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2019 CGS-SOS Annual Dinner (1.5 CDP Hrs)

**The Evolution of Specialty Geotechnical Construction Techniques: The “Great Leap” Theory**

Thursday, May 16, 2019

Pearson Convention Centre, 2638 Steeles Ave. East, Brampton, ON

**Evening Program:**

**5:30 PM**

**Cocktails and Socializing**

**6:30 PM**

**Dinner**

**7:30 PM**

**Lecture**

**Abstract:** In historic literature, there is the “Great Man” theory, whereby history is reflected in the biographies of preeminent characters. In the more theoretical and academic branches of specialty geotechnical engineering, the theory holds with, of course, Prof. Terzaghi one of the heroic great men — a researcher, problem solver, and inspiration “sans pareil”. In contrast, in the branch of specialty geotechnical construction, technological advances occur principally through “Great Leaps” as opposed to steady and progressive evolution.

Six criteria must be satisfied in support of awarding “Great Leap” status, beginning with a project-specific challenge of unprecedented scope or complexity, and ending with a legacy document detailing and codifying the leap. These steps are illustrated by reference to developments in drilling and grouting; cutoffs for dams; Deep Mixing; and micropiles, all techniques in which the author has been intimately involved throughout his professional career as a researcher, contractor, educator and consultant



**Distinguished Speaker:**

**Donald A. Bruce**, Ph.D., C.Eng., D.GE, L.G., L.E.G., received his BS (Geology and Mineralogy) and Ph.D (Geotechnical Engineering) from Aberdeen University, Scotland. He thereafter worked in specialty geotechnical construction in various countries and projects throughout the world before becoming Technical Director of Nicholson Construction, Pittsburgh, PA, from 1986-1996. Since then, he has been President of Geosystems, L.P., a consultancy based in Pittsburgh, PA and Scottsdale, AZ, specializing in the application of ground treatment, improvement and retention techniques. As such, he has participated in over 1,000 projects in 6 continents, principally associated with dams, levees, deep foundations, tunnels and mines.

Dr. Bruce is active in professional and trade associations in North America and Europe, and is a Chartered Civil Engineer and Fellow of the Institute of Civil Engineers (UK), and a Licensed Geologist and Engineering Geologist in the US. He has approximately 300 publications and is co-author of Dam Foundation Grouting, and a new book Specialty Construction Techniques for Dam and Levee Remediation. He is the recipient of the Kapp, Baker and Terzaghi Awards from ASCE.