

NOVEMBER 08, 2017

5:00 to 5:00 P.M. (1.0 PDH)

TECHNICAL PROGRAM

Characterizing Geotechnical Materials with Seismic Waves: Static and Dynamic Applications

Speaker:: Dr. Ken Stokoe, P.E., University of Texas, Tel. 512-232-3689

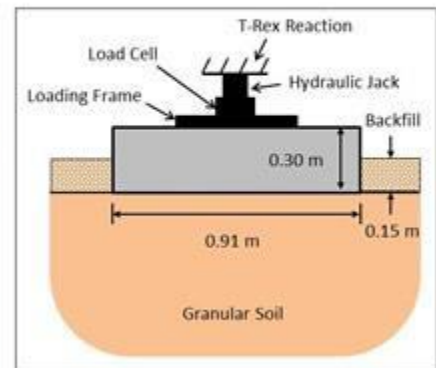
Dr. Kenneth H. Stokoe, II has been working in the areas of field seismic measurements, dynamic laboratory measurements, and dynamic soil-structure interaction for more than 40 years. He has been instrumental in developing field seismic methods and dynamic laboratory methods for measurements of the linear and nonlinear dynamic properties of soil and rock. Over the last 17 years, Dr. Stokoe has led the development of large-scale mobile field equipment for dynamic loading of geotechnical systems, foundations and structures, an activity that has been funded by the National Science Foundation. The equipment has already led to the development of new testing methods to evaluate soil nonlinearity and liquefaction directly in the field. Dr. Stokoe has received several honors and awards, including election to the National Academy of Engineering, the Harold Mooney Award from the Society of Exploration Geophysicists, the C.A. Hogentogler Award from the American Society for Testing and Materials, and the H. Bolton Seed Medal and the Karl Terzaghi Distinguished Lecturer from the American Society of Civil Engineers.

Load-Settlement Tests Using T-Rex at a Test Site

PRESENTATION SUMMARY

Today, in-situ seismic measurements are used in many more applications in Geotechnical Engineering because:

- (1) the measurements have a strong theoretical basis,
- (2) they can be performed in the field and laboratory, thus forming an important link between field and laboratory measurements, and
- (3) in recent developments, field testing involving noninvasive surface waves are very cost effective.



Recent applications are presented that include:

- (1) siting large tunnel shafts to avoid potential liquefaction problems,
- (2) monitoring the construction of a 27-m thick fill at a nuclear power plant, and
- (3) predicting the settlements of shallow foundations on granular soil.

To view Dr. Kenneth Stokoe's slide presentation, [click here](#)