

THE ASCE PITTSBURGH SECTION GEO-INSTITUTE CHAPTER PRESENTS

May 21, 2018 - Happy Hour and End of Year Lecture

Advances in the Prediction and Control of Ground Deformations

Presented By: Andrew J. Whittle, B.Sc., Sc.D.
Massachusetts Institute of Technology
2018 ASCE Geo-Institute Cross-USA Lecturer



There are many diverse geotechnical problems where reliable predictions of ground deformations are critical in design and only limited options are available to control these movements. This lecture will compare and contrast experiences in the application of advanced constitutive models in the prediction and control of ground movements in four distinct classes of problem: urban excavations, mechanized tunneling, seismic retrofit of waterfront structures, and long-term prediction of settlements on clay.

Andrew Whittle is the Edmund K. Turner Professor in the Civil and Environmental Engineering Department at the Massachusetts Institute of Technology in Cambridge, MA. His primary research interests include, the fundamental understanding and modeling of geomaterial behavior, the development of analysis methods for predicting and/or interpreting soil-structure interactions, and new concepts for monitoring and controlling underground infrastructures. He has written over 75 research papers, published four books, and presented at over 100 conferences. Current research projects include developing constitutive models describing the hydro-mechanical and hydraulic fracturing behavior of shales, validating constitutive models for pile-soil interactions using the results of physical model tests at deepwater sites in the Gulf of Mexico, and integrating recent advances in computational analyses (massive 3D FE models) and in the design of low cost wireless sensors, in order to develop a capability for 'real-time' data interpretation and prediction in the arena of temporary earth retention structures in the urban environment.

DATE: MONDAY MAY 21, 2019

Place: Hofbrauhaus
2705 S. Water St.
Pittsburgh, PA 15203

Time: 3:30 PM – 5:30PM
Socializing and Heavy Hourdourves
5:30 PM – 6:30 PM
Presentation

Reservations received on or before 5/4/18:

\$20 ASCE Pittsburgh Section Members /
Government Employee

\$25 Non-members

➤ *Includes 1 Drink Ticket*

Free to Students (*No Drink Ticket*)

Reservations received between 5/5/18 – 5/14/18

\$25 ASCE Pittsburgh Section Members /
Government Employee

\$30 Non-members

\$10 to Students (*No Drink Ticket*)

PLEASE RSVP by contacting Mr. Vishal Patel at vpatel@agesinc.com or by registering online at <http://www.asce-pgh.org/> **Online registration is highly encouraged and payments can be made with credit card.** Only cash or checks will be accepted at the door.