

UMR

May 19, 2006

GeOMO 2006

Soil Strength and Slope Stability

The Subject and Workshop

Soil Strength and Slope Stability is a practical short course on methods of estimating, measuring and selecting soil strength values for use in slope stability analyses, and for performing thorough and efficient analyses of the stability of slopes. The workshop is designed to answer questions that arise frequently in geotechnical engineering practice, such as:

- When should effective stress methods be used for slope stability analyses, and when should total stress methods be used?
- What types of laboratory and in situ tests should be used to measure soil strengths for slope stability analyses?
- How can soil properties be evaluated using correlations with index tests, and the results of SPT and CPT tests?
- What ground water levels should be used in design of slopes, and how can back analyses be used to determine appropriate pore pressures within slopes?
- When is it acceptable to use the Ordinary Method of Slices to compute factors of safety for slopes, and when are more advanced methods such as Bishop's Method, Spencer's Method, or Morgenstern and Price's Method needed?
- When are circular slip surfaces suitable for slope stability analyses, and when is it important to consider non-circular surfaces?
- What techniques can be used for quality control of the results of slope stability analyses?

Course participants will gain familiarity with these and other topics related to soil strength and slope stability evaluations through a full day of lectures and an extensive set of course notes.

The Lecturers

Dr. J. Michael Duncan, P.E. is University Distinguished Professor of Civil and Environmental Engineering and Director of the Center for Geotechnical Practice and Research (CGPR) at Virginia Polytechnic Institute and State University in Blacksburg. Professor Duncan has authored more than 200 publications and several major computer programs on settlement, slope stability, and dams.

He has received the ASCE State-of-the-Art of Civil Engineering Award (1991), the Wellington Prize, the Middlebrooks Award, the Westinghouse Award, Huber Research Prize and the Collingwood Prize. He has presented the Terzaghi Lecture as well as the Bjerrum Memorial Lecture. He is a member of the National Academy of Engineers. He is the coauthor with Stephen G. Wright of Soil Strength and Slope Stability, John Wiley and Sons, 2005

Dr. Stephen G. Wright, P. E. is the Brunswick-Abernathy Regents Professor in Soil Dynamics and Geotechnical Engineering in the Department of Civil Engineering at the University of Texas at Austin. He also currently serves as President of the American Society of Civil Engineers Geo-Institute. His area of specialization is slope stability and the shear strength of soils. He is the author or co-author of numerous papers and research reports on these subjects and is the co-author with Mike Duncan of the recent book, Soil Strength and Slope Stability. He is also the author of the series of slope stability software known as UTEXAS2, UTEXAS3 and UTEXAS4.

Location

The conference will be located at the University of Missouri-Rolla in the Civil Engineering Building. The address is 211 Butler Carlton, Room 125, Rolla, MO. The conference will be held from 9:00-4:30 pm.

Registration

Fee for the workshop is \$125. Registration includes course notes, video materials, and a luncheon. Attendees will also receive a certificate for six Professional Development Hours.

For registration and further information visit our web site at:
<http://dce.umar.edu/NonCredit/Conference/>

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