Mr. Konstantakos has applied his passion for deep excavation design and has been the master developer of the international software program DeepXcav dedicated to the subject. The DeepXcav software is currently used by more than 1200 engineers and contractors worldwide and embodies a range of standards and wide specifications. He holds professional licenses in New York and in Europe. Mr. Konstantakos has authored a number of publications and has recently developed a new methodology for predicting the settlement performance of helical piles.

Mr. Konstantakos has worked on many important international projects for slope stability, pile foundations, and braced excavations, including the World Trade Center recovery efforts in 2001. Beyond promoting the DeepXcav software, Mr. Konstantakos has enriched the www.deepexcavation.com website (which he developed from 2000) essentially creating an online library for deep excavations and helping fellow engineers and contractors address related issues. He has been member of the earth retention committee of ASCE and has developed the new official website for the committee at www.earthretention.org. He is a vocal advocate of issues that face the geotechnical engineering community and tries to raise awareness of the important role that geotechnical engineers play.



# **DEEP EXCAVATIONS** Short Course

Sponsored by



Friday, October 21, 2016

8:30 am to 4:30 pm

ODOT REGION 1 123 NW Flanders, Portland, OR 97209



# **COURSE PRESENTER**



### **Dimitrios C. Konstantakos, P.E.**

### **CEO, Deep Excavation, LLC**

Mr. Konstantakos is the CEO and founder of Deep Excavation LLC, and also serves as the chair of the Earth Retaining Structures Committee of ASCE/G-I. He is managing the company's operations and holds a Masters of Science degree from Massachusetts Institute of Technology and a Bachelor of Science from University of Massachusetts in Lowell. Due to his heavy international involvement he splits his time between the United States and Europe. His areas of specialization are deep excavations, soil-structure interaction, slope stability, and software development with relative publications.



# **COURSE OUTLINE**

7:45-8:15	Registration
8:15-8:30	Welcome and Introductions
8:30-9:45	<b>Deep Excavations: Introduction</b> Defining deep excavations Types of deep excavations Methods of stabilization Common problems and challenges
9:45-10:00	Break
10:00-11:00	Soil mechanics & sheet pile walls Understanding soil response Basic earth pressure theory Cantilever wall analysis Anchored sheet pile walls
11:00-12:00	<b>Braced excavation design</b> Braced walls Apparent earth pressures Analysis methods
12:00-1:00	Lunch
1:00-2:00	<b>Cofferdams</b> Applications for cofferdams Methods of constructing Design details and methods Basal stability
2:00-3:00	<b>ASD and LRFD design</b> ASD vs LRFD design framework LRFD Limitations Design examples
3:15-3:30	Break
3:30-4:30	Deep excavation design computer lab Solve braced excavations Case histories, focus on slope stability

# **COURSE ATTENDEES**

This course is intended for engineers and scientists involved with the planning, design, and safe management of deep excavations. It is expected that attendees will represent

- $\Rightarrow$  Consultants
- $\Rightarrow$  Construction Companies
- ⇒ Government Agencies

## REGISTRATION

Please register before Friday, October 14, 2016. Registration fee is \$200 for regular attendees and \$100 for students. The space is limited to 45 attendees, please sign up early to ensure your attendance. Register online at:

### www.oregongeotech.org/events

Morning snack and coffee, lunch, and a course binder will be provided.

Attendees will receive 6.5 Professional Development Hours.



# PARKING

Street parking in front of the ODOT building is limited to 2 hours and only a few spots are available. Parking is available at 33 NW Davis St. (Naito and Davis). For more information, check the link below.