

69th Highway Geology Symposium (HGS 2018)

Better Highways Through Applied Geology

Portland, Maine, USA
10-13 September 2018

ISBN: 978-1-5108-8659-9

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57 Morehouse Lane
Red Hook, NY 12571



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Tuesday, September 11

Technical Session 1

Location: Massachusetts/New Hampshire

Chris Ruppen, Moderator

8:10 AM – 8:30 AM

Young Author Presentation: Assessment and Mitigation Process for Bridge Foundation Reuse – Case Study

Authors: James Arthurs, Khamis Haramy

8:30 AM – 8:50 AM

Young Author Presentation: Combined Rock Slope Failure Mode Analysis and Mitigation in Fairlee Vermont

Author: Erik Friede

8:50 AM – 9:10 AM

Young Author Presentation: Geotechnical Challenges for Bridge Foundation & Roadway Embankment Design in Peats and Deep Glacial Lake Deposits

Author: Brian Felber

9:10 AM – 9:30 AM

Young Author Presentation: Slope Stability Analysis for TH53 Relocation, Virginia, MN

Authors: Anya Brose, Gary Person, Lee Petersen, Andrew Shinnfield, Ryan Peterson, Luigi Cotesta, Derrick Dasenbrock

9:30 AM – 9:50 AM

Young Author Presentation: Innovative Socketed Pile for Accelerated Bridge Construction in Naples, Maine

Authors: Blaine Cardali, Andrew Blaisdell, Christopher Snow, Laura Krusinski, Garrett Gutafson

9:50 AM – 10:10 AM

Young Author Presentation: Design and Construction Considerations for Innovative Rockfall Protection Systems

Authors: Robert Huber, Martin J. Woodward

Tuesday, September 11(continued)

10:10 AM – 10:40 AM

Morning Coffee Break—Sponsored by Haley and Aldrich, Inc.

Location: Vermont/Connecticut/Rhode Island (Exhibitor Area)

10:40 AM – 11:00 AM

Young Author Presentation: Laboratory Investigations of the Oldest Concrete Pavement in America – Applied Geology in Civil Engineering

Author: Blake Lemcke

11:00 AM – 11:20 AM

Young Author Presentation: From Field Data Collection to Soils Analysis in A Few Mouse Clicks – Going (Even More) Digital at North Dakota DOT

Authors: Jesse Greenwald, Colter Schwagler

11:20 AM – 11:40 AM

PhotoMonitoring of Landslides

Authors: Paolo Caprossi, Paolo Mazzanti

11:40 PM – 1:00 PM

Lunch—Sponsored by Ameritech Slope Constructors, Inc.

Location: Vermont/Connecticut/Rhode Island (Exhibitor Area)

Technical Session 2

Location: Massachusetts/New Hampshire

Pete Ingraham, Moderator

1:00 PM – 1:20 PM

Rattlesnake Hills Landslide: Overview and Monitoring

Authors: George Machan, Charlie Hammond

1:20 PM – 1:40 PM

Adding Another Dimension to Rock Cut Slope Evaluations: Looking Out as Well as Up

Authors: Chris, Ruppen, Don Gaffney, Joel Borrelli

1:40 PM – 2:00 PM

Practical Aspects of Using Structure from Motion Photogrammetry Techniques for Characterizing and Monitoring of Rock Slopes

Authors: Randy Post, Roger Pihl, Alex Brown, Ty Ortiz

2:00 PM – 2:20 PM

The use of Google Earth/ Google Street View Combined with High Resolution Digital Surface Models (DSMs) for Rockfall Hazard Rating

Author: Yonathan Admassu

2:20 PM – 2:40 PM

Application of High-Speed Photogrammetry for Rock Cut Assessment

Authors: Angus MacPhail, Dave Gauthier, D. Jean Hutchinson

Tuesday, September 11(continued)

2:40 PM – 3:00 PM

3-D Geo-View of Subsurface Conditions for Rapid Roadway Stability Assessment

Author: Joel Daniel

3:00 PM – 3:30 PM

Afternoon Break—Sponsored by Hager-Richter Geoscience, Inc. and Gilson Company, Inc.

Location: Vermont/Connecticut/Rhode Island (Exhibitor Area)

Technical Session 3

Location: Massachusetts/New Hampshire

Bob Henthorne, Moderator

3:30 PM – 3:50 PM

What are the Benefits of Geotechnical Data Interchange?

Author: Scott L. Deaton

3:50 PM – 4:10 PM

Geotechnical Solutions for the I-95 Betsy Ross Bridge Interchange Structure Alternatives over Soft Soils in Spaghetti Junction

Authors: Sarah McInnes, Geoff Stryker, John Pizzi

4:10 PM – 4:30 PM

Risk Assessment for Landslides on the Last Chance Grade, Crescent City, California

Authors: Scott Anderson, Cole Christiansen, Dave Gauthier, Sebastian Cohen

4:30 PM – 4:50 PM

Landslide Applications of the Geotechnical Observational Approach

Authors: George Machan, Wade Osborne, Chris Carpenter, Charles M. Hammond, Philip Wurst

4:50 PM – 5:20 PM

Highway Geology Symposium Field Trip Preview

Presenter: Bob Marvinney

Location: Massachusetts/New Hampshire

Free evening to explore and dine in the Old Port

Wednesday, September 12

6:00 AM – 7:00 AM

To-Go Continental Breakfast—Sponsored by Maccaferri, Inc. and Precision Blasting Services

Location: Highway Geology Symposium Registration Area

Highway Geology Symposium Field Trip

6:45 AM – 7:15 AM

Load buses for Field Trip

Pick-up Location: Meet in Hotel Front Lobby

7:15 AM – 5:00 PM

Field Trip

Lunch—Sponsored by Geobrugg

Afternoon Beverages—Sponsored by Golder Associates

(NO GLASS ALLOWED INSIDE BUSES)

5:30 PM – 6:30 PM

Highway Geology Symposium Social Hour—Sponsored by Access Limited Construction

Location: Vermont/Connecticut/Rhode Island (Exhibitor Area)

Highway Geology Symposium Banquet Dinner

6:30 PM – 9:30 PM

**Highway Geology Symposium Banquet Keynote Speaker —Sponsored by IDS GeoRadar
Entertainment by Tim Sample:**

Location: Massachusetts/New Hampshire

Thursday, September 13

6:30 AM – 9:00 AM

Continental Breakfast—Sponsored by Scarpotec, Inc. and Rocscience, Inc.

Location: Vermont/Connecticut/Rhode Island (Exhibitor Area)

8:00 AM – 10:00 AM

Highway Geology Symposium Exhibitor Area Open

Exhibitors can break down after morning coffee break

Technical Session 4

Location: Massachusetts/New Hampshire

Steve Sweeney, Moderator

7:30 AM – 7:50 AM

Soil Mixing: An Innovative Solution for Resiliency in a Flood-Prone Canyon

Author: Todd Schlittenhart

Thursday, September 13 (continued)

7:50 AM – 8:10 AM

Innovative Use of Horizontal Directional Continuous Rock Coring For The Design of The LSIORB East End Tunnels

Author: Craig S. Lee

8:10 AM – 8:30 AM

Geotechnical Seismic Design in New England

Author: Craig Coolidge

8:30 AM – 8:50 AM

Geotechnical risks from abandoned coal mines to transportation infrastructure and mitigation – an overview

Authors: David Knott, Athena Livesey, Robert Kingsland, Thomas Lefchik, Elizabeth Dwyre

8:50 AM – 9:10 AM

Icefall Hazard Predictive Indicators + Mitigation Techniques – Results Of A 3-YR. Research Study In Alaska

Authors: David J. Scarpato, Matt Murphy

9:10 AM – 9:30 AM

Rock Slope Scaling Investigative Approach and Volume Estimation Method

Author: John Duffy

9:30 AM – 10:00 AM

Morning Coffee Break—Sponsored by HI-TECH Rockfall Construction, Inc.

Location: Vermont/Connecticut/Rhode Island (Exhibitor Area)

10:00 AM – 10:20 AM

What Were We Thinking A case History of Extreme Slope Scaling in Washington

Authors: Marc Fish, Jim Struthers, Mike Mullhern

10:20 AM – 10:40 AM

Slope Access Safety Evaluation (SASE) Form

Author: William CB Gates

10:40 AM – 11:00 AM

Rockfall in New Jersey: A Proactive and Collaborative Approach

Authors: Amber B. Granger, John Jamerson, Scott J. Deeck, Edward M. Zamiskie Jr.

11:00 AM – 11:20 AM

Development of a Modular Rockfall Protection Wall to Mitigate Earthquake-Induced Slope Hazards Along a Coastal Transportation Corridor

Authors: Rori Green, Cedric Lambert, Charlie Watts, Daniel Kennett, Eric Ewe, Emerson Ryder, Michal Tutko

11:20 AM – 11:40 AM

Rock Slope Remediation at the Penobscot Narrows Bridge

Authors: Bryan C. Steinert, Amber Granger, Laura Krusinski, Wayne Chadbourne

Thursday, September 13 (continued)

11:40 AM – 12:00 PM

Advantages of Using A Downhole Optical Televiewer For Rock Cut Slope Design—An Example In Central Pennsylvania

Authors: Jeremy Robinson, Andrew Smithmyer

12:00 PM – 12:20 PM

Design of Pinned Drapery Systems for Rockfall Protection

Author: Mike Koutsourais

12:20 PM

Closing Remarks and Adjournment