

American Society of Civil Engineers
Pittsburgh Section: Geo-Institute

APPLICATION OF GEOPHYSICS TO
GEOTECHNICAL PROBLEMS

Last name	First name	Initial
Company / School		
Mailing Address		
City	State	Zip Code
Email Address		
Phone Number (No shows will be billed at a non-member rate)		

- Pgh. GI Member/Public Sector \$140.00
- Full-Time Student \$50.00
- Non-Member (Pgh. GI) \$160.00

Total Amount Enclosed: \$ _____ .00
(Registration will not be processed without payment)

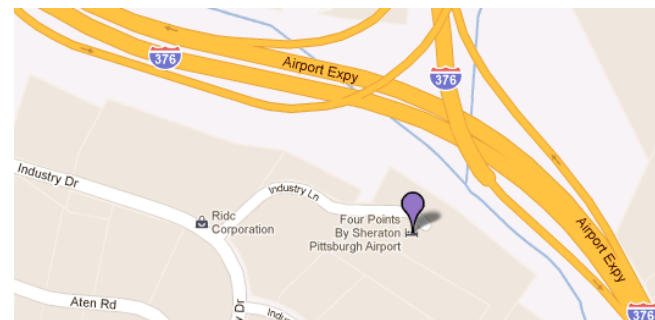
Please detach this form and return by Oct. 3, 2011 with a check made payable to:

ASCE Geotechnical Engineering Group:
Attn: Sebastian Lobo-Guerrero, Ph.D., P.E.
A.G.E.S., Inc.
4 Grandview Circle, Suite 100
Canonsburg, PA 15317

APPLICATION OF GEOPHYSICS TO
GEOTECHNICAL PROBLEMS

7:30 to 8:00 AM	Registration (Continental Breakfast)
8:00 to 8:30	Introduction
8:30 to 10:00	Seismic Methods
10:00 to 10:15	Coffee Break
10:15 to 11:00	Electrical Resistivity
11:00 to 12:00	Electromagnetics and Magnetics
12:00 to 12:45 PM	Lunch Buffet
12:45 to 1:30	Radar
1:30 to 2:00	Other Common Surface Methods
2:00 to 2:30	Other Geophysical Approaches
2:30 to 2:45	Coffee Break
2:45 to 3:45	Borehole Methods
3:45 to 4:15	Summary
4:15 to 4:45 PM	Q&A / Discussion

The seminar fee includes the cost of a continental breakfast, lunch, coffee and seminar notes. To register for the short course complete the attached form and mail it along with a check to the address enclosed on the back of this brochure. Cancellations received after the registration date and no-shows will be billed at the non-member rate. If you have any questions, please contact Suresh Gutta via email at: sgutta@agesinc.com.



American Society of Civil Engineers
Pittsburgh Section Geo-Institute Presents a One
Day Short Course:

APPLICATION OF GEOPHYSICS
TO GEOTECHNICAL PROBLEMS

By: Mr. Rick Hoover, P.G., M. ASCE

Saturday, October 15, 2011

Four Points by
Sheraton Pittsburgh Airport
1 Industry Lane
Pittsburgh, Pennsylvania

7:30 AM to 5:00 PM

8 PDH's eligible for attendees
(NY not eligible)



**GEO-
INSTITUTE**
Pittsburgh Chapter

APPLICATION OF GEOPHYSICS TO GEOTECHNICAL PROBLEMS

The Subject and Course

Increasingly engineers are required to know more about their sites, with smaller budgets available for gaining the required insight. Properly design and application of geophysical surveys can effectively supplement common site investigation and characterization practices. Participants will find at geophysical surveys can be a cost effective way to expand site knowledge and understanding, complementing traditional investigation methods. The objective of this course is to expose the participant to the broad variety of geophysical methods available, fundamental geophysical concepts of various methods, and examine practical applications and limitations to engineering and environmental projects.

The participants will have an opportunity to examine a variety of geophysical tools, and work through the value of applying different geophysical methods to a variety of different problems. Instructors will review how different geophysical methods are used, and define how to develop critical parameters for specific geophysical applications. Geophysical methods to be covered in the class include seismic reflection, refraction and surface wave dispersion, resistivity, electromagnetic and magnetic methods, ground penetrating radar, borehole, and a number of other geophysical methods commonly in use today.

The class will present geophysical methods, solutions provided by those methods, and the concepts necessary to specify the geophysical survey parameters required to meet the project objectives successfully. Completing the class, participants will be able to recognize available geophysical planning resources, know which geophysical methods will work and under what settings and be able to identify the concepts necessary to request or specify geophysical services.

The Instructor

Mr. Rick Hoover, P.G., M. ASCE
Dawood Engineering

As project geophysicist and director for geophysical investigations, Mr. Hoover has a diverse background of responsibilities that includes geophysical procedure development marketing, geophysical cost estimating,

equipment specification for acquisition, software specifications, field survey design, data acquisition, data interpretation, and reporting. Technical responsibilities have included all aspects of the geophysical industry, ranging from data acquisition, processing, data interpretation, and reporting. Surface Geophysical experience includes seismic reflection, refraction, surface wave dispersion and microtremor (ReMi™), resistivity, electrical imaging (EI) electromagnetic (including EM31, EM34, EM61 and VLF), magnetometer and gradiometer, gravity, ground-penetrating radar (GPR) time domain, magnetotelluric spontaneous potential and a variety of audio and radio frequency utility locating tools. Borehole geophysical experience includes the use of resistance, resistivity, SP, gamma, neutron, caliper, temperature, sonic, density, heat pulse and spinner flow meters, dip meter, and televiwer data and equipment. Managerial duties have included defining project scope, marketing, proposal preparation and cost estimating, development of bid documents, equipment specification, software testing and specifications, field acquisition design, the development of standard geophysical operating procedures and project quality assurance/quality control.

Advancing the science, Mr. Hoover is a member of the American Society of Civil Engineers, Geoinstitute geophysics subcommittee, Transportation Research Board geophysics subcommittee, and the ASTM committee 18.01 on Surface and Subsurface Characterization. Mr. Hoover regularly teaches a variety of workshops on practical geophysics applied to engineering and environmental issues each year, and is a licensed geologist in the Commonwealth of Pennsylvania.

Course Outcomes

- Completing the class, participants will be able to recognize available geophysical planning and design resources, and identify the appropriate geophysical methods for the survey objective and site setting.
- Participants will understand the physical principals being used, limitations, and the survey parameters necessary to specify and effectively utilize the results of a successful geophysical survey.

The Geo-Institute

The Geo-Institute (GI) is a specialty organization focused on the geo-industry interested in improving the environment, mitigating natural hazards, and economically constructing engineered facilities. Our organization enhances a geo-professional's career development through technology transfer via specialty conferences, journals and practice-oriented publications; educational programs; networking, and coalition building; and leadership on emerging issues. Locally, the GIs Pittsburgh Chapter hosts numerous events throughout the course of the year. The Chapter strives to provide a venue for speakers with topics of interest to members on both a global and local scale. Traditionally, the program year is a mix of world-renowned speakers, such as the Terzaghi and Seed Lecturers and engineers with ties to local/regional projects of note. However, the speakers and topics describe only a portion of the GI experience. GI events are also a forum for geotechnical professionals to discuss technical and policy issues; they are networking events where peers make contacts and learn more about the region's geo-industry; and they are opportunities for younger professionals to interact with some of the more prominent local figures in geotechnical engineering in an informational environment.

For More Information :

Contact: Suresh Gutta, Ph.D., P.E.
ASCE Chairperson
724-916-0300
sgutta@agesinc.com