GEO-INSTITUTE
Connecticut Valley Chapter

2025 Spring Geotechnical Seminar
TPC River Highlands
Cromwell, Connecticut
April 25, 2025

ASCE
CONNECTICUT SOCIETY OF CIVIL ENGINEERS SECTION
Since 1884

The 2025 Spring Geotechnical Seminar explores the use of advanced computing tools and artificial intelligence for geotechnical applications. Seven (7) New York State PDHs will be offered.

Questions and discussion will follow each presentation.

7:00 AM - 7:30 AM	**Exhibitor Setup**
7:30 AM - 8:10 AM	**Full Breakfast & Registration**
8:10 AM - 8:20 AM	**Welcome, Announcements, and Opening Remarks**
8:20 AM – 9:00 AM	**Challenges and Opportunities for Numerical Modeling in Geotechnical Engineering in the time of Machine Learning and AI** Juan M. Pestana, Sc.D., P.E., BC.GE., F.ASCE, of Geosyntec Consultants and Tufts University
9:00 AM – 9:30 AM	**Advancing Regional Landslide Risk Assessment with Integrated AI-Physics Solutions** Xin Wei, Ph.D., of University of Michigan
9:30 AM – 10:00 AM	**Cross-Scale Mechanical Characterization of Rock via Big Data-Based Nanoindentation** Shengmin Luo, Ph.D., A.M.ASCE, of Western New England University
10:00 AM - 10:30 AM	**Morning Break with Exhibitors and Refreshments**
10:30 AM - 11:05 AM	**A State-of-the-Art Surface Wave Analysis Technique for Investigating the Root Cause of a Cracking Slab: A Case History** Antonios Vytiniotis, Ph.D., P.E. and Seda Gokyer Erbis, Ph.D., P.E., of Geocomp
11:05 AM – 11:35 AM	**Large Language Model (LLM) Applications in Geotechnical Engineering** Steve Chai, M.Asc., P.Eng., of Rocscience
11:35 AM - 12:15 PM	**Practical Generative AI Applications in Geotechnical Design** Nick Machairas, Ph.D., of Haley & Aldrich
12:15 PM - 1:10 PM	**Lunch with Exhibitors + Golf Putting Tournament**
1:10 PM - 1:20 PM	**Presentation of 2025 GEO-CT Student Scholarship Awards**
1:20 PM - 1:50 PM	**Generative AI Workshop** Nick Machairas, Ph.D., of Haley & Aldrich
1:50 PM - 2:20 PM	**The Ethics of Artificial Intelligence in Engineering** Frederick E. Hedberg, Esq., P.E., of Robinson + Cole
2:20 PM – 2:50 PM	**Afternoon Break with Exhibitors**
2:50 PM - 3:25 PM	**AI-Driven Approach in Creating a Historical Subsurface Data Asset** Scott L. Deaton, Ph.D., of Dataforensics
3:25 PM – 4:00 PM	**New Developments in Transportation Geotechnics: Digital Geotechnical Tools, Processes, and Workflow** Derrick Dasenbrock, P.E., BC.GE, F. ASCE, of the Minnesota Department of Transportation
4:00 PM	**Closing Remarks & PDH Processing**