

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
Fairfax, VA - Monday, November 18, 2019

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Learning Objectives

You'll be able to:

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

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 effects 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

Fairfax, VA - Monday, November 18, 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

Professional Engineers

6.5 Continuing Ed. Hours

Architects

6.5 Continuing Ed. Hours (HSW)
6.5 AIA LU|HSW

Landscape Architects

6.5 Continuing Ed. Hours (HSW)
6.5 LA CES HSW PDHs

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 Diplomat (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 on 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

Hilton Garden Inn Fairfax
3950 Fair Ridge Drive
Fairfax, VA 22033
(703) 385-7774

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 program. 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 continuing education hours to engineers, architects and landscape architects (HSW) in most states, including Virginia. Educators and courses are not subject to preapproval in Virginia.

This event has been approved by the American Institute of Architects Continuing Education System for 6.5 LU|HSW (Sponsor No. J885) and by the Landscape Architecture Continuing Education System for 6.5 HSW PDHs. Full attendance is required for course attendance reporting to AIA/CES and LA/CES. Visit www.halfmoonseminars.org for complete AIA/CES information under this course listing.

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 course offers a non-credit continuing education opportunity to contraction contractors. It has not been preapproved in any state with contractor continuing education requirements.

Additional Learning

Webinar Series

- 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

- Slope Stability and Landslide Prevention**
• **Slope Movement and Mechanisms**
Thurs., October 24, 2019, 11:00 AM - 1:00 PM CDT
• **Slope Stabilization Methods**
Thurs., October 24, 2019, 1:30 - 3:00 PM CDT
• **Landslide Hazard and Risk Assessment**
Fri., October 25, 2019, 11:00 AM - 12:00 PM CDT
• **Slope Stabilization and Landslide Mitigation**
Fri., October 25, 2019, 12:30 - 2:30 PM CDT

- HEC-RAS Webinar Series**
• **Hydraulic Principles and Applications**
Tues., October 29, 2019, 11:00 AM - 1:00 PM CDT
• **Working with the HEC-RAS User Interface**
Tues., October 29, 2019, 1:30 - 3:00 PM CDT
• **Water Surface Profiling**
Thurs., October 31, 2019, 11:00 AM - 1:00 PM CDT
• **Steady Flow Surface Profile Demonstrations**
Thurs., October 31, 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
Fairfax, VA - Monday, November 18, 2019

How to Register		Registrant Information
Online: www.halfmoonseminars.org		
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Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278		
Complete the entire form. Attach duplicates if necessary.		
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Tuition	
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(S&H included. Please allow five weeks from seminar date for delivery)	
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