Closure to "Axial Compression of Footings in Cohesionless Soils – I. Load-Settlement Behavior", *J. Geotech. & Geoenv. Eng. (ASCE)*, 137(1), 2010, 110-110.
15. SO Akbas & FH Kulhawy, "Reliability-Based Design Approach for Differential Settlement of Footings on Cohesionless Soils", *J. Geotech. & Geoenv. Eng. (ASCE)*, 135(12), 2009, 1779-1788.
16. SO Akbas & FH Kulhawy, "Axial Compression of Footings in Cohesionless Soils – I. Load-Settlement Behavior", *J. Geotech. & Geoenv. Eng. (ASCE)*, 135(11), 2009, 1575-1582.
17. SO Akbas & FH Kulhawy, "Axial Compression of Footings in Cohesionless Soils – II. Bearing Capacity", *J. Geotech. & Geoenv. Eng. (ASCE)*, 135(11), 2009, 1562-1574.
18. SO Akbas, "Estimation of Allowable Differential Settlements for Various Structure Types Using Deep Beam Analogy" *Journal of the Faculty of Engineering of Gazi University,* 23(4), 2008, 871-878.

*B. Book Chapters*

1. BQ Luna, J Blahut, M Kappes, SO Akbas, J-P Malet, A Remaitre, T van Asch & M Jaboyedoff, "Chapter 5: Methods for Debris Flow Hazard and Risk Assessment" in *Mountain Risks: From Prediction to Management and Governance*, Advances in Natural and Technological Hazards Research, Springer (Netherlands), 2014, 133-177. ISBN: 978-94-007-6768-3.
2. S Sterlacchini, SO Akbas, O-C Mavrouli, C Garcia, BQ Luna & J Corominas, "Chapter 8: Methods for Characterization of the Vulnerability of Elements at Risk" in *Mountain Risks: From Prediction to Management and Governance*, Advances in Natural and Technological Hazards Research, Springer (Netherlands), 2014, 233-273. ISBN: 978-94-007-6768-3.

*C. Selected Peer-Reviewed Conference Proceedings*

1. G Babagiray, SO Akbas & O Anil, "Investigation of Impact Behavior of HDPE Pipes with Geocell Protective Layer", *6th European Geosynthetics Congress*, Ljubljana, Slovenia, Sep 2016. ***[received "2016 Student Award" of International Geosynthetics Society]***
2. CR Cavlaz & SO Abas, "A Comparison of the Methods Used for Estimating Free Anchor Lengths", *4th International Conference on New Developments in Soil Mechanics and Geotechnical Engineering*, Nicosia, Cyprus, June 2016.
3. SO Akbas & O Kokten, "Reliability Analysis of an Anchored Contiguous Pile Wall in Clay with the Random Set Finite Element Method", *5th International Symposium on International Safety and Risk*, Rotterdam, the Netherlands, Oct 2015.
4. H Karatag & SO Akbas, "Importance of Instrumental Observations and Local Correlations in Terms of Sustainability of Soldier Pile Structures", *2nd International Sustainable Buildings Symposium,* May 2015, Ankara, Turkey, 258-264.
5. E Turk, SO Akbas & O Tufenkci, "Estimation of the Undrained Bearing Capacity of Footings Using Random Finite Element Method: Application in Ankara Clay", *ISSMGE TC 207 International*

*Conference on Geotechnical Engineering: Soil-Structure Interaction & Underground Structures and Retaining Walls*, St. Petersburg, Russia, June 2014.

6. SO Akbas & FH Kulhawy, "Model Uncertainties in Elasticity-Based Settlement Estimation Methods for Footings on Cohesionless Soils", *International Symposium on Advances in Foundation Engineering*, Singapore, Dec 2013.
7. H Karatag & SO Akbas, "Comparison of the Computed and Observed Behavior of an Anchored Wall under Limited Geotechnical Characterization", *The Third International Symposium on Computational Geomechanics (ComGeo III)*, Krakow, Poland, Aug 2013.
8. SO Akbas & E. Tekin, "Estimation of Resistance Factors for Reliability-Based Design of Shallow Foundations in Cohesionless Soils under Earthquake Loading", *Foundation Engineering in the Face of Uncertainty - Honoring Fred H. Kulhawy - Geotechnical Special Publication 229,* San Diego, CA, Mar 2013, 555-569.
9. Ö Güzey, E Aksoy, AC Gel, Ö Anil, N Gültekin, SO Akbas, "An Inter-Disciplinary Approach for Earthquake Vulnerability Assessment in Urban Areas: A Case Study of Central District, Yalova", *Annual European Conference,* Regional Studies Association, University of Tampere, Finland, 2013.
10. AC Gel, SO Akbas & O Anil, "Comparison of the Performance of Rectangular Footings on Cohesionless Soils Reinforced with Geogrid and Geotextile", *ISSMGE - TC 211 International Symposium on Ground Improvement, IS-GI Brussels*, Belgium, May 2012.
11. E Tekin & SO Akbas, "Logistic Regression Approach for Estimating the Groutability of Granular Soils with Cement-Based Grouts", *3rd International Conference on New Developments in Soil Mechanics and Geotechnical Engineering,* Near East University, Nicosia, Cyprus, 2012.
12. AC Gel, SO Akbas & O Anil, "An Experimental Study on the Performance of Eccentrically-Loaded footings on Cohesionless Soil Reinforced with Nonsymmetrical Geogrid Layers", *3rd International Conference on New Developments in Soil Mechanics and Geotechnical Engineering*, Near East University, Nicosia, Cyprus, 2012.
13. SO Akbas & FH Kulhawy, "Reliability-Based Design of Foundations in Cohesionless Soils under Compression Loading: Ultimate Limit State", *11th Int. Conf. Applications of Prob. & Stat. in Civil Eng.* Eds. Faber, Köhler & Nishijima Taylor & Francis Group, London, ISBN 978-0-415-66986-3, Zurich, Aug 2011, 1659-1665.
14. SO Akbas & E Tekin, "Realistic Estimates of the Uncertainties and the Reliability Indices for Shallow Foundation Design Considering Seismic Loading", *3rd International Symposium on Geotechnical Safety and Risk (ISGSR2011)*, Eds. Vogt, Schuppener, Straub & Bräu, Bundesanstalt für Wasserbau ISBN 978-3-939230-01-4, Munich, Germany, June 2011, 333-339.
15. SO Akbas & FH Kulhawy, "Reliability-Based Design of Shallow Foundations in Cohesionless Soils under Compression Loading: Serviceability Limit State", *Georisk 2011: Risk Assessment and Management (GSP 224)*, Load and Resistance Factor Design (LRFD) for Foundation Systems, pp. 616-623, Atlanta, Georgia, USA, June 2011, 616-623.
16. S Asiabi & SO Akbas, "Liquefaction Susceptibility and Hazard Mapping for the City of Ardebil, Iran", *Young Engineers Conference*, Soc. for Earthquake & Civil Eng. Dynamics, London, Nov 2010, 6p. (on CD)
17. AC Gel, O Anil & SO Akbas, "Bearing Capacity of Rectangular Footings on Sand Overlying Rock", *9th Intl. Cong. Advances in Civil Eng.*, Ed. A Bayraktar et al., Trabzon, Turkey, Sep 2010, 8p. (on CD)
18. O Dogan, SO Akbas & O Anil, "A Study on the Relationship of Blast-Induced Surface Acceleration with the Quantity of and Distance from the Explosive Material", *9th Intl. Cong. Advances in Civil Eng.*, Ed. A Bayraktar et al., Trabzon, Turkey, Sep 2010, 8p. (on CD).
19. E Tekin & SO Akbas, "CPT Based Determination of Scale of Fluctuation in Clays", *Proc.*, 13th Conf. on Soil Mech. & Fndn. Eng., Istanbul, Sep 2010, 347-354.
20. B Quan-Luna, J Blahut, C Camera, C van Westen, S Sterlacchini T Apuani & SO Akbas, "Quantitative Risk Assessment Using Empirical Vulnerability Functions from Debris Flow Event Reconstruction", *European Geological Assembly 2010*, Vienna, May 2010, p 6684.
21. SO Akbas & FH Kulhawy, "Model Uncertainties in "Terzaghi & Peck" Settlement Estimation Methods for Estimating Settlement of Footings on Sand", *GeoFlorida 2010: Advances in Modeling, Analysis & Design*, ASCE, Reston, Feb 2010, 2093-2102.
22. J Blahut, B Quan-Luna, SO Akbas & C van Westen, "Debris Flow Reconstruction-Geomorphologic and Numerical Approach. A Case Study from the Selvetta Event in Valtellina, Italy, July 2008",

*European Geological Assembly 2009*, Vienna, April 2009, p 7158.

23. S Frigerio, S Sterlacchini, C van Westen, SO Akbas, J Blahut, M De Amicis & S Sironi, "Hazard and Potential Damage Evaluation in a Web-GIS as Support for Risk Management", *European Geological Assembly 2009*, Vienna, April 2009, p 12206.
24. SO Akbas, J Blahut, B Quan-Luna, & S Sterlacchini, "Estimation of Vulnerability Functions for Debris Flows Using Different Intensity Parameters", *European Geological Assembly 2009*, Vienna, April 2009, p 7911.
25. SO Akbas, S Sterlacchini, "Fragility Curve Construction for Low-Rise Reinforced Concrete Buildings Affected by Debris Flow, *European Geological Assembly 2009*, Vienna, April 2009, p 8132.
26. SO Akbas & FH Kulhawy, "Drained Soil Modulus from Load Tests for Shallow Foundation Design", *Contemporary Topics in Ground Modification, Problem Soils, & Geo-Support (GSP 187)* [*Proc.*, ASCE-ADSC-PDCA Intl. Foundations Cong.], Ed. M Iskander, DF Laefer & MH Hussein, ASCE, Reston, Mar 2009, 449-456. ***[received award as 1 of 3 "best papers" at Intl. Foundations Congress (2009)]***
27. SO Akbas, J Blahut & S Sterlacchini, "Critical Assessment of Existing Physical Vulnerability Estimation Approaches for Debris Flows", *Landslide Processes: From Geomorphologic Mapping to Dynamic Modelling*, Ed. J-P Mallet, A Remaitre & T Bogard, Strasbourg, France, Feb 2009, 229-234.
28. FH Kulhawy, SO Akbas, J-F Chang, P Shi & Y Wang, "Class A Prediction of Load Tests on Drilled Shafts, CFA Piles, & Driven Piles at ISC'2 Experimental Site, Porto, Portugal", *International Prediction Event: Behavior of Bored, CFA & Driven Piles in Residual Soil, ISC'2 Experimental Site*, A Viana da Fonseca & JA Santos, University of Porto, Portugal, Sep 2008, 325-330.
29. SO Akbas & SB Yuksel, "Reliability of Concrete Box Culverts Designed for Vertical Loads", *Proc.*, 8th Intl. Cong. Advances in Civil Eng. (4), Ed. O Eren et al., Famagusta, Cyprus, Sep 2008, 3-11.
30. SO Akbas & FH Kulhawy, "Case History of SPT Energy Ratio for an Automatic Hammer in Northeastern U.S. Practice", *Geotechnical & Geophysical Site Characterization* (*Proc.,* 3rd Intl. Conf. Site Characterization), Ed. A-B Huang & PW Mayne, Taipei, Apr 2008, 1241-1245.
31. SO Akbas & SB Yuksel, "Finite Element Analysis for the Estimation of Vertical Design Loads on Reinforced Concrete Box Culverts", *Proc.*, Intl. Symp. Advances in Earthquake & Structural Eng., Ed. Z Ay et al., Isparta, Turkey, Oct 2007, 142-152.
32. SO Akbas & FH Kulhawy, "Differential Settlement of Shallow Foundations on Granular Soils - A Probabilistic Approach", *Proc.,* Conf. Soil - Structure Interaction: Calculation Methods & Eng. Practice (1), Ed. VM Ulitsky, St. Petersburg, Russia, May 2005, 105-110.
33. FH Kulhawy, WA Prakoso & SO Akbas, "Evaluation of Capacity of Rock Foundation Sockets", *Alaska Rocks 2005* (*Proc.*, 40th US Symp. Rock Mech.), Ed. G Chen, S Huang, W Zhou & J Tinucci, Anchorage, Jun 2005, Paper 05-767, 8 p. (on CD)

*M.S. Theses Supervised:*

1. I. Sak, "The Comparison of Measured and Predicted Deformation Performance of Akkopru Dam", M.S., Gazi University, July 2009 (Chair)
2. S Asiabi, "Liquefaction Analysis of City of Ardebil – Iran", M.S., Gazi University, Nov 2010 (Chair)
3. E Durak, "Estimation of Vulnerability Against Snow Avalanches for Village-Type Turkish Buildings", M.S., Gazi University, Feb 2011 (Chair)
4. G Aydin, "Reliability and Accuracy of Bearing Capacity Estimation Methods for Shallow Foundations on Cohesionless Soils", M.S., Gazi University, Feb 2011 (Chair)
5. M Topcu, "Investigation of the Effect of Grain Size of Fine Grained Soils on Consistency Limits", M.S., Ankara University, Oct 2011 (E. Committee Member)
6. S Kalaycioglu, "Investigation of the Shrinkage Limit Using the Reverse Extrusion", M.S., Ankara University, June 2012 (E. Committee Member)
7. H Karatağ, "The Comparison of the Calculated and Observed Behavior of an Anchored Retaining Wall", M.S., Gazi University, Aug 2012 (Chair)
8. SF Ghozati, "Assessment of the Reinforcing Effect of Geogrids on Eccentrically Loaded Shallow Foundations", M.S., Gazi University, Feb 2013 (Chair)

9. F Günay, "A Study on the Behavior of a Composite Foundation by Using Different Analysis Methods", M.S., Gazi University, Aug 2013 (Co-chair)
10. E Turk, "Application of Random Field Finite Element Method for Estimating the Undrained Bearing Capacity of Shallow Foundations", M.S., Gazi University, Aug 2014 (Chair)
11. H Sojoudi, "Modeling of Tunnel Excavation Related Settlements at Residential Areas", M.S., Ankara University, Feb 2015 (E. Committee Member)

*PhD. Theses Supervised:*

1. OL Ertugrul, "Influence of Deformable Geofoam Buffers on the Static and Dynamic Behaviors of Cantilever Retaining Walls", PhD, Middle East Technical University, Sep 2011 (E. Committee Member)
2. E Tekin, "Reliability-Based Design Optimization of Foundations on Cohesionless Soils and Reliability Analysis of Footings Under Earthquake Loading", PhD, Gazi University, Feb 2012 (Chair)
3. AC Gel, "Experimental and Numerical Investigation of the Behavior of Eccentrically Loaded Shallow Foundations on Cohesionless Soils Reinforced with Geogrid Layers", PhD, Gazi University, Mar 2013 (Chair)
4. Z Cekinmez, "Experimental Study on Stress Concentration Factors in Single and Groups of End Bearing and Floating Sand Columns, PhD, Middle East Technical University, June 2014 (E. Committee Member)

**COURSES TAUGHT**

- Statistics and Probability for Civil Engineers (IM 225)
- Soil Mechanics I (IM 361)
- Soil Mechanics II (IM 364)
- Foundation Engineering (IM 461)
- Deep Foundations (IM 431)
- Undergraduate Design Project
- Undergraduate Graduation Design Project
- Introduction to Civil Engineering (IM 101)
- Advanced Soil Mechanics I (Graduate) (IM 575)
- Advanced Soil Mechanics II (Graduate) (IM 502)
- Advanced Foundation Engineering (Graduate) (IM 509)

**PROFESSIONAL DEVELOPMENT WORKSHOPS ATTENDED**

- Course on Disaster Mitigation, Preparedness, and Restoration for Infrastructure for Civil Engineers, Osaka & Tokyo, Japan, May-Aug. 2010. Sponsored by Japanese International Cooperation Agency (JICA).
- Workshop on Landslide Quantitative Risk Assessment, Barcelona, Spain, Sep. 2008. Sponsored by European Commission.
- Workshop on Multi-Hazard Consequences, Vulnerability, and Risk Analysis, Kempten, Germany, Jun. 2008. Sponsored by European Commission.
- Single Hazard Analysis Workshop, Lausanne, Switzerland, Nov. 2007. Sponsored by Ecole Polytechnique Federale de Lausanne and European Commission.

**OTHER SELECTED ACADEMIC SERVICE**

- Editorial Board Member, Geomechanics and Engineering, Techno Press
- Section Editor – Civil Engineering, Gazi University Journal of Science (Indexed by Scopus)
- Coordinator of civil engineering dual degree program between Gazi and Montana State Universities
- Reviewed journal articles for Journal of Geotechnical and Geoenvironmental Engineering (ASCE), Georisk (Taylor & Francis), Geotechnical and Geological Engineering (Springer),

Advances in Structural Engineering (Metapress), Journal of GeoEngineering, Natural Hazards (Springer) & Journal of the Turkish Chamber of Civil Engineers, and for many conference proceedings.

- Reviewed research proposals for City University of Hong Kong, Atilim University, Selcuk University and Kirikkale University
- Coordinator, Gazi University Civil Engineering Department European Union Lifelong Learning Programme (Erasmus)
- Vice Chairman, Civil Engineering Department, Gazi University, 2010-2014
- Committee Member, Gazi University Earthquake Engineering Research Center, since 2010
- Member, Gazi University Civil Engineering Department Accreditation Committee, since 2010
- Member, Board of Management, Faculty of Engineering, Gazi University, 2011-2016

**REPRESENTATIVE ENGINEERING CONSULTANCY SERVICES PERFORMED**

1. Geotechnical Consultant, "Geotechnical Recommendations: Relocation of Historical Artifacts in Hasankeyf, Mardin province due to Inundation" Ministry of Culture and Tourism, October 2016.
2. Geotechnical Consultant, Akademi Geotechnical Services Inc., "CPT-Based Liquefaction Potential Assessment and Jet Grouting-Based Liquefaction Mitigation Report for Three Substations within 380 kV XLPE Submarine Cable Connection Network, Dardanelles Strait", Turkish Electricity Transmission Corporation, July 2016.
3. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Kastamonu Airport Slope Stability and Mitigation Design Study", General Directorate of State Airports Authority (DHMI), December 2015.
4. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Engineering Design Study, Turunclu/Defne 1619th Parcel", Hatay Metropolitan Municipality, October 2015.
5. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Engineering Design Study, Landslide in Zonguldak Ereğli 2B Highway Between Km:15+600-15+800", General Directorate of Highways, August 2015.
6. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Recommendations, Kahramanmaras Airport Terminal Building and Complementary Facilities", Balkan Architecture Inc., July 2015.
7. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Excavation Support Projects and Geotechnical Design Report, ODTU Teknokent Technology Development Area", FREA Architecture Inc., July 2015.
8. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Excavation Support Projects and Geotechnical Design Report, Bogazici University Borsa İstanbul Finans Teknopark Project", Butuner Architecture Inc., June 2015.
9. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Investigation Report, Landslide on Urgen Street in Hatay / Defne County, Harbiye District", Hatay Metropolitan Municipality, June 2015.
10. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Engineering Design Study and Landslide Mitigation Projects, Oltu Motorway (Km:68+700-69+250), Tortum -Uzundere Highway (Km:0+000-1+500), Erzurum-Ispir Highway (Km:100+450-100+640)", General Directorate of Highways, March 2015.
11. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Site Investigation and Liquefaction Potential Assessment, İzmir Karaburun Akdag Radar Personnel Education Center", General Directorate of State Airports Authority (DHMI), February 2015.
12. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Site Investigation and Geotechnical Recommendations for Isparta Suleyman Demirel Airport

Domestic/International Terminal", General Directorate of State Airports Authority (DHMI), February 2015.

13. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Engineering Design Report, Ankara Esenboğa Airport 3rd Runway Construction", General Directorate of State Airports Authority (DHMI), January 2015.
14. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Site Investigation and Liquefaction Potential Assessment, Guzelyali, Canakkale", Canakkale Metropolitan Municipality Directorate of Housing and Urban Development, January 2015.
15. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Excavation Support Projects and Geotechnical Design Report, Public Health Agency of Turkey and Turkish Drug and Medical Device Institution Campus Project", Yildizlar Construction Inc., December 2014.
16. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Engineering Design Study and Landslide Mitigation Projects, Mamak County Cengizhan District", Mamak Municipality Directorate of Housing and Urban Development, December 2014.
17. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Engineering Recommendations, Construction of Karapinar (Polatli) İki Yollu Handling Area and Service Building", Turkish State Railways 2nd Regional Directorate, Ankara, November 2014.
18. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Investigation and Geotechnical Engineering Recommendations, Construction, Rehabilitation and Extension of Esenboga Airport New Parallel Runway and PAT (Runway, Apron, Taxiway) Areas and De-Icing Apron", General Directorate of State Airports Authority (DHMI), September 2014.
19. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Engineering Recommendations and Landslide Mitigation Projects, Ankara-İstanbul High Speed Train Tepetarla Section Between Km:105+280-105+380", Turkish State Railways Construction Division, July 2014.
20. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Investigation and Geotechnical Design Report, Construction of Viaducts Numbered V7-V9-V10-V15 in Ankara-Sivas Railway Project Between Kayaş-Kırıkkale for Turkish State Railways", Dogus Construction Inc., June 2014.
21. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Investigation and Geotechnical Engineering Recommendations, Mus Airport Technical Block Tower", General Directorate of State Airports Authority (DHMI), June2014.
22. Geotechnical Consultant, Akademi Geotechnical Services Inc., "TOKİ Kocaeli / İzmit County 200-Bed Public Hospital", Elron Construction Inc., April 2014.
23. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Engineering Recommendations and Landslide Mitigation Projects, Ankara-İstanbul High Speed Train Project (2. Phase) Vezirhan-İnönü (Section 2) Tunnel 24 Tunnel Entrance (Km: 213+760-213+850)", Gunes Yol Construction Inc., April 2014.
24. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Investigation and Report, Ankara-İstanbul High Speed Train Project (2. Phase) Vezirhan-Inönü Section 2 Tunnel 26", Turkish State Railways Construction Division, March 2014.
25. Geotechnical Consultant, Akademi Geotechnical Services Inc., "Geotechnical Investigation and Report, Replacement of Culvert at Sincan-Eskişehir High Speed Train Line Km:391+850, Turkish State Railways Construction Division", October 2013.
26. Geotechnical Consultant, "Drilled Shaft Foundation Design Report for Turk Telekom Tower (41 floors, 176 m high)", Turkish Telecommunication Group, September 2012.
27. Geotechnical consultant, "Geotechnical Recommendations and Construction Quality Control of Kirka Tailings Dam (stores up to 21.000.000 m3 of boron chemical waste), Eti Mining Inc., June 2011

28. Geotechnical consultant, "Liquefaction Induced Risk and Geotechnical Site Characterization for Various (more than 30) Service/Office Buildings", Ministry of Justice, Ministry of Education, Ministry of Defense, Ministry of Transportation, 2010-2016.
29. Geotechnical Engineer, Mueser Rutledge Consulting Engineers, "Mets Stadium (Shea Stadium), Willets Point, Queens, NY", 2006. (Performed extensive settlement analyses of the stadium, the playing field, and the surrounding plaza, including studies of lightweight fill alternatives. Involved in the pre-production pile load test program.)
30. Geotechnical Engineer, Mueser Rutledge Consulting Engineers, "Riverwalk II Development, West New York, NJ", 2006. (Compiled available geotechnical data. Performed settlement analyses.)
31. Geotechnical Site Engineer, Mueser Rutledge Consulting Engineers, 2006. Inspected numerous subsurface investigations involving: test pits, land and water borings including Standard Penetration Testing (SPT) of granular and cohesive soils, rock, piezometer installation, and pile load testing. Logged borings and classified soil samples in accordance with the Unified Soil Classification System and performed rock core classification in accordance with MRCE specifications. Projects where these services were provided include:
    a. CUNY, New York, NY, USA
    b. 1504 Coney Island Avenue, Brooklyn, NY, USA
    c. UN Plaza, New York, NY, USA
    d. Minskoff Property, New York, NY, USA
    e. Hunts Point Site C, Bronx, NY, USA
32. Geotechnical Dam Engineer, State Hydraulic Works, 1999-2002. Involved in the design and construction phases of various large dam projects including:
    a. Cine Dam: 120 m. high, roller compacted concrete type, embankment and material design
    b. Dim Dam: 125 m. high, concrete face rockfill type, geotechnical design and monitoring of settlement performance.
    c. Sureyyabey Dam: 76 m. high, rockfill dam with clay core, design and construction of grout curtain wall
    d. Deriner Dam: 200 m. high, concrete arch dam, field engineering and quality control.
33. Geotechnical Dam Engineer, State Hydraulic Works, 1999-2002. Involved in the technical teams to assess the post – earthquake conditions and earthquake performances of the dams affected by Kocaeli (1999) and Duzce (1999) Earthquakes.

## COMPUTER SKILLS

- Experienced PLAXIS user. Proficient in SLIDE, SETTLE 3D and SHAKE.

## REFERENCES

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5) Andrew Cushing, P.Eng.
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