



2019 ANNUAL SHORT COURSE:

Grouting and Ground Improvement

May 13-16, 2019 | Golden, Colorado



Grouting and Ground Improvement is a 3.5 day course that covers engineering, equipment, materials and methods for grouting and ground improvement used in civil and geotechnical engineering, underground construction, tunneling and mining.

Don't miss this opportunity for professional development and high-level networking — all while earning CEUs!

This course combines classroom instruction with hands-on labs and demonstrations, providing participants with the opportunity to see grouting and ground improvement field equipment in action!

Course highlights include a field demo day providing participants with the opportunity to see the following grouting techniques in action:

- COMPACTION GROUTING
- CELLULAR GROUTING
- DEEP SOIL MIXING
- CHEMICAL GROUTING
- PERMEATION GROUTING
- CONTROL OF GROUND WATER

WHO SHOULD ATTEND?

This course is intended for industry professionals including owners, planners, designers, contractors, consultants and suppliers involved in the design, planning and construction of civil and geotechnical engineering, underground, tunneling and mining projects.

Don't miss this opportunity to network, learn and earn CEUs!

CEUs

Colorado School of Mines will award 2.4 CEUs (continuing education units) upon successful completion of this course.

LOCATION



Colorado School of Mines has a long-standing tradition of hosting world-class short courses on our beautiful campus in scenic Golden, Colorado.

40 minutes/36 miles from Denver International Airport.

INFO AND REGISTRATION

Registration is open now! Space is limited! Early-bird and group discounts are available through March 15, 2019.

COURSE DIRECTORS:

Dr. Ray Henn
Colorado School of Mines/
RW Henn LLC
rhenn@rwhenn.com

Dr. Reza Hedayat Colorado
School of Mines
hedayat@mines.edu

Sponsorships are still available!

Please contact Kelly Hummel, Center for Underground Construction and Tunneling, at khummel@mines.edu or (303) 273-3756 for more information.

GROUTING AND GROUND IMPROVEMENT | TOPICS AND SPEAKERS

MONDAY, MAY 13

Welcome and Introduction, Ray Henn, Colorado School of Mines/RW Henn LLC

Geotechnical Engineering and Overview of Ground Improvement Methods, Reza Hedayat, Colorado School of Mines

Overview of Underground Construction Grouting, Ray Henn, Colorado School of Mines/RW Henn LLC

Geotechnical Site Investigation, GDR and GBR, David Jurich, Mott MacDonald

Cements and Admixtures

Water Control Utilizing Dewatering, Grouting and Ground Freezing, Paul Schmall, Moretrench

Permeation and Consolidation Grouting, Brad Crenshaw, GEC Drilling & Grouting

Jet Grouting, Dennis Boehm, Hayward Baker Inc.

Compaction Grouting, Jason Langer, GeoStabilization International

Compensation Grouting, Dennis Boehm, Hayward Baker Inc.

Laboratory Demonstration on Grout Rheology, Brian Jeppsen, US Grout

Laboratory Demonstration on Grouting Materials and Admixtures, Jim Lindsay/Joel Joaquin, BASF

Reception in the Geology Museum at Colorado School of Mines

TUESDAY, MAY 14

Cementitious and Acrylamide Grouting, Timothy Myers, Bencor Global, Inc.

Chemically Reactive Grouts, Britt Babcock, Avanti International

Grouting and Ground Improvement in Mine Construction, Christine Linden, Frontier-Kemper Constructors, Inc.

Case Histories of Polyurethane Grouts, Vicki Crosby & Scott Anderson, GCP Applied Technologies

Annulus Backfill Grouting, Phil Antunes, Simem Underground Solutions

Risk Evaluation, Bob Goodfellow, Aldea Services

Cost Estimating for Grouting, Tony O'Donnell & Jeremy Decker, Kiewit

Pre-Excavation Grouting in Rondout Bypass Tunnel Project - Update, Niels Kofoed, Kiewit

Drilling and Grouting Equipment, Bill Warfield, Independent Consultant

Laboratory Demonstration on Chemical Grout, Britt Babcock, Avanti International & Vicki Crosby, GCP Applied Technologies

Laboratory Demonstration on Two-Component/Annulus Backfill Grouting, Phil Antunes, Simem Underground Solutions

Underground Construction Association (UCA) Student Chapter/Industry Mixer

WEDNESDAY, MAY 15

All About Packers, Allen Kocher, Baski

Dewatering System Installation Methods and Temporary Water Treatment System Design, Nathan Anderson, Griffin Dewatering

Ground Freezing 101, Joe Sopko, Moretrench

Cellular Grout Use and Application, Rich Palladino, Aerix Industries & Ray Henn, Colorado School of Mines/RW Henn LLC

Grouting for Mine Development, Greg Sutton, Cementation

Field Demo: Compaction grouting, drilling & grouting equipment, packers, permeation grouting (sand columns), cellular concrete, product demonstrations, instrumentation, Bill Warfield, Independent Consultant

THURSDAY, MAY 16

Reflection on Field Day Observations & Q/A, Bill Warfield, Independent Consultant

Solutions Incorporating Multiple Ground Improvement Techniques, Jim Hussin, Keller Foundation

Grouting and Soil Mixing for Dike Construction at the Diavik Diamond Mine, Filippo Mira-Catto, Bauer Foundation Corp.

Choosing the Appropriate Grouting Solutions for Tunneling or Civil Infrastructure Projects, Tom Szynakiewicz, Harrison Western

Engineering Considerations in Specifying Ground Improvement, Allen Cadden, Schnabel Engineering

Backfill Grouting for Abandoned Mine Lands, Dave Hallman, Independent Consultant

Ground Improvement, John Starcevic, Malcolm Drilling

Presentation of Class Completion Certificates and Closing Remarks, Ray Henn; Reza Hedayat; Bill Warfield; Colorado School of Mines

Thank you sponsors and media partners of the 2018 course!



We appreciate support for this course from our in-kind partners:



underground



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