



ONLINE SEMINAR

Testing Methods of Deep Foundations for Geotechnical Load Bearing Capacity and Structural Integrity Evaluations

Date: March 5, 2024

Time: 11:30 a.m. - 12:30 p.m.

[https://fiu.zoom.us/j/86961004419?](https://fiu.zoom.us/j/86961004419?pwd=SnphVjBrWXBrcmlpcmVCU21PbVdlZz09)

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Deep Foundations are used to support all types of structures in various geotechnical conditions. Their engineering design includes structural, geotechnical, and constructability considerations; and their construction involves drilling, installations, driving, testing, and inspection. Testing and inspections are an integral part of the design process and construction work for verification, quality control, quality assurance, and foundation acceptance/certification. The presentation covers the main deep foundations types installations and testing methods for assessments of geotechnical load bearing capacity and structural integrity of driven piles, auger-cast piles, and drilled shafts. It includes wave equation analyses, dynamic load testing, bi-directional-static load testing, low-strain integrity testing, Cross-hole Sonic Logging, Thermal Integrity Profiling, and other testing and inspection methods and tools. Basic principles, capabilities and limitations of each method are discussed and illustrated with data from actual projects.

Mohamad Hussein, P.E. is Principal Engineer/Executive Vice President of GRL Engineers, Inc. and Executive Director of Global Industry Relations at Pile Dynamics, Inc. In his 40+ years career he has consulted on more than 1,000 deep foundations projects in 35 States in the USA and several countries. Conducted research on deep foundations in association with several universities. Managing Lecturer of the American Society of Civil Engineers (ASCE) Continuing Education Class: Deep Foundations Design, Construction, and Quality Control. Mohamad is a member of technical committees of ASTM, DFI, PDCA, ASCE and other organizations. Chaired the Deep Foundations Committee of the ASCE's Geo- Institute (2002-2009), and the PDCA's Education Committee (2012-2013); and currently Chairs the PDCA's Technical Committee. Published over 60 technical papers, and co-edited 10 books. He is a registered professional engineer in several States, and recipient of several professional and industry awards and recognitions.