

15th International Workshop On Micropiles
The Sebastian | Vail, Colorado
May 31-June 2, 2023

Workshop Program

Wednesday, May 31, 2023

12:00 PM - 1:00 PM	Registration
1:00 PM - 1:10 PM	Welcome, Dan MacLean, P.Eng. Keller, Canada
1:10 PM - 1:55 PM	11th Lizzi Lecture — Introduction: Allen Cadden, P.E., D.GE, FASCE Schnabel Engineering, United States Lizzi Lecturer: Erik Løehr, Ph.D. P.E., University of Missouri Mainstreaming of Micropiles: Probabilistic Calibration of Axial Resistance for Load and Resistance Factor Design
1:55 PM - 2:30 PM	9th Lizzi Scholarship Presentation — Introduction: Sue Frank TEI Rock Drills, United States Kelly Flanagan North Carolina State University, United States Interface Shear Strength Characterization Between Subsea Installed Micropile Grout and Textured Rock for Micropiles Anchoring Offshore Renewable Ocean Energy Devices
2:30 PM - 2:45 PM	Break

Session 1 — Moderator: Ty Jahn, P.E. | Condon-Johnson Associates, United States

2:45 PM - 2:55 PM	4th Micropile World Cup Presentations Introduction: Ty Jahn, Condon-Johnson Associates, United States
2:55 PM - 3:20 PM	Australasia: Micropiled Cell Towers for the Rural Connectivity Group Neil Jacka Total Ground Engineering and Earth Stability Limited, New Zealand
3:20 PM - 3:45 PM	Europe: Reconstruction of Railway Bridge in Old Town of Cracow Hubert Zychalak AARSLEFF, Poland
3:45 PM - 4:10 PM	Africa and Central Asia: Remedial Works to Arrest the Differential Settlement of Foundations of Sabic Building Haytham Hamdan Bullivant Arabia, Saudi Arabia
4:10 PM - 4:35 PM	North America: Battling the Elements with Helicopters at Elevation 11,260 feet Ty Jahn, P.E. Condon-Johnson Associates, United States
4:35 PM - 5:00 PM	South and Central America: Installation of Micropiles for the Foundation of the New Furnace at the O-I Peldar Zipaquira Plant Esteban De La Cruz Soto, P.Eng. Ischebeck, Colombia
5:00 PM - 5:15 PM	Closing
5:30 PM - 7:30 PM	Welcome Reception, The Sebastian Vail

Thursday, June 1, 2023

Session 2 — Moderator: Robert Schiermeyer, P.E. | Keller, United States

8:30 AM - 8:35AM	Opening and Introduction of Keynote Speaker
8:35 AM - 9:20 AM	Special Lecture, Colorado DOT A Colorado View of Micropiles in Transportation David Thomas, P.G., P.E. Colorado DOT, United States Also presenting: Sam Abraham and Trey White Colorado DOT, United States
9:20 AM - 9:45 AM	The Role of Micropiles in a Sustainable Deep Foundations Industry Freddy Lopez, M.Sc.-Ing. Tiroler Rohre, Germany

Thursday, June 1, 2023 continued

- 9:45 AM - 10:10 AM The Hidden Opportunity: Can Micropiles Reduce Cost and Carbon in the Windpower Sector
Neil Jacka | Total Ground Engineering, New Zealand
- 10:10 AM - 10:35 AM Swiss Grid Transmission Towers
Racquel Nottingham | Ischebeck, Germany
- 10:35 AM - 10:50 AM Break

Session 3 — Moderator: Charles Braun, P.E. | Williams Form Engineering Corporation

- 10:50 AM - 11:15 AM When Heat Treatment Gives You Lemons...
Justin Toney, P.E. | Crux Subsurface, United States
- 11:15 AM - 11:40 AM High-Capacity Micropiles with Unique Testing Requirements for Parking Structure Upgrade in Los Angeles
Pete Speier, P.E. | Williams Form Engineering Corporation, United States
- 11:40 AM - 12:05 PM Micropile Install in the Steep Talus, Debris Flow and Basalt of the Columbia River Gorge
Brian Olson | Crux Subsurface, United States
- 12:05 PM - 12:30 PM Durability of Anchorages – A Critical Approach to a Sensitive Topic
Andreas Brandner, Dipl.-Ing. | IB-Brandner, Australia
- 12:30 PM - 1:30 PM Lunch

Session 4 — Moderator: Bill Zietlow, P.E. | Brierley Associates Corporation, United States

- 1:30 PM - 1:55 PM One Post Office Square
Tony Barila | Hub Foundations, United States
- 1:55 PM - 2:20 PM US Based Design Guidance Updates (ADSC/DFI)
FHWA/LRFD Update
Allen Cadden, P.E., D.GE, F.ASCE | Schnabel Engineering
Electric Power Guidance Document
Steve Davidow, P.E., S.E., P.Eng. | Crux Subsurface
Micropile Connector Study Results
Jesús Gómez, Ph.D., P.E., D.GE | GEI Consultants
- 2:20 PM - 2:45 PM Micropiles in the Second Generation of Eurocode 7: Geotechnical Design
Natalia Maca | Titan Polska, Poland
- 2:45 PM - 3:00 PM Break

Session 5 — Moderator: Allan Herse, CP.Eng. | PCA Ground Engineering, Australia

- 3:00 PM - 3:25 PM Micropiles – An All-In-One Geotechnical Solution at the Nashville International Airport
Will Shaffer, P.E. | Dan Brown and Associates, United States
- 3:25 PM - 3:50 PM Performance-Based Design and Construction of Micropile Foundations from the Project Engineer of Record Perspective for Building Construction
Ralph Rempel | Martin/Martin, United States
- 3:50 PM - 4:00 PM Break

Session 6 — Moderator: Allen Cadden, P.E., D.GE, F.ASCE, Schnabel Engineering, United States

- 4:00 PM - 5:15 PM Panel Discussion Results of Micropile Casing Testing
Sebastian Montoya-Vargas | University of Maine, USA
Griffin Lowe, P.E. | Condon-Johnson Associates, United States
Helen Robinson, P.E., PMP, D.GE | GEI Consultants, United States
- 5:15 PM - 5:25 PM Closing — Dinner on your own

Friday, June 2, 2023

8:30 AM – 8:40 AM Opening, Dan MacLean, P.Eng. | Keller, Canada

Session 7 — Moderator: Mary Ellen Large, P.E., D.GE | Nicholson Construction Company, United States

8:40 AM – 9:40 AM Reticulated Micropiles for Restoration of Historic Structures Foundations after Natural and Manmade Disasters
James Mason, Ph.D., P.E. | National Park Services, United States

9:40 AM – 10:05 AM Reticulation Micropiles for the Preservation and Rehabilitation of Transportation Infrastructure
Paul Saucó | University of Rhode Island, United States

10:05 AM – 10:30 AM Structural Design of the Upper-Cased Length of Micropiles
Allen Cadden, P.E., D.GE, F.ASCE | Schnabel Engineering, United States

10:30 AM – 10:45 AM Break

Session 8 — Moderator: Cody Telgheder, P.E. | Nicholson Construction Company, United States

10:45 AM – 11:10 AM Underpinning and Seismic Upgrade of the Salt Lake City Capital Building in Utah
Marc Mastrantuono, P.E. | Ischebeck, United States

11:10 AM – 11:35 AM Micropiles Support New Red Rocks Amphitheater Roof
Jeff Wenzel | Park Range Construction, United States

11:35 AM – 12:00 PM Bronco Billy's Casino, Hotel, and Conference Center – Cripple Creek, CO
Robert Schiermeyer, P.E. | Keller, United States

12:00 PM – 12:25 PM The World's Largest Micropiled Post - Tensioned Raft Foundations in the Kingdom of Bahrain — a Case Study
Sharath Kumar | Strong Force-MGC W.L.L., Kingdom of Bahrain

12:25 PM – 1:30 PM Lunch and World Cup Voting

Session 9 — John Turner, Ph.D., P.E., D.GE | Dan Brown and Associates, United States

1:30 PM – 1:55 PM Micropiles and Shotcrete to Support the Expansion of the New Cedarvale Interchange Station
Alex Almeida, P.Eng. | Keller, Canada

1:55 PM – 2:20 PM Emergency Stabilization of Fountain Slide
Rick Deschamps, P.E., Ph.D. | Nicholson Construction Company, United States

2:20 PM – 2:45 PM A Historical Overview of the Innovative use of Micropiles for Support of Excavation and Facades in Toronto, Canada
Erika Acton | Isherwood Associates, Canada

2:45 PM – 3:00 PM Break

Session 10 — Moderator: Andreas Brandner, Dipl.-Ing | IB-Brandner, Austria

3:00 PM – 3:25 PM Australasia World Cup Runner Up: Micropiled Pedestrian and Cyclist Bridge Foundation – Parramatta, Sydney, Australia
Allan Herse, CP.Eng. | PCA Ground Engineering, Australia

3:25 PM – 3:50 PM South American World Cup Runner Up: Dealing with Bending Moments at Micropile Heads in Seismic Regions
Aldo Guzman | Soilforce, Chile

3:50 PM – 4:15 PM North American World Cup Runner Up: Prairie Du Sac Dam
Rick Deschamps, P.E., Ph.D. | Nicholson Construction Company, United States

4:15 PM – 4:40 PM European World Cup Runner Up — Visitor Service Center at Auschwitz-Birkenau Museum (Poland)
Challenging Underpinning in the Important Historic Area
Natalia Maca | Titan Polska, Poland

4:40 PM – 4:45 PM Closing, Dan MacLean, P.Eng. | Keller, Canada

4:45 PM – 6:30 PM Free Time

6:30 PM – 7:00 PM Awards Reception

7:00 PM – 10:00 PM Awards Dinner

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