



*It's a BIG Deal*

## **We are making a BIG DEAL about Texas Day, being held Friday, May 10 at IFCEE 2024.**

Everyone knows that Texas is big – like it's-practically-its-own-country big. Texans are VERY proud of their home, and they are quick to embrace anything that defines their unique identity. This is true in the foundations world, too, where Texas means everything from soils that shrink and swell to soft shales, hard limestone, and heated discussions about slurry.

Friday, May 10, is Texas Day at IFCEE, complete with Frito pie and technical presentations about things like case histories in Texas and innovative foundation design in Texas' unique environment. There will be a frank

discussion about overdesign of drilled shafts, and the corn hole tournament will pit Texans against each other. Also, look for special Texas-themed features in the exhibit areas.

Don't miss this focused part of the conference, whether you are from the area or just work there. It's going to be .... well ... BIG. (You knew that's where this was going, right?)

- Indoor and Outdoor Exhibits open 8:00 AM – 2:00 PM
- Student Cornhole Competition
- Demonstrations in the Outdoor Exhibits

# Texas Day Schedule: Friday, May 10

## 🏠 Session 4A: DFI Position Statement on Geotechnical Baseline Reports – Special Session

8:00 AM to 9:30 AM Moderator: Mary Nodine, P.E., Federal Highway Administration

## Session 4B: Emerging and Innovative Technologies - Monitoring

8:00 AM to 8:20 AM **New Rapid Nondestructive Testing Method for Detecting and Quantifying Steel Corrosion in Saltwater and Clay Soil Using the Vipulanandan Impedance Corrosion Model**

*Cumaraswamy Vipulanandan, Ph.D., P.E., CIGMAT/University of Houston*

8:20 AM to 8:40 AM **Innovative Uses or Remote Sensing for Geotechnical Performance Verification**

*Allen Cadden, P.E., BC.GE, Schnabel Engineering*

8:40 AM to 9:00 AM **Soil Surface Deformation Measurement Using Photogrammetry Based on a Consumer-Grade Camera**

*Arjan Poudel, Ph.D., University of Texas at Arlington*

9:00 AM to 9:20 AM **Deep Foundation Design When You Can't Dig a Hole?**

*Ashley Shirer, Ph.D., P.E., RPA, GEI Consultants*

9:20 AM to 9:30 AM Discussion

## Session 4C: Ground Improvement - Deep Mixing and Jet Grouting

8:00 AM to 8:20 AM **Development of Measuring Tools Related to the Technique of Jet Grouting**

*Marco Angelici and Valerio Salvi, Crm Srl*

8:20 AM to 8:40 AM **Field Sampling and Testing Procedures For Soil-Cement Mixtures Used In Soil Mixing and Slurry Trenching**

*Daniel Ruffing, P.E., Geo-Solutions, Inc.*

8:40 AM to 9:00 AM **Lake Waconda Levee – Remediation Using the One-Pass Trench Method for a Seepage Barrier**

*Charles Krolikowski, P.E., AECOM*

9:00 AM to 9:20 AM **Structure Connections and Wall Tie-Ins for Cutoff Wall Construction**

*Michael Arnold, Ph.D., BAUER Foundation Corp.*

9:20 AM to 9:30 AM Discussion

## 🏠 Session 4D: Texas Day Is My Drilled Shaft Overdesigned? – Special Session

8:00 AM to 9:30 AM Presenters: Erik Loehr, Ph.D., P.E., University of Missouri; Paul Axtell, P.E., Dan Brown and Associates; and Silas Nichols, P.E., Federal Highway Administration

## Session 5A: Drilled Foundations - Case Histories Micropiles

Moderators: Howard Perko, Magnum Piering, and Ed Laczynski, Wagman Heavy Civil Construction

11:00 AM to 11:20 AM **Hines Maple Terrace, Dallas, Texas**

*Chelsea Hoplin, P.E., GEI Consultants, and Ryan Watson, P.E., Orduno Design Services*

11:20 AM to 11:40 AM **734 15th Street, Washington, DC – MCAAD Micropiles**

*Michael Bianco, P.E., Nicholson Construction Company*

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- 11:40 AM to 12:00 PM** **Helical Pile Underpinning of a Raised, Wooden Restaurant**  
*Kevin Baumgartner, P.E., and Valerie Vasquez, E.I.T., Magnum Geo-Solutions*
- 12:00 PM to 12:20 PM** **Helical Piles for Support of High-Level Platforms in a Cohesive Soil Deposit**  
*Russell Preuss, P.E., Gannett Fleming*
- 12:20 PM to 12:30 PM** **Discussion**

## **Session 5B: Earth Retention - Earth Retention Analyses**

**Moderators: Mike Muchard, Malcolm Drilling, Mike McNicolas, Keller North America**

- 11:00 AM to 11:20 AM** **Numerical Analysis to Investigate the Static and Dynamic Performance of GRS Bridge Abutments**  
*Vahid Alizadeh, Ph.D., P.E., Fairleigh Dickinson University*
- 11:20 AM to 11:40 AM** **Uncoupled Limit Equilibrium Analysis of Embedded Walls**  
*Garry Gregory, Ph.D., P.E., S.E., BC.GE, Gregory Geotechnical*
- 11:40 AM to 12:00 PM** **An Updated Effective Stress ( $\beta$ HBM) Method for Predicting Hollow-bar Micropiles' Pullout Capacity in Sandy Soils**  
*Mohammad Ahsanuzzaman, P.E., Terracon Consultants Inc.*
- 12:00 PM to 12:20 PM** **Effective Shaking of Bridge Piers on Deep Foundation in Liquefiable Ground**  
*Patrick Wilson, Ph.D., P.E., Earth Mechanics, Inc.*
- 12:20 PM to 12:30 PM** **Discussion**

## **Session 5C: Recent Developments in Applications of Rigid Inclusions – Special Session**

**11:00 AM to 12:30 PM** *Session Sponsors: Geo-Institute Soil Improvement Committee*

## **Session 5D: Ground Improvement - Biopolymers**

- 11:00 AM to 11:20 AM** **The Role of Biopolymers in Enhancing Granular Media Shear Strength: A Comparative Analysis**  
*Mohamed Alassal, Virginia Tech University*
- 11:20 AM to 11:40 AM** **The Durability of Biopolymer Treated Sands to Cyclic Drying and Wetting: Mechanisms of Sample Deterioration.**  
*Mohammadhasan Sasar, Ph.D., Virginia Tech University*
- 11:40 AM to 12:00 PM** **Short-term Changes in Soil Aggregate Stability in Biopolymer-amended, Coarse-Grained sSoil**  
*Daniel Smith, Ph.D., Virginia Tech University*
- 12:00 PM to 12:20 PM** **Using Liquid Polymer to Grout Soil with High Fine Contents**  
*Jie Huang, Ph.D., The University of Texas at San Antonio*
- 12:20 PM to 12:30 PM** **Discussion**