

OBJETIVES

The main actual challenges of Colombian geotechnical engineering include: competition with foreign engineering companies using different exploration and geotechnical design criteria, and to reduce the technical deficiencies that are frequently observed during the design, supervision or construction of structures with deep foundations.

The Colombian Geotechnical Society (SCG) considered it convenient and opportune to organize this updated Short Course, in order to contribute to the improvement of the knowledge about the criteria or methodologies of analysis and design of deep foundations; and to promote the use of advanced techniques of exploration and characterization of the subsoil in the different regions of the country. The course will include a field test in which conventional and advanced subsoil exploration techniques will be shown.

In addition, it will serve to share experiences with international and national guests, in the different topics presented, in order to discuss, receive and implement them in the good practice of geotechnics and the Colombian regulations.

INTERNATIONAL GUESTS

Roger Frank: Civil Engineer and PhD., Professor of École Nationale des Ponts et Chaussées ENPC - Paris (FRA) and current President of the International Society of Soil Mechanics and Geotechnical Engineering, ISSMGE. Consultant and expert in foundations engineering, he has authored and co-authored more than 220 articles and conferences.

Bengt Fellenius: Civil engineer and PhD Royal Institute of Technology of Stockholm (SUE). It has more than 50 years of experience in foundations, embankments, soil improvement, roads and bridges. He has published more than 300 technical articles available at www.fellenius.net. Currently president of Bengt Fellenius Geotechnical Inc in Canadá.

Rodrigo Salgado: Civil Engineer, PhD, University of California, Berkeley (USA). He has 30 years of experience as an educator and researcher in deep foundations and soil behavior. Professor of Civil Engineering, Purdue University, (USA). He has published more than 100 articles and technical documents.

Mónica Prezzi: Civil Engineering, PhD, University of California, Berkeley (USA). She has more than 30 years of experience as an educator, researcher and foundation engineering consultant. He has published more than 40 articles and technical documents.

Xavier Vera: Civil Engineer, Master in Engineering with specialization in geotechnics UNAM (MEX) and PhD University of California, Berkeley (USA). He has more than 18 years of experience in geotechnics and seismic engineering. Educator, researcher, conferencist and consultant at international level. Director of the Research and Development Institute of the Faculty of Engineering of the Catholic University of Santiago de Guayaquil (ECU) and member of GEER (Geotechnical Extreme Events Reconnaissance)

NATIONAL GUESTS

Álvaro J. González G., CE UN, MSc. DIC, Professor Emeritus National University, General Manager of Análisis Geotécnicos Colombianos LTDA - Bogotá. SCG Ex-President.

Bernardo Vieco Q., CE UN, Sp. UPM. General Manager of Vieco Ingeniería de Suelos SAS - Medellín.

Camilo Marulanda E., CE UA, MSc. PhD U. Illinois (USA), Technical Manager of INGETEC S.A. - Bogotá.

Edgar E. Rodríguez G., CE UN, MSc. UN and Sp UPC (SPA). Assistant Professor of Universidad Nacional and Escuela Colombiana de Ingeniería. General Manager of Ingeniería y Georriesgos IGR SAS - Bogotá. SCG President.

Iván R. Berdugo D., CE US, PhD UPC (SPA), Geotechnical consultant and professor of Universidad de La Costa - Barranquilla.

Jorge A. Rodríguez O., CE UN, MSc. PhD NCU (USA), Professor of Pontificia Universidad Javeriana. Technical Manager of Jeoprobe SAS - Bogotá. SCG Ex-President.

Jorge E. Durán G., CE UN, MSc U. Purdue (USA), National and international consultant - Bogotá

Manuel R Villarraga H., CE UN, M.I. UNAM (MEX), Assistant Professor Universidad Nacional - Medellín, Manager of Inteinsa S.A.

Pedro J Salvá M., CE UN Córdoba (ARG). Sp UPM, MSc EAFIT. Technical Manager of Vieco Ingeniería de Suelos SAS - Medellín.

Cédric Gires., CE EDPC (FRA). Sp EP (FRA). Construction Manager, Plaza Claro.

Juan P. Aguirre. MSc. UNAM (MEX). Engineering Coordinator for Iberoamerica of Soletanche - Bachy Group.

II COURSE ON SUBSOIL EXPLORATION AND CHARACTERIZATION & DESIGN OF DEEP FOUNDATIONS

Bogotá D.C., May 4, 5 and 6, 2017

Alfonso López Pumarejo Auditorium

Carrera 45 N° 26 - 85 First floor (Uriel Gutierrez Bldg)

UNIVERSIDAD NACIONAL DE COLOMBIA - BOGOTÁ

SPONSORS



STAGE



INFORMATION

Sociedad Colombiana de Geotecnia (SCG) www.scg.org.co

Address: Trans. 28B # 37 - 47 Bogotá

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Registration and required prepayment through:

Bancolombia CTA CTE 18063466104

Banco AV Villas CTA AHO 03402131-1 (Limited Availability)

COST: IVA INCLUDED

Professionals:	\$600.000 - USD 200
SCG Members:	\$480.000 - USD 160
Professors:	\$450.000 - USD 150
Students:	\$200.000 - USD 70

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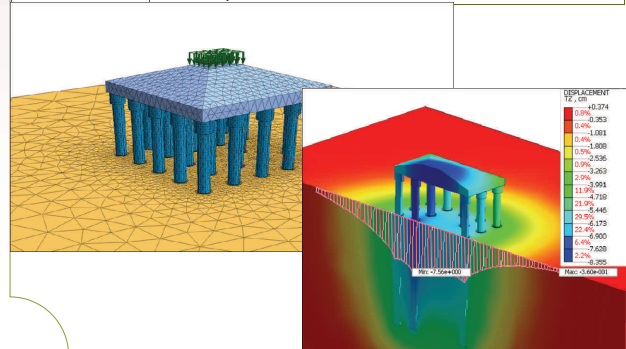
THURSDAY - MAY 4



Time	Activity
7:00 am 8:00 am	Registration
8:00 am 8:15 am	Opening ceremony
8:15 am 8:40 am	Advances in subsoil exploration and soil characterization methods in Colombia (E.E. Rodríguez)
8:40 am 10:10 am	Cone penetration testing in sand: lessons from comprehensive experimental program (R. Salgado)
10:10 am 10:30 am	Coffee Break
10:30 am 12:00 pm	The Menard Pressurometer Test PMT (R. Frank)
12:00 pm 12:40 pm	Unconventional methods for Bogota's soft soils characterization (J.A. Rodríguez)
12:40 pm 2:00 pm	Lunch
2:00 pm 3:30 pm	Performance, instrumentation and analysis of static pile loading test with particular reference to use of instrumentation (B. Fellenius)
3:30 pm 6:00 pm	Field Tests - National University Campus: SCPTu, SDMT, PMT, MASW, ReMi, Refraction and reflection ESS-100, DPSH, shallow and deep Georadar, Down Hole, Electrical Tomography and conventional boring.

FRIDAY - MAY 5

Time	Activity
8:00 am 9:20 am	Modeling, analysis and design of pile foundations with specific reference to wide pile groups, settlement and effect of regional subsidence (B. Fellenius)
9:20 am 10:05 am	Piles, plie groups and rigid inclusions in soft soils (J.A. Rodríguez)
10:05 am 10:20 am	Coffee Break
10:20 am 11:35 am	Reflexions around the common practice for the design of deep foundations with frictional piles on Bogota's soft soils (J.E. Durán)
11:35 am 12:15 pm	Geotechnical characterization and dynamic response of type F soils and foundations in Ecuador (X. Vera)
12:15 pm 12:45 pm	Plaza Claro Project - Design solutions to optimize excavation performance in Top-Down projects in Bogotá (C. Gires)
12:45 pm 2:00 pm	Lunch
2:00 pm 2:30 pm	Geotechnical and structural aspects for the foundation construction of the project América Business Center - El Pedregal (C. Palomino)
2:30 pm 3:50 pm	Theoretical simulation of the load response of piles in sand and related design lessons (R. Salgado)
3:50 pm 4:05 pm	Coffee Break
4:05 pm 4:55 pm	Design and construction of deep foundations for bridges - Experiences in Colombia (C. Marulanda)
4:55 pm 6:15 pm	Designing foundations with the results from Menard Pressurometer Test (R. Frank)



SATURDAY - MAY 6



Time	Activity
8:00 am 8:50 am	Lessons from the Purdue pile load testing program (M. Prezzi)
8:50 am 9:40 am	Problems and solutions in design and construction of deep excavations and foundations in Medellin and the Aburra Valley (P.J. Salvá y B.Vieco)
9:40 am 10:20 am	An approximate method to estimate vertical load capacity of piles in rock (A.J. González)
10:20 am 10:40 am	Coffee Break
10:40 am 11:30 am	Analysis of problems generated in the design of piles with the Bridge Colombian Code CCP-14. (M.R. Villarraga)
11:30 am 12:20 pm	Mistaken concepts in piling procedures - From geotechnical pathology to structural eutanasy (I.R. Berdugo)
12:20 pm 2:00 pm	Lunch
2:00 pm 2:30 pm	Presentation of Results of Field Tests (E. E. Rodríguez)
2:30 pm 5:00 pm	SPECIAL FORUM - DEEP FOUNDATIONS Forum Coordinator (A. Alarcón) 2:30 Soil investigation and loading tests (J.E. Durán, B. Fellenius, M. Prezzi) 3:10 Static and seismic design criteria (X. Vera, J.A. Rodríguez, R. Salgado) 3:50 Coffee Break 4:10 Normativity (A.J. González, M.R. Villarraga, I.R. Berdugo) 4:50 COURSE CLOSURE (E.E. Rodríguez)

* SIMULTANEOUS TRANSLATION 3 DAYS