



# GEO-CHICAGO 2016

**“Sustainability, Energy, and the Geoenvironment”**

**Sheraton Hotel & Towers, Chicago, USA, August 14-18, 2016**

## CALL FOR ABSTRACTS

### ABOUT THE CONFERENCE

*On behalf of the Geoenvironmental Engineering Committee of the Geo-Institute (GI) of American Society of Civil Engineers (ASCE), you are invited to submit abstracts for Geo-Chicago 2016: Sustainability, Energy, and the Geoenvironment, which will be held in downtown Chicago on August 14-18, 2016.*

All submitted technical papers will be peer-reviewed and, if accepted, published as part of the conference Proceedings, which will be a Geotechnical Special Publication (GSP). Papers published in a GSP are indexed in the Civil Engineering database, Google Scholar, and similar databases.

The theme of Geo-Chicago 2016 is *Sustainability, Energy, and the Geoenvironment* and it will feature the latest research advances and engineering-practice innovations with a focus on characterization, modeling, design, construction, and field performance. The conference will include a wide range of knowledge-enhancing technical sessions, short courses, workshops, and technical tours. Around 600 U.S. and international participants from academia, industry, and government agencies are expected to attend the conference.

### PROGRAM OVERVIEW

A number of activities are envisioned for the Geo-Chicago 2016 program, including:

- ✓ Keynotes/State-of-the-Art/State-of-the-Practice lectures
- ✓ Workshops and short courses
- ✓ Technical sessions
- ✓ Panel discussions
- ✓ Technical sessions honoring legends
- ✓ Posters
- ✓ Exhibitors
- ✓ Technical tours
- ✓ Social and networking opportunities
- ✓ Post-conference voluntary work
- ✓ Student program

*This is the perfect opportunity to expand your technical knowledge while experiencing the dynamic city of Chicago.*

[geoenvironmentconference.org](http://geoenvironmentconference.org)

# CALL FOR ABSTRACTS

## YOU ARE INVITED

...to submit an abstract to any of the technical topics listed in this document. Abstracts without all the details requested below *may not* be considered:

- Abstracts must be between 300 to 500 words.
- Abstracts must identify the name of the session to which the paper is submitted.
- Abstracts must include the full formal names, credentials, affiliations and email addresses for all authors, and full contact information for the corresponding author.
- Abstracts (and all the requested details) must be uploaded to the online MIRA Submission System:  
<http://submissions.mirasmart.com/ASCE/GeoChicago2016/Login.asp>
- Abstracts are due by May 15, 2015.

## DEADLINES

### Abstracts Due:

.....**May 15, 2015**

Abstract Decisions Complete:  
..... June 19, 2015

Draft Papers Due:  
..... August 20, 2015

Draft Paper Decisions Complete:  
..... November 20, 2015

Final Papers Due:  
..... January 8, 2016

Final Paper Decisions Complete:  
..... March 4, 2016

## The Program Committee will answer your questions regarding:

### ...the technical program. Contact:

- Dimitrios Zekkos (zekkos@geoengineer.org), *University of Michigan*
- Arvin Farid (arvinfarid@boisestate.edu), *Boise State University*
- Anirban De (anirban.de@manhattan.edu), *Manhattan College*

### ...other general inquiries. Contact:

- Krishna Reddy (kreddy@uic.edu), *University of Illinois at Chicago*
- Nazli Yesiller (nyesille@calpoly.edu), *GWRI/Cal Poly State University at San Luis Obispo*

## CONFERENCE PROCEEDINGS

All submitted technical papers will be peer-reviewed and, if accepted, published as a Geotechnical Special Publication (GSP). Papers published in the GSP are indexed in the Civil Engineering database, Google Scholar, and similar databases.

## Geo-Chicago 2016 Program Committee

- **Conference Chair:** Krishna Reddy (kreddy@uic.edu), *University of Illinois at Chicago*
- **Conference Co-Chair:** Nazli Yesiller (nyesille@calpoly.edu), *GWRI/Cal Poly State University at San Luis Obispo*
- **Technical Program Chair/Proceedings Editor:** Dimitrios Zekkos (zekkos@geoengineer.org), *University of Michigan*
- **Technical Program Co-Chairs/Proceedings Co-Editors:** Arvin Farid (arvinfarid@boisestate.edu), *Boise State University*; and Anirban De (anirban.de@manhattan.edu), *Manhattan College*
- **Short Courses/Student Programs Chair:** Mike Malusis (mam028@bucknell.edu), *Bucknell University*
- **Workshops Co-Chairs:** Dimitrios Zekkos (zekkos@geoengineer.org), *University of Michigan*; Nazli Yesiller (nyesille@calpoly.edu), *GWRI/Cal Poly State University at San Luis Obispo*; and Jim Hanson (jahanson@calpoly.edu), *Cal Poly State University at San Luis Obispo*
- **Technical Tours/Social Program Co-Chairs:** Doug Hermann (doug.hermann@att.net), *Independent Consultant, Chicago*; and Dhooli Raj (DRaj@collinsengr.com), *Collins Engineering, Chicago*
- **Sponsorships and Exhibits Co-Chairs:** Carsten Floess (carsten.floess@aecom.com), *AECOM, Latham, NY*; and Chuck Wilk (charlesw@allu.net), *Allu Group, Teterboro, NJ*
- **Conference Coordinators:** Rob Schweinfurth (rschweinfurth@asce.org), *Geo-Institute/ASCE*; and Helen Cook (hcook@asce.org), *Geo-Institute/ASCE*

# Conference Technical Topics

Track A/ Sustainability and Resiliency	Track B/ Energy	Track C/ Geoenvironmental Systems
<ul style="list-style-type: none"> <li>• <b>A01/</b> Bio-Mediated Soil Improvement Methods: Characterizing and Modeling</li> <li>• <b>A02/</b> Carbon Sequestration</li> <li>• <b>A03/</b> Characterizing Coastal Deposits: Recent Advances</li> <li>• <b>A04/</b> Education</li> <li>• <b>A05/</b> The Geoenvironmental Engineering Curriculum: Incorporating Innovation, Testing, and Design</li> <li>• <b>A06/</b> Geoenvironmental Engineering for Disaster Recovery</li> <li>• <b>A07/</b> Geohazards</li> <li>• <b>A08/</b> Global Climate Change</li> <li>• <b>A09/</b> Harnessing Sustainability In and Near the Windy City</li> <li>• <b>A10/</b> Infiltration Systems: Design, Performance and Monitoring</li> <li>• <b>A11/</b> Instrumentation and Monitoring Systems Advancements</li> <li>• <b>A12/</b> Internal Erosion Assessment and Control for Sustainable Infrastructure</li> <li>• <b>A13/</b> Nanotechnology in Geoenvironmental Applications: Benefits and Risks</li> <li>• <b>A14/</b> Natural Landslides and Engineered Slopes: Monitoring and Survey Technologies</li> <li>• <b>A15/</b> Resilience and Sustainability in Geotechnical Engineering</li> <li>• <b>A16/</b> Scour at Bridge and Structures: Mechanism, Prediction, and Countermeasures</li> <li>• <b>A17/</b> Surface Erosion</li> <li>• <b>A18/</b> Other Sustainability and Resiliency Topics</li> </ul>	<ul style="list-style-type: none"> <li>• <b>B19/</b> Coupled Processes in Unsaturated Soils Related to Geothermal Energy Applications</li> <li>• <b>B20/</b> Energy Geo-Structures and Ground Thermal Energy Storage</li> <li>• <b>B21/</b> Energy Geotechnics for Sustainability and the Environment</li> <li>• <b>B22/</b> Geo-Energy Infrastructure</li> <li>• <b>B23/</b> Hydraulic Fracturing</li> <li>• <b>B24/</b> Mine Waste: Reclamation of Reactive Disposal Sites</li> <li>• <b>B25/</b> Mining Waste Disposal Systems: Geotechnical Behavior and Management of Energy</li> <li>• <b>B26/</b> Municipal Solid Waste Landfills: Harvesting the Untapped Energy</li> <li>• <b>B27/</b> Nuclear Waste Containment</li> <li>• <b>B28/</b> Offshore Energy Geotechnics</li> <li>• <b>B29/</b> Offshore Renewable Energy Converters: Geotechnical Investigation of Sites and Structure-Sediment Interaction</li> <li>• <b>B30/</b> Renewable Energy and Sustainable Pavement Solutions</li> <li>• <b>B31/</b> Renewable Geo-Energy Systems</li> <li>• <b>B32/</b> Tailings Disposal Challenges in Oil Sands Operations</li> <li>• <b>B33/</b> Other Energy Topics</li> </ul>	<ul style="list-style-type: none"> <li>• <b>C34/</b> Advances in Design, Testing, and Evaluation of Geosynthetics Used for Geoenvironmental Systems</li> <li>• <b>C35/</b> Advances in Sustainable Barrier Materials and Systems</li> <li>• <b>C36/</b> Brownfields</li> <li>• <b>C37/</b> Clay Barrier Technologies for Landfills and Mining</li> <li>• <b>C38/</b> Elevated Temperatures in Landfills</li> <li>• <b>C39/</b> Geoengineering of Mine Waste and Industrial Byproducts</li> <li>• <b>C40/</b> Geosynthetics in Alternative Energy Barrier Containment Applications</li> <li>• <b>C41/</b> Ground Improvement</li> <li>• <b>C42/</b> Innovative Barriers and Barrier Systems for Geoenvironmental Containment</li> <li>• <b>C43/</b> Landfills and Bioreactors</li> <li>• <b>C44/</b> QA/QC of Geosynthetics Used for Geoenvironmental Systems</li> <li>• <b>C45/</b> Slopes, Dikes, Embankments</li> <li>• <b>C46/</b> Sustainable Recycling With and Downcycling of Geosynthetics</li> <li>• <b>C47/</b> The Sustainability Contributions of Barrier Geosynthetics</li> <li>• <b>C48/</b> Vertical Barriers for Geoenvironmental Applications</li> <li>• <b>C49/</b> Other Geoenvironmental Systems Topics</li> </ul>
Track D/ Materials and Resource Conservation	Track E/ Waste Management and Remediation	Track F/ Policy and Regulation
<ul style="list-style-type: none"> <li>• <b>D50/</b> Coupled Thermo-Bio-Hydro-Chemical-Mechanical Processes</li> <li>• <b>D51/</b> Embodied Energy and Green Materials</li> <li>• <b>D52/</b> Field and Laboratory Characterization</li> <li>• <b>D53/</b> Methane Emissions and Oxidation in Landfills: Measurement, Modeling, and Quantification.</li> <li>• <b>D54/</b> Modeling and Simulations</li> <li>• <b>D55/</b> New and Recycled Materials</li> <li>• <b>D56/</b> Non-Destructive Testing, Monitoring, and Performance Evaluation</li> <li>• <b>D57/</b> Performance Monitoring of Geosynthetic Reinforced Pavements for Model Calibration and Prediction Relevance</li> <li>• <b>D58/</b> Physical Properties and Behavior of Geosynthetic Clay Liners</li> <li>• <b>D59/</b> Reuse of Residual Materials</li> <li>• <b>D60/</b> Sustainable Geo-Infrastructures with Recycled Concrete Aggregates (RCA)</li> <li>• <b>D61/</b> Other Materials and Resource Conservation Topics</li> </ul>	<ul style="list-style-type: none"> <li>• <b>E62/</b> Advances in Heavy Metal Treatment</li> <li>• <b>E63/</b> Applications of Industrial Byproducts for Use in Soil and Water Remediation</li> <li>• <b>E64/</b> Contaminant Transport</li> <li>• <b>E65/</b> Dredging</li> <li>• <b>E66/</b> Electrokinetic Remediation: Current Status and Future Challenges</li> <li>• <b>E67/</b> Geotechnical Engineering in Remediation of Contaminated Sites</li> <li>• <b>E68/</b> Management of Contaminated Sediments</li> <li>• <b>E69/</b> Pollutants Transport and Removal in Low-Impact Development (LID) Infrastructures</li> <li>• <b>E70/</b> Recycled and Novel Materials in Pavements</li> <li>• <b>E71/</b> Remediation of Heavily Contaminated Industrial Sites</li> <li>• <b>E72/</b> Remediation Methods</li> <li>• <b>E73/</b> Sediment Dredging, Capping, and Remediation</li> <li>• <b>E74/</b> Soil Remediation Using Solidification/Stabilization</li> <li>• <b>E75/</b> Solid Waste Engineering and Containment</li> <li>• <b>E76/</b> Waste-Based Geopolymer: Application in Geotechnical Engineering</li> <li>• <b>E77/</b> Waste Characterization (MSW, Mine Tailings, Industrial Byproducts)</li> <li>• <b>E78/</b> Other Waste Management and Remediation Topics</li> </ul>	<ul style="list-style-type: none"> <li>• <b>F79/</b> Environmental Policy</li> <li>• <b>F80/</b> Preventive and Preparedness Policies</li> <li>• <b>F81/</b> Public health and community resilience</li> <li>• <b>F82/</b> Regulatory aspects</li> <li>• <b>F83/</b> Risk Management &amp; legal issues</li> <li>• <b>F84/</b> Other Policy and Regulation Topics</li> </ul>
		<p><b>Please note the sessions titled “Other” are for papers which do not fall under any of the other sessions within that track.</b></p>

A full list of technical topics with descriptions is available on the MIRA site at

<http://submissions.miramart.com/ASCE/GeoChicago2016/PDF/GeoChicago2016-Tracks.Sessions.pdf>

# Conference Program Schedule

(subject to change)

Date/Time	Activity
<b>Sunday, August 14, 2016</b>	
9:00 am - 5:00 pm	Short Courses and Workshops
5:00 - 6:00 pm	Geoenvironmental Committee Meeting
6:00 - 8:00 pm	Exhibit Hall Open/Welcome Reception
<b>Monday, August 15, 2016</b>	
8:30 - 10:30 am	Welcome / Keynote Lectures
10:30 - 11:00 am	Break (in Exhibit Hall)
11:00 am - 12:30 pm	Parallel Technical Sessions-I/Session Honoring Legends-I
12:30 - 2:00 pm	Lunch (in Exhibit Hall)/Posters
2:00 - 3:30 pm	Keynote Lectures
3:30 - 4:00 pm	Break (in Exhibit Hall)
4:00 - 5:30 pm	Parallel Technical Sessions-II
4:00 - 6:00 pm	Technical Tours
6.30 - 9.30 pm	Social Event to be determined
<b>Tuesday, August 16, 2016</b>	
9:00 - 10:30 am	State-of-the-Art/State-of-the-Practice Lectures
10:30 - 11:00 am	Break (in Exhibit Hall)
11:00 am - 12:30 pm	Parallel Technical Sessions-III/Session Honoring Legends-II
12:30 - 2:00 pm	Lunch (in Exhibit Hall)/Posters
2:00 - 3:30 pm	State-of-the-Art/State-of-the-Practice Lectures
3:30 - 4:00 pm	Break (in Exhibit Hall)
4:00 - 5:30 pm	Parallel Technical Sessions-IV
4:00 - 6:00 pm	Technical Tours
6:30 - 9:30 pm	Social Event to be determined
<b>Wednesday, August 17, 2016</b>	
9:00 - 10:30 am	State-of-the-Art / State-of-the-Practice Lectures
10:30 - 11:00 am	Break (in Exhibit Hall)
11:00 am - 12:30 pm	Parallel Technical Sessions-V/Session Honoring Legends-III
1:00 - 2:00 pm	Lunch with Presentation on Education
2:00 - 3:30 pm	State-of-the-Art/State-of-the-Practice Lectures
3:30 - 4:00 pm	Break
4:00 - 5:30 pm	Parallel Technical Sessions-VI
4:00 - 6:00 pm	Technical Tours
6:30 - 9:30 pm	Social Event to be determined
<b>Thursday, August 18, 2016</b>	
9:00 am - 5:00 pm	Workshops
9:00 am - 5:00 pm	Technical Tours
9:00 am - 5:00 pm	Voluntary Work