Monday, March 27, 2023

8:00 – 8:30 a.m.	**Welcoming Remarks from…**
8:30 – 10:00 a.m.	**Geo-PIT: Powerful,** *Informative Talks on Geotechnical Topics*
10:00 – 10:30 a.m..	**Morning Networking Break**
10:30 a.m. – 3:00 p.m.	**Student Competitions**
10:30 a.m. – 12:00 p.m	**Technical Sessions**

Track A | Room	Track B | Room	Track C | Room	Track D | Room		Track E | Room	Track F | Room	Track G | Room
Pavements **Moderator:** Alexandra Clara Saracho and Halil Ceylan	**Data** **Moderator:** Chukwuebuka Nweke	**Geophysics and Ground Motion** **Moderator:** Kristin Ulmer and Khiem Tran	**Numerical and Soil Modeling** **Moderator: Estefan Garcia and Ryan Beemer**		**Geosynthetics / Landfills** **Moderator:** Lois Schwarz and Bernardo Castellanos	**Unmanned Aerial System (UAS) Applications for Infrastructure Health Monitoring and Geotechnical Asset Management** **Moderators:** Anand Puppala, Sissy Nikolaou, Derrick Dasenbrock, and Christine Beyzaei	**Session Title TBA**
Performance Evaluation of Base Course Gravel and Fine Subgrade Combinations for In-situ Cementitious Stabilisation of Pavements, Greg White **Composite Resilient Modulus of Geogrid Stabilized Pavement Foundation,** Prajwol Tamrakar **Mechanistic Analysis and Design of Mixtures and Pavements Using a Two-way Coupled Multiscale Computational Modeling,** Yong-Rak Kim **Sustainable Unpaved Roadway Design with Multi-Axial Geogrid for A Windfarm Project,** Alec Anderson **Negative Effect of Tannic Acid on the Strength of Cement-stabilized Soil,** Sherif Abdelaziz **Numerical Analysis of Hydraulic Conductivity Effect on the Utilization of Recycled Asphalt Pavement in Highway Design,** Asli Yalcin Dayioglu	**DEM-MBD Coupled Simulation of a Burrowing Robot in Dry Sand,** Sarina Shahhosseini **High-Pass Corner Frequency Selection for Implementation in the USGS Automated Ground Motion Processing Tool,** Maria Ramos-Sepulveda **Soil Moisture Characterization from UAV based Optical and Thermal Infrared (TIR) Images,** Rakesh Salunke **Increasing Data Transfer Efficiency and Accuracy Through DIGGS: Expanding DIGGS to Include Soil Permeation and Compaction Grouting,** Amanda Wachenfeld **Application of Distributed Fiber Optic Sensing for Subsurface Levee Monitoring, R. Andrew Yeskoo** **Relational Database for California Strong Ground Motions,** Tristan Buckreis	**Ground Motion Models for Inelastic Spectra using NGA-West2 Database,** Mahdi Bahrampouri **Development and Verification of Non-ergodic Ground-Motion Methodologies and Modeling Tools,** Grigorios Lavrentiadis **Surface Wave Site Characterization with MATLAB and Geopsy,** Dennis Hiltunen **Reliability of Shallow Bedrock Depth Determination from HVSR Measurements in Central Missouri,** Brent Rosenblad **Numerical Investigation of Full Waveform Tomography to Identify Anomalous Conditions and Untreated Zones in Jet Grout Columns,** Joseph Coe **Reducing Mode Assignment Errors in Surface Wave Inversion for Sites with a Very Shallow Impedance Contrast Using Love Type Surface Waves,** Salman Rahimi	**Modeling Cracks in Clay at the Nanoscale Through Molecular Dynamics,** Xiaoyu Song **A Comparative Study on the Performance of CFD/LBM-DEM Coupling in Predicting Soil Fluidization,** Thanh Nguyen **Hybrid Finite Element and Material Point Method to Simulate Granular Column Collapse from Failure Initiation to Runout,** Brent Sordo **A Multi-phase Field Model for Simulating Ice Lens Growth and Thawing in Frozen Porous Media,** Hyoung Suk Suh **Influence of Time-Dependent Soil Thermal Conductivity on Performance Assessment of Energy Foundations,** Arjun Sivaprasad **Exploring Box Fixity and Platen Texture in Large-Scale Direct Shear Testing,** Nicholas Culbreth		**Carbon Emissions Quantification of Landfill Final Cover Systems,** Rutuparna Joshi **Chemico-osmotic Coefficients of Geosynthetic Clay Liners Under Different Confinement Conditions,** Francesco Mazzieri **Effects of Leachate Recirculation Systems on Slope Stability of Bioreactor Landfills,** Anumita Mishra **Development of Cation Exchange Processes in Geosynthetic Clay Liners,** Kurt Katzenberger **Climate Impacts of Trace Gas Emissions from Solid Waste Landfills,** James Hanson **Coupled Thermo-Hydro-Mechanical Shear Behavior of Interfaces Between Geomembranes and Geosynthetic Clay Liners,** Juan Hou		

12:00 – 1:00 p.m..	**Lunch in Exhibit Hall**
1:00 – 2:30 p.m.	**Technical Sessions**

Track A | Room	Track B | Room	Track C | Room	Track D | Room		Track E | Room	Track F | Room	Track G | Room
Unsaturated Soils **Moderator:** XXXXX and Soonkie Nam	**Engineering Geology** **Moderator:** Diane Moug and Clint Wood	**Geoenvironmental** **Moderator:** Theresa Loux and Melissa Beauregard	**Machine Learning** **Moderator:** Paolo Zimmaro and Pelin Ozener		**Soil Improvement** **Moderator:** Aaron Gallant and Mike Gomez	**Next Generation Liquefaction (NGL) Model Development** **Moderator:** Kristin Ulmer	**Session Title TBA**
Unified Consolidation-Creep-Collapse Phenomena in an Unsaturated Sand-Bentonite Mixture, Mohsen Ajdari **An Experimental Investigation of Thermally Induced Hydraulic Hysteresis in Frozen Unsaturated Silts,** Tugce Baser **Suction Volume Change Indices for Natural and Recompacted Clay Soils,** Austin Olaiz **Centrifuge Modeling to Estimate p-y Curves in Unsaturated Cohesionless Soils,** Majid Ghayoomi **Prediction of the Non-isothermal Shrinkage of Clayey Soils through a Fully Coupled Thermo-Hydro-Mechanical Model,** Omid Ghasemifare **Stability Analysis of Unsaturated Slopes Stricken by Wildfires,** Masood Abdollahi	**Potential Applications of Hyperspectral Imaging on Weak Rock Degradation Studies in Engineering Geology,** Lena Selen **Application of Geostatistical Sequential Simulation Methods for Probabilistic 3D Subsoil Modeling and Uncertainty Quantification: Concept and Examples,** Andreas Witty **Evaluation of the Maximum-Likelihood Estimates of Site Fundamental Frequencies for a Subset of KiK-net Strong Motion Data,** Mohammad Yazdi **Using MASW and Soil Borings to Characterize Heterogeneity of an Existing Solid Waste Landfill,** Kevin Foye **Simplified Calibration Procedure for Total Earth Pressure Cells,** Will Baker **Methods for Enhancing Uniformity of Biocementation Treatment in Sand,** Jian Chu	**Bioashes and Steel Slug as Alternative Binders in Ground Improvement of Quick Clays,** Priscilla Paniagua **Potential on Carbon Dioxide Utilization to Improve Recycled Concrete Aggregates and Reduce Carbon Footprint,** Seunghee Kim **Coal Combustion Residuals Geotechnical Behavior Under Dewatering Activities,** Jaime Mercado **Geoenvironmental Condition Improvement by Using Microbial Fuel Cell,** Azizul Moqsud **Landfill Odor (Hydrogen Sulfide) Control Using Novel Biogeochemical Cover System,** Krishna Reddy **Thermo-Hydro-Mechanical Response of an Advanced Geothermal Energy Storage System in a Sedimentary Basin,** Tugce Baser	**A Machine Learning Approach to Predicting Pore Pressure Response in Liquefiable Sands under Cyclic Loading,** Yongjin Choi **Data-Driven Modeling of Seismic Energy Dissipation of Rocking Foundations Using Decision Tree-Based Ensemble Machine Learning Algorithms,** Sivapalan Gajan **Physics-guided Machine Learning in Geotechnical Earthquake Engineering: Progress, Gaps, and Opportunities,** Katherine Cheng **Effect of Machine Learning Algorithms on Detection of Landslides Caused by the 2015 Lefkada Earthquake,** Jhih-Rou Huang **A Machine Learning-Based Approach for Predicting Structural Settlement on Layered Liquefiable Soils Improved with Densification,** Yu-Wei Hwang **CPT-based Soil Classification Through Machine Learning Techniques,** Sara Khoshnevisan		**Instrumented Testing of Soft Clay Behaviors for the Savannah Container Terminal,** Yan Jiang **Reliability Analysis of Polyvinyl Alcohol Fiber-Reinforced Soft Subgrade Soil treated with Lime and Alkali Activated Stabilizer: A comparative Study,** Bhaskar Chittoori **Dynamic Compaction: A Proven Ground Improvement Method for Landfill Sites,** Chris Woods **Effect of Exposure to Water at Different Temperatures During Curing on the Strength of Cement-treated Soil,** Sherif Abdelaziz **Study on Crosslink-Induced Gelation of Xanthan Gum Biopolymer and Its Soil Strengthening Behavior as Sustainable Grout Material,** Gye-Chun Cho **Experimental Evaluation of Stress Path of Weak Foundation Soil Reinforced with Recycled Plastic Pins,** Faria Fahim Badhon		

2:30 - 3:00 p.m.	**Afternoon Networking Break**
2:30 - 4:30 p.m.	**Poster Session**
5:00 - 6:30 p.m.	**Shamsher Prakash Lecture**
6:30 - 9:00 p.m.	**Off-site Event — TBA**

Tuesday, March 28, 2023

8:00 – 10:00 a.m.	**Plenary Session,** *Geo-PITs, Student Competition Awards*
10:00 – 10:30 a.m.	**Morning Networking Break**
10:30 a.m. – 12:00 p.m.	**Technical Sessions**

Track A | Room	Track B | Room	Track C | Room	Track D | Room		Track E | Room	Track F | Room	Track G | Room
Major Projects and Case Histories **Moderator:** Brian Zelenko and Kord Wissmann	**Liquefaction** **Moderator:** Ramin Motamed	**Thermal** **Moderator:** David Frost and Idil Akin	**Deep Foundations** **Moderator:** Ravee Raveendra and Hannah Iezzoni		**Mitigation of Wildfire Effects Using Naturally-Sustainable Practices** **Moderator:** Ghada Ellithy	**Master Planning for Inclusion, Diversity, Excellence, and Advancement (IDEA) In Infrastructure** **Moderator:** Amber Spears	**Session Title TBA**
Liquefaction Remediation of Port of San Diego's B Street Pier Facility Using Deep Soil Mixing, Matteo Montesi **Geotechnical Challenges Associated with the Design of the REM Project in Montreal,** Riad Diab **Effects of Tar on CPT and Shear Wave Velocity Correlations for the LA Metro Purple Line (D-Line),** Taki Chrysovergis **Computational Back-analysis During Excavation of the Regional Connector Cavern,** Haotian Zheng **Preliminary Development of Sinkhole Hazard Charts for Stormwater Pond Flooding in the Silver Springs Recharge Basin, Marion County, Florida, USA,** Ryan Shamet **Semi-Empirical Method for Excavation-Induced Surface Displacements – Los Angeles Metro K Line Crenshaw/LAX Transit Project,** Charbel Beaino	**Reactive Transport Model to Evaluate Process Performance of Bio-mediated Liquefaction Mitigation Underneath Existing Structures,** Patrick Kwon **Kriging Interpolation of Ground Motion Residuals at Liquefaction Case History Sites,** Kenneth Hudson **Liquefaction Strength of Ottawa Sand: CDSS Experiments and ANN Modeling,** Sarra Lbibb **Importance of Advanced Analyses in Liquefaction Hazard Studies,** Brian Carlton **Use of Geostatistical Analyses for Characterizing Variability in NGL Database Lateral Spreads,** Bret Lingwall **An Expanded Dataset of Overburden (Kα) and Initial Static Shear Stress (Kσ) Correction Factors Values from Published Cyclic Laboratory Tests for Liquefaction Triggering Analyses,** Kristin Ulmer	**Evolution of Shaft and Tip Resistances in Energy Piles throughout a Full Heating-Cooling Cycle,** Dunja Peric **Erosion Potential of Frost-Susceptible Soils Subjected to Freeze-Thaw Cycles,** Tejo Bheemasetti **Effect of Freezing-Thawing on the Preconsolidation Pressure of Clays,** Seyed Morteza Zeinali **Frost Susceptibility Evaluation of Clay and Sandy Soils,** Mohammad Wasif Naqvi **Development of a Temperature-Controlled Direct Shear Box for Frozen Samples,** Beena Ajmera **Effect of Thermal Volume Change on the Permeability of Kaolin Clay During a Heating-Cooling Cycle,** Omid Ghasemi-Fare	**Karst Resistant Deep Foundation System — A Case History,** Matthew Dettman **Optimal Design of a Deeply Embedded Ring Anchor in Soft Clay Overlying Bedrock under Vertical Loading,** Ragini Gogoi **Comparative study on performance of CFA piles and Drilled Shafts in Dos Bocas, Mexico,** Chulmin Jung **Axial Response of Driven Steel Pile at Clearwater, MN Using Elastic Solution and Seismic Piezocone,** Paul Mayne **A Numerical Approach to Correlate Energy Performance of Protype and Model-Scale Geothermal Piles,** Arvind Tiwari **Evaluation of a Semi-Empirical p-y Model for Caliche Material Based on Numerical Simulations of Field Load Tests in Cemented Soils,** Fahim Mashroor Bhuiyan			
12:00 – 1:00 p.m.	**Lunch in Exhibit Hall**						
1:00 – 2:30 p.m.	**Technical Sessions**						

Track A | Room	Track B | Room	Track C | Room	Track D | Room		Track E | Room	Track F | Room	Track G | Room
Sustainability **Moderator:** Omid Ghasemifare and Pavana Vannapusa	**Geosynthetics** **Moderator:** Mark Wayne and Kristin Sample-Lord	**Earth Retaining Structures** **Moderator:** Jorge Zornberg and Jay McKelvey	**Bio-mitigated** **Moderator:** Hai Lin and Leon VanPaassen		**Underground Construction** **Moderator:** Hanumanth Kulkarni	**Foundation Performance of the Millennium Tower** **Moderator:** Jonathan P. Stewart	**Navigating the New Arctic: A Geotechnical Perspective** **Moderator:** Majid Ghayoomi
FHWA NextScour Case Studies: Bridging Hydraulic Loads with Soil Erosion Resistance, Daniel Alzamora **Impact of Surface Roughness Measurements on the Erosion Function of Soils,** Jennifer Nicks **Development of a New Empirical Model for Predicting Underwater Noise Due to Pile Driving,** Raphael Crowley **Laboratory Evaluation of Small Strain Elastic Parameters of Coal Ash from Bender Element Tests,** B Janaki Ramaiah **Review of Life Cycle Assessment Evaluation of Geotechnical Systems,** J.T. DeJong **Application of Environmental Product Declarations in Sustainability of Geotechnical Structures,** Fariborz Tehrani	**Geotextile Filter Design Using Pore Size Distribution,** Richard Sack **Shear Response of Non-Dilative Interfaces: A Micromechanical Perspective,** Lalit Kandpal **Use of Synthetic Energy Absorbing Layer (SEAL) in Rail Substructure to Minimize Track Degradation,** Buddhima Indraratna **Effects of Traffic Loading Magnitude and Frequency on the Performance of Geocell-Reinforced Flexible Pavements,** Aritra Banerjee **Experimental Investigation of the Suitability of 3D Printing for Soil-Continuum Interface Studies,** V.L. Gayathri **Analyzing the Feasibility of Using Shallow Geothermal Energy to Prohibit Pavement Thermal Cracking: Field Testing,** Omid Ghasemi-Fare	**Long-term Field Monitoring of Lateral Loads in Semi-integral Bridge Foundations, Behdad Mofarraj** **Durability Testing of Geogrid in High pH Conditions for Sustainable Alternative MSE Backfill,** Laura Spencer **A Study of the Use of Ultra-Lightweight Foamed Glass Aggregate for Retaining and MSE Wall Backfill,** Theresa Loux **Long Term Performance of Recycled Plastic Pins in Increasing the Base Resistance of MSE Wall Base,** Sehneela Sara Aurpa **Back-to-Back Mechanically Stabilized Earth Walls: Technical Review,** Turki Alsharari **Early Exposure to FEM to Enhance Undergraduate Engagement in Geotechnical Engineering,** Osvaldo Vitali	**Effect of MICP Treatment in Modulus Reduction and Damping Curves on Poorly Graded Sand and Nonlinear Site Response Analysis, Kyunguk Na** **The Effect of the Coefficient of Uniformity on the Dynamic Properties of MICP-Treated Sands,** Marlee Reed **Evaluating Injection Strategies Microbially-induced Calcite Precipitation, and Implications for Applications to Road Structures,** Hudson Dorian **Effect of Bio-cementation on Drained Instability of Poorly Graded Sand with Sub-angular Particle Shapes,** Ehsan Yazdani **A Novel Approach to Control Ice Formation with the Psychrophilic Microbes,** Tejo Bheemasetti **Improving the Effectivity of Dynamic Compaction Methods in Silty Sands Through Microbial Induced Desaturation (MID),** Leon VanPaassen		**Building Stiffness Changes and Response to Excavation-Induced Ground Movements,** A Felipe Uribe-Henao **Application of Particle Image Velocimetry (PIV) Method in Pipe-soil Interaction Problems,** Selcuk Bildik **Numerical Study on the Ground Behavior with Basal Heave During Vertical Shaft Excavation in Clay,** Gye-Chun Cho **An Experimental Program Using Carbon Rod Geometry and Particle Image Velocimetry (PIV) to Investigate the Ground Response Affected by Adjacent Tunneling,** Ilhan Chang **Numerical Study of Multi-lane Surface Loading Effects on Corrugated Steel Culverts Buried in Shallow Cover Depth,** Elham Nakhostin **Augmented, Virtual, and Mixed Reality in Practice,** Travis Shoemaker		
2:30 – 3:00 p.m.	**Afternoon Networking Break**						

Wednesday, March 29, 2023

8:00 – 10:00 a.m.	**Plenary Session,** *Geo-PITs*						
10:00 – 10:30 a.m.	**Morning Networking Break**						
10:00 – 11:30 a.m.	**Panel Session: Changing the Paradigm for Large Landslides: Forecasting Time-to-Failure**						
Track A | Room	**Track B | Room**	**Track C | Room**	**Track D | Room**		**Track E | Room**	**Track F | Room**	**Track G | Room**
10:30 a.m – 12:00 p.m.	**Technical Sessions**						
Slopes **Moderator:** Jack Montgomery and Ben Leshchinsky	**Soil Properties** **Moderator:** Bret Lingwall and Cassandra Rutherford	**Soil Dynamics** **Moderator:** Majid Manzari	**Foundations** **Moderator:** Curt Basnett		**Computational Geotechnics** **Moderator:** Alba Yerro and Ming Xiao	**Sustainability Technical Committee Roundtable** **Moderator:** Fariborz Tehrani and Joel Farrier	**Creating a Thriving Geotech Business – Practical Ideas for Shops of All Sizes** **Moderator:** Danny Cohen
Insights into Seismic Deformation Patterns for Shallow and Deep Sliding Masses using Finite Element Analysis, Yu-Wei Hwang **Inverse Analysis of Cadia Tailings Dam Failure,** Yaakoub Elkhamra **Effects of Initial Consolidation on the Triggering of Static Liquefaction Considering Fabric Effects,** Srinivas Vivek Bokkisa **Validation of Analysis Using Case Histories of Japanese Levees,** Yang Yang **Improvement in Stability of a Tropical Hill Slope Via Mechanical Root Reinforcement,** Ujwalkumar Patil **Landslide Susceptibility Mapping Using Machine Learning Methods: A Case Study in Colorado Front Range, USA,** Tong Qiu	**Using Machine Learning to Predict Soil Shear Wave Velocity,** Longde Jin **Effect of Grain Size of Granular Soils on Shear Wave Velocity and Electrical Resistivity for Levee Health Monitoring,** Brittany Russo **An Evaluation of Incremental, Constant Rate of Strain, and Constant Pressure Ratio Consolidation Testing,** Ryan Lavorati **Shear and Elastic Moduli of Fine-Grained Soils: Impact of Consolidation Pressure and Plasticity Characteristics,** Beena Ajmera **Small-Strain Behavior and Stress Path Rotation Angle Effects of Hawthorn Group Sands in Central Florida,** Alan J.Aparicio Ortube **Effect of Particle Size Distribution on Monotonic Shear Strength and Stress-dilatancy of Coarse-grained Soils,** Mandeep Singh Basson	**Site Characterization Data for Site Response Modeling in Sacramento-San Joaquin Delta Region of California,** Tristan Buckreis **Undrained Cyclic Shear Behavior of Sensitive Saprolite Soil,** Kayla Sorenson **Shear Strain Accumulation and Stiffness Degradation in Coal Ash Under Cyclic Simple Shear Loading Conditions,** Aparna Shrivastava **Assessment of Kinematic Effects of Soil-Structure Interaction for Vertical Translational Motions at Multiple Instrumented Large and Deeply Embedded Foundations,** Peiman Zogh **Insights on the Spatial Area Influencing Seismic Site Response from 2D and 1D Ground Response Analyses at Treasure Island,** Mohammad Hallal **Modified Hyperbolic Model for Dynamic Properties of Peaty Organic Soils,** Pengfei Wang	**Prediction of Liquefaction-Induced Lateral Spreading Structural Demands on Bridge Foundation Using Deterministic and Numerical Methods,** Nadarajah Ravichandran **A p-y Q-z Method for the Analysis of Helical Anchors Under Lateral Load,** Leon Cortes **Predicting the Impacts of Extreme Hydroclimatic Events on the Behavior of Drilled Shafts,** Nadarajah Ravichandran **Load Transfer Mechanism of an Anchor Foundation System Through 3D Finite Element Modeling,** Osvaldo Vitali **Evaluation of Settlement Prediction Methods for Shallow Foundations on Cohesionless Soils,** Sanjay Jha **Seismic Bearing Capacity of an Embedded Strip Footing on Slope using Modified Pseudo-dynamic Method,** Debarghya Chakraborty		**Evaluation of an Experimental-Numerical Workflow for Analysis of Shear Zone Development in Clean Sands,** Estefan Garcia **Numerical Analysis of FFP Impact on Saturated Sands,** Fuat Furkan Yalcin **Comparison of Simple and Advanced Constitutive Models with Column Collapse Simulations in the Material Point Method,** Joel Given **Insights on 2D vs 3D Modelling of Strip Loading on Spatially Varying Random Soil Domain,** Gyan Vikash **3D Modeling of Pile-Supported Wharf Subjected to Liquefaction-Induced Lateral Ground Deformations,** Milad Souri **CFD-DEM Simulation of Riprap on Slopes,** Mostafa Bahmani		**Panel Discussion** Three owners/executives from successful mega, large, and small geotech firms describe how they maintain strong businesses through contract review, risk mitigation, business planning, marketing, networking, industry involvement, association participation, agency engagement, and more. **Panelists:** Noah Smith, Tom Benson, and Yvette Wilson.
12:00 – 1:00 p.m.	**Lunch in Exhibit Hall**						
1:00 – 2:30 p.m.	**Ralph B. Peck Award Lecture**						
1:30 - 6:00 p.m.	**Exhibitor Moveout**						
2:30 – 3:00 p.m.	**Closing Ceremony**						

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 Jim√©nez 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, Val√©rie Fr√©chette

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 Fund√£o 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