



Julio 2019 · July 2019

**XVI CONGRESO PANAMERICANO
DE MECÁNICA DE SUELOS E
INGENIERÍA GEOTÉCNICA**

Ingeniería geotécnica en el siglo XXI:
lecciones aprendidas y retos futuros

**XVI PANAMERICAN CONFERENCE
ON SOIL MECHANICS AND
GEOTECHNICAL ENGINEERING**

Geotechnical Engineering in the XXI century:
lessons learned and future challenges

Programa técnico

Technical schedule



PANAMERICANO 2019
Cancún Mx.

17 - 20
NOVIEMBRE · NOVEMBER
2019

Sede / Venue
Hotel IBEROSTAR, Cancún Mx
www.iberostar.com

Programa técnico · Technical schedule

Hora	Isla 1 y 2	Isla 3 y 4	Isla 5 y 6	Miramar 1	Miramar 2	Miramar 3 y 4	Coral	Arena	Bahia	Foyer Caribe
8:15 - 9:00	Opening Ceremony									
9:00 - 10:30	9th Arthur Casagrande Lecture									
	Geotechnical engineering in spatially variable soft soils. The case of Mexico City Dr. Gabriel Auvinet Guichard									
10:30 - 10:45	Coffee Break									Poster session 1 to 6
10:45 - 12:15	session 1 Laboratory and in situ testing	session 2 Analytical and Physical modelling in geotechnics	session 3 Numerical modelling in geotechnics	session 4 Unsaturated soils	session 5 Soft Soils	session 6 Foundations and retaining structures	TC 307 Sustainability workshop	TC 211 Ground Improvement	TC Workshops or Meetings	
12:15 - 12:30	Coffee Break									Poster session 1 to 6
12:30 - 13:30	Geoeducation for the future Co-chairs: Tim Newson, Alejo Sfriso, Hugo Acosta									
13:30 - 15:00	Lunch									
15:00 - 16:30	session 1 Laboratory and in situ testing	session 2 Analytical and Physical modelling in geotechnics	session 3 Numerical modelling in geotechnics	session 4 Unsaturated soils	session 5 Soft Soils	session 6 Foundations and retaining structures		TC 211 Ground Improvement	TC Workshops or Meetings	
16:30 - 16:45	Coffee Break									Poster session 1 to 6
16:45 - 18:00	session 1 Laboratory and in situ testing	SE1 - Young geotechnical engineers session: Bright Spark Conferences	session 3 Numerical modelling in geotechnics	SE2 Women in geotechnical engineering		session 6 Foundations and retaining structures		TC Workshops or Meetings		
18:00 - 19:00	Presentación del Libro Manual de Construcción Geotécnica, 2ed									

Lunes · Monday
18 de noviembre de 2019 · 18th november 2019



Dr. Gabriel Auvinet Guichard

Gabriel Auvinet obtained a Doctor degree in Engineering from UNAM, Mexico in 1986. He is a Researcher at Instituto de Ingeniería (Institute of Engineering), UNAM (National University of Mexico) and Faculty member of UNAM Postgraduate program. He was a guest Professor in the French Universities of Grenoble (1986), Nancy (1993-1994) and Clermont (2003-2004). He has directed a large number of professional, master and doctoral theses and is author of 367 papers in Journals and National and International Conferences and 248 research reports. He is presently Head of the Geotechnical Computing Laboratory of Institute of Engineering, UNAM. He has dedicated his research work to Soil Mechanics with emphasis on special foundations and tunnels in consolidating soft soils. Simultaneously, he has developed new techniques for application of probabilistic and geostatistical methods in Civil Engineering. He has been involved as a consultant in many large projects in Mexico, Central and South America and Europe. He performed geostatistical and geomechanical analyses for the design of award-winning Rion-Antirion bridge foundation in Greece. Professor Auvinet has been President of the Mexican Society for Soil Mechanics (SMIG, 1992-1993) and Vice President for North America of International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE, 2009-2013). He has received a number of teaching and research awards in Mexico, France and South America. From 2001 to 2009 he chaired ISSMGE's Technical Committee TC36: "Foundation Engineering in difficult soft soils conditions". In 2002 he delivered the Sixteenth "Nabor Carrillo" Lecture: "Uncertainty in Geotechnical Engineering". He is a member of the Mexican Science Academy, and National Engineering Academy of Mexico. In 2015, He received a Doctor Honoris Causa degree from Universidad Nacional de Córdoba, Argentina. He is author of the updated version (2017) of the internationally known book "The subsoil of Mexico City".

Co-chairs:

S1 Heraldo Luis Giacheti (Brasil), Iván Rivera (Canadá), Osvaldo Flores (México)
S2 Alejandro Martínez Vela (EUA), Celestino Valle Molina (México), Marcio de Souza Soares de Almeida (Brasil), Marcos Orozco Calderón (México)
S3 Alejo Sfriso (Argentina), José Luis Rangel Núñez (México), Richard Wan (Canada)

SE1 Lucy Wu (USA), Tim Newson (USA) Y Alejo Sfriso (Argentina)

S4 Alfredo Zepeda Garrido (México), Eduardo Rojas González (México), John McCartney (EUA), Laureano R. Hoyos (EUA/Colombia)
S5 Jorge Alberto Rodríguez (Colombia), Manuel J. Mendoza López (México)
S6 Jarbas Militizky (Brasil), Mary Ellen Large (EUA), Alessandro Mandolini (Italia), Walter Paniagua (México)

SE2 Norma Patricia López-Acosta (México), Mary Ellen Large (EUA)

Martes · Tuesday
19 de noviembre de 2019 · 19th november 2019

Hora	Isla 1 y 2	Isla 3 y 4	Isla 5 y 6	Miramar 1	Miramar 2	Miramar 3 y 4	Coral	Arena	Bahia	Foyer Caribe
8:30 - 10:00	History and future of industry/academia partnership Part 1 Co-chairs: Mary Ellen Large, Juan Paulin									
10:00 - 10:15	Coffee Break									Poster session 7 to 12
10:15 - 11:45	session 7 Excavations and tunnels	session 8 Offshore Geotechnics	session 9 Transportation geotechnics	session 10 Natural Hazards	session 11 Embankments and tailings dams	session 12 Soils Dynamics and earthquake engineering	session 19 Energy geotechnics	TC Workshops or Meetings		
11:45 - 12:15	Coffee Break									Poster session 7 to 12
12:15 - 13:15	Elementos constructivos del área maya: Evidencias arqueológicas y etnográficas. Tomás Pérez Suárez									
13:15 - 14:45	Lunch									
14:45 - 16:15	session 7 Excavations and tunnels	session 8 Offshore Geotechnics	session 9 Transportation geotechnics	session 10 Natural Hazards	session 11 Embankments and tailings dams	session 12 Soils Dynamics and earthquake engineering	TC 308 Energy geotechnics workshop	TC 212 Deep Foundations	TC Workshops or Meetings	
16:15 - 16:45	Coffee Break									Poster session 7 to 12
16:45 - 18:00	session 7 Excavations and tunnels	session 1 Laboratory and in situ testing	session 9 Transportation geotechnics	session 6 Foundations and retaining structures	session 11 Embankments and tailings dams	session 12 Soils Dynamics and earthquake engineering	TC 308 Energy geotechnics workshop	TC 212 Deep Foundations	TC Workshops or Meetings	
19:30 - 23:00	Thematic night: The Ball Game									



Tomás Pérez Suárez
Arqueólogo

**Elementos constructivos del área maya.
Evidencias arqueológicas y etnográficas**

As in any society, the everyday life of the Mayan people varied according to the rank of each individual. They all fulfilled a specific function in the maintenance of the economic and political order, which supported the prevailing social and religious ideology in each period. Gender, age, rural or urban residence, and occupation were also factors determining differences in the everyday life of each person and the space built and inhabited. The state cities of the Mayan area, with their spacious squares, great temples, sumptuous palaces, courts for ballgame, altars, and outstanding roadways, also included buildings related with the storage and administration of tributes: payments in kind that the working class delivered to the state for their maintenance. On the other hand, the rural landscape, producer of food and raw materials, was also subject of constructive modifications facilitating the exploitation of renewable and non-renewable resources that largely met the material needs of the urban population.

Tomás Pérez Suárez is an archaeologist graduated from the National School of Anthropology and History. He has a master's degree in Mesoamerican Studies from the School of Philosophy and Letters, UNAM. He is a researcher and coordinator of the Center for Mayan Studies in the Institute of Philological Research, UNAM. He has participated in a number of curatorial activities in Mexico, Venice, Sao Paulo, Paris, and Liverpool. He is the author of dozens of specialized texts about the Mayan culture and the Mexican Archaeology. He has been a lecturer in Mexico, Guatemala, Roma, and Japan.

Co-chairs:

57 Andrés Marulanda Escobar (Colombia), Juan Jacobo Schmitter Martín del Campo (México), Luis Guilherme de Mello (Brasil)
58 Diego Cruz Roque (México), José Parra (Venezuela), Rachel Guerreiro Basilio Costa Genzani (Brasil), Víctor M. Taboada Urtuzuástegui (EUA)
59 Alexandra Ossa López (México), Gloria Beltrán Calvo (Colombia), Luis Guillermo Loria Salazar (Costa Rica), Paul Garnica Anguas (México)

510 Hernán Eduardo Martínez Carvajal (Colombia), Juan Félix Rodríguez (Brasil), Renato Pinto da Cunha (Brasil), Roberto Terzariol (Argentina)
511 Juan de Dios Alemán Velásquez (México), Ramón Verdugo (Chile), Rolando Vega Beirute (Costa Rica)
512 Adrián Rodríguez Marek (EUA), Gonzalo Montalva (Chile), Raúl Aguilar Becerril (México)

Hora	Isla 1 y 2	Isla 3 y 4	Isla 5 y 6	Miramar 1	Miramar 2	Miramar 3 y 4	Coral	Arena	Bahia	Foyer Caribe
8:30 - 10:00	History and future of industry/academia partnership Part 2 Co-chairs: Mary Ellen Large, Juan Paulin									
10:00 - 10:15	Coffee Break									Poster Session 13 to 18
10:15 - 11:45	session 13 Ground improvement	session 14 Sustainability and geoenvironmen	session 15 Preservation of historic sites	session 16 Forensics engineering	session 17 Rock mechanics	session 18 Education	TC Workshops or Meetings		TC 205 Safety and Serviceability workshop	
11:45 - 12:15	Coffee Break									Poster Session 13 to 18
12:15 - 13:15	Plenary Lecture ISSMGE President Interplay between ecology and unsaturated soil mechanics for bioengineered slopes Charles Ng									
13:15 - 14:45	Lunch									
14:45 - 16:15	session 13 Ground improvement	session 14 Sustainability and geoenvironmen	session 15 Preservation of historic sites	session 16 Forensics engineering	session 17 Rock mechanics	session 12 Soils Dynamics and earthquake engineering	TC 201 Dykes and Leeves workshop	TC 202 Transportation workshop	TC 205 Safety and Serviceability workshop	
16:15 - 16:45	Coffee Break									Poster Session 13 to 18
16:45 - 18:00	session 13 Ground improvement	session 14 Sustainability and geoenvironmen								TC Workshops or Meetings
18:00 - 18:30	Clousure Ceremony									
19:30 - 23:00	Gala dinner: Mexican Party (Miramar salon)									

Miércoles · Wednesday
20 de noviembre de 2019 · 20th november 2019



Charles Ng

Dr. Charles W.W. Ng is currently the CLP Holdings Professor of Sustainability, Chair Professor in the Department of Civil and Environmental Engineering and Associate Vice-President for Research and Development at the Hong Kong University of Science and Technology (HKUST). He is the President of International Society for Soil Mechanics and Geotechnical Engineering (2017-2021).

Professor Ng earned his PhD degree from the University of Bristol, UK in 1993. After carrying out a period of post-doctoral research at the University of Cambridge between 1993 and 1995, he returned to Hong Kong and joined HKUST as Assistant Professor in 1995 and rose through the ranks to become Chair Professor in 2011.

Professor Ng was elected an Overseas Fellow from Churchill College, Cambridge University, in 2005 and was also elected as a Changjiang Scholar (Chair Professor in Geotechnical Engineering) by the Ministry of Education in China in 2010. He is Fellow of the Institution of Civil Engineers, the American Society of Civil Engineers, the Hong Kong Institution of Engineers and the Hong Kong Academy of Engineering Sciences. Currently, he is an Associate Editor of the Canadian Geotechnical Journal.

Professor Ng has published some 320 SCI journal articles and 250 conference papers and delivered more than 50 keynotes and state-of-the-art reports in 6 continents. He is the main author of two reference books: (i) Soil-structure Engineering of Deep Foundations, Excavations and Tunnels by Thomas Telford, (ii) Advanced Unsaturated Soil Mechanics and Engineering, and (iii) Plant-Soil slope Interaction by Taylor & Francis. He has received many awards including the 2017 Telford Premium Prize from the Institution of Civil Engineers, UK, the Henry Adams Award from the Institution of Structural Engineers, UK, the first Tan Swan Beng Award from the Southeast Asian Geotechnical Society, and the R. M. Quigley Award from the Canadian Geotechnical Society three times for his three best papers published in 2007, 2012 & 2016.

Co-chairs:

S13 Eduardo Villa Corta Lucchesi (Perú), Hubert Guimont (Canadá), Rémi Chatte (México), Vernon R. Schaefer (EUA)

S14 Elizabeth Burton (EUA), Gonzalo Zambrano Narváez (Canadá), Moisés Dávila (México)

S15 Damien Tamagnan (México), Efraín Ovando Shelley (México)

S16 Edgar E. Rodríguez Granados (Colombia), L. Bernardo Rodríguez (México), Paul W. Mayne (EUA)

S17 Carlos Carranza Torres (EUA), Sergio Fontoura (Brasil), Valentin Castellanos Pedroza (México)

S18 Emir José Macari (EUA), Jorge E. Alva Hurtado (Perú), Miguel Ángel Figueras (México), Rigoberto Rivera Constantino (México)

S19 Marcelo Sánchez (EUA), Norma Patricia López Acosta (México)