

Soheil Nazarian, PhD, PE, D.GE

Expertise

Nondestructive Testing and Evaluation, Pavement Geotechnics

Education

- PhD, Civil Engineering, University of Texas at Austin, 1984
- MS, Civil Engineering, Tufts University, 1981
- MS, Civil Engineering, University of Tehran, 1979

Biography

Dr. Nazarian has over 30 years of industry and academic experience in the area of transportation infrastructure, with an emphasis on structures materials, such as that of highways and bridges. His academic experience includes research and teaching positions at the Universities of Texas at Austin and El Paso, as well as the Director at the Center for Transportation Infrastructure Systems at UTEP. He holds a patent for the Moveable Seismic Pavement Analyzer, which is a nondestructive testing device used in evaluation of transportation infrastructure.

Dr. Nazarian has been a contributor in over 90 research projects focused on nondestructive materials testing and materials applications, as well as the author of more than 300 industry-related articles and publications. He has directed more than 75 theses and dissertations during his tenure at UTEP.

Professional Honors and Achievements

- Excellence in Research Award at UTEP, 1992, 1995, 1998, 2000, 2004, 2006, 2007, 2008, 2009
- Top Innovation Award from TXDOT, "Portable Seismic Pavement Analyzer," 1999
- Excellence in Operation of a Research Center at UTEP, 2005, 2007, 2008
- Chi Epsilon James M. Robins Excellence in Teaching Award (Southwest US Region), 2004
- UTEP Faculty Achievement Award for Research, 2010

Professional Affiliations

- American Society of Civil Engineers, Fellow Member
 - ASCE Geophysical Engineering Committee
 - ASCE Earthquake Engineering and Soil Dynamics Committee
- Transportation Research Board
 - Committee AFS20 - Soil and Rock Instrumentation
 - Committee AFS90 - Chemical and Mechanical Stabilization
- American Society of Testing and Materials
 - Committee D4.39 - Nondestructive Testing of Pavements
- International Society of Soil Mechanics and Foundation Engineering
 - Core Member in Technical Committee 202: Geotechnics of Pavements
- Engineering and Environmental Geophysical Society
 - Board of Directors
- American Society of Nondestructive Testing
- Transportation Research Board Expert Task Group for Bridge Evaluation and Monitoring for Long-Term Bridge Performance

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Sample Research and Grants

- “Implementation of IC Technology for Improving Compaction Quality of Soil and Base in Texas,” Jul. 14 – Jun. 17, TxDOT and FHWA, \$450,000 (with Aldouri and Mazari)
- “Intelligent Compaction Roller Retrofit Kit Validation Project,” May 14 – May 15, TxDOT and FHWA, \$361,000 (with Aldouri, Rocha and Chang).
- “Improved Overlay Tester for Fatigue Cracking Resistance of Asphalt Mixtures,” May 14 – Apr 16, TxDOT and FHWA, \$325,000 (with Carrasco, Tandon and Rocha).
- “Updated Testing Procedures for Long Life Heavy Duty Stabilized Bases,” Apr 14 – Mar 16, TxDOT and FHWA, \$297,000 (with Ashtiani and Abdallah).
- “Quantification of the Impact of a Road’s Condition on Emissions,” May 14 – Dec 15, TxDOT and FHWA, \$290,000 (with Chang, Abdallah and Yu).
- “Pavement Structural Evaluation at the Network Level,” Oct. 12 – Dec. 15, FHWA, \$185,000 (subcontract to AMEC).
- “Collection of Materials and Performance Data for the Texas Flexible Pavements and Overlays,” Sep. 10 – Aug. 15, TxDOT and FHWA, \$600,000 (with Abdallah and Chang, Subcontract to TTI).

Sample Publications

- “Comparison of Numerical and Experimental Responses of Pavement Systems Using Various Resilient Modulus Models,” (with Mazari, Navarro, and Abdallah), Soils and Foundations, Vol. 54, Issue 1, pp. 36–44, 2014.
- “Finite Element Modeling of Slab-Foundation Interaction on Rigid Pavement Applications,” (with Zokaie-Ashtiani and Carrasco), Computers and Geotechnics, Vol. 62, pp. 118-127, 2014.
- “Use of Portable Seismic Property Analyzer to Assess Colorado's Hanging Lake Tunnel Liner,” (with Azari and Yuan), Journal of Transportation Research Board No. 2407, pp. 12-19, Washington, DC, 2014.
- “Field Evaluation of NDT Devices for Delamination Detection of HMA Airport Pavements,” (with Celaya), FAA Worldwide Airport Technology Transfer Conference, Galloway, NJ, 2014.
- “Evaluation of Benefits of Inclusion of Geosynthetic Products in Reinforcement of Flexible Airfield Pavements Using Three-Dimensional Finite Element Modeling,” (with Tirado, Norwood and Tingle), FAA Worldwide Airport Technology Transfer Conference, Galloway, NJ, 2014.
- “Lessons Learned from Nondestructive Testing of Concrete Structures with Complementary Stress Wave-Based Methods,” (with Azari), NDE/NDT for Highways and Bridges, Washington, DC 2014.
- “Comparison of Automated and Manual Methods for Correcting GPR Data to Compensate for Signal Amplitude Effects Caused by Rebar Depth Variation,” (with Romero, Barnes, Azari, and Rascoe), NDE/NDT for Highways and Bridges, Washington, DC 2014.
- “Performance of NDT Technologies in the Detection and Characterization of Reinforced Concrete Deck Deterioration,” (with Gucunski, Imani and Azari), Geotechnical Special Publication 234, pp. 2436-2449, ASCE, Reston, VA, 2014.