FINAL PROGRAM

GEO-CONGRESS 2020
Minneapolis, Minnesota | February 25-28

Vision, Insight, Outlook

Hyatt Regency Minneapolis | Minneapolis, MN USA
www.geocongress.org
Welcome to Geo-Congress 2020

Schedule at a Glance *(Subject to change)*  
*Events in bold take place in the Exhibit Hall.

**Tuesday, February 25, 2020**

- 8:00 a.m. – 5:00 p.m. Geotechnical Aspects of Pavement Design and Construction – Lakeshore A
- 8:00 a.m. – 5:00 p.m. Stabilization of Natural and Man-Made Slopes with Climate Change – Lakeshore B
- 8:00 a.m. – 12:00 p.m. Ground Modification Methods and Their Recent Developments – Lakeshore C
- 8:00 a.m. – 12:00 p.m. Implementation of Geotechnical Asset Management – Greenway A
- 10:00 a.m. – 3:00 p.m. Student Competitions
- 8:00 a.m. – 5:00 p.m. Stability & Stabilization of Natural and Man-Made Slopes with Climate Change – Lakeshore B
- 10:30 a.m. – 12:30 p.m. Poster Sessions – Greenway A
- 1:00 – 5:00 p.m. Analysis of Seismic CPT Data to Derive Shear Wave Velocity Profiles – Lakeshore C
- 1:00 – 5:00 p.m. Design of Structural Compacted Fills for Better Performance – Greenway A
- 1:00 – 6:00 p.m. Exhibitor Setup
- 2:00 – 2:30 p.m. G-I Student Orientation – Northstar Ballroom
- 2:30 – 3:30 p.m. G-I Student Professional Development Workshop – Northstar Ballroom
- 3:30 – 4:30 p.m. G-I Geo-Wall Captains Meeting – Northstar Ballroom
- 4:30 – 5:00 p.m. AGP Induction Ceremony – Nicollet Ballroom
- 6:30 – 8:00 p.m. Welcome Reception
- 8:00 – 10:00 p.m. Outreach and Engagement Happy Hour – Prairie Kitchen and Bar, Hyatt Regency

**Wednesday, February 26, 2020**

- 6:30 – 7:30 a.m. Yoga - StayFit Fitness on Demand Studio
- 8:00 – 9:00 a.m. Opening Plenary Session – Nicollet Ballroom
- 9:00 – 10:00 a.m. Geo-PIT: Powerful, Informative Talks on Geotechnical Topics – Nicollet Ballroom
- 9:30 a.m. – 4:00 p.m. Academic Showcase – Great Lakes Ballroom
- 10:00 – 10:30 a.m. Morning Networking Break – Available in Exhibit Hall, Northstar Ballroom & Great Lakes Ballroom
- 10:00 a.m. – 3:00 p.m. Student Competitions – Great Lakes Ballroom
- 10:30 – 11:30 a.m. G-I Business Meeting – Greenway A
- 10:30 a.m. – 12:00 p.m. ASCE Government Relations Session: Impacting Policy Through State Report Cards – Lakeshore A
- 10:30 – 12:30 p.m. Poster Sessions – Northstar Ballroom
- 12:30 – 2:00 p.m. “Vision” Lunch – Available in Exhibit Hall, Northstar Ballroom & Great Lakes Ballroom
- 2:00 – 3:30 p.m. Technical Sessions
- 2:00 – 3:30 p.m. Special Session: Supporting Our Stadiums: The Geotechnics of the Stadiums of the Twin Cities – Lakeshore A
- 2:00 – 3:30 p.m. Special Session: Innovative Use of Computing for Data Visualization and Geotechnical Analysis – Greenway A
- 2:00 – 3:30 p.m. Special Session: Grouting “Grouting Verification from lab to Field” – Greenway C
- 2:00 – 3:30 p.m. Special Session: Geotechnical Considerations of Permanent and Temporary Flood Protection Infrastructure in the Province of Manitoba | Past, Present, and Future – Greenway D
- 2:00 – 3:30 p.m. Special Session: The Road Ahead: Using Technological Advances to Address Challenges in Pavements – Greenway F
- 3:30 – 4:00 p.m. Afternoon Networking Break – Available in Exhibit Hall, Northstar Ballroom & Great Lakes Ballroom
- 4:00 – 5:30 p.m. Technical Sessions
- 4:00 – 5:30 p.m. Special Session: Point the Way: Photogrammetry and LiDAR for geo-imaging Panel and CPT vs. SPT Debate – Greenway A
- 4:00 – 5:30 p.m. Special Session: Geotechnical Considerations for Alternative Project Delivery – Greenway C
- 4:00 – 5:30 p.m. Special Session: Sinkhole Detection, Characterization, and Engineering – Greenway E
- 4:00 – 5:30 p.m. Special Session: Recent Advances in Risk-Informed Geotechnical Design and Management – Greenway F
- 4:00 – 5:30 p.m. Special Session: Multiphysics and Multiphase Flow in Porous Media – Greenway G
- 4:00 – 5:30 p.m. Special Session: Fostering Innovation with Geotechnical Reliability: The Role Reliability Plays in Spurring Innovation – Greenway H
- 5:30 – 6:00 p.m. GeoPIT: Powerful, Informative Talks on Geotechnical Topics – Nicollet Ballroom
- 6:00 – 7:00 p.m. Mercer Lecture – Nicollet Ballroom
- 6:30 – 8:00 p.m. Organizational Member Executive Leadership Dinner and Workshop – Millennium Done, Millennium Hotel - Use Skyway from 2nd Floor of Hyatt Regency
- 7:00 – 8:30 p.m. MGS/U of M 68th Annual Geotechnical Conference Dinner and Lecture – University of Minnesota McNamara Alumni Center (separate registration required)
- 8:00 – 10:30 p.m. Purple Party | A Prince Tribute
- 8:15 – 9:15 p.m. G-I Student Program: Organizational Members and Student Travel Grant Winners Job Fair – Northwoods
- 9:15 – 10:15 p.m. G-I Student Program: Organizational Member and Student Reception – Northwoods

**Thursday, February 27, 2020**

- 6:30 – 7:30 a.m. Yoga - StayFit Fitness on Demand Studio
- 8:00 – 10:00 a.m. Special Session: 68th University of Minnesota Geotechnical Conference Plenary Session 1 and Kersten Lecture – Nicollet Ballroom
- 10:00 – 10:30 a.m. Morning Networking Break – Available in Exhibit Hall & Northstar Ballroom
- 10:30 a.m. – 12:00 p.m. Technical Sessions
- 10:30 – 12:00 p.m. Special Session: 68th University of Minnesota Geotechnical Conference Plenary Session 2 – Nicollet Ballroom
- 10:30 – 12:00 p.m. Special Session: “Ah-Ha” Moments in Geo-Engineering: My Biggest Geotechnical Surprise – Lakeshore A
- 10:30 – 12:00 p.m. Special Session: Practical Considerations on Seepage Analysis for Embankments, Dams and Slopes – Lakeshore B
- 10:30 – 12:00 p.m. Special Session: Soil Improvement by Rigid Inclusions Panel Discussion – Greenway A
- 12:00 – 1:30 p.m. “Insight” Lunch – Available in Exhibit Hall & Northstar Ballroom
- 1:30 – 3:00 p.m. Special Session: 68th University of Minnesota Geotechnical Conference Part A – Lakeshore A
- 1:30 – 3:00 p.m. Special Session: 68th University of Minnesota Geotechnical Conference Part B – Lakeshore B
- 1:30 – 3:00 p.m. Special Session: GeoDebate- Limit Equilibrium vs. Finite Element Analysis – Greenway A
- 1:30 – 3:00 p.m. Special Session: U.S. Canada Joint Session on Innovative Approaches for Mine Waste Management – Greenway C
- 4:00 – 5:30 p.m. Special Session: Geotechnical Considerations for Alternative Project Delivery – Greenway C
- 4:00 – 5:30 p.m. Special Session: Sinkhole Detection, Characterization, and Engineering – Greenway E
- 4:00 – 5:30 p.m. Special Session: Recent Advances in Risk-Informed Geotechnical Design and Management – Greenway F
- 4:00 – 5:30 p.m. Special Session: Multiphysics and Multiphase Flow in Porous Media – Greenway G
- 4:00 – 5:30 p.m. Special Session: Fostering Innovation with Geotechnical Reliability: The Role Reliability Plays in Spurring Innovation – Greenway H
- 5:30 – 6:00 p.m. GeoPIT: Powerful, Informative Talks on Geotechnical Topics – Nicollet Ballroom
- 6:00 – 7:00 p.m. Mercer Lecture – Nicollet Ballroom
- 6:30 – 8:00 p.m. Organizational Member Executive Leadership Dinner and Workshop – Millennium Done, Millennium Hotel - Use Skyway from 2nd Floor of Hyatt Regency
- 7:00 – 8:30 p.m. MGS/U of M 68th Annual Geotechnical Conference Dinner and Lecture – University of Minnesota McNamara Alumni Center (separate registration required)
- 8:00 – 10:30 p.m. Purple Party | A Prince Tribute
- 8:15 – 9:15 p.m. G-I Student Program: Organizational Members and Student Travel Grant Winners Job Fair – Northwoods
- 9:15 – 10:15 p.m. G-I Student Program: Organizational Member and Student Reception – Northwoods

Note: Available in Exhibit Hall & Northstar Ballroom

For more information, visit [Geo-Congress 2020](https://www.geo-congress.org) or contact the organizing committee.
Friday, February 28, 2020

6:30 – 7:30 a.m. Yoga - StayFit Fitness on Demand Studio

8:00 – 9:30 a.m. Special Session: Mosul Dam | Emergency Construction in a Contingency Environment – Greenway A

8:00 – 9:30 a.m. Special Session: Design of Geosynthetic Reinforced MSE Walls, Part 1 – Greenway B

8:00 – 9:30 a.m. Special Session: Risk Management and modeling in Tailings Ponds – Greenway D

8:00 – 9:30 a.m. Special Session: “Panel Session:” Women in Tunneling – Greenway E

8:00 – 9:30 a.m. Special Session: Local Governments and Geotechnical topics: City of Minneapolis and Minnesota DOT – Greenway F

9:30 – 10:00 a.m. Morning Networking Break – Available in Exhibit Hall & Northstar Ballroom

10:00 – 11:30 a.m. Special Session: “I couldn’t agree more!” The latest Geotechnical Developments Where We Agree Improvement is needed – Lakeshore A

10:00 – 11:30 a.m. Special Session: Mosul Dam: Emergency Construction in a Contingency Environment – Greenway A

10:00 – 11:30 a.m. Special Session: Biogeotechnics for Reinforcement, Penetration and Foundations – Greenway B

10:00 – 11:30 a.m. Special Session: Design of Geosynthetic Reinforced MSE Walls, Pt 2 – Greenway C

10:00 – 11:30 a.m. Special Session: Static Liquefaction of Mine Tailings – Greenway D

10:00 – 11:30 a.m. Special Session: Overview of Recent Twin Cities Based Underground Projects – Greenway F

10:00 – 11:30 a.m. Technical Sessions

11:30 a.m. – 1:00 p.m. "Outlook" Lunch – Available in Exhibit Hall & Northstar Ballroom

1:00 – 1:30 p.m. GeoPIT: Powerful, Informative Talks on Geotechnical Topics – Nicollet Ballroom

1:30 – 2:30 p.m. Exhibit Hall Hours: Exhibitor Move Out

1:30 – 2:30 p.m. Ralph B. Peck Award Lecture – Nicollet Ballroom

Sponsored by ConTec

2:30 – 3:00 p.m. Closing Ceremony – Nicollet Ballroom
Barr Engineering Co. works with clients in private industries such as power, refining, mining, and manufacturing, as well as public sector areas such as transportation, natural resources, and civil infrastructure.

- dam and embankment engineering
- foundation engineering
- ground improvement
- landslides and slope stabilization
- seepage and stability modeling and in-situ testing
- earth retention structures
- instrumentation and monitoring systems
- soil dynamics and earthquake engineering

geotechnical engineering
At Jacobs, as we face some of the world’s toughest challenges from underground transport of water and people to making city systems smarter to igniting economic growth, our people are working to find better ways to make the world smarter, more connected and more sustainable.

So what’s your challenge? With nearly 900 geotechnical and tunnel engineers worldwide, we are ready to help with:

- geotechnical engineering
- geosciences & engineering geology
- tunnel engineering
- earthquake engineering
- tunnel fire & life safety
- design-build services
- program & construction management

Jacobs is a proud gold sponsor of Geo-Congress 2020 Come find us at the Organizational Member Workshop
• Ground improvement
• Underground space
• Seismic assessment
• Deep foundations
• Slope stability
• Tunneling

www.itascacg.com/civil civil@itascacg.com
Christian attended the University of Minnesota, Duluth, and went on to play in the NHL with the Washington Capitals, Chicago Blackhawks, Boston Bruins and St. Louis Blues. In 1009 NHL games, he scored 340 goals and 433 assists. Christian attended the University of North Dakota in Grand Forks, North Dakota. He was inducted into the United States Hockey Hall of Fame in 2001.

Open Issues about Soil Liquefaction from a Perspective Including Physical Model Tests
Awarded annually by the Geo-Institute, the recipient of the H. Bolton Seed Medal is honored for outstanding contributions to teaching, research, or practice in geotechnical engineering. Presented by this year’s recipient, Bruce Kutter, Ph.D, M.ASCE

GeoPIT: Powerful, Informative Talks on Geotechnical Topics
9:00 – 10:00 a.m. | Nicollet Ballroom
Victoria Bennett, Ph.D., A.M.ASCE, Rensselaer Polytechnic Institute – Is the Road to Learning Engineering Judgement a Virtual One?
James Press, EIT, A.M.ASCE, Aterra Solutions – How I Almost Became an English Major
Ellen Rathje, Ph.D, P.E., FASCE, University of Texas at Austin – Make Your Data Count
Thomas Westover, P.E., M.ASCE, Cornforth Consultants – Experience: Why Knowing More Means Knowing Less and What to Do About It

ASCE Government Relations Session: Impacting Policy Through State Report Cards
10:30 a.m. - 12:00 p.m. | Lakeshore A
Polling indicates Americans overwhelmingly identify infrastructure investment as a policy area they would like policymakers to prioritize. In state Capitols, ASCE members help champion gas tax increases to fund transportation infrastructure, secure funding for water infrastructure projects, and improve dam safety laws. This is all done through the power of ASCE’s State Infrastructure Report Cards. ASCE has released 27 state infrastructure report cards since 2017. State report cards provide an opportunity to reach legislators, as well as a broader audience of infrastructure stakeholders, with information about our infrastructure in a familiar A-F format. Hear from members of the Minnesota State Infrastructure Report Card Committee to learn how they created their report card and why it’s a critical advocacy tool.

Jason Staebell, PE, Chair 2018 Report Card for Minnesota’s Infrastructure
Seth Spychala, PE, Co-Chair, ASCE State Government Relations & Grassroots Committee
Katherine Zadrozny, PE, Dams Chapter Author, 2018 Report Card for Minnesota’s Infrastructure

GeoPIT: Powerful, Informative Talks on Geotechnical Topics
5:30 – 6:00 p.m. | Nicollet Ballroom
Vanessa Bateman, P.E., M.ASCE, U.S. Army Corps of Engineers – Between a Rock and a Hard Place: The Role of Judgement and Unexpected Roadblocks
Mario Ruel, CN – The Old and New St. Clair USA-Canada Tunnels: A Fantastic Tale of Achievements
Ellen Rathje, Ph.D, P.E., F .ASCE, University of Minnesota – Your Data Count

Program Highlights

TUESDAY, FEBRUARY 25, 2020
AGP Induction Ceremony
4:30 – 5:00 p.m.
Opening Remarks and H. Bolton Seed Award Lecture
5:00 – 6:30 p.m. | Nicollet Ballroom
Sponsored by ITASCA
Open Issues about Soil Liquefaction from a Perspective Including Physical Model Tests
Awarded annually by the Geo-Institute, the recipient of the H. Bolton Seed Medal is honored for outstanding contributions to teaching, research, or practice in geotechnical engineering. Presented by this year’s recipient, Bruce Kutter, Ph.D, M.ASCE

Outreach and Engagement Happy Hour
8:00 - 10:00 p.m. | Prairie Kitchen and Bar, Hyatt Regency
Sponsored by KCI
Join your colleagues to promote and celebrate diversity and inclusion in the geo-profession.

WEDNESDAY, FEBRUARY 26, 2020
Opening Plenary Session
8:00 - 9:00 a.m.
Sponsored by Jacobs
Opening Remarks
8:00 – 8:30 a.m. | Nicollet Ballroom
Welcoming Remarks from G+1 President Patrick Fox, Ph.D., P.E., D.GE, FASCE and Conference Chair Derrick D. Dasenbrock, P.E., D.GE, FASCE
Engineering a Miracle
8:30 – 9:00 a.m. | Nicollet Ballroom
Guest Speaker: Dave Christian, American Former Professional Ice Hockey Forward, Olympic Gold Medalist
Christian comes from a family of hockey players. His father Bill and uncle Roger were members of the 1960 U.S. Olympic Hockey Team that won the Gold Medal. His family is also famous for the Christian Brothers Hockey Company, makers of hockey sticks, founded in 1964 in Warroad, MN by Bill and Roger, along with Hal Bakke. Christian is best known for being a member of the 1980 U.S. Olympic hockey team that won the gold medal in an event known as the Miracle On Ice during the 1980 Winter Olympics. Within a week of the Miracle On Ice, Christian joined the Winnipeg Jets, who drafted him in the 1979 NHL Entry Draft. Just 7 seconds into his first NHL shift, Christian electrified the sold out Winnipeg crowd with his first professional goal. After a roller-coaster career in Winnipeg, he went on to play in the NHL with the Washington Capitals, Chicago Blackhawks, Boston Bruins and St. Louis Blues. In 1009 NHL games, he scored 340 goals and 433 assists. Christian attended the University of North Dakota in Grand Forks, North Dakota. He was inducted into the United States Hockey Hall of Fame in 2001.

GeoPIT: Powerful, Informative Talks on Geotechnical Topics
5:00 – 6:00 p.m. | Nicollet Ballroom
Vanessa Bateman, P.E., M.ASCE, U.S. Army Corps of Engineers – Between a Rock and a Hard Place: The Role of Judgement and Unexpected Roadblocks
Mario Ruel, CN – The Old and New St. Clair USA-Canada Tunnels: A Fantastic Tale of Achievements

Mercer Lecture
6:00 – 7:00 p.m. | Nicollet Ballroom
Geosynthetics for Construction on Soft Foundation Soils
The series was established in 1992 to provide individuals who have made significant technical contributions to the advancement of geosynthetics the opportunity to present their work at international conferences around the world. Presented by this year’s recipient, R. Kerry Rowe, Ph.D., DEng., DSc(Hc), FRS, NAE, FREng, FRSC, FCAE, FEIC, FASCE, FIE(Aus), FCSCE, P.Eng, CP.Eng.
THURSDAY, FEBRUARY 27, 2020

Special Session: 68th University of Minnesota Geotechnical Conference Plenary Session 1 and Kersten Lecture
8:00 – 10:00 a.m. | Nicollet Ballroom

Kersten Lecture:
Energy Geotechnology: A New Era for Geotechnical Engineering Practice
The University of Minnesota 68th Annual Geotechnical Engineering Conference presents the Kersten Lecture. Presented by this year’s lecturer, Lyesse Laloui, Ph.D.

Special Session: 68th University of Minnesota Geotechnical Conference Plenary Session 2
10:30 a.m.– 12:30 p.m. | Nicollet Ballroom

Awards Presentation and Karl Terzaghi Award Lecture
5:30 – 7:00 p.m. | Nicollet Ballroom

FRIDAY, FEBRUARY 28, 2020

GeoPIT: Powerful, Informative Talks on Geotechnical Topics
1:00 – 1:30 p.m. | Nicollet Ballroom
Chukwuebuka Nweke, Ph.D., P.G., M.ASCE, UCLA – Not the Big One, but some Good ones: Strong Motion Data and Geotechnical Engineering Impacts from the Ridgecrest Earthquake Sequence

Joseph Wartman, Ph.D., M.ASCE, University of Washington – Shaping Federal Policy to Reduce Geohazard Losses: the National Landslide Preparedness Act

Ralph B. Peck Award Lecture
1:30 – 2:30 p.m.
Sponsored by ConTec

Problematic Soils: Characterization Challenges, Innovative Solutions and Novel Monitoring Methods
The Ralph B. Peck Medal Lecture is presented annually by a geotechnical engineer recognized by the Geo-Institute for outstanding contributions to the profession through the analysis and publication of case histories. Presented by this year’s recipient, Anand Puppala, Ph.D., P.E., D.GE., F.ASCE, F-ICE

Closing Ceremony
2:30 – 3:00 p.m. | Nicollet Ballroom
Wednesday, February 26

**Technical Sessions (continued)**

<table>
<thead>
<tr>
<th>Track E</th>
<th>Location A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supporting Our Students: The Geotechnics of the Steadfast Twins of Geotechnical Engineering: Nihal Ahmed, Ph. D., M.ASCE, and Boon Sen Yee, Ph. D., M.ASCE</td>
<td>Geotechnical Techniques (Part I) Moderator: Prof. Ivelin Petkov, Ph. D., M.ASCE, and Claudia Zupke, Ph. D.</td>
</tr>
<tr>
<td>GROUNTING “Grounding From lab to Field” to Address Challenges: Matlab: Chadi El Mohtar, Ph. D., M.ASCE, and Khaled Abdulatif, Ph. D., M.ASCE</td>
<td>Geotechnical Considerations of Permanent and Temporary Fault Protection Infrastructure in the Province of Manitoba – Past, Present and Future Moderate: Nathan J. Blake, Ph. D., P.Eng., M.ASCE, and Rodney Takobah, Ph. D.</td>
</tr>
<tr>
<td></td>
<td>Earthquake Retaining Structures: Qingyan An, Ph. D., M.ASCE, Miguel Paoletti, Ph. D., M.ASCE, and Avinash Bose, Ph. D., M.ASCE</td>
</tr>
</tbody>
</table>

**Technical Sessions 18**

**Supporting Our Students: The Geotechnics of the Steadfast Twins of Geotechnical Engineering:** Nihal Ahmed, Ph. D., M.ASCE, and Boon Sen Yee, Ph. D., M.ASCE

**GROUNTING “Grounding From lab to Field” to Address Challenges:** Matlab: Chadi El Mohtar, Ph. D., M.ASCE, and Khaled Abdulatif, Ph. D., M.ASCE

**Computing Geotechnical Modulators:** Ismail Al-Sayed, Ph. D., M.ASCE, and William R. O’Kane, Ph. D., M.ASCE

**Deep Foundations Modulators:** Mohammad Sepehr, Ph. D., M.ASCE, Burak Gunes, Ph. D., M.ASCE, and Richard Ackerman, Ph. D., M.ASCE

**Earthquake Retaining Structures:** Qingyan An, Ph. D., M.ASCE, Miguel Paoletti, Ph. D., M.ASCE, and Avinash Bose, Ph. D., M.ASCE

**Material Analysis of Soil Liquefaction Using Cunicimento Tests of a Level Site Subjected to Biased Shaking:** Jaya B. Saha, Ph. D., M.ASCE, and Kartikay Bhatia, Ph. D., M.ASCE

**An Energy-Based Process Evaluation for Foil PsychrophilicFrozen geotextile during Cyclical Loading:** Tony M. Yilmaz, Ph. D., M.ASCE, and Kevin C. Yang, Ph. D., M.ASCE

**Frac-Driven Seismic Processing and Integration of Several 3D Seismic Data in the Presence of Strong and Weak Motions:** Gunnar M. Sveinsson, Ph. D., M.ASCE, and Mohammad Hadi Naseri, Ph. D., M.ASCE

**Effects of Rocking Coefficient on Seismic Design Optimization, Permanent Settlement, and Settlement of Rocking Shallow Foundations:** Sashi Gupta, Ph. D., M.ASCE, and Sashi Gupta, Ph. D., M.ASCE

**Operational Analysis of State and System Dynamics:** Fred M. Borkowski, Ph. D., M.ASCE, and Harold P. Wenzel, Ph. D., M.ASCE

**Sustainability in the Design and Construction of Structures:** Vicente Martino, Ph. D., M.ASCE, and Laura A. Romero, Ph. D., M.ASCE

**Haptic User Interface:** Leonardo F. Zanetti, Ph. D., M.ASCE, and Leonardo de Oliveira, Ph. D., M.ASCE

**Geotechnical Scale-Up:** Ian Pierce, Ph. D., M.ASCE, and Andrew R. D. Henry, Ph. D., M.ASCE

**Performance Monitoring of a Driven Wall:** Early Construction, Static Load Limit, and Long-Term Performance Data:** Jarred Judge, Ph. D., P. E., M. ASCE, Fernando Alberto, Ph. D., M. ASCE, and William Rudolph, P. E., G. E., M. ASCE

Geo-technological Considerations for Alternative Project Delivery. Moderators: Leuan Gilbert, M.ASCE, and Abhijit Burman, P.E., M.ASCE. 7:00 - 7:30 p.m.

Purple Party | A Prince Tribute to a Musical Icon. 7:30 - 9:00 p.m.

Wear your purple and come to the party of the year! The event will feature live music, dancing, and fun activities. Don’t miss this opportunity to celebrate and enjoy a night of unforgettable entertainment. Tickets are available at the door. Plan to arrive early to secure your spot and make the most of the festivities!
Technical Program (continued)

Thursday, February 27

Technical Sessions 3

68th University of Minnesota Geotechnical Conference

Plenary Session 2
Moderator: Brutus Buzay

“Ah Ha!” Moments in Geo-Engineering: My Biggest Geotechnical Surprises
Moderator: John Net dr, Ph.D., P.E., A.M.ASCE

Soil Improvement by Rigid Panel Discussion
Moderator: Ming Xue, Ph.D., P.E., A.M.ASCE

Engineering Geology And Site Classification
Embassadors: Jian Bao, Ph.D., P.E., M.ASCE, Joseph Cox, Ph.D., P.E., A.M.ASCE, Tim Donnellan, Ph.D., P.E., Xiang (Bill) Bi, Ph.D., A.M.ASCE, Nidh Saha, Ph.D., P.E., A.M.ASCE

Risk Assessment And Management
Moderators: Leila Ghanbari, Ph.D., P.E., Mark Wynn, Ph.D., P.E., Raksh Rai, M.ASCE

Geohydraulics
Moderators: Joz Jakub, Ph.D., P.E., Arman Ebrahimi, Ph.D., Ismael L. Huerta, Ph.D., Carl A. Morris, Ph.D., A.M.ASCE

Pavements
“Geotechnical Aspects of Pavement Systems”
Moderators: Halvok, Ph.D., P.E., Arman Ebrahimi, Ph.D., Bora Cetin, Ph.D., Isaac L. Huerta, Ph.D., Carl A. Morris, Ph.D., A.M.ASCE

GEOENVIRONMENTAL “Concerning Natural and Constructed Resources”
Moderators: Shinzioka, Zakki, Ph.D., Tago, Takeo, Ph.D., Nishigaki, Ph.D., Kawai, Ph.D., P.E., A.M.ASCE
Gateways to a World of Opportunities

Technical University of Minnesota, Twin Cities

Induced in Mechanical Excavation

Experimental Study of Forces

Computational Tools for Geotechnical Engineering

Bryan Field, P.E.

Geotechnical Conference

University of Minnesota

Track B | Lakeshore A

Track C | Lakeshore B

Track D | Greenway A

Track E | Greenway B

Track F | Greenway C

Track G | Greenway D

Track H | Greenway E

Track I Greenway F

Track J | Greenway G

Track K | Greenway H

David Saftner, P.E., M.ASCE,

Eisenhower Bridge North Abutment

of Baudette Bridge Drilled Shafts,

in Minneapolis, Minnesota USA,

Building Foundation Walls: Lessons

from the Session on the GeoCongress

A live poll will be active throughout

LE vs. FEA GeoDebate and

Special Session 20 and 28

GeoDebate – Limit

Debate Organizers/Co-Chairs:

Professor, Colorado School of Mines, CO,

Ph.D., P.E., F.ASCE, Kamelia Atefi-Monfared,

University of Texas at Austin, TX,

Anand Puppala, Ph.D., P.E., F.ASCE,

South Dakota School of Mines and Technology, SD,

Hande Gerkus-

University of Texas

Surya

Nada

Dr. Sana

Panel Conversation with the

Soheil Nazarian,

Speakers:

Jason DeJong, Ph.D., M.ASCE,

Zhengshou Lai, Ph.D., P.E., Xiamen University, China,

Sun Yat-sen University,

Iowa State University, IA,

Iowa State University, IA,

Norwegian Geotechnical Institute

Valle d’Aosta

Don Lindsay,

Temple University, PA,

Iowa State University, IA,

Iowa State University, IA,

University of Texas at Austin, TX,

Horton, P.E., M.ASCE,

Ceylan, Ph.D., A.M.ASCE,

Nicholas

Robert

Patrice

Michael Aubertin, Ph.D., M.ASCE,

Polytechnique Montréal, Montréal, Quebec, Canada.

It takes an unusual combination of natural advantages to sustain the world’s population.

These include fertile lands that enable agriculture, fresh waters that sustain

human life and commerce, and transmission lines that enable

economic viability of nations. These natural resources sustain the

welfare of communities and the transfer of the wealth of nations.

The importance of these natural resources is

emphasized by the increasing dependency, maintenance practices,

and environmental properties of these resources over time.

We need to understand the health and stability of our natural resources; we

need to be able to assess the effectiveness of our maintenance practices and

investigate possible changes in the natural resources.

This is a complex and challenging task given the variety of natural resources

that need to be considered.

We need to consider the future of these natural resources and their sustainability.

The Society of Environmental 

Geotechnical Engineers (SE Geotech) is presenting this Special Session on the Sustainability of Natural 

Resources to address this topic. The aim of this Special Session is to bring to the audience a comprehensive 

view of the importance and challenges of this topic.

The session will consist of presentations by experts in various fields who will 

provide insights into the sustainability of natural resources.

The presentations will cover topics such as the 

sustainability of water resources, the sustainability of soil resources, and the sustainability of 

natural habitats.

The session will conclude with a roundtable discussion moderated by Dr. Kamelia Atefi-Monfared, 

University of California, Davis. The roundtable will provide an opportunity for the 

audience to ask questions and 

engage in a conversation about the sustainability of natural resources.

The session will conclude with a roundtable discussion moderated by Dr. Kamelia Atefi-Monfared, 

University of California, Davis. The roundtable will provide an opportunity for the 

audience to ask questions and 

engage in a conversation about the sustainability of natural resources.

The session will conclude with a roundtable discussion moderated by Dr. Kamelia Atefi-Monfared, 

University of California, Davis. The roundtable will provide an opportunity for the 

audience to ask questions and 

engage in a conversation about the sustainability of natural resources.

The session will conclude with a roundtable discussion moderated by Dr. Kamelia Atefi-Monfared, 

University of California, Davis. The roundtable will provide an opportunity for the 

audience to ask questions and 

engage in a conversation about the sustainability of natural resources.

The session will conclude with a roundtable discussion moderated by Dr. Kamelia Atefi-Monfared, 

University of California, Davis. The roundtable will provide an opportunity for the 

audience to ask questions and 

engage in a conversation about the sustainability of natural resources.

The session will conclude with a roundtable discussion moderated by Dr. Kamelia Atefi-Monfared, 

University of California, Davis. The roundtable will provide an opportunity for the 

audience to ask questions and 

engage in a conversation about the sustainability of natural resources.

The session will conclude with a roundtable discussion moderated by Dr. Kamelia Atefi-Monfared, 

University of California, Davis. The roundtable will provide an opportunity for the 

audience to ask questions and 

engage in a conversation about the sustainability of natural resources.

The session will conclude with a roundtable discussion moderated by Dr. Kamelia Atefi-Monfared, 

University of California, Davis. The roundtable will provide an opportunity for the 

audience to ask questions and 

engage in a conversation about the sustainability of natural resources.
As the world’s premier infrastructure firm, AECOM delivers geotechnical services around the globe. We partner with our clients to solve their most complex challenges and build legacies for generations to come. On projects spanning transportation, buildings, water, governments, energy and the environment, we turn ideas into reality by building a strong foundation.

www.aecom.com
Gateways to a World of Opportunities

Friday, February 28

Technical Program (continued)

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Presenters</th>
<th>Location</th>
</tr>
</thead>
</table>
| Special Session 10A | USACE-Mississippi floods | Malcolm Burbank, Ph.D., Md Touhidul Islam, EIT, Chittoori, Ph.D., P.E., M.ASCE., Anish Pathak, BSCE, Raymond, S.M.ASCE, Alissa Kendall, Jason DeJong, Ryan Christopher, Barry Christopher, Ph.D., M.ASCE, Richard Bathurst, Ph.D., Rudolph Bonaparte, David Atkinson | |}

Special Session 10A

USACE-Mississippi floods

Malcolm Burbank, Ph.D., Md Touhidul Islam, EIT, Chittoori, Ph.D., P.E., M.ASCE., Anish Pathak, BSCE, Raymond, S.M.ASCE, Alissa Kendall, Jason DeJong

Description of USACE-Mississippi floods and the response to the disaster. The session will focus on the technical challenges and lessons learned from the floods.

Location: Ballroom

Special Session 20 Part 2

Bio-geoengineering and Biogeochemical Feedbacks

Organizer: William Rees, University of California, Berkeley

This session will focus on the latest research on bio-geoengineering and biogeochemical feedbacks and their implications for sustainability.

Location: Ballroom

Special Session 22A

Calcite Precipitation to Stabilize Soils

Organizer: Sarah Dornberger, Ray Harran, S.M.ASCE, Lyesse Shahbazi, M.ASCE

This session will focus on the latest research on calcite precipitation as a method to stabilize soils and their implications for sustainability.

Location: Ballroom

Special Session 23

Liquefaction Mitigation Research at UC Berkeley

Organizer: Ed Kavazanjian, Ph.D., P.E., NAE, D.GE, Dist.M.ASCE

This session will focus on the latest research on liquefaction mitigation and its implications for sustainability.

Location: Ballroom

Special Session 31

The first woman awarded a bachelor’s degree in engineering was Elizabeth Briggs in 1874 from UC Berkeley. Through World War II, women entered military service and became engineers. Post World War II, the role of women entering engineering fields grew as they continued to enter the engineering field and shifted their roles toward the workforce. As the number of women has grown across the engineering and engineering technology fields, the potential for women to enter a field that is historically male-dominated is increasing. This session will focus on the latest research on the role of women in engineering and the challenges they face.

Location: Ballroom

Special Session 32

The Great Lakes: A Study of Great Lakes Water and their Impacts on the Environment

Organizer: Georgette Hlepas, P.E., MBA, Dist.M.ASCE

This session will focus on the latest research on the Great Lakes and their impacts on the environment.

Location: Ballroom

Technical Sessions 6

<table>
<thead>
<tr>
<th>Title</th>
<th>Presenters</th>
<th>Location</th>
</tr>
</thead>
</table>
| Design of Geosynthetic Reinforced MSE Walls, Part 1 | Moderator: Stan Black, P.E., RAISE, and Ryan Hong, B.S., SEAOSC | |}

Design of Geosynthetic Reinforced MSE Walls, Part 1

Moderator: Stan Black, P.E., RAISE, and Ryan Hong, B.S., SEAOSC

This session will focus on the latest research on the design of geosynthetic reinforced MSE walls and their implications for sustainability.

Location: Ballroom

<table>
<thead>
<tr>
<th>Title</th>
<th>Presenters</th>
<th>Location</th>
</tr>
</thead>
</table>
| Risk and Modeling in Tailings Ponds | Moderator: Banajee Pallikal, Ph.D., M.ASCE | |}

Risk and Modeling in Tailings Ponds

Moderator: Banajee Pallikal, Ph.D., M.ASCE

This session will focus on the latest research on risk and modeling in tailings ponds and their implications for sustainability.

Location: Ballroom

Technical Sessions 10

<table>
<thead>
<tr>
<th>Title</th>
<th>Presenters</th>
<th>Location</th>
</tr>
</thead>
</table>
| "Panel Session": Special Session on Women in Tunneling | Moderators: Lain Gilbert, M.ASCE, and Zuzana Skovajsova, EIT | |}

"Panel Session": Special Session on Women in Tunneling

Moderators: Lain Gilbert, M.ASCE, and Zuzana Skovajsova, EIT

This session will focus on the latest research on women in tunneling and their implications for sustainability.

Location: Ballroom

Technical Sessions 15

<table>
<thead>
<tr>
<th>Title</th>
<th>Presenters</th>
<th>Location</th>
</tr>
</thead>
</table>
| Special Session 15 and Special Session 24 | Organizer: William Rees, University of California, Berkeley | |}

Special Session 15 and Special Session 24

Organizer: William Rees, University of California, Berkeley

This session will focus on the latest research on special sessions and their implications for sustainability.

Location: Ballroom

Technical Sessions 20

<table>
<thead>
<tr>
<th>Title</th>
<th>Presenters</th>
<th>Location</th>
</tr>
</thead>
</table>
| Special Session 10A: USACE-Mississippi floods | Malcolm Burbank, Ph.D., Md Touhidul Islam, EIT, Chittoori, Ph.D., P.E., M.ASCE., Anish Pathak, BSCE, Raymond, S.M.ASCE, Alissa Kendall, Jason DeJong, Ryan Christopher, Barry Christopher, Ph.D., M.ASCE, Richard Bathurst, Ph.D., Rudolph Bonaparte, David Atkinson | |}

Special Session 10A: USACE-Mississippi floods

Malcolm Burbank, Ph.D., Md Touhidul Islam, EIT, Chittoori, Ph.D., P.E., M.ASCE., Anish Pathak, BSCE, Raymond, S.M.ASCE, Alissa Kendall, Jason DeJong, Ryan Christopher, Barry Christopher, Ph.D., M.ASCE, Richard Bathurst, Ph.D., Rudolph Bonaparte, David Atkinson

This session will focus on the latest research on the USACE-Mississippi floods and their implications for sustainability.

Location: Ballroom

Technical Sessions 22

<table>
<thead>
<tr>
<th>Title</th>
<th>Presenters</th>
<th>Location</th>
</tr>
</thead>
</table>
| Special Session 22A: Calcite Precipitation to Stabilize Soils | Organizer: Sarah Dornberger, Ray Harran, S.M.ASCE, Lyesse Shahbazi, M.ASCE | |}

Special Session 22A: Calcite Precipitation to Stabilize Soils

Organizer: Sarah Dornberger, Ray Harran, S.M.ASCE, Lyesse Shahbazi, M.ASCE

This session will focus on the latest research on calcite precipitation as a method to stabilize soils and their implications for sustainability.

Location: Ballroom

Technical Sessions 23

<table>
<thead>
<tr>
<th>Title</th>
<th>Presenters</th>
<th>Location</th>
</tr>
</thead>
</table>
| Special Session 23: Liquefaction Mitigation Research at UC Berkeley | Organizer: Ed Kavazanjian, Ph.D., P.E., NAE, D.GE, Dist.M.ASCE | |}

Special Session 23: Liquefaction Mitigation Research at UC Berkeley

Organizer: Ed Kavazanjian, Ph.D., P.E., NAE, D.GE, Dist.M.ASCE

This session will focus on the latest research on liquefaction mitigation and its implications for sustainability.

Location: Ballroom

Technical Sessions 31

<table>
<thead>
<tr>
<th>Title</th>
<th>Presenters</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Session 31: The first woman awarded a bachelor’s degree in engineering was Elizabeth Briggs in 1874 from UC Berkeley. Through World War II, women entered military service and became engineers. Post World War II, the role of women entering engineering fields grew as they continued to enter the engineering field and shifted their roles toward the workforce. As the number of women has grown across the engineering and engineering technology fields, the potential for women to enter a field that is historically male-dominated is increasing. This session will focus on the latest research on the role of women in engineering and the challenges they face.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Gateways to a World of Opportunities

Technical Program (continued)

Friday, February 26 (continued)

Technical Sessions 7

Topic: Geotechnical Engineering

Chair: Jason T. DeJong, M.ASCE

Session 26 Part 5

Biomechanics of Geotechnical Materials

Moderator: Jitendra Tiwari, Ph.D., P.E., A.M.ASCE

Presentation Title: "Innovations in Geotechnical Materials"

Presenter: J. Tiwari, Ph.D., P.E., A.M.ASCE

Abstract: This session will focus on the latest developments in geotechnical materials, including new materials and innovative applications.

Session 27

Biomechanics of Geotechnical Systems

Moderator: K. Khodadadi, Ph.D., P.E., A.M.ASCE

Presentation Title: "Advanced Geotechnical Systems"

Presenter: K. Khodadadi, Ph.D., P.E., A.M.ASCE

Abstract: This session will cover advancements in geotechnical systems, including new technologies and solutions.

Session 28

Biomechanics of Geotechnical Structures

Moderator: J. Hlepas, P.E., A.M.ASCE

Presentation Title: "Innovative Geotechnical Structures"

Presenter: J. Hlepas, P.E., A.M.ASCE

Abstract: This session will showcase innovative geotechnical structures and their applications.

Session 29

Biomechanics of Geotechnical Systems

Moderator: J. Hlepas, P.E., A.M.ASCE

Presentation Title: "Advanced Geotechnical Systems"

Presenter: J. Hlepas, P.E., A.M.ASCE

Abstract: This session will cover advancements in geotechnical systems, including new technologies and solutions.

Session 30

Biomechanics of Geotechnical Structures

Moderator: J. Hlepas, P.E., A.M.ASCE

Presentation Title: "Innovative Geotechnical Structures"

Presenter: J. Hlepas, P.E., A.M.ASCE

Abstract: This session will showcase innovative geotechnical structures and their applications.

Session 31

Biomechanics of Geotechnical Systems

Moderator: J. Hlepas, P.E., A.M.ASCE

Presentation Title: "Advanced Geotechnical Systems"

Presenter: J. Hlepas, P.E., A.M.ASCE

Abstract: This session will cover advancements in geotechnical systems, including new technologies and solutions.

Session 32

Biomechanics of Geotechnical Structures

Moderator: J. Hlepas, P.E., A.M.ASCE

Presentation Title: "Innovative Geotechnical Structures"

Presenter: J. Hlepas, P.E., A.M.ASCE

Abstract: This session will showcase innovative geotechnical structures and their applications.

Session 33

Biomechanics of Geotechnical Systems

Moderator: J. Hlepas, P.E., A.M.ASCE

Presentation Title: "Advanced Geotechnical Systems"

Presenter: J. Hlepas, P.E., A.M.ASCE

Abstract: This session will cover advancements in geotechnical systems, including new technologies and solutions.

Session 34

Biomechanics of Geotechnical Structures

Moderator: J. Hlepas, P.E., A.M.ASCE

Presentation Title: "Innovative Geotechnical Structures"

Presenter: J. Hlepas, P.E., A.M.ASCE

Abstract: This session will showcase innovative geotechnical structures and their applications.

Session 35

Biomechanics of Geotechnical Systems

Moderator: J. Hlepas, P.E., A.M.ASCE

Presentation Title: "Advanced Geotechnical Systems"

Presenter: J. Hlepas, P.E., A.M.ASCE

Abstract: This session will cover advancements in geotechnical systems, including new technologies and solutions.

Session 36

Biomechanics of Geotechnical Structures

Moderator: J. Hlepas, P.E., A.M.ASCE

Presentation Title: "Innovative Geotechnical Structures"

Presenter: J. Hlepas, P.E., A.M.ASCE

Abstract: This session will showcase innovative geotechnical structures and their applications.
26
Topic A/Geotechnics of Coasts, Oceans, Ports, and Rivers
39B: Novel Approach to Modelling of Three Phase Strength Development of Cement Treated Clays: Tsz Hon Chan, Ph.D., P.Eng., National University of Singapore, Junqiao Bi, Ph.D., National University of Singapore
40B: Slope Stability Problems and Solutions in the Red River Valley: Christopher M. Ruhling, U.S. Army Corps of Engineers

Topic AB/Unsaturated Soils
41A: Least Squares Optimization Approach for Determining the Soil Boundary and Absorbed Volume of Unsaturated Soils: Sara Sayad, Missouri University of Science and Technology, Xiaofeng Zhang, Ph.D., Missouri University of Science and Technology, Zhiqiang Zhang, Ph.D., Missouri University of Science and Technology
41B: Development and Validation of a Double-Column Soil Cell for 1 D Flushing Tests: Gang Liu, S.M.ASCE, the University of Texas at Austin, Nioon Kermani, Ph.D., S.M.ASCE, the University of Texas at Austin, Long Shi, S.M.ASCE, the University of Texas at Austin, Omid Hashadbashi-Bayandari, S.M.ASCE, the University of Texas at Austin, Xiaowei Ju, Ph.D., Ph.D., the University of Texas at Austin
42A: An Experimental Study on the Confinement of Transmitted Bender Element Signals in Unsaturated Silt and Sand: Mahrokh Rahbar, The Ohio State University, Parisa Shafiee, Iran University of Science and Technology, Atmosh Gholi, S.M.ASCE, Colorado School of Mines, Ali Rezaei, Ph.D., D.ASCE, Shahid Beheshti University of Technology, Mehdi Yarmohammadi, Islamic Azad University of Estabed

Topic AC/Other
52B: Bi-Inflow-Derived Anchor Burrowing: Effect of vertical curvature of the Shaft: S. Huang, S.M.ASCE, Arizona State University, J. Tan, Ph.D., M.ASCE, Arizona State University

Topic D/The Geotechnics of Alternative Project Delivery
28B: Geotechnical BIM in 2020: starchbubble, M.ASCE, Terrascan Consultants, Inc.

Topic G/Advances in Geo-Computing
53A: A DEM Study of the Evolution of Fabric of Grains-Grained Materials during Oedometer and Isotropic Compression: Shardip Singh Bioshan, S.M.ASCE, University of California, Davis, Alexis Marquez Martinez, Ph.D., M.ASCE, at California, Davis
53B: Effect of Earthquake Intensity on Proxibibility of Dam-Resorvoir-Foundation Systems: Hamid Tajikzadeh, Arak University of Technology, Reza Boushehri, S.M.ASCE, University of Nevada, Reno, Mohammad Alavipanah, Tarbiat Modares University, Mohammad Rasoul Aghazadeh Khoozhang, Texas State University, Sadeddine Hasegawa, Embry-Riddle University, University of Nevada, Reno

Topic H/Geo-Systems
34A: Laboratory Study in the Treatment of Boured Soils with Microbial Augmentation for Erosion Control: Tashi M. Mjodges, South Dakota School of Mines and Technology, Bart M. Lingwood, Ph.D., P.E., M.ASCE South Dakota School of Mines and Technology
30

Geo-Congress 2020: VISION, INSIGHT, OUTLOOK

112 Ackcio Pte
www.ackcio.com
Specializing in long-range, low-power wireless radio mesh data transmission solutions

219 Aerix Industries*
www.aerixindustries.com
Aerix Industries is the world leading manufacturer of foam concentrate for the use in low density cellular concrete providing projects with a fast schedule cost saving alternative backfill material for roadways sub-base, bridge approaches backfill, and other pavement system solutions. Cellular concrete reduces soil loading while maintaining structural integrity.

114 Aero Aggregates of North America*
www.aeroaggregates.com
Manufacturers of Foamed Glass Aggregate - An Ultra-Lightweight fill material that is durable, sustainable, insulating and free draining, with a low unit weight (< 1.5 pcf) and a high friction angle.

328 Applied Research Associates
www.arra.com
ARA provides services and technologies that enhance facility safety and security, and support the full infrastructure life cycle – from planning through preservation.

524 APS Antriebs- Pruef- und Steuertechnik GmbH (Wille Geotechnik)
www.wille-geotechnik.com
APS Antriebs-Pruf und Steuertechnik GmbH is a highly regarded German enterprise due to its soil, rock, asphalt and material testing machines, which are marketed under the brand name “Wille Geotechnik”. The initial activities of the company began in the 1990s in cooperation with universities and the implementation of research activities and development of scientific equipment.

617 Arcosa Lightweight
www.arcosalightweight.com
Arcosa Lightweight is America’s largest producer of expanded shale and clay lightweight aggregate, with operations in California, Colorado, Texas, Louisiana, Alabama, Kentucky, Indiana and Arkansas.

1 ASCE – AGP, Geo-Institute, Future World Vision, Member Services, Minnesotan Geotechnical Society
www.asce.org
Make sure to plan plenty of time for your visit to booth 1 that’s where you’ll find the Geo-Institute – and much, much more. Start at the GI booth to learn more about programs and upcoming activities, and how you can get more involved. You can meet the staff and connect with fellow members, including members from the Minnesotan Geotechnical Society (MGS). Then stop by to learn more about professional certification from the Academy of GeoProfessionals (AGP), and how it can benefit you. ASCE Member Services will also be available. Join ASCE and GI, manage your membership, update your address, subscribe to a journal, or even make a quick donation to the Voluntary Fund for student activities.

516 Atlas Foundation Company
www.atlasfoundation.com
Serving the Upper Midwest since 1968 as a deep foundation specialty contractor. Installer of piling, helical piers, drilled piers, grouted anchors, earth retention, and more.

120 Atlas Pipe Piles, a division of Zeckelman industries
www.atlaspipelpiles.com
Atlas Pipe Piles keeps deep foundation piling projects moving quickly. We manufacture ERW steel pipe piles and deliver them fully fabricated, with our value added services and accessories, so they’re ready to drive.

505 Barr Engineering
www.barr.com
With offices in the U.S. and Canada, Barr provides engineering and environmental consulting services to clients throughout the Americas and around the world.

216 Bartec Syscom
www.syscom.ch/home
Bartec Syscom manufacture innovative vibration monitoring devices & provide tailored remote data processing software. Visit our booth for a demo.

118 Beadedstream
www.beadedstream.com
The easiest way to monitor your temperature data globally, remotely, and reliably from the comfort of your phone. BeadedStream manufactures monitoring solutions for industrial applications.

606 Bentley*
www.bentley.com
Bentley is a global leader dedicated to providing engineers, architects, geospatial professionals, constructors, and owners with comprehensive software solutions for the design, construction, and operations of infrastructure.

520 Berkel*
www.berkelandcompany.com
A specialty design-build contractor offering Augered Pressure Grouted (APG) and Drilled Displacement (APGD) Piles, Ground Improvement, Sheeting & Shoring, Underpinning, Anchors, Driven Piles & Drilled Shafts. Full in-house engineering and design services are available.

400 Braun Intertec*
www.braunintertec.com
Based in Minneapolis, employee-owned Braun Intertec is an engineering, environmental consulting and testing firm located in Iowa, Kansas, Louisiana, Minnesota, North Dakota, Texas and Wisconsin.

208 Campbell Scientific
www.campbellsci.com
Campbell Scientific works with cities, states, governments, research scientists, and the military to monitor critical infrastructure. Our equipment is used to track changes, evaluate performance, meet regulatory obligations, alert maintenance when repairs are needed, and prevent catastrophic failures from occurring. Our products are keeping citizens of the world safe from infrastructure disasters.

412/511 ConeTec*
www.conetec.com
ConeTec is a full service geotechnical and environmental site investigation contractor. We safely solve problems by generating high quality subsurface information used in geotechnical, environmental, and mining geotechnique. Our team of experts are dedicated to safe, quality, and efficient site investigations using the best possible equipment.

513 Dataforensics/Keynetix*
www.dataforensics.net
Dataforensics and Keynetix geotechnical and geoenvironmental data management software helps geologists, geotechnical and environmental engineers accomplish field and office work in less time, with greater accuracy and data quality.

628 Deep Excavation
www.deepexcavation.com
Great software for geotechnical & structural engineers for the design and analysis of deep excavations. User-friendly, high-quality with multiple accepted design methods, calculations and training sessions.

416 Densification*
www.densification.com
Densification, Inc. is a nation-wide geotechnical contracting firm, specializing in dynamic compaction. Founded in 1994, our mission is to provide property owners and developers with an attractive construction alternative when poor soils or questionable fills are encountered. At the same time, we aim to provide geotechnical consultants with a personal and practical link to project owners.

313 Dewind One Pass Trenching
www.dewindonepass.com
DeWindo One Pass Trenching the leader in trenching reaching depths to 125+ feet below grade, all across North America, installing environmental & civil trenching services.

512 Durro Terra
www.duroterra.com
DuRo Terra is the distributor of Ductile Iron Pile products in North America. Ductile Iron Piles are highly effective, fast and versatile driven pile systems.

215 Dwyvidag Systems International
www.dsiamerica.com
Dwyvidag/Systems International USA Inc. (DSI) is a leading global supplier of earth retaining and foundation support systems including double corrosion protection multirstand and Dwyvidag Threadbar anchor ground anchors, soil nails, micropiles, tiebacks and DYW Dill hollow bars. DSI provides also technical assistance at the job site, stressing jacks, uncoiler equipment and anchor force monitoring services, during installation and anchor’s service life, using the DYNA Force® load monitoring system.

627 EagleLift
www.eaglelifting.com
EagleLift is an Engineering Contractor specialized in lifting and stabilizing seawalls, roadways, foundations, and sewer infrastructure that are affected by unstable soils using highdensity polyurethane.

709 Eijkelkamp North America
www.eijkelkamp-usa.com
Eijkelkamp SonicSamp Drill produces special soil drilling technology used in environmental drilling, mining and mineral exploration, geotechnical soil research and special foundation drilling.

613 Elastizell Corporation of America
www.elastizell.com
Producing lightweight cellular concrete for quality Engineered Fill. Solving load issues for over 40 years with a national network of qualified and approved applicators.

319 ELE International
www.ele.com
ELE International specializes in the design, manufacture, and supply of high-quality construction materials testing equipment.

711 Engineering And Construction Innovations
www.eciconstructors.com
ECI is a self-performing heavy civil construction company specializing in dam and renewable infrastructure, water/wastewater infrastructure, geotechnical and underground construction and rehabilitation.

615 Equipment Corp of America
www.ecacnet.com
ECAC maintains a comprehensive inventory of foundation construction equipment from world-class manufacturers including BAUER, Klemm, RTG, Daxson, HPSI, MAT, BETEK, WORD International, and numerous others.

514 Exponent*
www.exponent.com
Exponent is a multi-disciplinary engineering and scientific consulting firm that brings together more than 90 different disciplines to solve important engineering, science, regulatory, and business issues facing our clients.

220 Federal Highway Administration
highways.dot.gov
The FHWA supports State and local governments in the design, construction, and maintenance of the Nation’s highway system and various federally and tribal owned lands.
**Exhibitors (continued)**

* Denotes Organizational Member

614 **Fugro Loadtest**

www.loadtest.com

Fugro is the world’s leading, independent provider of site characterization and deep foundations testing for large constructions, infrastructure and natural resources.

205 **Gannett Fleming**

www.gannettfleming.com

Gannett Fleming, an international planning, design, technology, and construction management firm, has been providing innovative engineering and consulting solutions for more than 100 years.

214 **GCTS Testing Systems**

www.gcts.com

GCTS Testing Systems designs and delivers productive and precise solutions for the advanced material characterization of soils, rocks, and pavements.

311 **GDS Instruments**

www.gdsinstruments.com

GDS Instruments designs, develops and manufactures materials testing machines and software used for the computer-controlled testing of soils and rocks. This technology is used to evaluate the mechanical properties that are key in geotechnical and earthquake engineering design. Since being founded in 1979, it is estimated that GDS products have been used to help achieve 1000 PhD’s. As well as being the first choice for academic research, GDS products have been used in many world renowned commercial developments including the Three Gorges Dam in China, the Millau Viaduct in France, the Vasco da Gama Bridge in Portugal, Terminal Five at Heathrow and the new Crossrail links in London. GDS employs over 55 permanent members of staff at their offices in the UK, as well as working with a network of agents spanning 40 countries.

404 **Geo-Instruments**

www.geo-instruments.com

GeoInstruments provides automated instrumentation for monitoring the safety and stability of buildings, excavations, bridges, railways, roads, tunnels, dams, embankments, and slopes. We help owners, infrastructure operators, and construction engineers identify and mitigate risk, optimize designs and methods, and document regulatory compliance.

415 **Geocomp Corporation**

www.geocomp.com

Geocomp creates fully automated geotechnical laboratory testing products that are easy-to-use and powerful enough to standup to the challenging demands of geotechnical testing.

620 **GEOKON**

www.geokon.com

GEOKON manufactures a full range of high quality geotechnical instrumentation suitable for monitoring the safety and stability of a variety of civil and mining structures.

316 **Geopier**

www.geopier.com

Geopier provides an efficient and cost-effective Intermediate Foundation® solution for the support of structures. Specializing in Rammed Aggregate Pier®, Rigid Inclusions, and slope reinforcement systems.

622 **Geoprobe Systems**

www.geoprobe.com

Geoprobe® manufactures compact Direct Push, Rotary, Rotary Sonic drilling machines and tooling. We also manufacture the DILLMAX® family of Water Well- & Geothermal drilling machines.

316 **Geosense**

www.geosense.co.uk

Geosense is a leading UK manufacturer of instrumentation for the geotechnical, structural, mining and environmental industries. Geosense specialises in vibrating wire and MEMS sensors for a wide range of instruments plus automated data acquisition systems, including wireless systems.

200 **GEOSLOPE**

www.geoslope.com

GEOSLOPE develops, markets, and supports state-of-the-art software for geotechnical and geo-environmental modeling. Our customers include small engineering firms, large multi-national, government agencies, regulatory commissions, and leading universities throughout the world.

108 **GeoStabilization International**

www.geostabilization.com

GeoStabilization International® is the leading geohazard mitigation firm operating throughout North America. Our passion is to develop and install innovative solutions that protect people and infrastructure from the dangers of geohazards.

414 **Giken**

www.giken.com

Giken has been a pioneer in the Pressin Piling Technology, which enables driving of sheet and tube piles with very low noise and no vibration.

427 **Gilson Company**

www.globalgilson.com

Gilson Company, Inc. is a third generation, family-owned manufacturer and worldwide distributor of materials testing equipment serving the asphalt, aggregate, concrete and soils industries.

305 **Gintegro**

www.gintegro.com

Gintegro offers geotechnical software and software integration services. GEOS is geotechnical software for variety of geotechnical problems, easy to use and affordable.

608 **Goettle**

www.goettle.com

Richard Goettle, Inc. is a designbuild geotechnical construction firm specializing in deep foundations, earth retention systems, marine structures, and ground modification for over 60 years.

203 **Hubbell/Chance**

www.hubbell.com

Hubbell Power Systems, Inc (HPS) is an international leader in foundation solutions for a wide range of civil construction projects. Pioneering the industry since 1912, HPS proudly manufactures CHANCE® helical piles - the only helical pile that operates with regional distribution service partners, offering clients economies of scale and a variety of ready-to-ship machines across North America. Engineered for long-term dependability, CHANCE foundation solutions suit a broad range of applications.

307 **Huesker**

www.huesker.com

HUESKER is the world’s leading manufacturer of geosynthetics, agricultural, and industrial textiles. Providing solutions for earthworks and foundations, roads and pavements, environmental engineering, hydraulic engineering, industry and agriculture.

723 **Humboldt Mfg. Co.**

www.humboldtmfg.com

Humboldt Mfg. Co. is a leading manufacturer and supplier of construction materials testing equipment designed for testing soil, concrete, cement, asphalt and aggregate. Humboldt is known for manufacturing highquality equipment designed to comply with ASTM and AASHTO.

2 **IFCEE (DFI, ADSC, PDCA)**

www.ifceexpo.com

IFCEE is a technical conference and equipment show dedicated to the design and construction of foundation systems, using the latest ge engineering and geotechnical technologies and practices. This one of a kind event will attract attendees from around the world, who will have access to various technical education programs and the world’s largest equipment exposition dedicated solely to the deep foundations industry.

619 **Integrated Geotechnical Solutions**

www.igs-inc.com

IGS sells, installs and monitors vibration, noise and geotechnical instrumentation for the construction, quarry and seismic industries throughout North America. We are Instarep® and Leica™ distributors.

621 **Inzwa Technologies**

www.inzwa.io

Inzwa provides autonomous vibration monitoring systems. Our standards-compliant equipment is easy to install and integrates with Inzwa Cloud, our automated data analytics and reporting platform.

503 **Itasca**

www.itsacg.com

Itasca is a global consulting, software development, and research firm that solves complex civil engineering problems through advanced numerical simulation, field experience, and practical engineering.

719 **JAFEC USA**

www.jafecusa.com

JAFEC USA, Inc. is a geotechnical construction company that provides ground improvement services for liquefaction mitigation, dam and levee stabilization, excavation support and seepage control.

304 **Keller**

www.keller.com


720 **KSE Testing Equipment**

www.kesslerdp.com

World’s leading manufacturer of Dynamic Cone Penetrometers. Distributors of Zorn Light Weight Deflectometers for compaction control and MIT pavement thickness gauge & doler bar scanners.

713 **Leica Geosystems**

https://shop.leica-geosystems.com

When it has to be right. With close to 200 years of experience pioneering solutions to measure the world, Leica Geosystems products and services are trusted by professionals worldwide to help them capture, analyse, and present spatial information. Leica Geosystems is best known for its broad array of products that capture accurately, model quickly, analyse easily, and visualise and present spatial information.

213 **Magnum Piering**

www.magnumpiering.com

Magnum Piering is an industry leader in manufacturing high capacity, high quality steel piling products for deep foundations and foundation repair applications.

519 **Malcolm Drilling Company**

www.malcolmdrilling.com

“Malcolm has for 5 decades been an innovator and leader in the industry. Our services include deep foundations, retention systems, ground improvement and dewatering techniques.”

506 **Measurand**

www.measurand.com

Measurand manufactures the ShapeArray®. An integrated measuring tool that is installed vertically, or in an arc, to measure lateral deformation, settlement, or convergence in real-time.

210 **Menard**

www.menardgroupusa.com

Menard is a design-build specialty geotechnical contractor offering expertise in ground improvement for sites with poor soil. Combining creative design and innovative techniques, Menard delivers practical, sustainable solutions that can be attractive alternatives to deep foundations. Top tier engineers, geologists, operators, mechanics, laborers and managers come together to craft the most efficient and economical solutions for you.
320 **Meter Group**
[www.metergroup.com](http://www.metergroup.com)
METER Group delivers realtime, high-resolution data with applications in hydrology and geotechnical engineering. METER instruments measure water and heat transfer in natural and engineered systems.

705 **Mixonsite USA**
[www.mixonsite.com](http://www.mixonsite.com)
Mixonsite produces and installs GeoSIP® II Cellular Concrete. Applications include load reducing fill/annular space grout/underwater placement/filling abandoned lines/structures on highways, bridges, tunnels, heavy/civil projects.

721 **Nicholson Construction Company**
[www.nicholsonconstruction.com](http://www.nicholsonconstruction.com)
Nicholson is a leader and an innovator in the geotechnical construction industry with expertise in deep foundations, earth retention systems and ground treatment solutions.

218 **Nomis Seismographs**
[www.nomis.com](http://www.nomis.com)
Nomis seismograph equipment allows you to monitor ground vibrations and air over-pressure for blasting and civil projects where a permanent record is needed.

611 **Novotech**
[www.novotechsoftware.com](http://www.novotechsoftware.com)
Leading provider of geotechnical engineering software solutions since 1997. field test processing, borehole logging, engineering analyses, 3D visualization, geotechnical correlations, etc. Visit our website for more details.

625 **NRRA**
[www.dot.state.mn.us/nrra](http://www.dot.state.mn.us/nrra)
The NRRA includes experts from state agencies, industry, academia, and associations working together to strategically implement cooperative, real-world pavement research.

411/413 **Nucor Skyline**
[www.nucorskyline.com](http://www.nucorskyline.com)

106 **PFB Manufacturing**
[www.plastfab.com](http://www.plastfab.com)
PlastFab's mission is to provide its customers with expanded polystyrene (EPS) Product Solutions for constructing energy efficient buildings, floatation for marine construction, lightweight fill and compressible fill for Geotechnical construction projects, and component solutions for Original Equipment Manufacturers.

420 **Pile Dynamic/ GRL Engineers**
Pile Dynamics, Inc. is the world’s leading developer and manufacturer of quality assurance testing systems for the deep foundations industry.

232 **Portland Cement Association**
[www.cement.org](http://www.cement.org)
The Portland Cement Association (PCA), founded in 1916, is the premier policy research, education, and market intelligence organization serving America’s cement manufacturers.

300 **Redi-Rock International**
[www.redi-rock.com](http://www.redi-rock.com)
Redi-Rock® is proud to introduceibu and JDM are producers of PennDot approved retaining wall blocks for commercial industrial and landscaping installations. Visit us at Booth 820.

212 **Reinforced Earth Company**
[www.reinforcedearth.com](http://www.reinforcedearth.com)
Reinforced Earth® MSE walls are economical gravity structures having high strength, a limited footprint, flexibility to distribute loads evenly, and a variety of architectural finishes.

314/312 **RocsScience**
[www.rocsscience.com](http://www.rocsscience.com)
RocsScience, is a world leader in developing geotechnical engineering software. For over 20 years, we’ve used leading-edge research to build tools used by 7,000+ engineers for slope stability, excavation design, and geotechnical analysis.

506 **RST Instruments**
[www.rstinstruments.com](http://www.rstinstruments.com)
Since 1977, RST Instruments has positioned itself as the world leader in the design, manufacturing and sale of geotechnical, environmental and structural monitoring instruments and data collection. RST Instruments provides reliable & accurate instruments and data acquisition for safe, productive structures that require monitoring and control: Dams, Mines, Tunnels, Pipelines, Bridges, Buildings and related infrastructure.

200 **Seequent**
[www.seequent.com](http://www.seequent.com)
A global leader in the development of visual data science software. Our latest solution, Leapfrog Works, is a fast and dynamic 3D subsurface modelling solution for the Civil Engineering and Environmental industries.

222 **Sensemetrics**
[www.sensemetrics.com](http://www.sensemetrics.com)
Sensemetrics offers a complete end-to-end sensor data management solution for distributed sensor networks. Connect your sensors to our easy-to-deploy and ruggedized cloud connect device - the THREAD - to effortlessly collect and send real time sensor data to our intuitive browser-based software interface for analysis and reporting. No configuration required. Create alerts, view layered data from multiple sensor types, and integrate with third-party software via API. The sensemetrics platform integrates all types of spatial, structural and geotechnical sensors from the world’s leading sensor manufacturers. We reduce the cost and complexity of sensor data management and power smarter decision making.

607 **Sigicam**
[www.sigicam.com](http://www.sigicam.com)
Sigicam develops, manufactures, and markets measurement systems for remote monitoring of vibration, noise, and other environmental variables affected by activities such as large-scale construction.

727 **Smart Infrastructure Group**
[www.testpile.com](http://www.testpile.com)
APRPADSE and Smart Structures provides Transformational, Innovative and Resourceful engineering consulting services for Civil Infrastructure; Statnamic Load Testing, Geotechnical Engineering, and Pile Driving Analyzer.

419 **Solmax USA LLC**
[www.solmax.com](http://www.solmax.com)
Solmax is the world’s largest geosynthetics manufacturer. Our products contain and drain, shielding the soil, water, and air from toxins and pollutants in applications as critical as the landfills of the world’s most populated cities and mines operating in fragile ecosystems.

612 **Specrete - IP Incorporated**
[www.specrete.com](http://www.specrete.com)
Specrete develops and manufactures additives specifically for underground grouting applications. Benefits include pressure filtration resistance, bleed elimination, viscosity modification, stability, water retention and water reduction.

605 **Subsurface Constructors Inc**
[www.subsurfaceconstruction.com](http://www.subsurfaceconstruction.com)

618 **TenCate Geosynthetics**
[www.tencategeo.us](http://www.tencategeo.us)
TenCate Geosynthetics is the global leader in geosynthetics. Our geogrids and geotextiles are engineered with advanced application knowledge to meet project specifications for transportation construction, mechanically stabilized earth, erosion control, and water and waste management.

315 **Terrasonic International**
[www.terrasonicinternational.com](http://www.terrasonicinternational.com)
Terrasonic International is the most experienced Sonic drill rig and tooling manufacturer with over a combined 250 years of field and design experience.

303 **Terracon Consultants**
[www.terracom.com](http://www.terracom.com)
Terracon is a 100 percent employee-owned consulting engineering firm providing high quality services to clients. Since 1965, Terracon has evolved into a successful multidiscipline firm specializing in Environmental, Facilities, Geotechnical and Materials.

206 **Traitwein GeoTAC**
[www.geotac.com](http://www.geotac.com)
GeoTAC provides equipment for automated geotechnical testing including: Sigma™ and GeoJact™ load frames, DigiShear™ direct and simple shear, DigiFlow™ pumps, and TestNet™ data acquisition systems.

116 **Veit Company**
[www.veitusa.com](http://www.veitusa.com)
Veit is on site for the most critical points of your project. Specialty contracting services include earthwork, foundations, demolition, utilities, dredging, diving and industrial cleaning.

211 **Vista Data Vision**
[www.vistataction.com](http://www.vistataction.com)
Focus on your work and let Vista Data Vision handle your project data. Monitor, analyze and manage your instrumentation data with VDV.

515 **VJ Tech**
[www.vjtech.co.uk](http://www.vjtech.co.uk)
Since 1991, UK based VJ Tech Ltd has supplied highquality soil testing instruments to civil engineering companies & research institutions located in over 85 countries.

712 **Walker-Hill Environmental**
[www.whem.com](http://www.whem.com)
Walker-Hill Environmental is a full service drilling company with CPT, HSA, mud rotary, and Sonic capabilities. Call Chris at 800.564.5059.

616 **White Industrial Seismology**
[www.whiteseis.com](http://www.whiteseis.com)
White’s consults, manufactures and distributes a wide range of seismographs, remote data acquisition systems, custom-built assemblies and software to customers all over the world.

623 **Williams Form Engineering Corp**
[www.williamsform.com](http://www.williamsform.com)
Williams Form Engineering Corporation has been offering Ground Anchors, Concrete Anchors, Post Tensioning Systems, and Concrete Forming Hardware to the construction industry for over 95 years.

207 **WSP USA**
[www.wsp.com](http://www.wsp.com)
WSP USA is a leader in tunneling and underground construction, from New York City to Istanbul. The firm has participated in the design and construction of some of the longest, largest, and most complicated bridges & tunnels in the world.
Assumption of Risk

All ASCE/G-I events and activities are purely voluntary activities, and attendees are fully responsible for their own conduct and well-being, including, and without limitation, determining their level of fitness to take part in any such event or activity. In participating in any event or activity, attendees shall be deemed to understand and accept all risk of possible physical injury that might occur as a result of such participation. Children under the age of 18 are not allowed in the exhibit hall. ASCE/G-I hopes that your visit to Geo-Congress 2020 will be free from illness or injury, but in case you or a family member needs medical attention during your time at the event, contact the front desk.

Childcare Provided by KiddieCorp

*Additional Fee Required

This program is for children ages 6 months through 12 years old. The dates for the program are February 26 – 28, 2020 and will be located at the Hyatt Regency Minneapolis in the Lake Superior Room on the 5th Floor. Snacks and water will be provided and meals need to be supplied by parents. Activities include exciting themes, arts & crafts, group games, music & movement, board games, story time, dramatic play, etc. We provide activities appropriate for each age group, using safe, sturdy equipment that you can feel comfortable with. Children can make their own choices within KiddieCorp’s program. Children should be pre-registered, however, space may still be available for on-site sign up. See a KiddieCorp representative in the Lake Superior Room to check availability.

Diversity and Inclusion

The ASCE/G-I policy of Diversity and Inclusion fosters a culture that encourages the free expression and exchange of engineering ideas by all members, regardless of gender, race, ethnic origin, religion, age, marital status, sexual orientation, disabilities, or any other reason not related to scientific or technical merit.

Meeting Room Overcrowding

ASCE/G-I will make every effort to schedule popular events in rooms large enough to accommodate anticipated attendance. Since many events are extremely popular, it is wise to select alternative events as you plan your conference schedule. ASCE/G-I and the Hyatt Regency Hotel are REQUIRED to follow local fire regulations and may ask participants in rooms filled to capacity to choose another event.

No Smoking Policy

Smoking is not allowed at any ASCE/G-I event or in the Hyatt Regency or Millennium hotels.

Program and Session Cancellation

ASCE/G-I reserves the right to cancel programs and/or sessions. In the unlikely event of a cancellation, all registrants will be notified. Programs and sessions are subject to change, and ASCE/G-I reserves the right to substitute a program, session, and/or speaker of equal caliber to fulfill the educational requirements.

Photographs and Video

Photographs and Video of the event may be taken by ASCE/G-I, its agents, contractors, or representatives, and such photographs and video may be used for any purpose at ASCE/G-I discretion.

Yoga

Join fellow early risers and start the day refreshed by joining a yoga class in the StayFit Fitness on Demand Studio located in the Hyatt Regency Fitness Center. Classes will be held daily, Wednesday, February 26 through Friday, February 28, from 6:30 – 7:30 a.m. There are only 30 spots per class, so plan to arrive early and stake your claim.
SAVE THE DATE

IFCEE is a technical conference and equipment show dedicated to the design and construction of foundation systems, using the latest geo-engineering and geotechnical design and construction technologies and practices. This one-of-a-kind event will attract attendees from around the world, who will have access to various technical education programs and the world’s largest equipment exposition dedicated solely to the deep foundations industry.
The International Conference on Scour and Erosion brings researchers and practitioners from Geotechnical and Hydraulic Engineering together to tackle the complex challenges of surface and subsurface scour and erosion.

**Topic tracks:**
- Engineering
- Research
- Monitoring
- Mitigation
- Risk Assessment

ICSE-10 is organized under the auspices of the ISSMGE Technical Committee 213, Scour and Erosion

Join us for ISCE-10 at www.2020icse.org

Understanding Scour and Erosion Processes and Improving Countermeasure Design through Integration of Hydraulics and Geotechnics

www.2020icse.org
Thank You to Our Conference Sponsors!

Contributions from the following sponsors enable the Geo-Congress 2020 to carry out its commitment to excellence in programming and networking events for attendees.

Platinum

Gold

Silver

Bronze

Copper

Partnering Organizations

Corporate Sponsors