



04 al 08 de octubre de 2016



## XV CONGRESO COLOMBIANO DE GEOTECNIA-XVCCG & II CONFERENCIA INTERNACIONAL ESPECIALIZADA EN ROCAS BLANDAS II CIERB

### BOLETÍN 2

#### INVITACIÓN

La Sociedad Colombiana de Geotecnia se complace en reiterar la invitación a la comunidad geotécnica nacional y regional al XVCCG & IICIERB. La Conferencia de Rocas Blandas se ha organizado conjuntamente con la Comisión de Rocas Blandas de la Sociedad Internacional de Mecánica de Rocas-ISRM y con el auspicio de esta Sociedad Internacional. Estos eventos estarán precedidos de tres (3) cursos cortos de gran interés geotécnico.

#### LUGAR Y FECHA

Todos los eventos se realizarán en la ciudad de Cartagena, así: los tres cursos cortos en el Hotel Corales de Indias el día 4 de octubre y el XVCCG & IICIERB, en el Hotel Radisson durante los días 5, 6 y 7 de octubre de 2016.

#### CONFERENCISTAS PRINCIPALES

Como parte de la programación técnica en desarrollo de los eventos se presentarán conferencias especiales a cargo del Dr Milton Assis Kanji, Profesor en la Polytechnical School of the University of São Paulo; el Dr Youssef Hashash, Profesor de la University of Illinois (USA); el Dr Vaughan Griffiths Profesor de la Colorado School of Mines, USA and University of Newcastle, NSW; el Dr He Manchao, Profesor de la University of Mining and Technology, Beijing, China y el Dr Nick Barton, consultor internacional en geotecnia de túneles.

#### MILTON ASSIS KANJI

#### PROFESSOR AT POLYTECHNICAL SCHOOL OF THE UNIVERSITY OF SÃO PAULO



[milton.kanji@gmail.com](mailto:milton.kanji@gmail.com)

Milton Assis Kanji graduated as Geologist from the University of São Paulo, Brazil (1960). He got his M.Sc. degree in Engineering Geology and Geotechnics at the University of Illinois and his Ph.D. in Rock Mechanics at the University of São Paulo; he also got the post doctoral title of “Livre Docente” on Earth Works at the Polytechnical School of the University of São Paulo, where his Associate Professor at the Department of Structural Engineering and Geotechnics. He has worked with large engineering firms dedicated to geotechnical services and design. He was responsible for the basic design of the Itaitu Main Dam foundations, and the rocks mechanics and engineering geology related to the Agua Vermelha and Jaguará dams, among others. He has been involved in more than 50 dam sites. He performed or coordinated the design of 6 important Petrobras tunnels for gas pipelines, through the company Shaft Consultoria Ltda., of which is the Technical Director. Presently he works as an independent consultant, mainly involved with dam foundations, tunnels and slope stability. He has worked as expert witness in arbitrations for hydroelectric projects and tunnels, and as expert for insurance companies and loss adjusters. An ISRM Fellow, former Vice President for South America (1975-1979), he is presently Chairman of the Technical Commission on Soft Rocks.

**YOUSSEF HASHASH**  
**PROFESSOR AT UNIVERSITY OF ILLINOIS, USA**



[hashash@illinois.edu](mailto:hashash@illinois.edu)

Professor Youssef Hashash holds a B.S. (1987), an M.S. (1988) and a Ph.D. (1992) in civil engineering from the Massachusetts Institute of Technology. He began his career with the PB/MK TEAM in Dallas on the Superconducting Super Collider Project. In 1994 he joined Parsons Brinckerhoff in San Francisco and worked on a number of underground construction projects in the U.S. and Canada including the Boston Central Artery/Tunnel project.

Professor Hashash joined the faculty of the Department of Civil and Environmental Engineering at the University of Illinois at Urbana-Champaign in 1998. He taught courses in Geotechnical Engineering, Numerical Modeling in Geomechanics, Geotechnical Earthquake Engineering, Tunneling in Soil and Rock, and Excavation and Support Systems. His research focus includes deep excavations in urban areas, earthquake engineering, continuum and discrete element modeling and soil-structure interaction. He also works on geotechnical engineering applications of visualization, augmented reality, imaging and drone technologies in. He has published over 80 journal articles and is co-inventor on four patents. His research group developed the software program DEEPSOIL that is used worldwide for evaluation of soil response to earthquake shaking.

Professor Hashash is a Fellow of the American Society of Civil Engineers (ASCE) and has received a number of teaching, university and professional awards including the Presidential Early Career Award for Scientists and Engineers and the ASCE 2014 Peck medal.

**VAUGHAN GRIFFITHS**  
**PROFESSOR AT COLORADO SCHOOL OF MINES, USA**  
**AND UNIVERSITY OF NEWCASTLE, NSW**



[d.v.griffiths@mines.edu](mailto:d.v.griffiths@mines.edu)

D. Vaughan Griffiths, Ph.D., D.Sc., P.E., D.GE., FICE, F.ASCE, completed a Master's degree at UC Berkeley and Doctoral degrees at the University of Manchester, UK. He was a Senior Lecturer at the University of Manchester, before moving to his current position as Professor of Civil Engineering at the Colorado School of Mines, USA, where his primary research interests lie in application of finite element and risk assessment methodologies in civil engineering. He has written over 300 research papers, including some of the most highly cited in the geotechnical engineering research literature. He is the co-author of three textbooks that have gone into multiple editions including the Chinese language, entitled "Programming the Finite Element Method", 5th edition,



04 al 08 de octubre de 2016



Wiley (2014), "Risk assessment in Geotechnical Engineering" Wiley (2008) and "Numerical Methods for Engineers", 2nd edition, Chapman & Hall/CRC (2006). He gives regular short-courses for practitioners on risk and finite element applications in geotechnical engineering, with courses already scheduled for 2016-17 in Canada, Australia, Columbia and Norway. Dr. Griffiths is a former ASCE Director and is currently an editor of Computers and Geotechnics, on the Advisory Panel of Géotechnique and on the Editorial Board of Georisk.

## **HE MANCHAO**

**PROFESSOR AT CHINA UNIVERSITY OF MINING AND TECHNOLOGY, BEIJING, CHINA**



**hemanchao@263.net**

He Manchao is currently an Academician in Chinese Academy of Sciences, Professor at China University of Mining and Technology, Beijing (CUMTB). He is also the Director of State Key Laboratory for Geomechanics and Deep Underground Engineering in Beijing, China. He is recognized as the leader of the Chinese Union for Mining Innovation (CUMI). And he served as the Vice President at Large of International Society for Rock Mechanics (ISRM), Chairman of ISRM Education Fund Committee, and President of ISRM Chinese National Group.

He received his Bachelor and Master Degree in engineering geology from Changchun College of Geology in 1981 and 1985 respectively, and obtained his Ph.D. in Engineering Mechanics from CUMTB in 1989. He got an Honorary Doctorate from University of Mons in Belgium in 2012. He mainly engaged in the research of Rock Mechanics and Engineering, including mining technologies, rockburst mechanism, landslide, active fault stability analysis, monitoring and control, etc. He has published 4 books and over 190 papers in technical journals and in conference proceedings. He also serves on the Editorial Board of several Journals, and received 5 National Prizes and awards in his career.

## **NICK BARTON**

**INTERNATIONAL ROCK ENGINEERING CONSULTANT**

**nick barton & associates in oslo.**



**nick barton@ist.ac.at**

Dr. Nick Barton was educated in the University of London from 1963 to 1970, and has a B.Sc. in civil engineering from King's College, and a Ph.D. on rock slope stability from Imperial College. He worked for two periods in the Norwegian Geotechnical Institute, Oslo, eventually as Division Director, then Technical Advisor, and was also four years in the USA, becoming Manager of



04 al 08 de octubre de 2016



Geomechanics in TerraTek, now Schlumberger. Since 2000 he has had his own international rock engineering consultancy, registered as Nick Barton & Associates in Oslo, and also has an office in São Paulo. He has consulted on several hundred projects in a total of 35 countries, and has published widely (300 papers, and two text books, one on TBM tunnelling). He developed the Q-system, which was updated together with Grimstad, and is co-developer of the Barton-Bandis joint coupled-behaviour (M-H) model, coded in UDEC-BB. He has also developed  $Q_{TBM}$  and more recently  $Q_{slope}$  for helping to select maintenance and support-free slope angles for rock cuttings and bench-faces in open pits, including slopes in weak rock and saprolite. He has ten international awards including election as Doctor Honoris Causa (Honorary Doctor) in Argentina. He gave the 6th Mueller Award Lecture of ISRM, in the Beijing ISRM congress in 2011. This is awarded once every four years for contributions to rock mechanics and rock engineering.

## PROGRAMACIÓN TÉCNICA

### MARTES 4 DE OCTUBRE CURSOS CORTOS PREVIOS

Curso No 1 Professor Youssef Hashash

#### ***Linear and Non-linear Site Response Analysis***

Curso No 2 Professor Vaughan Griffiths

#### ***Quantitative Risk Assessment in Geotechnical Engineering***

Curso No 3 Dr Nick Barton

#### ***Empirical Methods and Rock Mechanics for Tunnels and Slopes in Jointed, Faulted, Weak and Weathered Rock Masses.***

Cada curso se realizará de 8:30 a 12:30 y de 14:00 a 18:00 y tendrán servicio de traducción simultánea.

## CONFERENCIAS, ARTÍCULOS Y SESIONES XV CCG & II SICSR

Para los eventos está prevista la presentación de 186 trabajos, 125 de ellos en el Congreso Colombiano de Geotecnia y 61 en la Conferencia Internacional de Rocas Blandas.

El programa incluye cuatro (4) sesiones técnicas en el XVCCG y tres (3) en el IICIERB con aplicación a los proyectos de carreteras y otros proyectos de infraestructura y desarrollo. Habrá traducción simultánea.

## REUNIÓN DE LA COMISIÓN DE ROCAS BLANDAS- ISRM

La reunión de la Comisión de Rocas Blandas ISRM tendrá lugar el día 4 de octubre a las 4 pm.

Los trabajos se han distribuido en sesiones según los temas abordados así:

## XV CONGRESO COLOMBIANO DE GEOTECNIA-XVCCG

### MIÉRCOLES 5 DE OCTUBRE

#### Horario

8:00 – 9:00

9:00 - 9:30

9:30 - 10:30

#### Actividad

Inscripción

Sesión Inaugural

**Segunda Conferencia Juan Montero Olarte:**

***Estabilidad de presas y taludes condicionada***

**MILTON ASSIS KANJI**



04 al 08 de octubre de 2016



	<b>a aspectos geológicos y geotécnicos</b>	
10:30 - 10:45	Refrigerio	
<b>SESIÓN 1:</b>	<b>Caracterización, Comportamiento y Mejoramiento de Suelos</b>	
10:45 - 12:00	Presentación trabajos y discusión	
12:00 - 14:00	Receso para almorzar	
14:00 - 15:00	Conferencia Principal	
	<b><i>Innovations in Modeling and Monitoring Technologies for Response of Deep Urban Excavations</i></b>	<b>YOUSSEF HASHASH</b>
15:00 - 16:15	Presentación trabajos y discusión	
16:15 - 16:30	Refrigerio	
16:30 - 18:00	Presentación trabajos y discusión	
<b>JUEVES 6 DE OCTUBRE</b>		
8:00 - 9:00	Conferencia Principal	
	<b><i>Load and resistance factors, factors of safety and probability in geotechnical engineering.</i></b>	<b>VAUGHAN GRIFFITHS</b>
<b>SESIÓN 2</b>	<b>Amenazas naturales y gestión de riesgo</b>	
9:00 - 10:15	Presentación trabajos y discusión	
10:15 - 10:30	Refrigerio	
<b>SESIÓN 3</b>	<b>Excavaciones superficiales y taludes en suelos &amp; terraplenes y otras geoestructuras</b>	
10:30 - 12:00	Presentación trabajos y discusión	
12:00 - 14:00	Receso para almorzar	
<b>SESIÓN 4</b>	<b>Cimentaciones y túneles en suelos &amp; aplicaciones de software en Geotecnia</b>	
14:00 - 15:15	Presentación trabajos y discusión.	
15:15 - 15:30	Refrigerio.	
<b>II CONFERENCIA INTERNACIONAL ESPECIALIZADA EN ROCAS BLANDAS - II CIERB</b>		
15:30 - 16:30	Conferencia Inaugural: <b><i>Latest progress on Chinese soft rock engineering geomechanics</i></b>	<b>HE MANCHAO</b>
<b>SESIÓN 5</b>	<b>Caracterización y comportamiento general de rocas blandas</b>	
16:30 - 18:00	Presentación trabajos y discusión.	
<b>SESIÓN 5A</b>	<b>Sesión Paralela Especial sobre el Terremoto de Ecuador</b>	
16:30 - 18:00	Presentación trabajos y discusión & Enseñanzas del sismo de Ecuador. Dr Xavier Vera (Ecuador) y Sociedad Colombiana de Geotecnia	
<b>VIERNES 7 DE OCTUBRE</b>		
<b>SESIÓN 6:</b>	<b>Taludes y obras superficiales en rocas blandas</b>	
8:00 - 9:00	Conferencia Principal	
	<b><i>A new prediction method for geo-disaster based on double block mechanics</i></b>	<b>HE-MANCHAO</b>
9:00 - 10:15	Presentación de trabajos y discusión	
10:15 - 10:30	Refrigerio	
10:30 - 12:00	Presentación de trabajos y discusión	
12:00 - 14:00	Receso para almorzar	



<b>SESIÓN 7</b>	<b>Caracterización y comportamiento de macizos de roca blanda; excavaciones y obras subterráneas en rocas blandas.</b>
14:00 - 15:00	Conferencia Principal <b>'Cavern, tunnel and slope failures due to NICK BARTON adverse geology'.</b>
15:00 - 15:15	Refrigerio
15.15 - 17:00	Presentación de trabajos y discusión
<b>17:00 - 18:00</b>	<b>SESIÓN DE CLAUSURA</b>

### PUBLICACIONES

Todos los resúmenes de artículos aceptados se publicarán en un volumen y los artículos aceptados se grabarán en una memoria USB

### EXPOSICIÓN TÉCNICA

Habrà una exposición de equipos y software con stands de 4 x 2m , 3 x 2m and 2 x 2m. y precios de US\$ 3.300, US\$ 2.100 and US\$ 1.530 respectivamente.

### PROGRAMA SOCIO-CULTURAL

Habrà un coctel de inauguración de los eventos el día 5 de octubre a las 18 horas, un evento cultural el día 6 de octubre a las 18 horas y una cena de clausura (opcional) el día 7 de octubre a las 20 horas

### COSTOS DE INSCRIPCIÓN- CURSOS CORTOS/ (1US\$ = COP \$3000)

Profesionales en general	US \$280 COP \$ 840.000
Miembros SCG y docentes	US \$ 230 COP \$ 690.000
Estudiantes pre y posgrado acreditados	US \$140 COP \$420.000

### COSTOS DE INSCRIPCIÓN- XVCCG & II CIERB (1US\$ = COP \$3000)

Profesionales en general y otros participantes	US 415 COP \$1'245.000
Miembros de la SCG y correspondientes de ISRM, ISSMGE, IAEG; Miembros de la Comisión de rocas blandas, delegados de la ISRM; académicos.	US 350 COP \$ 1'050.000
Estudiantes de Pre y Posgrado acreditados como tales (carne vigente)	US 140 COP \$ 420.000

### INSCRIPCIÓN TEMPRANA -DESCUENTO 10%, ANTES DEL 31 DE AGOSTO DE 2016

#### CURSOS CORTOS.

Profesionales en general	US\$250 COP \$ 750.000
Miembros SCG y docentes	US\$205 COP \$ 615.000
Estudiantes de pre y posgrado debidamente acreditados	US\$125 COP \$ 375.000

#### XVCCG&II CIERB

Profesionales en general y otros participantes	US 370 COP \$ 1'110.000
Miembros SCG y miembros correspondientes ISRM , ISSMGE , IAEG; miembros de la Comisión de rocas blandas ISRM; delegados ISRM; docentes.	US 315 COP \$ 945.000
Estudiantes de pre y posgrado debidamente acreditados	US 125 COP \$ 375.000

## TARIFAS HOTELERAS

### HOTEL GHL RELAX CORALES DE INDIAS (4 estrellas)

HABITACION	VALOR DIARIO	
Estándar Sencilla	\$260.200	USD 82
Estándar Doble	\$265.200	USD 84
Persona Adicional	\$103.600	USD 35

### RADISSON CARTAGENA OCEAN PAVILLION HOTEL (5 estrellas)

HABITACION	VALOR DIARIO	
Superior Sencilla/ Single superior	\$378.100	USD 180
Superior Doble/Double superior	\$408.200	USD 185
Persona Adicional- Additional person	\$111.300	USD 50

### APARTAMENTOS MORROS

APARTAMENTO	VALOR DIARIO	
Apartamentos de 2 Habitaciones, cama queen y baño en cada habitación, dos sofa-camas dobles en áreas sociales, baño social I, cocina dotada y nevera. Acomodación máxima seis (6) personas por apartamento	\$484.880	USD 160

Ubicados en la zona Morros, en edificios como el Edificio Seaway 935 y el Edificio Morros Vitri,.

## INFORMACIÓN SOBRE ACOMODACIÓN

### AGENCIA: CONTACTOS SAS

LUZ MIREYA VASQUEZ MORALES| Contactos S.A.S

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### PATROCINADORES

Sociedad Colombiana de Geotecnia  
Sociedad Internacional de Mecánica de Rocas ISRM  
Comisión de Rocas Blandas de la ISRM  
Comité de Apoyo Institucional

### COMITÉ ORGANIZADOR

Presidente : Edgar Rodríguez Granados  
Director de Eventos: Juan Montero Olarte  
Comité Operativo : Edgar Rodríguez Granados; Juan Montero Olarte  
Comité Técnico : Adolfo Alarcón Guzmán; Álvaro J. González García.

### COMITÉ ASESOR INTERNACIONAL - II CIERB

Dr. Milton Kanji – Presidente del Comité de Rocas Blandas - ISRM  
Dr. He Manchao – Vicepresidente del Comité de Rocas Blandas -ISRM  
Dr. Sergio Fontoura- Vicepresidente para Sur América -ISRM  
Dr. Eda F. Quadros- Presidente of ISRM

Asesor Local de la ISRM: Mario Camilo Torres Suárez

### CONTACTO

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