39th Annual Short Course:  
Grouting Fundamentals and Current Practice  
EN18017

**Monday, February 12, 2018**

08:00 – 08:10 a.m.  
Opening Remarks – **Scott Kieffer / Chadi El Mohtar**

08:10 – 09:40 a.m.  
Introduction to Grouting – **James Warner**

09:50 – 11:20 a.m.  
Grout Types and Rheology – **Chadi El Mohtar**

11:30 – 12:30 p.m.  
Cementitious Grout Materials & Mix Design – **Stephane Gonichon**

12:30 – 01:30 p.m.  
Lunch

01:30 – 03:10 p.m.  
Chemical Grout Materials and Applications – **James Warner / Scott Anderson**

03:20 – 03:55 p.m.  
Foaming Agents and Cellular Grouts – **Milton Gomez**

04:00 – 05:00 p.m.  
Engineering Geologic Considerations for Rock Mass Grouting – **Scott Kieffer**

05:15 – 06:45 p.m.  
Icebreaker Reception

**Tuesday, February 13, 2018**

08:00 – 09:50 a.m.  
Cement Grouting in Rock – **Trent Dreese**

10:00 – 11:00 a.m.  
The GIN Method of Rock Grouting – **Maren Katterbach**

11:05 – 11:50 a.m.  
Aperture Controlled Grouting – **Grant Bonin/Vafa Rombough**

11:50 – 12:50 p.m.  
Lunch

12:50 – 01:40 p.m.  
Recent Advantages in Grouting Technology – **Trent Dreese**

01:50 – 02:40 p.m.  
Case Histories - Dam Remediation Projects – **Trent Dreese**

02:50 – 04:40 p.m.  
Limited Mobility Grouting – **James Warner**

04:45– 05:30 p.m.  
Slab Jacking and Grout Jacking – **Michael Miluski**

**Wednesday, February 14, 2018**

08:00 – 09:00 a.m.  
Compaction Grouting – **Joe Harris**

09:10 – 09:50 a.m.  
Nondestructive Verification and Quantification of Ground Improvements – **Kenneth Stokoe**

10:00 – 11:20 a.m.  
Compensation Grouting – **Cliff Kettle**

12:00 – 05:00 p.m.  
Field Demonstration (with lunch)
**Thursday, February 15, 2018**

7:15 – 8:00 a.m.  Continental Breakfast

08:00 – 09:30 a.m.  Permeation Grouting of Soils – **Cliff Kettle**

09:40 – 10:40 a.m.  Evolution of Small Hole Drilling – **Donald Bruce**

10:50 – 11:50 a.m.  Rock Anchors for Dams – **Donald Bruce**

11:50 – 12:50 p.m.  Lunch

12:50 – 01:35 p.m.  High Capacity Anchors in Soils and Weak Rock (SBMA) – **Devon Mothersille**

01:45 – 02:30 p.m.  Micropiles – **Donald Bruce**

02:40 – 04:10 p.m.  Cutoff Walls & Composite Seepage Barriers – **Donald Bruce**

04:20 – 05:00 p.m.  Crisis Management – **Donald Bruce**

**Friday, February 16, 2018**

08:00 – 10:00 a.m.  Jet Grouting – **George Burke**

10:10 – 11:00 a.m.  Grouting Instrumentation – **Etienne Constable**

11:10 – 12:30 p.m.  Pre-Excavation Grouting in Rock Tunnels – **Hans-Olav Hognestad**

12:30 – 01:00 p.m.  Lunch

01:00 – 01:50 p.m.  Post-Excavation Grouting in Underground Construction – **Scott Kieffer**

02:00 – 03:00 p.m.  Grouting for Ground Control in Underground Construction – **Paul Schmall**

03:00 – 03:30 p.m.  Closing Remarks – **Scott Kieffer / Chadi El Mohtar / Sam Bandimere**