

Agenda

Presented by Arash Khosravifar, Ph.D., P.E. (CA)

Soil Mechanics

Types of soils and soil classification
Site investigation
Compaction
Total and effective stresses in soil
Consolidation
Soil strength

Foundation Design

Shallow foundations – bearing capacity
Shallow foundations – settlements
Deep foundations – axial load
Deep foundations – lateral load

Soil Liquefaction

Fundamentals of soil liquefaction
Liquefaction triggering analysis using simplified
SPT-and CPT-based procedures
Ground improvement techniques for liquefaction mitigation

Geotechnical Earthquake Engineering

Response spectra
Probabilistic and deterministic seismic hazard analysis
Effects of site conditions on ground motions
Seismic site classification
Development of code-based design spectra per ASCE 7-10
(MCER and DE)

**Soil Mechanics, Foundation Design, Soil Liquefaction
and Geotechnical Earthquake Engineering**
Seattle, WA - Friday, October 4, 2019

NON-PROFIT
U.S. POSTAGE PAID
EAU CLAIRE, WI
PERMIT NO. 2016

HalfMoon Education Inc.
PO Box 278
Altoona, WI 54720-0278



Learning Objectives

You'll be able to:

Review the basics of soil mechanics, and discuss their impact on foundation design.

Assess bearing capacity of shallow foundations, and determine axial and lateral loads in deep foundations.

Investigate the consequences of liquefaction, including post-liquefaction settlement and lateral spreading.

Analyze techniques for liquefaction mitigation.

Discuss the basics of geotechnical earthquake engineering.

Explore probabilistic and deterministic seismic hazard analysis.



Find us on
Facebook

Soil Mechanics, Foundation Design, Soil Liquefaction and Geotechnical Earthquake Engineering

Seattle, WA - Friday, October 4, 2019



Review types of soil and soil classification

Understand total and effective stresses in soil

Examine bearing capacity and settlement in shallow foundations

Consider axial and lateral loads on deep foundations

Study the fundamentals of soil liquification

Explore geotechnical earthquake engineering

Continuing Education Credits

Professional Engineers

Non-Credit Continuing Ed. (WA)
6.5 PDHs (Other States)

Contractors

Non-Credit Continuing Ed.

Architects

6.5 HSW PDHs
6.5 AIA LU|HSW



HalfMoon Education Inc.
WWW.HALFMOONSEMINARS.ORG



Faculty



Arash Khosravifar, Ph.D., P.E. (CA) *Assistant Professor, Portland State University*

Dr. Arash Khosravifar joined the Geotechnical Engineering Group in the Civil and Environmental Engineering Department at Portland State University (PSU) in December 2015. He teaches courses on soil mechanics, geotechnical design and geotechnical earthquake engineering. Prior to joining PSU, he worked for Fugro Consultants Inc. in California where he worked on seismic hazard studies for transportation projects (bridges) and energy developments (oil and gas, and offshore wind turbines). Dr. Khosravifar earned his Ph.D. degree from the University of California at Davis where he conducted research on analysis and design of piles in liquefied soils. Dr. Khosravifar is a registered Civil Engineer (PE) in California.

Seminar Information

Best Western Plus Executive Inn
200 Taylor Avenue North
Seattle, WA 98109
(206) 448-9444

Tuition

\$289 for individual registration
\$269 for three or more registrations.

Each registration includes a complimentary continental breakfast and printed seminar manual.

Receive a reduced tuition rate of \$101 by registering to be our on-site coordinator for the day. For availability and job description, please visit www.halfmoonseminars.org.

How to Register

- Visit us online at www.halfmoonseminars.org
- Mail-in or fax the attached form to 715-835-6066
- Call customer service at 715-835-5900

Cancellations: Cancel at least 48 hours before the start of the seminar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the self-study package. You may also send another person to take your place.

Continuing Education Credit Information

This seminar is open to the public and offers a 6.5 hour continuing education opportunity to Washington professional engineers (not required for license renewal), which will qualify for 6.5 PDHs in all other states. This course offers 6.5 HSW PDHs to Washington architects. Educators and courses are not subject to preapproval in Washington.

This seminar approved by the American Institute of Architects for 6.5 LU|HSW (Sponsor No. J885). Only full attendance can be reported to the AIA/CES.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), North Carolina, and North Dakota.

This course offers a non-credit continuing education opportunity to construction contractors. It has not been approved by any state contractor board with mandatory continuing education.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Additional Learning

Webinar Series

Solar Photovoltaic Project Design and Development

- **Solar Photovoltaic Project Design and Development, Part I**
Wed., October 2, 2019, 11:00 AM - 2:15 PM CDT
- **Solar Photovoltaic Project Design and Development, Part II**
Thurs., October 3, 2019, 11:00 AM - 2:15 PM CDT

Special Inspections

- **Introduction to Chapter 17: Special Inspections**
Thurs., October 10, 2019, 11:00 AM - 12:30 PM CDT
- **Soils and Foundations**
Thurs., October 10, 2019, 1:00 - 2:30 PM CDT
- **Reinforced Concrete and Structural Steel**
Fri., October 11, 2019, 11:00 AM - 12:30 PM CDT
- **ACT Ceiling Grid, Epoxy Anchors, and Fire Penetrations**
Fri., October 11, 2019, 1:00 - 2:30 PM CDT

Component Tolerance Analysis

- **Introduction to Component Tolerance Analysis**
Thurs., October 17, 2019, 11:00 AM - 12:00 PM CDT
- **Dimensional Tolerance Analysis**
Thurs., October 17, 2019, 12:30 - 3:00 PM CDT
- **Application of Dimensional Tolerance Analysis**
Fri., October 18, 2019, 11:00 AM - 2:15 PM CDT

National Electrical Code

- **National Electrical Code, Part I**
Tues., October 22, 2019, 11:00 AM - 3:30 PM CDT
- **National Electrical Code, Part II**
Wed., October 23, 2019, 11:00 AM - 3:30 PM CDT
- **National Electrical Code, Part III**
Thurs., October 24, 2019, 11:00 AM - 3:30 PM CDT

For more information visit:
www.halfmoonseminars.org/webinars/

Can't Attend? Order the Manual and Audio from the Live Seminar as a Self-Study Package!

Audio recordings of this seminar are available for purchase starting at \$269. See registration panel for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Registration

Soil Mechanics, Foundation Design, Soil Liquefaction and Geotechnical Earthquake Engineering
Seattle, WA - Friday, October 4, 2019

How to Register		Registrant Information
Online: www.halfmoonseminars.org		Name: _____
		Company/Firm: _____
		Address: _____
		City: _____ State: _____ Zip _____
Phone: 715-835-5900		Occupation: _____
		Email: _____
		Phone: _____
Fax: 715-835-6066		Additional Registrants:
Code:		Name: _____
		Occupation: _____
		Email: _____
		Phone: _____
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278		Name: _____
		Occupation: _____
		Email: _____
		Phone: _____
Complete the entire form. Attach duplicates if necessary.		Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred.
		() I need special accommodations. Please contact me.

Tuition

- () **I will be attending the live seminar.** Single Registrant - **\$289.00**. Three or more registrants from the same company registering at the same time - **\$269.00** each.
- () **I am not attending.** Please send me the self-study package:
- ☐ Downloadable MP3 Audio/PDF Manual for **\$269.00**.
- ☐ CD/Manual Package for **\$289.00**.
- (Please allow four weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

Credit Card: *Mastercard, Visa, American Express, or Discover*

Credit Card Number: _____

Expiration Date: _____ CVV2 Code: _____

Cardholder Name: _____

Billing Address: _____

City: _____ State: _____ Zip: _____

Signature: _____

Email: _____