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## Geotechnical Applications of Geophysical Methods

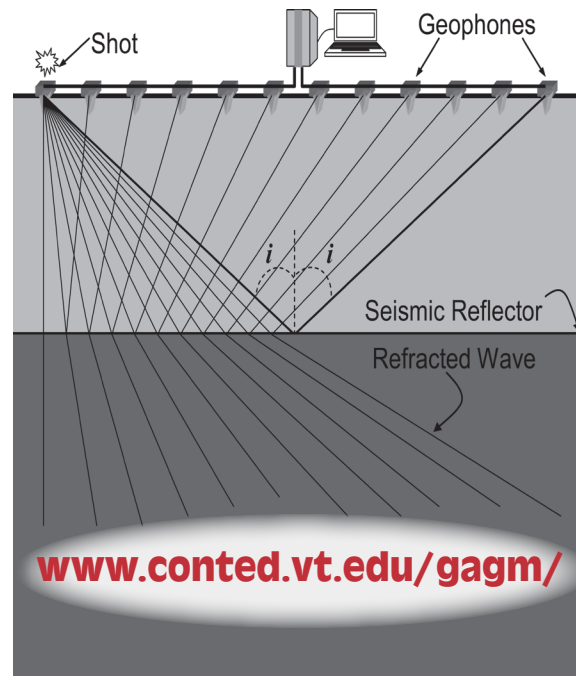
May 15-16, 2006

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# Geotechnical Applications of Geophysical Methods

May 15-16, 2006

The Inn at Virginia Tech and  
Skelton Conference Center  
Blacksburg, VA



Sponsored by:

Virginia Tech  
The Center for Geotechnical Practice and Research  
Continuing and Professional Education

**Geotechnical Applications of Geophysical Methods** is an introductory short course on how geophysical methods can be used to supplement traditional subsurface investigations, and which geophysical methods are best suited for particular geotechnical engineering applications and sites.

This course is designed to answer common questions about the application of geophysics in geotechnical engineering, such as:

- How can geophysics be used for non-invasive characterization of the subsurface?
- What physical properties can geophysics detect and measure?
- What are the advantages and limitations of geophysical methods?
- What interferences can occur in geophysical surveys?
- How is geophysical data collected?
- What will the geophysical consultant need to know about my site and problem to prepare an accurate proposal?
- What type of equipment is used?
- What resolution is possible and how much ambiguity is in the data?
- Why use geophysics?
- What are the relative costs of different geophysical methods?

**Who should attend:** Engineering staff through project level engineers who plan and/or oversee site-investigation operations or routinely make site-investigation decisions.

**What you will need:** Calculator or laptop for in-class worked examples and work boots for the field demonstrations.

**What you'll receive:** 7 hours of instruction, 4 hours of field demonstration, a copy of the CGPR report "Geophysical Primer for Geotechnical Engineers" (June 2005), course handouts, refreshments, lunch, and reception on the first day, 1.1 CEUs, free parking

## About the Speakers

### Dr. Matthew Mauldon, Ph.D.

Dr. Mauldon is a faculty member in the Geotechnical Engineering program at Virginia Tech. For the past fifteen years he has taught courses on geological engineering, rock mechanics and engineering geology, including geophysical methods. In addition to teaching, Dr. Mauldon conducts research in the areas of engineering-geological site investigation and natural hazard assessment. He serves on the Rock Mechanics committee of ASCE and as a consultant on geology-related engineering problems and projects.

### F. Alex Rutledge

Alex Rutledge earned his BS in Geology from West Virginia University, an MS in Geophysics from the University of Kentucky, and is completing an MS in Geotechnical Engineering from Virginia Tech. His graduate career has focused on the application of near-surface geophysics to engineering problems. He is the primary author of the Center for Geotechnical Practice and Research Report, entitled "Geophysical Primer for Geotechnical Engineers."

## For More Information

For further technical information about the short course, contact Alex Rutledge at phone (540) 230-4874, or e-mail: [frutledg@vt.edu](mailto:frutledg@vt.edu). For all other information, please contact Holly McCall (540) 231-2188.

Virginia Tech does not discriminate against employees, students, or applicants for admission or employment on the basis of race, gender, disability, age, veteran status, national origin, religion, sexual orientation, or political affiliation. Anyone having questions concerning discrimination should contact the Office for Equal Opportunity. If you are a person with a disability and require any auxiliary aids, services, or other accommodations for this workshop, please discuss your accommodation needs with Holly McCall at (540) 231-2188 by two weeks prior to the course.

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## Agenda

### Day One (8 AM – 6 PM)

Classroom discussion on the theory, applications, limitations, equipment, interpretation, and case-studies of:

- Ground-penetrating radar
- Electromagnetic surveys
- Resistivity surveys
- Refraction and reflection seismic surveys
- Surface wave (MASW and SASW) surveys

Evening mixer with field demonstrators

### Day Two (9 AM – 1 PM)

Field demonstrations of four geophysical techniques conducted by practicing geophysics professionals.

Visit [www.conted.vt.edu/gagm/](http://www.conted.vt.edu/gagm/) for a detailed course agenda

## Location and Lodging

The short course will be held at The Inn at Virginia Tech and Skelton Conference Center on the Virginia Tech Campus. A block of discounted lodging rooms is being held at the The Inn at Virginia Tech and Skelton Conference Center at a special rate of \$99 plus tax for a single or \$119 plus tax for a double lodging room. The rooms are reserved and available at this rate until **April 14, 2006**. To reserve please call (540) 231-8000 or 1-877-200-3360 and mention the name of the short course.

## Registration Information

The registration fee is \$850 (\$500 for employees of CGPR member firms). Please complete the attached form and return to the Conference Registrar before **May 8, 2006**. You may also register online at: [www.conted.vt.edu/gagm/](http://www.conted.vt.edu/gagm/).

**Note:** Payment of registration fees is required prior to program attendance. Registration will be processed when payment is received. **Refund Policy:** Requests for refunds will be honored when received seven calendar days prior to the program. However, another person may be substituted at any time for this program. A \$75 administrative fee will be deducted for cancellations. In the unlikely event that this program is cancelled or postponed due to insufficient enrollments or unforeseen circumstances, the university will fully refund registration fees but cannot be held responsible for any other expenses, including cancellation or change charges assessed by airlines, hotels, travel agencies, or other organizations.

## Registration

### Geotechnical Applications of Geophysical Methods

May 15-16, 2006 ■ Blacksburg, VA

Please print or type—complete a separate form for each participant or register online at: [www.conted.vt.edu/gagm/](http://www.conted.vt.edu/gagm/).

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Non-member—\$850

CGPR Member—\$500

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Fax (540)231-3306 (for credit card registrations only)

\*FID number necessary to process a refund payable to a company, agency, or government agency.

*The information you provide is subject to the Freedom of Information Act guidelines.*

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