Poster Sessions

Session 1

Monday, March 27, 2:30 – 4:30 p.m

Balancing Availability, Quality, Economics, and the Environment When Using Steel Slag Within Pavements, Isaac Howard

Effect of Degree of Saturation on Adfreeze Strength of Helical Piles in Frozen Soils, Tugce Baser

Methods to Reduce Geotechnical Uncertainty and Risk Using Big Data Collected During Construction, Michael Mooney

Two-Dimensional Soil Arching Evolution in Column-Supported Embankments with a Lightweight Aggregate Load Transfer Platform, Yuqiu Ye

Performance Prediction of Evapotranspiration (ET) Cover from Field Monitoring Results, Md Jobair Bin Alam Alam

Water Balance Final Cover Using Vetiver Grass in Texas, Sonia Samir

Cut-Off Wall and Refoundations after 2017 Earthquake in abrupt variation zone, Xochimilco Mexico City, Eloy Jiménez Ontiveros

Sand-Woven Geotextile Interface Shear Strengths in Different Shearing Directions, Md Wasif Zaman

Constant Curing Temperature Effect on the Strength of Cement-treated Soil, Sherif Abdelaziz

Deep Learning Based Segmentation for the Field Evaluation of Riprap and Large-sized Aggregates, Erol Tutumluer

Evaluation of Empirical Methods for Estimating Tunneling-Induced Ground Movements - Los Angeles Metro K Line Crenshaw/LAX Transit Project, Wendi Zhao

Bioremediation of Desiccation Cracking in Clayey Soils using Enzyme Induced Calcite Precipitation, Kaniz Roksana

Compaction and Strength Characteristics of Engineered Water Repellent Frost Susceptible Soils, Mackenzie Malisher

Effect of Cyclic True-Triaxial Boundary Types on Stress-Strain Behavior of Unbound Material, Ceren Aydin

Evaluation of Stabilization Concepts for Clay and Sandy Clay as Subgrade Material Using Cement and Liquid Base Seal, Emmanuel Gadzama

Influence of Compaction Characteristics and Moisture Exposure on Resilient Moduli of Cement-treated Soil, Anand Puppala

Shear Strength, Excess Pore Water Pressure and Durability Response of Class F Fly Ash Treated with Hydrated Lime, Sujay Teli

Life-Cycle Assessment of Root-Inspired Ground Anchors and Conventional Ground Anchors, John Huntoon

Biochar in Quick Clay Stabilization: Reducing Carbon Footprint and Improving Shear Strength, Stefan Ritter

Analysis of Pervious Oyster Shell Habitat (POSH) Unit Effectiveness Using Computational Fluid Dynamics (CFD) and Field Observations, Raphael Crowley

Design and Life Cycle Assessment of Retaining Wall with Used Foundry Sand as Backfill, Ankit Kumar

Stability Analysis of Infinite Unsaturated Soil Slope Based on Analytical Probabilistic Approach, Tanmoy Das

Modelling of Tracks at Transition Zones: Analytical and Numerical Modelling Approach, Muhammad Babar Sajjad

Pseudo-static stability analysis of vertically expanded MSW landfill with engineered berm, Kaustav Chatterjee

DEM Simulation of a Bio-Inspired Self-Burrowing Probe in Granular Materials, Yuyan Chen

A Comparative Study on the Finite Element Analysis for the Prediciton of Piled Raft Performance Using 2d and 3d Models, Asli Yalcin Dayioglu

Stress Distribution and Fabric Anisotropy of Heated Backfill, Karam Jaradat

Shield Moving Trajectory Prediction and Anomaly Detection During Tunnelling: A Deep Learning Algorithm Framework, XueDong Bai

On Georeferenced Soil Engineering Properties and Interpolations, Tifong Chin

Water Resources Infrastructure Digital Twins: Design, Development, and Future Efforts, Lucas Walshire

Early Warning Protocol Against Highway Slope Failures in Mississippi, Masoud Nobahar

Prediction of Liquefaction Induced Lateral Spreading Displacements by Artificial Intelligence Based Model, Pelin Ozener

Rational Approach to Lateral Load Tests on Single Piles with Measurement of Titling at Pile Top, Chulmin Jung

Application of non-reinforced rigid inclusion columns as foundation support for container yard in Singapore, Jian Chu

Calibrations of the Innovative S3F Sensor for Normal Stress Measurements in Soil, Hussein Alqrinawi

Evaluating the Site variability using Bayesian Analysis, Murad Abu-Farsakh

A deep learning model to predict the lateral capacity of monopiles, Fei Han

Behaviour of Single Pile and Mono-Piled Raft Foundation under Hydraulic Loading Considering Hysteresis in Unsaturated Soils, Sonu Kumar

Assessing the Critical Depth Concept for Piles Driven in Cohesionless Soils, Abesh Jung Karki

Evaluating the Effects of Asperity Height on Shear Strength of Cohesive Soil-Structure Interface Subjected to Monotonic and Cyclic Axial Loading, Muhannad Suleiman

Laboratory Pullout Test of a Percussion Driven Earth Anchor Installed in a Clayey Soil Compacted inside a Soil Box, Xinbao Yu

Influence of Strip Load on Seismic Behavior of Cantilever Sheet Pile Walls, Akshay Pratap Singh

An Experimental Study to Investigate the Effect of Biopolymer-Treated Layers on the Lateral Earth Pressure of Retaining Wall Backfills, Ilhan Chang

Shaking Table Tests on Geocell-Reinforced Model Walls, Ali Sedaghat

Geotechnical and Economical Aspects of using Mixed Recycled Aggregate from Construction and Demolition Waste for Reinforced Soil Structures, Apoorva Agarwal

Analytical Method for Predicting Lateral Facing Deflections of Geosynthetic-Reinforced Soil Abutment Walls, Thang Pham

Field Monitoring and Analysis of Curved Integral Abutment Bridge Response during Seasonal Temperature Changes, Jongwan Eun

Determination of the Attenuation Factor of Sand using a Vertical Shock Tube, Shweta Paunikar

Effect of Shaking Duration on Foundation Settlement in Liquefiable Soils: 1-g Shake Table Tests, Md Kausar Alam Anik

Centrifuge Tests to Investigate the Effect of MICP Treatment Zone on Foundation System Performance, Alexandra Camille San Pablo

Evaluation of Two Numerical Modeling Approaches for Liquefaction Investigation of Fines-dominated Soils at Wildlife Liquefaction Array (WLA) Case Study, Abdolreza Osouli

Undrained Cyclic Shear Behavior of a Low Plasticity Alluvial Silt, Jared Martinez

Site-Specific Response Analysis of a Lightly Overconsolidated Clay Subjected to Strong Shaking during Dynamic Centrifuge Testing, Sujanraj Devkota

Nonlinear Characteristics of Single Piles under Rotating Machine Induced Coupled Vibration using both Experimental and Numerical Study, Sanjit Biswas

Seismic Response of Shallow Foundations Resting on Liquefiable Sand, Usama El Shamy

Effects of Ground Slope on Site Factors and Development of Adjustment Factors using 2D FE Analysis for Charleston, SC, Nadarajah Ravichandran

Hayward Bridge Geotechnical Array Soil Dynamic Properties, Zahra Faeli

A novel approach to model surface wave propagation in layered media, Mrinal Bhaumik

Application of Simplified Kinematic Soil-Structure Interaction Procedures to Validate Finite Element Models of Buildings with Large Foundations, Reza Boushehri

A geotechnical living laboratory for teaching and researching soil erosion and slope stability, Bret Lingwall

2D and 3D probabilistic slope stability analysis of a levee with relief wells, Sina Javankhoshdel

Long-Term Performance Monitoring of Recycled Plastic Pins Supported Embankment over Soft Soil, Md Azijul Islam

Saturation-Based versus Proctor-Based Compaction Quality Control Procedures in Fine-Grained Soils, Kevin Miller

Nonlinear Dynamic Analyses of a Tailings Dam during a Mw 5.7 Earthquake, Alfonso Cerna Diaz

Bio-Inspired Stabilization of a Test Levee Slope Using Vetiver Grass on Highly Plastic Clay, Amber Spears

Lessons Learned from Levee Embankment Tie-In Construction in Marsh Environment, James Williams

A Technical Guide for Assessment, Setting up and Protection of Rockbolts for Hydroelectric Facilities, Valérie Fréchette

Remote Sensing Using Satellite Derived Products to Assess Sinkhole Occurrence, L. Sebastian Bryson

HVSR Measurements to Investigate Sinkholes and Treatment Efforts Along a Roadway, Joseph Coe

Determination of Geotechnical Properties in Intermediate Geomaterials with Newly Developed In-Situ Test Device, Young-Woo Song

Bioremediation of Salinity Problem by Using Collective Microorganisms in Semi-aerobic Landfill, Azizul Moqsud

Solute Diffusion through Bentonite-Polymer Composites for Containment Applications, Kristin Sample-Lord

Using Random Forest Algorithm to Predict the Hydraulic Conductivity of Compacted Soil Liners/Covers, Poyu Zhang

Pavement testing using non-destructive MASW Approach, Ramdev Gohil

Geotechnical site characterization with 3D ambient noise tomography: field data applications, Khiem Tran

Geo-acoustic Signals in Geotechnical and Foundation Engineering, Anisha Pokhrel

Numerical Study of the Influence of Foundation Soil on the Deformation Behavior of Geosynthetic Reinforced Soil-Integrated Bridge System under Service Load Conditions, Yewei Zheng

A Research Update on an Enhanced Lateral Drainage Moisture Management Geosynthetic for Roadways and Civil Structures, René Laprade

Numerical Study on Narrow Back- to- Back Geosynthetic Reinforced Soil Walls, ramyasri rachamadugu

Connecting EPBM Data to Ground Movement Data using Machine Learning, Dayu Apoji

Geotechnical Evaluation for a Green Infrastructure Project in the County of Los Angeles, Hong Yang

Precipitation and Seismic Impacts on Lattice Steel Tower due to Landslides, Esam Abraham

Incorporation of unsaturated soil properties in the prediction of rainfall induced landslides using TRIGRS and Scoops3D Models, Divya P.V.

Estimating seismically induced rock slope failure volume using a sliding block correlation, Lorne Arnold

Effect of Penetrator Geometry and Interface Friction on Rotational Penetration Resistance, Yong Tang

Resistance of Dry and Partially Saturated Sand to Rapid Ordnance Penetration Using Photon Doppler Velocimetry, Mehdi Omidvar

Effect of Soil Structure Interaction on the Design of Tall Concrete Buildings, ALZahraa ALKhayat

Reliability-Based Robust Design Framework for Rigid Pavements, Sara Khoshnevisan

Numerical Study of a new wicking geotextile in roadway applications, Xiong Zhang

Reliability analysis of spatially variable soil slope using deep learning algorithm, Himanshu Rana

Skirted Footing for Enhancing Load Carrying Capacity, Khalid Bashir

Influence of Soil Destructuration on Bearing Capacity Estimation of Square Footings in Structured Clay, Abhishek Ghosh Dastider

Modeling of Rocking Induced Permanent Settlement of Shallow Foundations Using Machine Learning Algorithms, Sivapalan Gajan

Implementation of a hyperbolic load-deformation model in reliability-based design (RBD) of shallow foundations using some in-situ tests results, Pouya Pishgah

The Importance of Partial Drainage in the Response of Soft Clays Reinforced with Sand Column Groups, Abdurrahman AlMikati

The Impact of Biocalcification on Strength of Semi-Arid Zone Sand of North-Eastern Nigeria, Mutiu Oyelakin

Hydraulic Conductivity of Soil with Poly-vinyl Alcohol (PVA), Kleio Avrithi

Use of a magnetic field to rotate iron fillings in sand as a means of soil improvement, Cassandra Rutherford

Examination of Cone Penetration in Non-Plastic Silt with a Direct Cone Penetration Model, Diane Moug

Effect of Salinity on Geochemical Properties and Atterberg Limits of Low Saline Sand-Clay Mixtures, Tejo Bheemasetti

Computed Tomography of Sand Subjected to Heating: Analysis of Particle Displacements, Yize Pan

Measurement of Volumetric Deformation, Strain Localization, and Shear Band Characterization During Triaxial Testing Using a Photogrammetry-Based Method, Sara Fayek

Experimental Investigation on Thermal and Electrical Properties of Binary Soil Mixtures, Hoyoung Seo

Particle Shape Effects in 3D DEM Simulations of Angle of Repose, Sai Sandeep Chitta

Internal Structure and Breakage Behavior of Biogenic Carbonate Sand Grains, Elieh Mohtashami

Numerical Analyses of a Landslide in the Sensitive Saint Adelphe Clay, Tyler Oathes

Impact of Antecedent Moisture Conditions on Power Pole Fragility During Ice Storm Loading, Tommy Bounds

Experimental Study of Rubber Intermixed Ballast Stratum Subjected to Monotonic and Cyclic Loads, Chathuri Arachchige

Numerical Simulation of a Geothermal Bridge Deck Deicing System for Use in Montana, Ethan Turner

Utilizing Food Processing Waste in Soil Stabilization, Nicole Kelly

Nature-based solutions for enhancing soil hydro-mechanical properties, Marta Miletic

Effect of Climate Change on Depth of Suction Change - A Case Study, Bikash Devkota

Building Stiffness Changes and Response to Excavation-Induced Ground Movements, A Felipe Uribe-Henao

Modeling of unsaturated soil column collapse through the stabilized updated Lagrangian periporomechanics, Xiaoyu Song

Analysis of a shallow footing resting on compacted embankment under infiltration, Rakshanda Showkat

A comparison of experimental and predicted moisture loss in unsaturated residual soils exposed to relative humidity gradients, Monica Rekapalli

Correlation of Expansion Index and Atterberg Limits for Expansive Soils, John Schultz

Evaluation of water vapor sorption isotherms to quantify wildfire ash in soil, Alishan Ahmed

Session 2

Tuesday, March 28, 2:30 – 4:30 p.m

Development of Multiphysics Enriched Mixed Reality Game for Geotechnical Engineering Education, Cheng Zhu

Beginning to Develop and Assess Engineering Judgment in an Introductory Geotechnical Engineering Course, Victoria Bennett

Video Presentation Assignments in Civil Engineering Courses During the COVID-19 Virtual Period and Beyond, Isaac Howard

Statistical Analysis of Undrained Strength as Linear Function of Depth, Prince Turkson

Finite Line Relief Well System Design for Dams and Levees, Andrew Keffer

Direct Shear and Inclined Plane Experimental Activities for Different Interfaces Among Geosynthetics and Soils, Daniele Cazzuffi

Transient Three-Dimensional Numerical Modeling of Horizontal Drain Systems for Slope Stabilization, Mahrooz Abed

Mechanical Behavior of Micp-Treated Sand Under Different Confining Pressure, Kejun Wen

Influence of Treatment Temperature Conditions on the Performance of Enzyme-Induced Cemented Sand, Isaac Ahenkorah

Effectiveness of Microbial Induced Calcite Precipitation on the Sand-Clay Mixtures, Anil Sharma

Characterizing Volumetric Changes and Cracking of Saline Soil Under Freeze-Thaw Cycles, Shaini Aluthgun Hewage

Effect of Treatment Strategies for MICP-Based Soil Improvement Using Urease-Producing Bacteria, Rituraj Devrani

The Effect of Level of Cementation and Geometry on Stability of Cemented Coastal Bluffs and Slopes, Pegah Ghasemi

Modelling of stone columns reinforce railway embankments: Coupled DEM-FDM analysis, Trung Ngo

Cyclic Wetting and Drying Behaviour of Coal Wash Treated Black Soil, Courage Kwasi Dzaklo

Tunnel Boring Machine crushed limestone as a cement grout, Muawia Dafalla

Low-Density Cellular Concrete as a Sustainable Replacement for Granular fills in Bridge Approaches, Sundeep Inti

Probabilistic Assessment of Bearing Capacity of Strip Footings Seated on Geosynthetic Reinforced Soil Deposits Using Finite Element Limit Analysis (FELA) and Response Surface Method (RSM), Pooya Dastpak

Characterization and Discrete Element Modeling of LHS-1 Lunar Highlands Simulant, Zakia Tasnim

High-performance high-order implicit material point method for progressive levee failure simulations, Bodhinanda Chandra

Influence of seabed characteristics on cyclic pull-out behavior of suction anchor for floating offshore wind turbine under environmental loads, Amir Moghaddam

Comparative Analysis of Horizontal Self-burrowing Strategies using Full-¬ñscale DEM-MBD Co-simulations, Yi Zhong

Soil-Embedded Guardrail Post Modeling under Vehicle Impacts, Mojdeh Asadollahi Pajouh

3D Discrete element modeling of cone penetration into the JSC-1A lunar regolith, Lei Wang

Three-Dimensional Fully Coupled Thermo-Hydro-Mechanical Model for Thaw Consolidation of Permafrost, Min Liew

Freezing Effects on Thickness of Diffused Double Layer around Clay Particles Using Molecular Dynamics, Sherif L. Abdelaziz

The effects of fines on the response of granular soil during the earth pressure balance (EPB) shield tunnelling, Hoang Bao Khoi Nguyen

Effect of Interparticle Friction and Particle Elasticity on Behaviour of Granular Materials, Derrick Aikins

Two- And Three-Dimensional Slope Stability Analysis Of Fundão Dam, Murray Fredlund

Spatial Interpolation of UAV Survey Data for Lift Thickness Determination During Earthwork Construction, William Baker

Image Analyses of Liquefaction-Induced Settlements and Sand Boil in Shaking Table Tests, Fu-Hsuan Yeh

Application of Unmanned Aerial Vehicle (UAV) for Reservoir Embankment Inspections, Anand Puppala

Utilizing Remote Sensing and Site Reconnaissance Data to Map Surface Manifestation of Liquefaction, Timothy O'Donnell

Characterization of Soil Crack Patterns Using Deep Neural Networks, Ali Vafaei

Soil Moisture Active Passive (SMAP) Data for Ground Monitoring during Earthquakes, Majid Ghayoomi

Wholistic Monitoring—Integrated InSAR, Lidar, and Instrumentation, Travis Shoemaker

A cross-platform approach using remote sensing and geophysical monitoring to streamline Geotechnical Asset Management, Rakesh Salunke

Effect of Degree of Saturation on Adfreeze Strength of Helical Piles in Frozen Soils, Tugce Baser

Effect of Seismic Acceleration Coefficients on Seismic Passive Earth Pressure Coefficient of Caisson due to Cohesion, Kaustav Chatterjee

Utilizing Site Investigation and Load Tests to Predict Drilled Shaft Design Parameters and Capacities for Various Geological Formations, Hosam Salman

Static response of pile group in the domain of uncertainty, Kaustav Chatterjee

Case Study: Drilled Shafts Installation in Difficult Site Conditions; Loose Sand and High Groundwater Table, Anthony El Hachem

Piling Design & Construction of the Opera Residences in Ho Chi Minh City, Vietnam ¬ñ A Case Study, Quoc Dung Pham

Pile Driving Refusal Assessment of Steel H-Piles in Schist Saprolite, Lei Gu

State of the Practice in Florida on Vibrations and Movements Due to Deep Foundation Installations, Jorge E. Orozco-Herrera

A Machine Learning-Based Method with Integrated Physics Knowledge for Predicting Bearing Capacity of Pile Foundations, Tong Qiu

Evaluating the Effect of Site Variability on the Resistance Factor of the Deep Foundation, Murad Abu-Farsakh

Combined Effects of Corrosion and Migration of Fines on Stability of Mechanically Stabilized Earth Walls, S. Mustapha Rahmaninezhad

Axial Load Tests of Geosynthetic Reinforced Soil (GRS) Piers Constructed with Florida Limestone Aggregate and Woven Geotextile, Christian Matemu

TBM Tunnel Repair Using A Secant ¬ìhorseshoe¬Î Compression Shoring System, Zachery Shafer

Interpretation of the Overburden Pressure Effect on Sand Liquefaction Behavior, Waleed El-Sekelly

Site-specific Dynamic Behavior of Cohesive Soils- A case study from Northeastern India, S K Adari

Influence of pipe thickness on the response of buried pipelines subjected to earthquake faulting, Abdolreza Osouli

Dynamic Performance of Model Rocking Footings on Sand Reinforced by Soil-Cement Columns, Jeffrey Newgard

Development of Shear-Wave Velocity Profiles for Computing Amplification Factors for Reference Outcrop to Local Site Conditions in South Carolina, Ali Sedaghat

Comparison of Equivalent Linear Site Response Analysis of Loose Gravelly Soil with Centrifuge Modelling Tests, Siwadol Dejphumee

Case History Studies of Lenihan and Austrian Dams under the 1989 Loma Prieta Earthquake, Guoxi Wu

Numerical analysis and assessment of centrifuge modeled soil liquefaction of a level site subjected to biaxial dynamic base excitation, Omar El Shafee

Effects of Number of Frequencies in UHS and Input Motion Screening Criteria on the Representative Motions for Charleston, SC, Nadarajah Ravichandran

Nonlinear Response of Cohesive Soils Under Thermo-Controlled Cyclic Torsional Loading, Roya Davoodi Bilesavar

Building Critical Thinking Skills through Geotechnical CAT-Apps, Daniel VandenBerge

Post-Construction Monitoring of Rehabilitated Highway Embankment Slope in Texas, Anand Puppala

Pre-Failure to Post-Failure behavioral spectrum of jointed rock slopes, Shahrzad Roshankhah

Use of geostatistical analyses for characterizing mine tailings as compared to geophysics profiles, Bret Lingwall

Use of Standard Penetration Test (SPT) to determine raveling index, Boo Hyun Nam

Integration of Downhole Processing Techniques for determination of reliable Vs profiles, Ayush Kumar

Towards Implementing SCPTu Geotechnical Design Guidelines for the State of Illinois, Cody Arnold

Magnetic Resonance Imaging for Pore Water Mapping in Soils, Karam Jaradat

Performance of MICP-Treated Soil against Environmental Deterioration, Shihui Liu

Biocarbon-Driven Remediation of Oil Contaminated Soils, Fei Wang

Investigating Freeze-Thawing Behavior of Saline Soil using Electrical Resistivity Measurement, Rui Liu

Numerical Study of the Dynamic Response of Stone Column and Geosynthetic Encased Stone Column in Soft Clay, Yewei Zheng

Partial Safety Factors for Hydraulic Conductivity Requirements of Granular and Geotextile Filters, Shubham Kalore

Effects of Stinger on Precast Concrete Pile Driving for the Port of Long Beach Fireboat Station No. 15 Boat Bay Structure, John Lee

Penetration Forces of a Rotating Helical Penetrator in Granular Media: experiments and insights to the design of a burrowing robot, Md Ragib Shaharear

Actual and Predicted Earth Pressure Balance Tunnel Boring Machine-Induced Ground Deformation in Washington DC Stiff Clays and Dense Sands, Michael Mooney

A constitutive model to simulate cementation effects in sands, Andony Landivar Macias

A Simplified Model for Predicting Wind Erosion of Moistened Sands, Luis Zambrano-Cruzatty

Effect of water content on internal erosion of an unsaturated slope, Olaniyi Afolayan

Statistical Study of the Geology, Topography, and Pore Fluid Salinity Controls on the Large Slope Failures Observed in North Dakota, Beena Ajmera

Experimental Study on Continuous and Oscillatory Rotational Penetration, Yong Tang

The importance of mixing and compaction moisture content for foamed bitumen stabilisation of marginal gravel materials, Greg White

Effects of the Submerged Height of Mangrove-inspired Skirt-piles on Scour Mitigation around a Monopile Foundation, Xiwei Li

Design of a Stream Diversion Channel for Bridge Pier Nose Extension Construction, WenJun Dong

I-270 North Design Build Project, A Case Study on the Geotechnical Engineer's Role in Success of a Design Build Project, Adrian Keller

An Artificial Neural Network Model for Predicting Microbial-Induced Alteration of Rock Strength, Oladoyin Kolawole

Investigating Influence of Freeze-Thaw Cycles on Sandstone Containing Pre-existing Joints Through Discrete Element Modeling, Chenchen Huang

A New Constitutive Model and Its Application for Understanding the Impacts of Extreme Hydroclimatic Events on Geotechnical Systems, Nadarajah Ravichandran

Large-Scale Testing of the Static One-dimensional Compression Response of Tire-Derived Aggregate, Axel Yarahuaman Chamorro

Effect of calcium source on sand bio-cementation, Yu-Syuan Jhuo

Experimental study of biopolymer hydrogel effect on the pile penetration resistance, Ilhan Chang

Investigation of the Biopolymer Rhizobium tropici for use in Soil Improvement, Lucas Walshire

Durability and Recuperative Properties of Lime Stabilized Soils, Nripojyoti Biswas

Hayward Bridge Geotechnical Array Soil Dynamic Properties, Zahra Faeli

Biopolymers for erosion mitigation of soils observed by erosion function apparatus (EFA), Gye-Chun Cho

Direct shear tests of sand reinforced with ferrous particles, Cassandra Rutherford

3-Dimensional Numerical Analysis of Geosynthetic Encased Stone Columns in Saturated and Unsaturated Soils, Deendayal Rathod

A non-contact measurement of vertical deflections of rail trackbeds and a performance testing of stabilized sub-ballasts using a novel micro-piling system, Koohyar Faizi

Comprehensive Geotechnical Characterization of Laponite for Use as Transparent Clay Surrogate, Abdurrahman Almikati

Threshold Sand Content for Sand-Gravel Mixtures, Carmine Polito

A study of Consolidation Tests on the Dredged Soils with a Large Moisture Content in Coastal Louisiana Using a Modified Oedometer, Omar Shahrear Apu

Creep, Relaxation, and Strain Rate Effects in Central Florida Silty Sand, Sergio Marin Savatier

A Comparison of Approaches for the Determining the Virgin Compression Line of Remolded Saturated Soils, Alireza Shiri

Pre-drilling Effects on Vibrations and Ground Deformations Caused by Impact Pile Driving, Berk Turkel

Monotonic Behavior of Ledge Point Calcareous Sands with Increasing Particle Crushing, Cassandra Rutherford

Simple Modifications to a Direct Shear Device to Perform Constant Normal Stiffness (CNS) Tests, Chris Baxter

Assessment of U.S. frost depth maps considering climate change effects, Behrooz Daneshian

Temperature Effects on the Residual Shear Strength of Soil, Aidy Ung

Effects of Temperature on Volumetric Behavior of Soil Subjected to Freezing-Thawing Cycles, Zihao Shang

Application of TDA In Seismic Response of Railway Embankments, Arezoo Sadrinezhad

Sustainability and the Road to Carbon Neutrality with Low-Density Cellular Concrete (LDCC), Gregory Halsted

Numerical Analysis of Gas-Bearing Ground Deformation and Failure Mode around the Parallel Tunnel Cross-Passage, Jongwan Eun

Mechanical Properties of Soils Used by Mud Dauber under Varying Moisture Conditions, Joon Soo Park

Evaluation of TDR-Measured Water Content for Dry-out Curves of Sand using a Modified Tempe Cell Test, Xinbao Yu

Evaluation of Soil Water Retention Curve Models for Fouled Ballast, Debojit Sarker

Efficient and Accurate Coded Target Decoding for 3-D Reconstruction of Soil Specimens in Triaxial Test, Xiong Zhang

Inducement of Hydrophobicity on Laboratory Specimens to Study Wildfire Impacts on Infiltration for Revegetation and Erosion, Max Veneris

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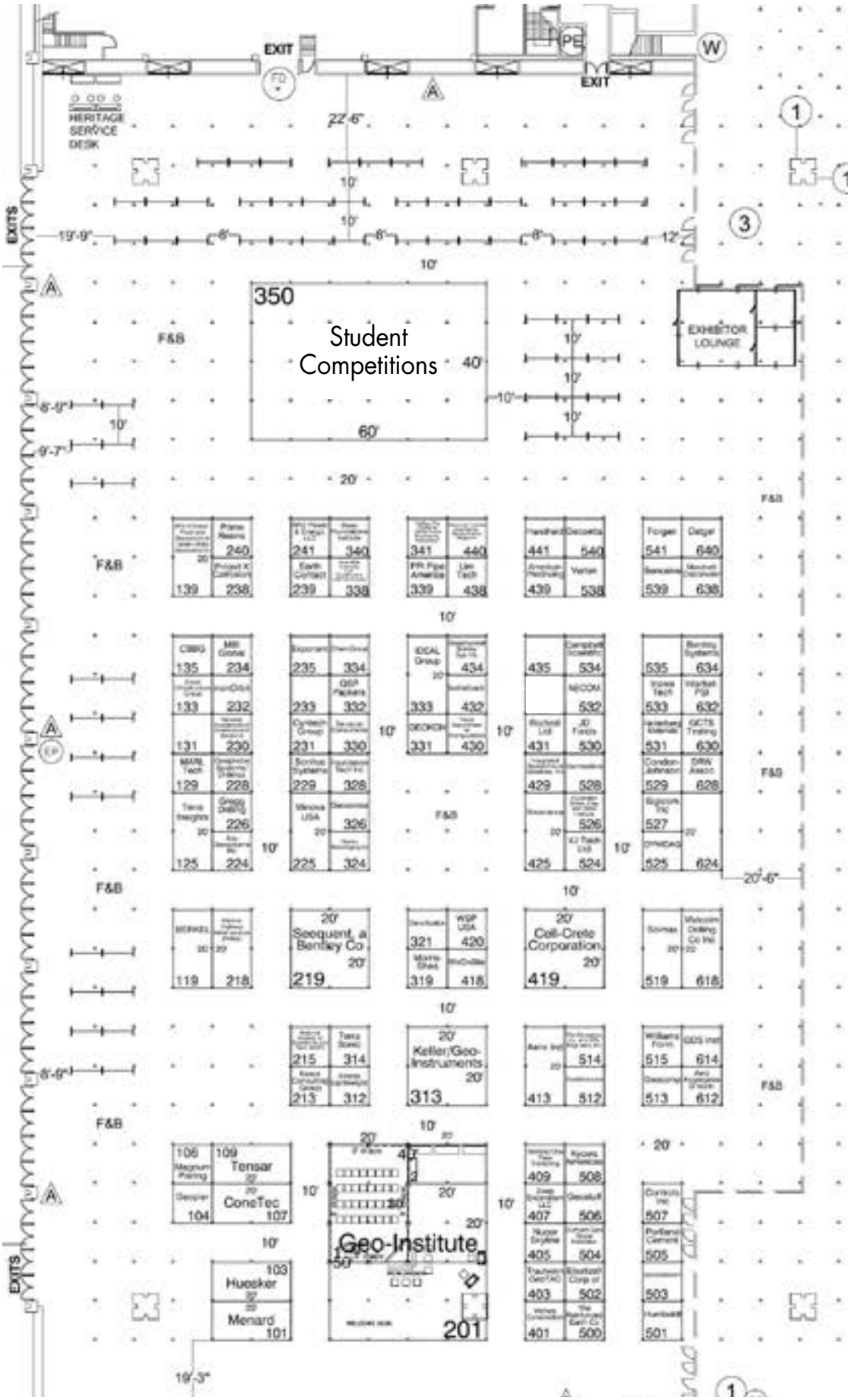

Exhibitors

Booth #	Exhibitor
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218	Federal Highway Administration (FHWA)
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328	Foundation Technologies, Inc.
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201	Geo-Institute
313	Geo-Instruments*
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434	Geophysical Survey Systems, Inc
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326	Geosense Ltd
540	Geosetta
506	Geostuff
226	Gregg Drilling
441	Handheld
531	Heidelberg Materials
103	Huesker*
501	Humboldt Mfg. Co.
333	IDEAL Group
429	Integrated Geotechnical Solutions, Inc.
632	Intertek-PSI
533	Inzwa Technologies, LLC
338	Iowa State University Civil, Construction and Environmental Engineering Department
232	IronOrbit
432	Ischebeck USA Inc
213	Itasca Consulting Group
530	JD Fields and Co.
313	Keller*
508	Kyowa Americas Inc.
438	Lim Technology Inc.
106	Magnum Piering
618	Malcolm Drilling Company, Inc*
638	Marchetti Dilatometer
129	MARL Technologies
234	MBI Global Inc
101	Menard USA*
401	Michels Construction, Inc.
225	Minova USA
418	MixOnSite USA
319	Morris-Shea
230	National Academies of Sciences, Engineering, and Medicine, Committee on Geological and Geotechnical Engineering
215	National Institute of Standards and Technology (NIST)
324	Nomis Seismographs
405	Nucor Skyline
514	Pile Dynamics, Inc. and GRL Engineers, Inc.*
505	Portland Cement Association
339	PPI Pipe America
240	Prime Resins
238	Project X Corrosion Engineering
332	QSP Packers LLC
224	Rite Geosystems Inc.
425	Rocscience Inc.*
431	Roctest Ltd
241	RRC Power & Energy, LLC
219	Seequent, a Bentley Company
539	Senceive
527	Sigicom Inc.
133	Smart Infrastructure Group
519	Solmax*
229	Sonitus Systems
109	Tensar
125	Terra Insights*
314	Terra Sonic International
330	Terracon Consultants, Inc.*
430	Texas Department of Transportation
500	The Reinforced Earth Co.*
403	Trautwein GeoTAC
528	Vacmasters
538	Vertek*
524	VJ Tech Ltd
515	Williams Form Engineering Corp.
420	WSP USA*

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Manufacturers of Foamed Glass Aggregate- An Ultra-Lightweight fill material that is durable, sustainable, insulating and free draining, with a low unit weight (<15 pcf) and a high friction angle.

Booth #439
American Piledriving Equipment Inc.
www.americanpiledriving.com
APE is the world leader in foundation systems and equipment, including vibratory, diesel, and hydraulic pile drivers; drilling, wick drain systems, and the HD Piling system.

Booth #139
APS Antriebs-, Pruef- und Steuertechnik GmbH (Wille Geotechnik®)
www.wille-geotechnik.com
APS Antriebs- Pref- und Steuertechnik GmbH (Wille Geotechnik) is a highly regarded German enterprise due to its soil, rock, asphalt and material testing machines.

Booth #312
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.

Booth #503
beadedstream Inc.
www.beadedstream.com
beadedstream is enabling anyone to collect data easily, from anywhere in the world. Our Digital Temperature Cables monitor ground temperature profiles and connect into our Data Loggers, which transmit data to the cloud.

Booth #634
Bentley Systems
www.infrastructureiot.com
Bentley Systems' (Nasdaq: BSY) Infrastructure IoT solutions provide condition monitoring of critical assets, providing operational insights that inform owners and operators, and power connected workflows.

Booth #119
BERKEL*
www.berkelandcompany.com
BERKEL is an employee-owned, design-build geotechnical contractor for Augered and Displacement piles, ground improvement, earth retaining structures and underpinning, micropiles, drilled shafts, driven piles and helical piles.

Booth #341
CalGeo - The California Geotechnical Engineering Association
www.calgeo.org
CalGeo is the only association focused solely on issues that matter most to geoprofessionals and related businesses in California. Visit calgeo.org to learn more.

Booth #534
Campbell Scientific
www.campbellsci.com
Recognized for over 45 years as the preferred supplier, Campbell Scientific system versatility, ruggedness, and reliability make them ideal for critical geotechnical monitoring projects.

Booth #135
CBBG
https://cbbg.engineering.asu.edu
The Center for Bio-mediated and Bio-inspired Geotechnics (CBBG) is a National Science Foundation Engineering Research Center developing sustainable and resilient solutions for infrastructure systems.

Booth #419
Cell-Crete Corporation
www.cell-crete.com
Founded in 1956, Cell-Crete Corporation is the leader in the cellular (foamed) concrete industry. We are nationwide and lead industry in innovation and customer satisfaction.

Booth #334
ChemGrout, Inc.
www.chemgrout.com
For 59 years, ChemGrout has manufactured the world's largest selection of grouting equipment. Their equipment remains an industry standard, offering reliability and durability.

Booth #529
Condon-Johnson & Associates, Inc.*
www.condon-johnson.com
With the core values of dependability, innovation and integrity Condon-Johnson strides to be a leader in the field of heavy civil geotechnical construction & engineering that provides the most viable solutions for our clients' projects.

Booth #107
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.

Booth #507
Controls Inc.
www.controls-group.com/usa
We are the industry leader in the design, manufacture and supply of advanced testing equipment for asphalt, concrete and soil in construction and civil engineering.

Booth #231
Cyntech Group
www.cyntechgroup.com
Cyntech Group excels at providing innovative, cost-effective, and reliable helical pile, helical rigid inclusion, and pipeline anchoring solutions for the Industrial and Infrastructure construction markets worldwide.

Booth #512
Dataforensics*
www.dataforensics.net
Dataforensics geotechnical data management software helps geologists, geotechnical and environmental engineers accomplish field and office work in less time, with greater accuracy and data quality.

Booth #640
Datgel
www.datgel.com
Datgel are a geotechnical data software company, gINT experts and reseller, with a 16-year track record delivering gINT Add-In software for data management, processing, and high-quality reporting. Our software supports AGS 4.1.1 and AGS 4+ Format data and includes CPTu analysis and lab calculations.

Booth #407
Deep Excavation LLC
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.

Booth #321
Densification, Inc.*
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.

Booth #409
DeWind One Pass Trenching, LLC
www.dewindonepass.com
DeWind One Pass Trenching is the leading North American trenching company reaching depths to 150+ feet below grade installing environmental remediation & civil trenching services.

Booth #340
DFI
www.dfi.org
Deep Foundations Institute is an international association of contractors, engineers, manufacturers, suppliers, academics and owners in the deep foundations industry. Our multidisciplinary membership creates a consensus voice and a common vision for continual improvement in the planning, design and construction of deep foundations and excavation.

Booth #628
DRW Associates, Inc.
www.drwalter.com
Major distributor of vibration and sound monitoring equipment. We provide rentals, sales, calibration and support for engineering firms and contractors.

Booth #504
Durham Geo Slope Indicator
www.durhamgeo.com
DGSI is a leading manufacturer of Geotechnical and Structural instrumentation. With over 60 years of experience, our instruments are integrated into some of the world's most important assets and construction projects.

Booth #525
DYWIDAG
www.dywidag.com
DYWIDAG's complete line of geotechnical products includes anchors, soil nails, micropiles, THREADBAR® reinforcing systems, tie-rods, and DYNA-Force® monitoring, with technical service to back it up. Contact sales.us dywidag.com

Booth #239
Earth Contact Products
www.getecp.com
ECP manufactures helical piles, helical tiebacks, resistance piers and the Drivecast displacement pile. Let ECP help you with your deep foundation needs.

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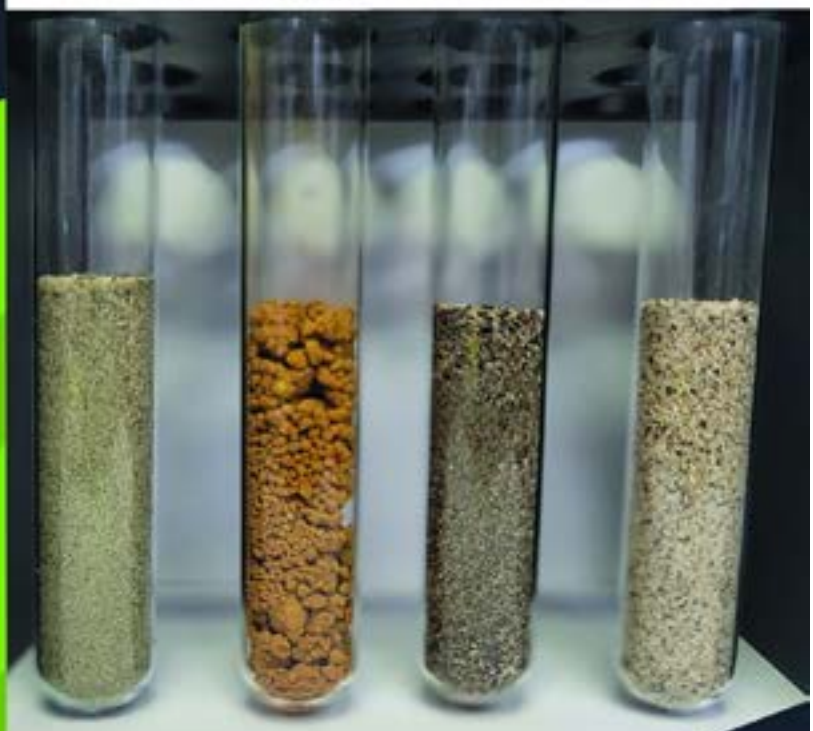

Caltrans Accredited

Our team of NACE certified Professional Engineers & Metallurgists get results you can trust

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Can test "À La Carte" corrosive salts or follow our corrosion engineer & metallurgist recommended suite. We can educate you. Only 300g soil sample needed!

Thermal Resistivity

Thermal Resistivity Dry-Out Curve from zero to 110% of proctor moisture with 3-day or less turn around. Only 3 lbs of soil needed!

Testing Packages

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  - Remolding - $100
- Corrosive Bacteria - $400
- Linear Polarization Resistance (LPR) - $350
- ASTM, AASHTO, NACE, SM & More Methods Available
- No Minimum Orders!
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  - Sulfate, Chloride, Sulfide, Redox, pH, Resistivity, Nitrate, Ammonia
- 4 Factor Corrosivity - $100
  - Sulfate, Chloride, pH, Resistivity
- Corrosion Control Recommendations Report - $1200
- "À La Carte" pricing available online

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Projectxcorrosion.com

Booth #502
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.

Booth #526
Expanded Shale, Clay and Slate Institute
www.escsi.org
ESCSI is the trade association for manufacturers of rotary kiln-produced expanded shale, expanded clay and expanded slate lightweight aggregate.

Booth #235
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.

Booth #218
Federal Highway Administration (FHWA)
highways.dot.gov
The FHWA coordinates highway transportation programs in cooperation with states and other partners to enhance the country's safety, economic vitality, quality of life, and the environment.

Booth #541
Forgen
www.forgen.com
Forgen offers specialty geotechnical and comprehensive deep foundations solutions across North America. They partner with clients every step of the way to optimize their approaches and tackle site challenges.

Booth #328
Foundation Technologies, Inc.
www.foundationtechnologies.com
Distributor of best-in-class deep foundation products. We are a full-service supply partner, offering project feasibility, design assistance, as well as field training.

Booth #630
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.

Booth #614
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.

Booth #513
Geocomp*
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.

Booth #201
Geo-Institute
www.geoinstitute.org

Booth #313
Geo-Instruments*
www.geo-instruments.com
GEO- Instruments provides automated solutions for monitoring safety and stability of variety of structures. We install advanced monitoring systems and provide automated processing and delivery of alarms and data reports to help clients manage risk.

Booth #331
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.

Booth #434
Geophysical Survey Systems, Inc
www.geophysical.com
GSSI's ground penetrating radar (GPR) equipment is used all over the world to explore the subsurface of the earth and to inspect infrastructure systems non-destructively.

Booth #104
Geopier, a division of CMC*
www.geopier.com
Geopier introduced Rammed Aggregate Pier (RAP) technology to the industry in 1989 as an Intermediate Foundation® solutions that costs clients 30 to 50% less than deep foundations. Today, over 10,000 structures worldwide are supported by RAP technologies, rigid inclusions, and our rail and slope reinforcement solutions.

Booth #228
Geoprobe Systems/Drillmax
www.geoprobe.com
Geoprobe® manufactures compact Direct Push, Rotary, Rotary Sonic drilling machines and tooling. We also manufacture the DRILLMAX® family of Water Well & Geothermal drilling machines.

Booth #326
Geosense Ltd
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 acquistion systems, including wireless systems.

Booth #540
Geosetta
www.geosetta.org
Geosetta is a nonprofit repository that shares public geotechnical data. Geosetta provides 3D visualization and machine learning tools for utilizing our industries valuable geotechnical data.

Booth #506
Geostuff
www.geostuff.com
GEOSTUFF manufactures essential seismic accessories including the AnySeisTM cableless exploration seismograph, wall-lock borehole geophones, land streamers, and rollalong switches. Our products are used worldwide for collecting refraction, reflection and MASW data along with near surface shot-hole logging, static corrections, and engineering site response.

Booth #226
Gregg Drilling
www.greggdrilling.com
Gregg Drilling LLC offers geotechnical and environmental site investigation services with a focus on quality and safety standards. Gregg is an Alaska Native-owned 8a-certified small business with a proven history of exceptional performance.

Booth #441
Handheld
www.handheldgroup.com
Handheld Group, part of MilDef, is a manufacturer and global supplier of rugged mobile computers, including handhelds, tablets, and wearables.

Booth #531
Heidelberg Materials
www.heidelbergmaterials.us
Previously known as Lehigh Hanson in North America, Heidelberg Materials operates more than 450 cement, aggregates, concrete and asphalt locations in the United States and Canada.

Booth #103
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.

Booth #501
Humboldt Mfg. Co.
www.humboldtmfg.com
Humboldt Mfg. Co., is a leading manufacturer and supplier of construction materials testing equipment for Soil, Concrete and Asphalt. Both Lab and Field Equipment.

Booth #333
IDEAL Group
www.idl-grp.com
IDEAL manufactures the patented STELCOR Drilled-in Displacement Micropile (DDM), for new foundation support and foundation underpinning, as well as large capacity Helical Pipe Piles. IDEAL is ISO 9001-2015 certified and holds an ICC-ES report (ESR-3750) for our helical pipe piles.

Booth #429
Integrated Geotechnical Solutions, Inc.
www.igs-inc.com
IGS provides third-party consulting and monitoring. Our services include geotechnical instrumentation, condition and damage claim inspections, complex seismic analysis and sound studies. Our warehouse is fully equipped to mobilize any monitoring project from vibration, crack, settlement, noise, dust, slope, strain, water level and well testing, to weather stations.

Booth #632
Intertek-PSI
www.intertek.com/building
Professional Service Industries, Inc. (Intertek-PSI) is a leading provider of geotechnical services including subsurface investigations, foundation design /analysis, laboratory testing, and engineering studies and analysis.

Booth #533
Inzwa Technologies, LLC
www.inzwa.io
Inzwa reduces the headaches of vibration monitoring through faster installations and a centralized sensor management platform that gives you 24/7 visibility of all your devices.

Booth #338
Iowa State University Civil, Construction and Environmental Engineering Department
www.ccee.iastate.edu
The ISU Civil, Construction and Environmental Engineering Department is globally recognized for innovations and preparation of skilled engineers with graduate programs in diverse specializations areas.

Booth #232
IronOrbit
www.ironorbit.com
IronOrbit innovates, develops, and produces comprehensive technology solutions, specializing in GPU-Accelerated cloud workspaces, for some of the biggest IT-related challenges facing modern businesses.

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Exhibitors *(continued)*

Booth #432
Ischebeck USA Inc
www.ischebeckusa.com
Ischebeck USA Inc. is the manufacturer and supplier of the original TITAN hollow bar anchor and micropile system! With support from our parent company, we are able to offer high quality geotechnical solutions that are manufactured in the USA.

Booth #213
Itasca Consulting Group
www.itascacg.com
Our consultants solve the most challenging geotechnical problems. While Itasca's numerical modeling software is the choice for solving complex problems, only limited by your imagination.

Booth #530
JD Fields and Co.
www.jdfields.com
JD Fields has gained a reputation as one of the leading steel suppliers and manufacturers. We have the experience and resources to handle, store, and ship high-quality steel products to clients both domestically and internationally.

Booth #313
Keller*
www.keller-na.com
Keller, the world's largest geotechnical specialty contractor, develops innovative, practical, and cost-effective geotechnical solutions including ground improvement, grouting, deep foundations, earth retention, and instrumentation/monitoring.

Booth #508
Kyowa Americas Inc.
www.kyowa-ei.us/eng/
Providing reliable and robust sensors and DAQ solution based on Strain gage technology in the industry such as Tunnels, Dams, Bridges, Buildings and Landslides.

Booth #438
Lim Technology Inc.
www.lim.eu
LIM is providing Measurement While Drilling (MWD) and Grouting solutions. LIM is also manufacturing Geophysical Logging equipment such Optical and Acoustic Televiewers for borehole imaging.

Booth #106
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.

Booth #618
Malcolm Drilling Company, Inc*
www.malcolmdrilling.com
Malcolm has for 6 decades been an innovator and leader in the industry. Our services include deep foundations, retention systems, ground improvement and dewatering techniques.

Booth #638
Marchetti Dilatometer
www.marchetti-dmt.it
Studio Prof. Marchetti manufactures and distributes the Flat Dilatometer (DMT), the Seismic Dilatometer (SDMT) and the fully automated Dilatometer (Medusa (S)DMT) for accurate and efficient characterization of soils and geomaterials.

Booth #129
MARL Technologies
www.marltechnologies.com
MARL Technologies delivers industry-leading equipment and technology solutions for the geotechnical drilling industry and beyond. Our CPT trucks set the bar for functionality, quality, and reliability.

Booth #234
MBI Global Inc
www.mbiglobal.ca
MBI Global offers you the best solutions for optimizing your drilling operations. Our products are designed by and for drillers so they can meet our customers' most demanding quality criteria.

Booth #101
Menard USA*
www.menardusa.com
Menard is a design-build specialty ground improvement contractor offering expertise in ground improvement for sites with poor soil. Combining creative design and innovative techniques, Menard delivers attractive alternatives to deep foundations.

Booth #401
Michels Construction, Inc.
www.michels.us
Michels Construction, Inc. shapes the future by using technology and experience to address the nation's infrastructure needs.

Booth #225
Minova USA
www.minovaglobal.com
Minova offers a range of bolting systems, injection chemicals, grouts, resin capsules, sprayable membranes, coatings, and services for mining, tunnelling and surface ground engineering projects.

Booth #418
MixOnSite USA
www.mixonsite.com
MixOnSite, a nationwide contractor specializing in lightweight cellular concrete providing owners, engineers and contractors with unique, cost-effective solutions for geotechnical and underground construction challenges.

Booth #319
Morris-Shea
www.morrisshea.com
Morris-Shea, a leading deep foundation contractor, installs deep foundation systems for critical commercial and infrastructure projects throughout the United States, the Caribbean and South America.

Booth #230
National Academies of Sciences, Engineering, and Medicine, Committee on Geological and Geotechnical Engineering
www.nationalacademies.org/our-work/committee-on-geological-and-geotechnical-engineering
The Committee on Geological and Geotechnical Engineering is the NASEM focal point for technical and scientific issues regarding engineering in, on, or with Earth materials.

Booth #215
National Institute of Standards and Technology (NIST)
www.nist.gov/el/materials-and-structural-systems-division-73100/earthquake-engineering-group-73105
NIST, the nation's premier science and measurement agency, is enhancing performance of the built environment to seismic hazards by developing knowledge to advance design practice in ways that improve safety, community resilience, and economic security.

Booth #324
Nomis Seismographs
www.nomis.com
Based in Birmingham, Alabama, Nomis Seismographs is recognized worldwide as a leading manufacturer of seismograph equipment for the construction, mining, quarrying and demolition fields.

Booth #405
Nucor Skyline
www.nucorskyline.com
Nucor Skyline supplies and manufactures an unparalleled assortment of Bearing Piles, Sheet Piles, Pipe, Accessories, Anchors, Micropiles, Tie Rods and Structurals.

Booth #514
Pile Dynamics, Inc. and GRL Engineers, Inc.*
www.pile.com
Pile & GRL provide QA products and services for the Deep Foundations Industry, including Dynamic Load Testing; Foundation Integrity Testing; Pile Driving Monitoring; Wave Equation Analysis; Shaft Verticality and Cleanliness Assessment, Remote Data Analysis, and more.

Booth #505
Portland Cement Association
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.

Booth #339
PPI Pipe America
www.ipvcpipe.com
Innovative PVC water piping system to provide quality and durability for safe and clean drinking water for mankind's health and well-being.

Booth #240
Prime Resins
www.primeresins.com
Prime Resins is a leading manufacturer of chemical grouts, foams, adhesives and coatings for infrastructure repair and protection. We provide solutions for problems in structural repair, leak sealing, coating/lining, slab lifting, and soil stabilization.

Booth #238
Project X Corrosion Engineering
www.projectxcorrosion.com
Our Caltrans accredited, NACE certified, licensed professional engineers & metallurgists offer soil corrosivity & thermal resistivity testing services with 3 day turn-around. We also offer corrosion control recommendations.

Booth #332
QSP Packers LLC
www.qsppackers.com
QSP Packers is a Mfg./Supplier of Inflatable & Mechanical Packers used for Wireline Permeability Testing, Pressure Grouting, & Freeze Plugs. Sold Worldwide.

Booth #224
Rite Geosystems Inc.
www.ritegeosystems.com
Rite Geosystems supplies high quality and durable automated instrumentation for long term safety monitoring. Rite Geosystems offers geotechnical and structural monitoring solutions to mega-structure projects.

Booth #425
Rocscience Inc.*
www.rocscience.com
Founded in 1996, Rocscience is a global leader in developing innovative 2D & 3D software for civil, mining, and geotechnical engineers.

Booth #431
Roctest Ltd
www.roctest.com
Roctest is a world leading developer and manufacturer of monitoring and testing equipment including vibrating wire and fiber optic sensors as well as soil pressuremeters and rock dilatometers.

Booth #241
RRC Power & Energy, LLC
www.rrccompanies.com
RRC has provided Geotechnical Engineering, CMT Services, and advanced numerical modeling for the Renewable and Power Deliver Industry for over 15 years in 30+ states.

Booth #219
Seequent, a Bentley Company
www.seequent.com
Seequent, a Bentley company, is a world leader in the development of powerful geoscience analysis, modelling, and collaborative software to understand the subsurface for better engineering.

Booth #539
Senceive
www.senceive.com
Leaders in wireless remote condition monitoring technology. Smart sensors monitor ground and structural movement, landslides, rail track movement and provide real-time, automated alerts.

Booth #527
Sigicom Inc.
www.sigicom.com
Sigicom is the leading supplier and manufacture for autonomous and innovative measuring instrumentation for vibration, noise and Geotech with accompanying cloud software for presentation and reporting.

Booth #133
Smart Infrastructure Group
www.smart-infrastructure.com
AFT, RADISE and Smart Structures provides Transformational, Innovative and Resourceful engineering consulting services for Civil Infrastructure; Statnamic Load Testing, Geotechnical Engineering, and Pile Driving Analyzer.

Booth #519
Solmax*
www.solmax.com
Solmax is a leader in sustainable construction solutions for civil and environmental infrastructure. Its products separate, contain, filter and drain essential applications. Founded in 1981, Solmax has grown through acquisition into the world's largest geosynthetics company, with more than 2,000 employees.

Booth #229
Sonitus Systems
www.sonitussystems.com
Creating better environments for people to live and work. Sonitus Systems protect people and property in their living and working environments. We enable customers to make better decisions through insightful analytics, deep understanding and trustworthy products.

Booth #109
Tensar
www.tensarcorp.com
At Tensar, we love solving earthwork problems with innovative, resilient solutions and sharing that passion with others. We're here to support you with proven technology, proven project successes, and greater total value that delivers proven savings.

Booth #125
Terra Insights*
www.terrainsights.com
Terra Insights is powered by the trusted and globally experienced brands RST Instruments, Measurand, 3vGeomatics, and Syscom Instruments. By Combining the unique strengths of each brand, Terra Insights has built a comprehensive platform of geotechnical, structural, and geospatial monitoring technology, along with purpose-built data delivery solutions.

Booth #314
Terra Sonic International
www.terrasonicinternational.com
Terra Sonic International is the only sonic drill rig manufacturer in the world that is committed exclusively to sonic drilling technology—Sonic Rigs, Sonic Heads, and Terra Sonic Tooling.

Booth #330
Terracon Consultants, Inc.*
www.terracon.com
Terracon is an employee-owned consulting engineering firm with more than 5,000 employees providing environmental, facilities, geotechnical, and materials services in all 50 states.

Booth #430
Texas Department of Transportation
www.txdot.gov/careers
Headquartered in Austin, the Texas Department of Transportation (TxDOT) is organized by administration, districts and divisions. TxDOT's workforce is made up of engineers, administrators, financial experts, designers, architects, sign makers, accountants, purchasers, maintenance workers, travel counselors and many other professions who work together to realize the TxDOT mission: Connecting you with Texas.

Booth #500
The Reinforced Earth Co.*
www.reinforcedearth.com
For half a century, our engineers have led the industry in researching and advancing the MSE technology, while building on our array of solutions. At RECo, we are engineers, manufacturers, project managers, and team players.

Booth #403
Trautwein GeoTAC
www.geotac.com
GeoTAC provides equipment for automated geotechnical testing including: Sigma-1™ and GeoJac™ load frames, DigiShear™ direct and simple shear, DigiFlow™ pumps, and TestNet™ data acquisition systems.

Booth #528
Vacmasters
www.vacmasters.com
Vacmasters is the leading manufacturer of Air-Vacuum Excavation systems throughout the United States. When jobs require potholing or daylighting services, nothing can beat the power and reliability of a Vacmasters system!

Booth #538
Vertek*
www.ara.com
Born as a Cone Penetration Test (CPT) provider nearly 40 years ago, ARA's Vertek is a leading manufacturer of modular, track, and truck CPT systems for every application.

Booth #524
VJ Tech Ltd
www.vjtech.co.uk
Since 1991, UK based VJ Tech Ltd. has supplied high-quality soil testing instruments to civil engineering companies & research institutions located in over 85 countries.

Booth #515
Williams Form Engineering Corp.
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.

Booth #420
WSP USA*
www.wsp.com
WSP 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.

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Monday, March 27

ASCE FOUNDATION

"Strengthening the Future of Civil Engineering: An Update from the ASCE Foundation"

10:15 a.m.

Presented by Katrina Dunn, ASCE Foundation

Discover the ASCE Foundation's recent achievements and initiatives in supporting civil engineers. Learn how your support can help create lasting impact and join us in building a stronger tomorrow for the geo-industry through innovation, collaboration, and investment.

DEEP EXCAVATION

Deep Excavation LLC

12:15 pm

"Deep Excavation and Entire 3D Cities for Subway Models"

Attention engineers! Join us for an exciting 30-minute presentation where Dimitrios Konstantakos will showcase the most effective ways to design deep excavations with three analysis methods using the powerful DeepEX software. During the presentation, you'll gain invaluable knowledge on how to quickly model entire new subway lines and estimate planning level construction and operational costs. By attending, you'll learn how to optimize your design process and increase your efficiency by using cutting-edge software solutions. Don't miss this exclusive opportunity to stay ahead of the game in your field. Come join us and discover the best practices to successfully tackle complex engineering projects with confidence.

ITASCA™

Itasca Consulting Group

2:45 pm

Jim Hazzard, Software Manager at Itasca, will present Itasca's new FLAC2D software. FLAC2D is a re-imagined version of the well-known FLAC program used for more than 30 years in civil and geotechnical engineering simulations. The new FLAC2D has been completely overhauled to present a modern look and feel, while retaining the accuracy and robustness of the classic FLAC program.

The demonstration will include live model building, solving, and interpretation and will highlight new features such as easy unstructured meshing, faster and easier fluid flow analyses, dynamic simulations with liquefaction, structural support elements and python scripting.

SEEQUENT

Seequent, a Bentley Company

3:30 pm

"Discover the Power of SLOPE3D for 3D Rock and Soil Slope Stability Analysis" presented by Marina Trevizolli

Transforming the way rock and soil slopes are analyzed, with a cutting-edge, interoperable solution that empowers geotechnical specialists to make confident and data-driven decisions is the mission of SLOPE3D from GeoStudio. The solution provides more reliable, effective, and scalable 3D analysis to enhance the safety, efficiency and cost-effectiveness of mining and infrastructure projects. During this demo we will present the new 3D slope stability software of GeoStudio, its powerful integration with Leapfrog for modeling real-world conditions and how we can minimize uncertainties in 2D by incorporating 3D factor of safety evaluation.

Tuesday, March 28

Geosetta

12:15 pm

"Support Your Practice, Education, and Profession with Open and Shared Geotechnical Data" presented by Ross Cutts, P.E., M.ASCE, of Geosetta, and Allen Cadden, P.E., D.GE, M.ASCE of Schnabel Engineering

Geotechnical data is crucial for engineering analysis and design, but it often comes at a substantial cost to owners. However, geotechnical data from prior investigations is an engineering resource that is frequently overlooked and underutilized. Despite being legally accessible through FIOA requests, most local, state, and federal agencies do not have the resources to digitize, organize, and manage their geotechnical data in a useful database. This results in engineers starting investigations from scratch at additional expense to taxpayers and owners. Geosetta, a non-profit organization, aims to address this issue by aggregating all publicly available geotechnical datasets into a single, easy-to-use database. This not only eliminates the need for extensive paperwork to access valuable historical data but also opens the door to machine learning applications for geotechnical engineering. As more government agencies contribute data to the Geosetta database, the potential for machine learning in geotechnical engineering continues to grow. As a nonprofit, Geosetta provides a resource for students, faculty, and practitioners to bring geotechnical engineering into the digital age. The publicly available tools in Geosetta provide a glimpse into the future of geotechnical engineering and offer an opportunity for engineers to access and interpret data more efficiently.

Move into the future with reliable measurements
KYOWA
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Kyowa Americas Inc.

2:45 pm

Takahiro James Hara, Sales Engineer from Kyowa Americas Inc., will present KYOWA products line-up and test application example especially for civil engineering field. "KYOWA" has been one of the leading manufacturers of stress and strain measurement equipment for over 70 years. KYOWA's representative products are strain gage, signal transducers - ex. soil pressure sensor, ground inclinometer and data acquisition units. These products have been part of structural strength testing and fatigue analysis work in scientific and industrial field. During presentation, brief demonstration will be shown with KYOWA strain gage and some signal transducers with our software system for real time data recording and post analysis work.

GEOTECHTOOLS

Geo-Institute

"The Benefits of Two G-I Web Tools for Earth Retention and Ground Improvement; IDEA + GeoTechTools"

3:30 p.m.

Presented by Jeffrey H. Greenwald, P.E., Project Manager for the Geo-Institute

Innovations, Developments, Enhancements, Advancements (IDEA) is a protocol for Earth Retention System (ERS) evaluations. The emphasis of the IDEA program is on innovation and is designed to check ERS compliance with the standard of practice and evaluate aspects of the system that advance the state of the practice. On the other hand, GeoTechTools is a comprehensive, web-based, interactive selection system focused on ground improvement technologies. This information system addresses all decision-making phases — from planning to design to construction — when selecting a geotechnology for a project. It is a catalog of technologies that includes more than 50 different ground improvement and geoconstruction methods.

Geo-Institute of ASCE

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December 4-8, 2023

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Questions:

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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 2023 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.

Badge Policy

Your name badge is your admission to the congress. Please wear your badge at all times while in the Los Angeles Convention Center. We do suggest removing it upon exiting the building.

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.

Health & Safety

ASCE strongly encourages you to be fully vaccinated against COVID-19, wear masks if desired or immunocompromised, and take safety precautions to protect yourself and fellow attendees.

Any attendee who is experiencing COVID-19 symptoms or any concerns they have been infected may not attend in-person activities, but instead should isolate in accordance with CDC protocols.

ASCE will continue to monitor the CDC COVID-19 Community Levels and adjust protocols as necessary.

COVID-19 Attendance Policy

Please be aware that an inherent risk of exposure to COVID-19 exists anywhere other people are present. Any person who chooses to travel to and/or participate in this conference:

- acknowledges that they are aware of the inherent risk of exposure to the COVID-19 virus while attending the conference;
- recognizes that COVID-19 is a highly contagious disease that can lead to severe illness and death;
- assumes all risks arising from their decision to attend, including but not limited to infection from other vaccinated or unvaccinated participants, hotel staff, hotel guests, or other persons; and waives liability against ASCE, its officers, directors, employees, agenda, contacts and volunteers for any loss, damages, or suffering related to exposure to COVID-19.

By virtue of their attendance, all attendees agree to comply with all safety procedures established by ASCE as well as any other protocols put in place by the host sites, travel facilities, or any other applicable authorities.

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 Los Angeles Convention Center 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

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