

Agenda

Presented by James “Jay” A. McKelvey, III, D.GE, F.ASCE

Slope Stability Introduction and Investigations

Types of slope movement and instability

- Erosion and mudslides
- Veneer failures
- Deep seated circular failures
- Rapid drawdown
- Rockfall and rock slides
- Seismic

Soil investigations for slope stability

- Site reconnaissance
- Geology and visual observations
- Obtaining and reviewing geotechnical reports
- Establishing appropriate investigational methods
- Subsurface investigations

Reviewing Properties of Soils and Rock

Soil classification

Physical properties

Permeability

Drained and undrained shear strength

Rock mass rating (RMR)

- Compressive strength
- Rock quality designation (RQD)
- Bedding planes, spacing and condition of discontinuities

Slope Stability and Rockfall Analyses

Slope stability concepts

Understanding slope failures

Impact of surface water and groundwater

Seismic stability

Rockfall analyses

Slope Stabilization and Case Histories

Examining slope stabilization methods

- Surface armament and vegetation
- Unloading and buttressing
- Drainage
- Reinforcement with geosynthetics
- Rock slope stabilization

Case histories

**Slope Stabilization
and Landslide Prevention**
Natick, MA - Monday, November 4, 2019



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Learning Objectives

You'll be able to:

Identify and discuss types of slope movement and instability, including erosion, mudslides, veneer failures, rockfall and rock slides.

Identify and describe properties of soils and rock, including permeability, and drained and undrained shear strength, consider the impact of these properties on slope stability or instability.

Define the effect of surface water and groundwater on slope stability, and determine what seismic conditions may impact slope stability.

Determine appropriate slope stabilization methods, including surface armament, unloading, buttressing, drainage, and reinforcement with geosynthetics.



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Slope Stabilization and Landslide Prevention

Natick, MA - Monday, November 4, 2019



Learn about types of slope movement and instability

Use soil investigation to determine slope stability

Use rock mass rating (RMR) as a prediction of slope stability

Discuss the impact of surface water on stability

Review slope stabilization methods and case histories

Continuing Education Credits

Architects & Landscape Architects

6.5 HSW Contact Hours
6.5 AIA LU|HSW
6.5 LA/CES HSW PDHs

Professional Engineers

6.5 PDHs/CE Hours

Floodplain Managers

6.5 ASFPM CECS

Contractors

Non-Credit Continuing Ed.



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Faculty

James “Jay” A. McKelvey, III, D.GE, F.ASCE *Director- Geotechnical Design Division at Earth Engineering Inc.*
Mr. McKelvey is the director of the Geotechnical Design Division at Earth Engineering Inc. in East Norriton, Pennsylvania. He is a registered professional engineer (P.E.) in California, Delaware, Maryland, New Jersey, Pennsylvania, Virginia and the District of Columbia. Mr. McKelvey is also a diplomate (D.GE) of the Academy of Geo-Professionals and a fellow of the American Society of Civil Engineers (F.ASCE).

Mr. McKelvey has extensive experience in geotechnical engineering, including site assessment and field investigations, deep and shallow foundation design for buildings, bridges and other structures; retaining wall design; embankment stability; mechanically-stabilized soil structures; and subsurface hydrology.

He also has significant experience in mitigating heavy construction claims and in litigation support pertaining to impacted heavy construction projects. Mr. McKelvey has also handled construction support and construction quality assurance projects. His environmental engineering experience includes technical contributions to the remediation of many Superfund sites and over 50 landfill design projects.

Mr. McKelvey has published over 30 technical papers in journals, conference proceedings and trade magazines. He is currently the past chair for the Delaware Valley Geo-Institute (DVGI) and is a voting member in ASTM committees Soil and Rock (D18) and Geosynthetics (D35), and he is an editorial board member of the *Geotechnical Testing Journal*. Mr. McKelvey also serves on two Geo-Institute committees: Earth Structures and Embankments and Dams. For the latter, he is a member of the subcommittee on landslide risk assessment.

Seminar Information

Courtyard by Marriott Natick
342 Speen Street
Natick, MA 01760
(508) 655-6100

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

Included with your registration: 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.

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.

Continuing Education Credit Information

This seminar is open to the public and offers 6.5 HSW contact hours to architects in most states, including Massachusetts. Educators and courses for Massachusetts architects are not subject to pre-approval.

This course offers 6.5 PDHs/CE hours to professional engineers in all states and 6.5 HSW CE hours to landscape architects in most states. Continuing education is not mandatory in Massachusetts. Refer to specific state rules to determine eligibility.

This course is approved by the American Institute of Architects Continuing Education System for 6.5 LU|HSW (Sponsor No. J885) and the Landscape Architecture Continuing Education System for 6.5 HSW PDHs. Only full attendance can be reported to the AIA/CES and LA/CES. Visit www.halfmoonseminars.org for complete AIA/CES information.

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. HalfMoon Education is deemed an approved continuing education sponsor for New York engineers, architects and landscape architects.

The Association of State Floodplain Managers has approved this event for 6.5 CECs.

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

Additional Learning

Webinar Series

- Commercial Provisions of the International Energy Conservation Code**
- **Commercial Provisions of the International Energy Conservation Code**
Wed., September 11, 2019, 11:00 AM - 1:00 PM CDT
 - **IECC Provisions for Commercial Building Envelopes**
Wed., September 11, 2019, 1:30 - 4:00 PM CDT
 - **IECC Provisions for Commercial Building HVAC Systems**
Thurs., September 12, 2019, 11:00 AM - 12:00 PM CDT
 - **IECC Provisions for Commercial Building Lighting**
Thurs., September 12, 2019, 12:30 - 2:00 PM CDT

- International Building Code**
- **Building Code, Building Classification and Special Requirements**
Thurs., September 12, 2019, 11:00 AM - 12:30 PM CDT
 - **Mixed Use Buildings, Construction Types and Locations**
Thurs., September 12, 2019, 1:00 - 2:30 PM CDT
 - **Allowable Heights/Areas and Means of Egress**
Fri., September 13, 2019, 11:00 AM - 12:30 PM CDT
 - **Fire Rated Construction and Fire Protection Systems**
Fri., September 13, 2019, 1:00 - 2:30 PM CDT

- Tree Preservation**
- **Keys for Success in Tree Preservation**
Tues., September 17, 2019, 11:00 AM - 1:00 PM CDT
 - **Tree Root Morphology and Patterns**
Tues., September 17, 2019, 1:30 - 3:30 PM CDT
 - **Trees as Design Elements and Construction Strategies**
Wed., September 18, 2019, 11:00 AM - 1:00 PM CDT
 - **Tree Protection and Post Construction**
Wed., September 18, 2019, 1:30 - 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

Slope Stabilization and Landslide Prevention

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How to Register		Registrant Information
Online: www.halfmoonseminars.org		
Phone: 715-835-5900		
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Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278		
Complete the entire form. Attach duplicates if necessary.		
		Additional Registrants:
		Name: _____
		Company/Firm: _____
		Address: _____
		City: _____ State: _____ Zip: _____
		Occupation: _____
		Email: _____
		Phone: _____
		Name: _____
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		Email: _____
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		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**.

(S&H included. Please allow five weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

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