Virginia Tech
Center for Geotechnical Practice and Research
Annual Lecture Program

Thursday, February 28, 2008

Alumni Assembly Hall
Inn at Virginia Tech and Skelton Conference Center
Blacksburg, Virginia

8:15-9:00

Dr. Tariq Hamid, Ph.D, P.E., Senior Engineer, *GeoConcepts Engineering, Inc.*
"Settlement Behavior of Compacted Fill Soils Containing Organic Matter"

A study was conducted to determine the long term settlement behavior of compacted fill soils containing a relatively small amount (3 percent) of organic matter. In order to evaluate the impact of organic matter within fill soils with regard to settlement, an innovative approach was used, and conventional and non-conventional consolidation tests were conducted to simulate the decomposition of organic matter. Based on the laboratory test results, settlement of compacted fill soils resulting from the decomposition of organic matter was computed and it was concluded that about 3 percent organic matter did not increase the settlement of the compacted fill soils.

9:15-10:00

Dr. Mario Mauro, Vice President, *TREVI ICOS Corporation*
"Large Scale Jet Grouting & Deep Mixing Test Program at Tuttle Creek Dam"

Tuttle Creek Dam is an earthen dam constructed in a seismic area in north-east Kansas. After a series of studies performed by the Kansas City District of the COE, in 2003 the Department of the Army authorized implementation of the plan "Stabilize Foundation Soil without Drawdown Alternative". As part of this plan, in 2006 Treviicos South carried out a large scale jet grouting and deep mixing test program downstream of the dam.

10:15-11:00

Rudolph Bonaparte, Ph.D, P.E., President & CEO, *Geosynetc Consultants*
"Building a Rewarding Career as a Consulting Geoengineer – A 25 Year Perspective"

Sharing career perspectives that have developed since completion of graduate school under Professor James K. Mitchell and J. Michael Duncan. In the intervening years, Dr. Bonaparte has helped lead Geosyntec Consultants from a small company of five professionals to a multi-disciplinary, multi-office consulting firm with more than 650 employees. Dr. Bonaparte will talk about how to develop the attributes to become a consulting geoengineer leader, the steps in building a consulting geoengineer career, perspectives on building a geoeingineering company, and the need for geoengineers to prepare for a changing world.

Keynote Speaker

11:15-12:15

Jean-Louis Briaud, Ph.D, P.E., Professor and Holder of the Buchanan Chair, Zachry Department of Civil Engineering, Texas A&M University
"Case Histories in Soil and Rock Erosion"

The fundamental issues that control soil and rock erosion are addressed in the first part of the lecture, and these are illustrated through four case histories: The Woodrow Wilson Bridge case gives an example of bridge foundation scour calculations. The Brazos River case gives an example of channel migration calculations. The Pointe du Hoc case illustrates the process of cliff erosion. The New Orleans levees case shows an example of levee erosion by overtopping, and proposes an erosion design chart for levee overtopping

12:15 **Lunch**

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All are welcome to attend