The fifth ISSMGE Suzanne Lacasse Lecture “Risk-informed Landslide Hazard Mitigation in Mountain Highway Design” was delivered by Professor Limin Zhang of the Hong Kong University of Science and Technology on 6 October 2020 during the 7th Asian-Pacific Symposium on Structural Reliability and Its Applications (APSSRA 2020), held in Tokyo, Japan. The lecture was attended by more than 240 participants in an online Zoom meeting.

The Suzanne Lacasse Lecture was established by TC304 in June 2015 to honour Dr. Suzanne Lacasse for her pioneering contributions to risk management of geo-hazards, particularly contributions that impact practice. The Lecture has been delivered by Prof. Vaughan Griffiths in APSSRA 2016, Prof. Gregory Baecher in Georisk 2017, Prof. Farrokh Nadim in ICSMGE 2017, and Prof. KK Phoon in ISGSR 2019.

The fifth Suzanne Lacasse lecturer, Dr. Limin Zhang, is Chair Professor of Geotechnical Engineering at the Hong Kong University of Science and Technology. His research areas include slopes, dams, geotechnical risk assessment and management, and centrifuge modeling. Dr. Zhang is Chair of ISSMGE TC210 on Embankment Dams and Chair of ASCE Geotechnical Engineering in Geotechnical Engineering, Tunisia

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In this lecture, Dr. Zhang presented the methodology and outcome of a novel quantitative risk assessment implemented in a 10-year reconstruction project of two mountain highways in the epicenter area of the 2008 Wenchuan earthquake (Fig. 1). Routed in deep valleys, the highways were severely damaged during and on multiple counts after the earthquake, making highway...
reconstruction life-threatening. After the earthquake, the highways were initially covered by loose soil deposits of landslides, and subsequently exposed to frequent landslide hazard chains in the forms of rock falls, rain-induced landslides, debris flows, landslide damming and flooding. The success of the reconstruction projects depends on the degree of landslide risk mitigation.

Significant efforts were made to understand landslide hazard chains along the highways, particularly interactions between separate hazards in each chain, and their evolution over time (Fig. 2). Fatal hazard scenarios could be missed in design if such interaction effects are not considered. Dr. Zhang emphasized the importance of the lifecycle concept in assessing risks of landslide hazard chains. It is necessary to investigate each individual hazard over its lifecycle from the formation of the hazard to the cessation of further evolution; for instance from the formation of a landslide deposit to the cessation of reactivation and erosion in the deposit, or from sedimentation to the incision of a stream, and to investigate each hazard over the space the hazard evolves over its lifecycle.

Dr. Zhang went on to present a quantitative framework for multi-hazard risk assessment to evaluate the risks posed by cascading landslide hazards considering the interactions among various hazards and the possible cascading effects on human vulnerability. The framework, known as the HKUST five-phase method, consists of five major steps: definition of time and space scales, multi-hazard assessment, exposure assessment, multi-vulnerability assessment, and multi-risk assessment.

Finally, Dr. Zhang described how risk-informed decisions were made in the design and selection of highway alignment options and engineering risk mitigation measures. To mitigate the risks, all three major components of engineering risk, e.g., probability of failure, vulnerability and element at risk, will have to
be addressed, as shown in Fig. 3. Taking engineering measures to stabilize the slopes alone is not viable in such deep valley environment in Fig. 1. The quantitative risk assessment resulted in a significant reduction (to about 20% and 33% of the initial risk levels for Highways S303 and G213, respectively) in potential loss of life through the use of long tunnels to bypass the high-risk landslide zones and protective measures which respond more effectively to manageable, smaller scale hazards. Today, the approach of risk-informed landslide hazard mitigation has influenced and become routine practice in the design and construction of highways in the seismic mountainous region of western China.

Figure 1. Landslides near the epicenter of the Wenchuan earthquake in May 2008

Figure 2. Evolution of earthquake-induced landslide hazards over time: (a) landslide; (b) debris flow; (c) dam breach; (d) uplifted riverbed; (e) dam breach; (f) uplifted riverbed.
Figure 3. Risk-informed engineering decision strategy
TC Corner

TC305 – International Online Symposium on Historical and modern applications in geotechnical engineering

The Iraqi Scientific Society of Soil Mechanics and Foundation Engineering and Department of Civil Engineering-College of Engineering at University of Baghdad in collaboration with Asian Technical Committee 19 (ATC-19) on Historical Sites and Technical Committee (TC305) on Geotechnical Infrastructures for Megacities and New Capitals of the International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) organized the international online symposium (Historical and model applications in geotechnical engineering). The symposium was held over two days: 1-2 October, 2020. The webinar consisted of many themes (Historical Structures, Soil Improvement, Deep Foundations, Geoenvironmental Engineering, Sustainability in Geotechnical Engineering, and Tunneling). The webinar was attended by more than 200 participants from several countries plus speakers. This scientific event provided the geotechnical engineers a valuable opportunity to explore the geotechnical problems that faced the historical and modern projects in different countries and how to overcome them in addition to the modern methods and techniques of sustainable engineering related to the engineering of mega projects. Also, this webinar and through the discussions and questions that were raised in it gave a wide opportunity for the participants to exchange their experiences and communicate with each other.

The webinar opened on its first day (October 1st, 2020) with words of welcome initiated by Prof. Mahdi O. Karkush/President of the Iraqi Scientific Society of Soil Mechanics and Foundation Engineering, who thanked the attendees and participants in the webinar and gave a brief about the Iraqi Geotechnical Society and its activities. Then after, welcome statements were introduced by Prof. Ala Aljorany on behalf of Department of Civil Engineering/University of Baghdad, and finally, Prof. Askar Zhussupbekov, Past Vice President of ISSMGE for Asia and Chair of TC305 of ISSMGE welcomed the speakers and attendees. He expressed his appreciation and thank to the Iraqi Scientific Society of Soil Mechanics and Foundation Engineering and Department of Civil Engineering/University of Baghdad for holding this webinar.

The 1st day of the webinar included three interactive lectures presented by distinguished professors as listed below. After each presentation, an interactive discussion was allowed between the speaker and attendees to share knowledge and experience.

First day program (October 1st, 2020)

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Speaker</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jacked Box Tunnelling: Design and Construction Issues</td>
<td>Christos Tsatsanifos</td>
<td>Greece</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Improvement of Al-Fao Soft Soil by Deep Soil Mixed Columns; Theoretical Modeling of a Case Study</td>
<td>Haider Al-Jubair</td>
<td>Iraq</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Some Recent Applications of Computational Mechanics to Problems Involving Geosynthetics</td>
<td>Victor Kaliakin</td>
<td>USA</td>
</tr>
</tbody>
</table>
The program of the 2nd day included valuable Four lectures as shown below. Also, after each presentation, an interactive discussion was allowed between speaker and attendees.

Second day program (October 2nd, 2020)

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Speaker, Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Floating Foundation of Giant Gate of Itsukushima Shrine in Hiroshima</td>
<td>Yoshinori Iwasaki, Japan</td>
</tr>
<tr>
<td>2</td>
<td>Analysis of Municipal Solid Waste Response and its Influence on Landfill Design</td>
<td>Sivakumar Babu G L, India</td>
</tr>
<tr>
<td>3</td>
<td>Sustainability Aspects and Deep Remediation of Contaminated Sites</td>
<td>Mahdi Karkush, Iraq</td>
</tr>
<tr>
<td>4</td>
<td>The Development of the Underground Space of a Historical Metropolis</td>
<td>Askar Zhussupbekov, Kazakhstan</td>
</tr>
</tbody>
</table>

At the conclusion of the webinar’s activities, Dr. Mahdi O. Karkush/President of the Iraqi Scientific Society of Soil Mechanics and Foundation Engineering thanked all the participants and speakers in the webinar. He praised on efforts of the organizing and scientific committee and members of society who contributed to be this scientific event in this distinguished form, which was satisfied by all the participants and speakers. Also, he announced about the Second International Conference on Geotechnical Engineering-Iraq 2021 which will be organized by the ISSSMFE.

One of the important recommendations of this webinar that emphasizing on using of sustainable engineering techniques in mega projects. Due to the importance of the symposiums held by the Iraqi Scientific Society of Soil Mechanics and Foundation Engineering, the participants recommended to hold other webinar dealing with geotechnical problems and the most important modern and innovative solutions to overcome them.

Mahdi O. Karkush  
President of Iraqi Scientific Society of Soil Mechanics and Foundation Engineering
Abstract:
In spite of the advances in the field of earthquake engineering, economic losses left by large recent earthquakes are still considerable, far from any socio-economically satisfactory standard. According to the Chilean experience, a crucial factor that governs the resulting seismic damages is associated with the local ground conditions. Therefore, a key issue in the seismic regulations is an appropriate seismic site classification. An alternative seismic site classification has been proposed in Chile, which incorporates two important dynamic parameters of the ground: the classical shear wave velocity, $V_{S30}$, and the predominant period of the soil deposit, which is estimated via the H/V spectral ratio of ambient vibrations, or Nakamura’s procedure. The site classification first uses the $V_{S30}$, and then the class has to be corroborated by the predominant period of the site.

1. Introduction
Unfortunately, societies around the world continue to suffer significant economic losses and victims due to large and medium earthquakes. An important part of these losses and casualties is attributed to the severe damages experienced by buildings (residential, commercial, governmental, educational, cultural, hospital, etc.), infrastructure and industrial structures. Therefore, in spite of the tremendous advances in the field of earthquake engineering, economic losses are still considerable far from any socio-economically satisfactory standard. Furthermore, it is important to understand that modern society not only wants protection of life, but also it demands that buildings can be occupied and function after a strong earthquake. This also means that water, electricity, gas, and other services have to be operational as well. Therefore, the challenge is to reduce the tremendous economic impact that earthquakes still have on the community, and accordingly, resilience and reliability of structures is an important issue (Cimellaro, 2017).

In order to achieve a better seismic behavior of the structures, among other factors, it is necessary to identify the ground conditions that govern the seismic loads that will be induced to the structures. The effect of local soil conditions on ground surface motions has been widely recognized from both theoretical and empirical points of view. An example of this has been observed in the recent large earthquakes that have hit Chile, where, in general, an excellent performance of the structures was observed. However, there were exceptions that are mainly attributed to a deficient site characterization. Accordingly, the country was forced to develop a more efficient seismic site classification, which is briefly explained in this article.

2. Historical evidence of seismic amplification
Systematically, large earthquakes has shown that the intensity of the motion developed at the ground surface is strongly controlled by both the geotechnical characteristics and thickness of the sediments. A remarkable case of amplification is the one observed during the 1985 Mexico City earthquake of Magnitude 8.1, where the shaking was amplified by a factor of 20, or even more, on sites constituted by deep soil deposits of soft fines materials (Celebi et al. 1987; Singh et al. 1988). On the other hand, rock outcrops and stiff soil deposits have shown a significant reduction in the shaking intensity (Montessus de Ballore, 1911; Watanabe et al. 1960; Borcherdt, 1970; Seed et al. 1988). An important Chilean experience that showed the site effect took place in the 1906 Valparaiso Earthquake of Magnitude 8.2. This strong ground motion occurred approximately 4 months after the San Francisco Earthquake, where similar site effects were observed (Borcherdt et al. 1976). In Fig. 1 is shown the general geology of Valparaíso, which basically consist on a massive rock outcrop of the Coastal Range and a rather small flat area constituted mainly by medium to dense sandy soils. A borehole performed near to the National Congress (Fig. 2) found the bedrock at a depth of 57 m.
Among the few buildings that underwent minor damages during the 1906 Valparaiso Earthquake are Aduana and Palacio Lyon. The Aduana building is founded on rock outcrop and Palacio Lyon is founded only few meters above the bedrock. These two historical buildings still exist today as shown the photos of Fig. 3, which means that they have responded appropriately to the series of shaking that have occurred in the area after their construction: Valparaiso 1906 ($M = 8.2$); 1985 ($Mw = 8.0$) and 2010 ($Mw = 8.8$).

On the other hand, a severe destruction of buildings located in the soil deposit was reported. Two emblematic buildings: Theater Victoria, built in 1886 (Figs. 2 and 4), and La Merced Church, built in 1893 (Fig. 2), collapsed during the 1906 Earthquake.
After the effects of the 1906 Earthquake, Henriquez (1907) and Montessus de Ballore (1911) concluded that geological conditions are fundamental in the observed damages. They reported that buildings placed on soils deposits presented heavy damage, while constructions placed on the hills (rock outcrop) experienced no damage or it was negligible. This is confirmed in the photo of refugees of Fig. 5, where in the hilly area there are undamaged buildings that amazingly remained after the earthquake. Conversely, the photos of Fig. 6 expose the total destruction that took place in the area of sandy soil deposits (no evidence of liquefaction was reported). This important lesson of significantly better seismic performance of structures founded on rock or competent soils has been systematically observed in large earthquakes.

Empirical and theoretical observations suggest that the intensity of ground surface motion strongly depends on the site characteristics such as soil type, soil properties, as well as the thickness of the soil deposit (Montessus de Ballore 1911, Seed et al., 1976, Pitilakis et al., 1998, among many others). On one hand, the evidence indicates that, after large earthquakes, sites with rock outcrops or stiff soil present limited or null damage in structures placed on this type of ground. On the other hand, significant damage is observed on sites consisting of deep deposits of soft soils (Borcherdt 1970; Seed et al., 1988, Singh et al. 1988). Nevertheless, it is important to recognize that soil sites tend to amplify the shaking at low frequencies (high period), but rock sites tend to have more intensity at high frequencies (low periods). Thus, the Chilean and international experience is that, site conditions determine the motion at the ground surface, in addition to the characteristics of the seismic sources/mechanisms.

3. Design spectra, site effects and seismic hazard
In seismic countries, all structures must be designed to withstand the dynamic disturbances generated by earthquakes. For ordinary structures, seismic loads can be computed using the modal spectral analysis, where the seismic demand is characterized through a design spectrum. The particular ground conditions can drastically modify both the shape and amplitude of the design spectrum. Because of this, the design spectra are defined as function of the site characteristics.
The seismic provisions available worldwide have established a Soil Class classification taking into account the soil properties of the upper 30 m of the ground, regardless of the actual thickness of the soil deposits and properties of the existing soils below a depth of 30 m. This simplification can lead to significant errors in the evaluation of the main characteristics of the seismic response at the ground surface. Consequently, for a rational site characterization, it is imperative to include a parameter that allows obtaining relevant information associated with the seismic response of the entire soil deposit.

For fairly flat ground conditions, and from the point of view of wave propagation, it results evident that strength parameters are not really suitable to evaluate the seismic amplification. However, parameters associated with the soil strength as N-SPT or unconfined resistance are usually considered by the codes to evaluate the seismic site classification. However, from a theoretical point of view, the site amplification is mainly controlled by soil stiffness, sequence of soil layers, thickness of the soil deposit, dumping, impedance (sediments-bedrock). Therefore, a site classification should be based primarily on parameters associated with the dynamic response and leave out resistance parameters.

Besides the site effect, another important issue is the level of seismic hazard to consider, which is associated with the recurrence interval and corresponding probability of occurrence. It is interesting to point out that most of the existing seismic codes are based on probabilistic or deterministic seismic hazard analyses. The EC8 applied a probabilistic analysis approach, whereas the Japanese codes are based on a deterministic seismic hazard analysis. USA represents a singular case, where both approaches have been applied, and the maximum credible earthquake ground motion for a site is selected as the lesser output from these two analyses. The probabilistic and deterministic methods for the assessment of seismic hazard are usually presented as antagonistic approaches. However, they may certainly complement each other for estimating the ground motions for design. In regions where continental active faults and/or tectonic boundaries generate the largest seismic events expected to occur every 100-200 years, the deterministic seismic hazard analysis is more suitable, providing valuable empirical information about the ground motion. It is possible to indicate that the present Chilean code is also based in a combination of both probabilistic and deterministic methods.

4. Brief synthesis of Chilean seismicity
The seismic activity of Chile is mainly the result of the subductive seismic environment generated by the collision between the Nazca and South American tectonic plates, which are converging at an estimated rate of 65 to 80 mm per year. The Nazca plate is subducting under the South American plate, moving down and landward. Accordingly, four types of seismic mechanisms in the Chilean subductive seismic environment can be identified: outer rise (outside trench, in the bending zone of the Nazca Plate), interplate or thrust-faulting type that occurred on the interface between the plates, intraplate that take place inside the Nazca Plate, and cortical (faults on the South American Plate). From an engineering point of view, the most important earthquakes are the interplates of large magnitudes. Although the intraplates and corticals are important too, their severe effect is restricted to a rather limited zone close to the epicenter. Therefore, in the practice intraplate earthquakes are those considered by Chilean seismic codes.

In Fig. 7 are summarized the earthquakes of magnitude greater than 7.5 that have struck the country since 1906. It is interesting to observe that the high seismic activity of Chile is reflected by the presence of two large events in the list of the top 10 world earthquake: the top 1 (Valdivia Earthquake) and the top 6 (Maule Earthquake).

The most recent large interplate earthquake that hit the country is the Maule earthquake, of moment magnitude Mw = 8.8. It is the sixth largest seismic event instrumentally recorded in the world. It struck the south-central part of Chile on February 27th, 2010 (3:34 am local time). It compromised a rupture area at the interface between the plates, at an average depth of 35 km, with an approximately rectangular zone, of 550 km long and 170 km wide.
The fundamental implication of the large rupture zone involved in a mega-earthquake is associated with the obsolescence of the usual concept of hypocenter, which is commonly seen as a point from where the seismic energy is generated, and from where the attenuation of the shaking with the distance is evaluated. Mega-earthquakes present an extensive zone from where the seismic energy is released. From this perspective, near to this zone, the attenuation is significantly less relevant than the site amplification due to local characteristics of soil deposits.

The horizontal peak ground accelerations recorded on rock outcrops and soil deposits are indicated in Fig. 8 (the rectangular area corresponds to the rupture zone of these mega-earthquake). These records show that the common expected attenuation of the peak accelerations with the distance is not observed. In this context, it is interesting that the largest peak acceleration of the ground, 0.94g, was recorded in Angol, located to the south of the rupture, whereas the second largest peak acceleration, 0.78g, was recorded in Melipilla, to the north of the rupture, while in Talca, located between the previous two stations, the horizontal peak acceleration reached a value of 0.47g. In any case, away from the rupture zone, the seismological theory and observations indicating that ground motion intensity decreases with increasing distance from the source hold valid.
5. Amplification: key parameters that can be measured

From a theoretical perspective, the parameters that govern the phenomenon of amplification of seismic waves in a soil deposit are reasonably well known. However, for practical purposes most of them are difficult to obtain due to cost and time limitations. Therefore, it is necessary to use key parameters that can actually be measured in practice.

Accepting that a soil deposit has a fundamental period of vibration, identified by the maximum amplification of the transfer function (ratio between Fourier spectra of ground surface to bedrock), the question is whether the Nakamura, or H/V spectral ratio (HVSR) procedure using ambient vibration can capture this predominant period. Measurements carried out on sites where seismic stations recorded recent large earthquakes in Chile confirmed that the HVSR provides a robust procedure to evaluate the predominant period of a site (Verdugo et al. 2016). In Fig. 9 are presented the different types of HVSR depending on the site conditions. When a clear peak is observed, the site corresponds to a soft soil deposit with medium to large values of predominant period. On the contrary, flat curves of HVSR are observed in stiff soil deposits, where a clear predominant period does not exist, and a wide range of periods (or frequencies) are amplified. This important result makes possible the identification of those sites that are not conflicted from the point of view of their seismic response. Additionally, it allows evaluation of the predominant periods of soft sites, which are sites that can be problematic.

Figure 8. Recorded peak horizontal accelerations of Maule Earthquake

Figure 9. Different HVSR curves, depending on type of site
On the other hand, the upper 30 m of a site represents the crust that is also important in the amplification of the motion resulting at the surface. Therefore, the classical parameter, VS30, which reproduces the vertical travel time of the shear wave propagating throughout the top 30 m of the ground is also suitable for characterizing a site from its dynamic response at the surface.

6. Seismic site classification proposed in Chile
It is important to keep in mind that during large earthquakes, rigid soil deposits, such as rock outcrops, cemented soils or very dense gravels, have shown negligible, or no damages on structures. On the contrary, soft soil deposits, as for example, the clayey material of Mexico City, or the bay mud of San Francisco, or the sandy soils of Valparaiso, have shown a dramatic number of damaged structures as well as fully collapsed ones. This means that the classification goes from good sites to complex sites where high amplification and potential damages are expected. In this scenario, the proposed site classification considers that the VS30 is the fundamental parameter, but it has to be corroborated, or verified, by the predominant period obtained via ambient vibrations using the HVSR procedure. If the predominant period does not confirm the site class, then the site classification is degraded in on step. Accordingly, the proposed site classification in Chile is summarized in Table No. 1.

<table>
<thead>
<tr>
<th>Site Class</th>
<th>General description</th>
<th>$V_{S30}$-E (m/s)</th>
<th>$T_{HV}$ (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Rock</td>
<td></td>
<td>≥ 900</td>
<td>&lt; 0.15 (or HVSR flat)</td>
</tr>
<tr>
<td>B Very dense soils</td>
<td>≥ 500</td>
<td>&lt; 0.30 (or HVSR flat)</td>
<td></td>
</tr>
<tr>
<td>C Dense, firm soils</td>
<td>≥ 350</td>
<td>&lt; 0.40 (or HVSR flat)</td>
<td></td>
</tr>
<tr>
<td>D Medium-dense or medium-firm soils</td>
<td>≥ 180</td>
<td>&lt; 1.00 (or HVSR flat)</td>
<td></td>
</tr>
<tr>
<td>E Soft soils</td>
<td>&lt; 180</td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>F Special soils</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The proposed classification is the result of long discussions and meetings where several Chilean engineers, practitioners and academicians, interacted looking for a better and safer code.

Acknowledgements
The author acknowledge the valuable initiative of the Chilean Geotechnical Society to carry out the studies and discussions to propose a new site classification.

References
Major project

Seismic site classification proposed for Chile (Con’t)


Ramon Verdugo
CMGi Ltda., Chile
Past President of the Chilean’s Geotechnical Society
1. Introduction

Africa faces a pronounced infrastructural deficit when compared to most developed countries and regions. Therefore, both innovative and sustainable infrastructure is crucial for Africa’s economic integration. As such, the vision of advancing geotechnics in Africa is a positive notion directed at the development of the continent. In this context, the main theme of the Seventeenth African Regional Conference on Soil Mechanics and Geotechnical Engineering (17th ARCSMGE), held at Century City Conference Centre in Cape Town, South Africa, from 7th to 9th October 2019, “Innovation and Sustainability in Geotechnics for Developing Africa”, was most appropriate and timely. The scope was broad and inclusive, presenting a range of opportunities to stakeholders from the entire geotechnical community.
Conference reports

The 17th African Regional Conference on Soil Mechanics and Geotechnical Engineering held in Cape Town, South Africa

Organised in the scenic city of Cape Town by the South African Institution of Civil Engineering’s Geotechnical Division (SAICE), and in conjunction with the International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), this prestigious event brought together academics and practitioners from across the globe. The SAICE Geotechnical Division is the largest geotechnical society in Africa with a membership of 880 individuals, which is approximately 69% of Africa’s 1,289 members of the international society.

The host city, Cape Town, a major port city located on South Africa’s southwest coast, is richly endowed with remarkable beaches, sunshine, a peninsula beneath the imposing Table Mountain, a busy harbour including boats heading for Robben Island (the notorious prison where Nelson Mandela was held for 27 years) and wonderful people. All of which make this city and the surrounding areas, one of the best holiday destinations in the world (https://www.capetown.travel/).

2. Pre-Conference
The conference was preceded by the Seventh African Young Geotechnical Engineers conference, the ISSMGE Board and Council meetings, as well as the International Geosynthetics Society (IGS) meeting.

a) African Young Geotechnical Engineers Conference
The Seventh African Young Geotechnical (7th AYGE) Conference on Soil Mechanics and Geotechnical Engineering was held at Century City Conference Centre in Cape Town from 5th to 6th October 2019. A total of 30 oral presentations were made by young delegates from 13 countries. 65 papers were published in the proceedings.

This AYGE conference was honoured to have Dr. Graham Howell as the “Godfather”. Mampho Maoyi was nominated as the best presenter, while Fabianus Gomachab received the best paper award.

b) ISSMGE Board and Council
On the day before the main conference, the ISSMGE held a successfully Council Meeting at Century City Conference Centre, Cape Town. The minutes of this meeting were published and can be accessed from https://www.issmge.org/the-society/council-meeting-minutes.

The ISSMGE Board also took advantage of being in South Africa and held a Board Meeting on the 5th October 2020 - which was the day before the Council Meeting.
The Board was very appreciative of the generous offer by the South African Institution of Civil Engineering’s Geotechnical Division in hosting the Council Meeting.

Figure 3. During ISSMGE Council Meeting in progress at Cape Town, South Africa

Figure 4. ISSMGE President Charles Ng speaking at the Council Meeting in Cape Town
Conference reports

The 17th African Regional Conference on Soil Mechanics and Geotechnical Engineering held in Cape Town, South Africa

c) IGS Council Meeting
Before joining the African Regional Conference, the IGS Officers and Council Committee members met at the Century City Conference Centre in Cape Town for two days of intensive strategic planning sessions. The details can be accessed from [https://www.geosyntheticssociety.org/raising-the-bar-in-the-rainbow-nation/](https://www.geosyntheticssociety.org/raising-the-bar-in-the-rainbow-nation/).

Figure 5. IGS Council meeting in progress at Cape Town, South Africa

Figure 6. IGS Council Members at Century City Conference Centre in Cape Town
Conference reports

The 17th African Regional Conference on Soil Mechanics and Geotechnical Engineering held in Cape Town, South Africa

4. **Main Conference**
The 17th ARCSMGE officially opened at Century City Conference Centre in Cape Town on the morning of the 7th October 2020 and was graced with welcome addresses from Prof. Etienne Marcelin Kana and Prof. Charles Ng, the ISSMGE Vice President - Africa and ISSMGE President respectively. The IGS President, Prof. Chungsik Yoo, then delivered a Congratulatory Address.

![Figure 7. Prof. Etienne Marcelin Kana welcoming delegates during the Opening Ceremony](image1)

![Figure 8. Some light moments during the conference](image2)

More than 250 delegates and 28 exhibitors from 39 different countries from across the globe attended the conference, consequently fulfilling the aim of bringing together a wide range of engineers, scientists and academics to exchange knowledge in the field of geotechnics, and its engineering and environmental applications. The top 6 countries in terms of number of participants were South Africa, United Kingdom, Germany, Uganda, Nigeria and Sudan.
Conference reports

The 17th African Regional Conference on Soil Mechanics and Geotechnical Engineering held in Cape Town, South Africa
Conference reports

The 17th African Regional Conference on Soil Mechanics and Geotechnical Engineering held in Cape Town, South Africa

Besides Parallel Sessions (where over 100 impressive presentations were made), Workshops and Short Courses, the 3-day conference also hosted the 17th Jennings Lecture presented by the world-renowned unsaturated soils expert Prof. Delwyn Fredlund (Canada) and the Mercer Lecture delivered by Prof. Kerry Rowe (Canada). Prof. Fredlund’s Jennings Lecture focused on the determination of unsaturated soil property functions for engineering practice, showing how unsaturated soil mechanics can be applied in everyday geotechnical design and analysis. Prof Rowe’s Mercer lecture was on the use of geosynthetics for construction on soft soils. Additionally, two special lectures by Prof. Buddhima Indraratna (Australia) and Prof. Antonio Gens (Spain) were presented, as well as a Bright Spark Lecture by Dr. Charles MacRobert (South Africa). Prof. Indraratna spoke about the latest research in geotechnical aspects of railway track geomechanics, while Prof Gens presented on the liquefaction of hydraulically placed fills. The Bright Spark lecture was instituted by the current ISSMGE President, Prof. Charles Ng, to provide upcoming young geotechnical engineers an opportunity to compete for a prestigious forum where they can showcase their work.

The short course were: a) Barrier systems for limiting fluid migration presented by Prof. Kerry Rowe, Kelvin Legge and other local presenters; b) Design of Column-Supported Embankments convened by Professors Mounir Bouassida and Jie Han; c) Sustainability in Geotechnical Engineering by Prof. Dipanjan Basu; and d) Unsaturated Soils Mechanics presented by Professors David Toll, Antonio Gens, Charles Ng and Samuel Ampadu.

Table 1. Number of participants at 17th ARCSMGE categorized by nationality

<table>
<thead>
<tr>
<th>No.</th>
<th>Countries</th>
<th>Participants</th>
<th>No.</th>
<th>Countries</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Algeria</td>
<td>2</td>
<td>23</td>
<td>Mozambique</td>
<td>2</td>
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</table>

Total: 255
Conference reports

The 17th African Regional Conference on Soil Mechanics and Geotechnical Engineering held in Cape Town, South Africa

5. Conference Proceedings

The conference proceedings comprised of 130 papers delivered by authors from 44 countries, including: Algeria, Australia, Austria, Belgium, Brazil, Cameroon, Canada, China, Democratic Republic of Congo, the United Arab Emirates, Egypt, France, Germany, Ghana, Haiti, Italy, Ivory Coast, Japan, Kazakhstan, Kenya, Malaysia, Mexico, Nigeria, Portugal, Qatar, Russia, Rwanda, Saudi Arabia, Senegal, Slovakia, South Africa, South Korea, Spain, Sudan, Sweden, Switzerland, Syria, Taiwan, Thailand, Tunisia, Turkey, Uganda, the United Kingdom and the United States of America. Each manuscript was subjected to rigorous peer review by at least two members of the scientific committee. The topics featured in the proceedings were divided into broad themes that deal with: Laboratory Testing/Soil Characterisation; Mechanically Stabilised Ground; Site Characterisation; Tailings Dams and Landfills; Analysis/Modelling; Case Studies; Lateral Support, Slopes, Piled Foundations and Design; and Ground Improvement.

All the published papers are available as open access papers on the ISSMGE Online Library (https://www.issmge.org/publications/online-library).

6. Conclusion

As organisers, we believe that the aim of the conference of bringing together engineers, scientists, academics and practitioners to exchange knowledge in the field of geotechnics, and its engineering and environmental applications, was amply fulfilled. We hope every participant had a memorable and productive conference. We look forward to seeing them all again at the next conference.

We wish to thank the participants for their tremendous support and interest, all of which brought great success to this 2019 African Regional Conference in Cape Town. We also gratefully acknowledge all the conference sponsors: Franki Africa, Jones & Wagener Engineering & Environmental Consultants, TRI Africa, Terra Strata, Admir Technologies, Liebherr, Rocscience, TRI Africa, SRK Consulting, Fibertex, Bauer, Maccaferri Africa, Mukona Group, Groundwork Consulting and RIC Africa as well as the Mercer Lecture sponsor, Tensar International. A special gratitude to all exhibitors for choosing to participate at our conference.
Next ARC Conference

The 18th African Regional Conference on Soil Mechanics and Geotechnical Engineering (XVIII ARCSMGE) will be held in Algeria in 2023. Looking forward to your active participation there.

Prof. Denis Kalumba, University of Cape Town, South Africa
Chairman of Organising Committee
17th ARCSMGE - Cape Town
The student chapter of Indian Geotechnical Society of LBS Institute of Technology for Women, Thiruvananthapuram, India, in association with TC 107 of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) organized an online Symposium on *Laterites and other Tropical Soils* on August 25\textsuperscript{th}, 2020. Very interesting lectures were delivered by eminent researchers in this Symposium. The symposium was attended by about 250 delegates, mainly practising Civil Engineers, Academicians, Research Scholars and Post Graduate Students.

The symposium was inaugurated by Dr. Sivakumar Babu, President of Indian Geotechnical Society and Professor at Indian Institute of Science, Bengaluru. Dr. Abdul Rahiman, Director, LBS Centre for Science & Technology delivered the Presidential Address. The Guest of Honour in the inaugural function was Dr. Anthony Kwan Leung, Assistant Professor in Geotechnics and the Associate Director of the Geotechnical Centrifuge Facility (GCF) at the Hong Kong University of Science and Technology (HKUST). The felicitation addresses were delivered by Dr. R. Shivashankar, Member TC 107, Professor at National Institute of Technology Karnataka, Dr. Purnanand Savoikar, Member TC 107, Professor at Goa Engineering College and Dr. K. Balan, Chairman, Indian Geotechnical Society- Thiruvananthapuram Chapter and Vice Principal of Rajadhani Institute of Science and Technology.

Keynote Lectures were delivered by eminent researchers in Geotechnical Engineering as detailed below:

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Presentation title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Anthony Kwan Leung, Member, TC 107, Assistant Professor, HKUST</td>
<td>Stabilizing tropical soil slopes using plants: emphasis on hydrological reinforcement</td>
</tr>
<tr>
<td>Dr. R. Shivashankar, Member, TC 107, Professor in Civil Engineering, National Institute of Technology Karnataka, Suratkal, India</td>
<td>Stability of Slopes with Lateritic Soils</td>
</tr>
<tr>
<td>Dr. Purnanand P Savoikar, Member, TC 107, Professor in Civil Engineering, Goa Engineering College, Goa, India</td>
<td>Forensic Studies on Recent Landslides in Lateritic Soils in Goa</td>
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<tr>
<td>Dr. Joshua Omer, Member, TC 107, Kingston University, London</td>
<td>Effect of Rainfall on the stability of Lateritic Soils (Reinforced Red Coffee Soils - RCS)</td>
</tr>
<tr>
<td>Dr Thomas Anish Johnson, Soil Survey Officer, Department of Soil Survey and Soil Conservation, Thrissur, India</td>
<td>Significance of Lateritic Soil in Agriculture and Management</td>
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</tbody>
</table>
## Conference reports

**Online symposium on “Laterites and other Tropical Soils” (Con’t)**

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Presentation title</th>
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<tr>
<td>Dr. N Unnikrishnan, Professor in Civil Engineering, Government College of Engineering Thrissur, Kerala, India</td>
<td>Delayed Failure in Lateritic Soils</td>
</tr>
<tr>
<td>Dr. Jayamohan J, Member TC 107, Principal LBS Institute of Technology for Women Thiruvananthapuram, India</td>
<td>Lateritic Embankments</td>
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<tr>
<td>Dr. Ajith. G. Nair, Professor in Geology, Government College, Kottayam, India</td>
<td>Laterization - An Overview</td>
</tr>
<tr>
<td>Dr. R. Shivashankar, Member, TC 107, Professor in Civil Engineering, National Institute of Technology Karnataka Suratkal, India</td>
<td>Concluding Remarks</td>
</tr>
</tbody>
</table>
Conference reports
International Conference on Geotechnical Engineering, Tunisia

Organizer: Geotechnical Engineering & Georisk Research Laboratory (National Engineering School of Tunis, University of Tunis El Manar)

The 4th International Conference on Geotechnical Engineering ICGE’20 was held at “Le ROYAL HAMMAMET HOTEL” on 09–11 March 2020 at Hammamet, Tunisia.

The technical program comprised 5 plenary sessions including 7 keynote lectures which are divided into 3 oral presentations (live), 2 Visio-conferences and 2 recorded conferences. Three parallel sessions were held on 9-10 March, involving 8 invited papers and 44 oral presentations.

The delivered keynote lectures were:

1. Charles Wang Wei NG (Hong Kong, President of ISSMGE): “Effects of horizontal and vertical stress relief on the capacity and deformation of friction piles”
2. Kok Kwang PHOON (Singapore, Appointed Member of the ISSMGE): “Data-driven decision making in geotechnics - Myth or reality?”
3. Michel KASSER (Switzerland, Institut National de l’information géographique et forestière): “Geometric Aspects of Natural Hazards Monitoring”
4. Pedro Sêco e PINTO (Portugal, appointed member of the ISSMGE): Appointed Board Member ISSMGE “Geotechnical Hazards-lessons learned from case histories”: Presented by R. TERZARIOL (Argentina)
5. Chun LEUNG FAI & Siau SHIAN CHEN (Singapore): “Geotechnical challenges and solutions to container port construction”
6. Pierre DELAGE (France, Chair of the Technical Oversight Committee of the ISSMGE) “The thermo-hydro-mechanical behavior of clays and claystones”
7. Dimitrios ZEKKOS (USA, Chair of the Innovations and Development Committee of the ISSMGE): “Integrated Satellite, UAV and ground-based assessment of landslides in Lefkada, Greece, following the November 17 2015 Mw 6.5 earthquake.”

The presentations of the invited papers (invited speakers) comprised:

- 6 oral presentations (live) delivered by Abdallah RIFAAT (Oman), Ahmed Safuan BIN A. RASHID (Malaysia), Essaieb HAMDI (Tunisia), Mohamed MASTERE (Morocco), Etienne Marcelin KANA (Cameroon) and Roberto TERZARIOL (Argentina)
- 1 Visio-conference delivered by Roger FRANK (France)
- 3 recorded conferences delivered by Peter DAY (South Africa), Philip ROBINS (Australia) and Eun Chul SHIN (South Korea).

One afternoon was dedicated to a poster session, which included 4 presentations.
Conference reports
International Conference on Geotechnical Engineering, Tunisia (Con’t)

The ICGE’20 was sponsored and supported by the following institutions:

- NTC (Tunisia)
- SIMPRO (Tunisia)
- ATMR (Tunisia)
- Sols Mesures (France)
- BAUER (Germany)

During the opening ceremony of ICGE’20, Prof CWW Ng, the president of the ISSMGE delivered a speech for presenting the history of ISSMGE and its role both for the practitioners and academicians in GE.

Prof E. HAMDI (President of the Tunisian society of Rock Mechanics) and Prof E.M. KANA (V.P. for Africa, ISSMGE) pointed out the benefits of international events within the African region to make the Geotechnical Engineers much more connected.

The clouter Ceremony was chaired by Prof M. Bouassida who greatly thanked the sponsors who supported the conference and all the attendees for being able to travel in difficult conditions caused by the pandemic COVID-19.

On 08 March 2020 four members of the ISSMGE board: E.M. KANA, A. SFRISO, (V.P for South America, ISSMGE) R. Terzariol and M. Bouassida, shared a hotel room to attend the ISSMGE board meeting using skype connection.

M. BOUASSIDA
President of ICGE’20
Appointed member of the ISSMGE
Hot news

2021 Terzaghi Orator

Professor Antonio Gens from the Universitat Politècnica de Catalunya in Spain has been selected by the President as the 2021 Terzaghi Orator at the International Conference on Soil Mechanics and Geotechnical Engineering (ICSMGE) 2021, to be held in Sydney, Australia.

The Terzaghi Oration was instituted to recognize a person of distinction and outstanding in his or her contribution to geotechnical engineering, for services to the International Society, or to geotechnical engineering and is normally be presented at the International Conference. The Terzaghi Oration is delivered at each ISSMGE International Conference as a tribute to Professor Karl Terzaghi, first President of the International Society. The Terzaghi Oration normally covers case histories, derived from professional activities and explores the dynamic interaction between consulting work, teaching, research and publication. The orations exemplify Prof. Terzaghi’s intellectual approach to engineering and geology and to the observational method both for improving design and for the advancement of knowledge.
Hot news (Con’t)
Our President elected as a Fellow of Royal Academy of Engineering

Our President - Professor Charles Ng has been recently elected as a Fellow of Royal Academy of Engineering (RAE). Dr Ng is the CLP Holdings Professor of Sustainability, Chair Professor of Civil and Environmental Engineering and the Dean of HKUST Fok Ying Tung Graduate School at the Hong Kong University of Science and Technology (HKUST). He is among the 53 leading engineers from the UK and around the world elected this year. The new Fellows will add their expertise to a fellowship of almost 1,600 eminent engineers from both industry and academia. They join the academy on a mission to use the power of engineering to build a sustainable society and create an inclusive economy that works for everyone.

Related links:
- Academy welcomes 53 leading UK and international engineers as new Fellows (Sept 22, 2020)
- Biography of Prof. Charles Ng Wang-Wai
The YMPG in collaboration with the Local Organising Committee for the ICSMGE would like to announce the winners of the Bright Spark Lecture Award to two very distinguished engineers: Dr. Ashani Ranathunga (Sri Lanka) and Dr. Brendon Bradley (New Zealand). They are both invited to give keynote lectures at the Sydney ICSMGE in September 2021.

The Bright Spark Lecture Award was established by Professor Charles Ng to promote young members of the ISSMGE to play a major role in various international and regional conferences. Recipients of this award are invited to give a keynote lecture at ISSMGE conferences. All Technical Committee conference organisers and Member Society conference organisers are encouraged to select Bright Spark Lecturers at their conferences. Details regarding the award can be found on the ISSMGE website: https://www.issmge.org/the-society/awards/bright-spark-lecture-award.

Dr. Ashani Ranathunga
BSc. Eng. Hons (Ruhuna), PhD (Monash), AMIE(SL), MSPE
Lecturer
Department of Civil Engineering
Faculty of Engineering
University of Moratuwa
Katubadda, Sri Lanka

Dr. Ashani Ranathunga is a Lecturer at The University of Moratuwa, Sri Lanka. Her interest for Geotechnical Engineering started during her undergraduate studies with the analysis of the 450-year-old Galle Fort rampart that survived the 2004 tsunami. She graduated with First Class Honours from The University of Ruhuna, Sri Lanka in 2013 and obtained her PhD from Monash University, Australia in 2017.

Her postgraduate studies focused on the long-term safe storage of CO$_2$ in deep coal seams with enhanced coalbed methane recovery. She has worked with state-of-the-art instruments from micro- to macro-scale related to CO$_2$ sequestration. She has been awarded the Best PhD Thesis Award by the Department of Civil Engineering at Monash University together with the postgraduate publication award for the candidate with an excellent publication record for the year 2017.

Since joining the Department of Civil Engineering at University of Moratuwa, she has made a significant contribution to the development of the undergraduate programme and research of the department. Her current research focuses on ground improvement, CO$_2$ sequestration and waste products for soil amendments.

Brendon A. Bradley
Professor of Earthquake Engineering
Director, QuakeCoRE: Te Hiranga Rū (www.quakecore.nz)
Department of Civil and Natural Resources Engineering
Civil/Mech Building E304
University of Canterbury, Private Bag 4800
Christchurch, NEW ZEALAND

Dr. Brendon Bradley is a Professor of Earthquake Engineering at the University of Canterbury and the Director of QuakeCoRE: The New Zealand Centre for Earthquake Resilience. His career has been strongly shaped by the occurrence of the Canterbury earthquakes in 2010-2011, given the impact on the region he lives, and also the early stage of his career at the time of their occurrence. They have provided a continual lens by which to critically assess the quality,
societal utility and international relevance of research opportunities that he has considered, and collaborators which he has worked with. Through such opportunities he has developed strong international links, collaborating with researchers from multiple continents, on the most pressing research questions, both fundamental and immediately practical in nature.

His areas of interest include engineering seismology, strong ground motion prediction, seismic response analysis of structural and geotechnical systems, and seismic performance and loss estimation methods. He obtained his Bachelor of Engineering with Honours in 2007 and PhD in 2009. Prior to joining the University of Canterbury in 2010, Brendon worked at GNS Science in Wellington, New Zealand, and as a post-doctoral fellow at Chuo University in Tokyo, Japan.

Brendon has received several notable awards for work with collaborators, including, the 2012 Ivan Skinner EQC award for the advancement of earthquake engineering in NZ; 2013 Royal Society of New Zealand Rutherford Discovery Fellowship; 2014 Shamsher Prakash Foundation Research Award; 2014 NZ Engineering Excellence Awards Young Engineer of the Year; 2015 University of Canterbury Teaching Award; 2015 TC203 Young Researcher Award; 2015 EERI Shah Innovation Prize; 2016 ASCE Norman Medal; and the 2016 NZ Prime Minister’s Emerging Scientist Prize. He would like to thank Professor Misko Cubrinovski for this award nomination.
ISSMGE EVENTS

Please refer to the specific conference website for full details and latest information.

2020

Geomeast 2020 International Congress and Exhibition - 08-11-2020 - 12-11-2020
Date: 08-11-2020 - 12-11-2020
Location: Cairo, Egypt
Language: English
Organiser: Soil-Structure Interaction Group in Egypt (SSIGE);
Contact person: Ms. Amany El-Masry, Address: Nasr City;
Email: info@ssige.org;
Website: http://www.geomeast2020.orgm

Geotechnical Advances and Challenges in Urban Development
Online, Australia, Sydney
Date: 13-11-2020 - 14-11-2020
Language: English
Organiser: Australian Geomechanics Society
Contact person: Ali Parsa
Address: 115 Wicks Road
Phone: +612 9888 5000
Email: aparsa@jkgeotechnics.com.au
Website: https://australiangeomechanics.org/meetings/geotechnical-advances-and-challenges-in-urban-development/

10th International Conference on Scour and Erosion
Location: DoubleTree Washington DC - Crystal City, USA,
Date: 15-11-2020 - 18-11-2020
Language: English
Organiser: Geotechnics of Soil Erosion Committee, ASCE Geo-Institute;
Contact person: Ming Xiao (ICSE-10 Chair);
Address: Pennsylvania State University;
Phone: 010-814-865-8056;
Email: mxiao@engr.psu.edu;
Website: https://www.engr.psu.edu/xiao/ICSE-10%20Call%20for%20abstract.pdf

6th International Conference on Forensic Geotechnical Engineering
Location: Indian Institute Technology Delhi, New Delhi, India
Date: 10-12 December 2020
Language: English
Organiser: TC 302 - Forensic Geotechnical Engineering
Contact person: Prof. Prashanth Vangla
Address: Department of Civil Engineering, IIT Delhi
Phone: +91 9611189007
Email: Prashanth.Vangla@civil.iitd.ac.in,
Website: http://tc302-issmge.com/
28th European Young Geotechnical Engineers Conference and Geogames
Location: National Research Moscow State University of Civil Engineering, Russia, Moscow
Date: 17-12-2020 - 19-12-2020
Language: English
Organiser: Russian Society for Soil Mechanics, Geotechnics and Foundation Engineering
Contact person: PhD Ivan Luzin
Address: NR MSUCE, 26 Yaroslavskoye shosse
Phone: +7-495-287-4914 (2384)
Email: youngburo@gmail.com

2021

14th Baltic Sea Geotechnical Conference 2020
Location: Clarion Hotel Helsinki, Finland
Date: 18-01-2021 - 20-01-2021
Language: English
Organiser: Finnish Geotechnical Society
Contact person: Leena Korkiala-Tanttu
Email: leena.korkiala-tanttu@aalto.fi
Email: ville.raassakka@ril.fi

18th NGM Nordic Geotechnical Meeting
Location: Helsinki, Finland
Date: 18 - 20 January 2021
Contact person: Ville Raassakka
Email: ville.raassakka@ril.fi

3rd Pan-American Conference on Unsaturated Soils
Location: PUC-Rio, in Rio de Janeiro, Brazil
Date: 25-01-2021 - 28-01-2021
Organiser: Tácio de Campos (PUC-Rio), Fernando Marinho (USP), Gilson Gitirana (UFG)
Contact person: Tácio de Campos
Email: panam2021unsat@puc-rio.br
Website: https://panamunsat2021.com

3rd International Symposium on Coupled Phenomena in Environmental Geotechnics
Location: Kyoto University, Japan
Date: 17-03-2021 - 19-03-2021
Language: English
Organiser: TC215 (Environmental Geotechnics), Japanese Geotechnical Society (JGS), and Kyoto University
Contact person: Takeshi Katsumi
Address: Yoshida-honmachi
Phone: +81-75-753-9205
Fax: +81-75-753-5116
Email: katsumi.takeshi.6v@kyoto-u.ac.jp
Website: https://cpeg2020.org
Email: cpeg2020@geotech.gee.kyoto-u.ac.jp
International Conference on Challenges and Achievements in Geotechnical Engineering
Location: POLIS University campus, Albania, Tirana
Dates: 31-03-2021 - 02-04-2021
Language: English
Organiser: Albanian Geotechnical Society
Contact person: Erdi Myftaraga
Phone: +355699336911
Email: emy@greengeotechnics.com

2nd Vietnam Symposium on Advances in Offshore Engineering
Location: Ho Chi Minh City University of Technology, Vietnam
Dates: 22-04-2021 - 24-04-2021
Language: English
Organiser: Association of Vietnamese Scientists and Experts; Ho Chi Minh City University of Technology
Contact person: Dinh Hong DOAN
Email: vsoe2021@sciencesconf.org
Website: https://vsoe2021.sciencesconf.org/

4th International Conference on Transportation Geotechnics (4th ICTG)
Location: Sheraton Grand Chicago, USA
Date: 23-05-2021 - 26-05-2021
Organiser: Professor Erol Tutumluer, 4th ICTG Chairman and Chair of ISSMGE TC 202,
Contact Information: Professor Erol Tutumluer,
Address: 1205 Newmark CEE Laboratory, MC-250 205 N. Mathews,
Phone: +1 (217) 333-8637,
Email: CITL-ICTG2020@illinois.edu,
Website: http://www.conferences.illinois.edu/ICTG2020

XXV Congreso Argentino de Ingeniería Geotécnica - CAMSIG
Location: Parque del Conocimiento - Posadas, Misiones, Argentina
Dates: 26-05-2021 - 28-05-2021
Language: Spanish
Organiser: Sociedad Argentina de Ingeniería Geotécnica
Contact person: Andres Ayala
Address: Av. Ulises López, N3300 Posadas,
Email: camsig2020.misiones@gmail.com; secretariat@saig.org.ar
Website: https://camsig2020.com/

Mediterranean Symposium on Landslides
Location: Congressi Partenope, Naples, Italy, Naples
Date: 07-06-2021 - 09-06-2021
Language: English
Organiser: Gianfranco Urciuoli (Università di Napoli Federico II), Giovanni Crosta (Università di Milano Bicocca), Luciano Picarelli (Università della Campania L. Vanvitelli)
Contact person: Università di Napoli Federico II
Email: medsymplandslides@gmail.com
Website: https://medsymplandslides.wixsite.com/msl2021
The 2nd International Conference on Press-In Engineering 2021, Kochi
Location: Kami Campus, Kochi University of Technology, Japan
Dates: 19-21 June, 2021
Language: English
Organiser: International Press-in Association (IPA)
Contact person: ICPE2021 Organizing Committee
Address: 5F, Sanwa Konan Bldg, 2-4-3 Konan, 2-4-3 Konan, Minato-ku
Phone: +81-(0)3-5461-1191
Fax: +81-(0)3-5461-1192
Email: icpe2021@gmail.com
Website: https://icpe-ipa.org/

The 1st International Conference on Sustainability in Geotechnical Engineering - Geodiversity & Resilience (1ST ICSGE’21)
Location: The Congress Center of LNEC Lisbon, Portugal, Lisboa
Date: 27-06-2021 - 30-06-2021
Organiser: The National Laboratory for Civil Engineering (LNEC)
Contact person: LNEC Congress Centre Secretariat
Address: Avenida do Brasil, 101 1700-066 Lisboa
Phone: (+351) 218 443 483
Email: formacao@lnec.pt
Website: http://icsge.lnec.pt/

TC204: Geotechnical Aspects of Underground Construction In Soft Ground - TC204 Cambridge 2020
Date: 28-06-2021 - 30-06-2021
Location: University of Cambridge, United Kingdom
Language: English
Organiser: University of Cambridge
Contact person: Dr Mohammed Elshafie
Address: Laing O’Rourke Centre, Department of Engineering, Cambridge University
Phone: +44(0) 1223 332780
Email: me254@cam.ac.uk

6th Geochina International Conference 2021
Location: NanChang, China
Date: 19-07-2021 - 21-07-2021
Organiser: East China Jia Tong University in Cooperation with Chinese Ministry of Education, GeoChina Civil Infrastructure Association, University of Oklahoma
Contact person: Dr. Dar Hao Chen; Address: Texas Transportation Institute; Email: d-chen@tti.tamu.edu;
Website: http://geochina2021.geoconf.org; Email: geochina.adm@gmail.com

7th International Young Geotechnical Engineers Conference
Location: International Convention Centre, Sydney, Australia
Dates: 10-09-2021 - 12-09-2021
Language: English
Organiser: Australian Geomechanics Society
Contact person: ICMS Australasia
Address: Level 9, 234 George Street, Sydney NSW, 2000
Phone: (+61 2) 9254 5000
Email: info@icsmge2021.com
Website: http://icsmge2021.org/7iygec/
20th International Conference on Soil Mechanics and Geotechnical Engineering
Location: International Convention Centre Sydney, Australia
Date: 12-09-2021 - 17-09-2021
Language: English
Organiser: The Australian Geomechanics Society;
Contact person: ICMS Australasia;
Address: Level 9, 234 George Street Sydney NSW 200;
Email: emmab@icmsaust.com.au;
Website: http://www.icsmge2021.org/

4th International Symposium on Frontiers in Offshore Geotechnics
Date: 08-11-2021 - 11-11-2021
Location: University of Texas, Austin, United States
Language: English
Organiser: ISFOG 2020 Organising Committee
Contact person: Phil Watson
Address: The University of Western Australia
Phone: 0418881280
Email: phillip.watson@uwa.edu.au
Website: http://www.isfog2020.org

XI Congreso Chileno de Geotecnia
Location: Universidad de Talca, Chile
Dates: Talca 22-11-2021 - 24-11-2021
Language: Spanish
Organiser: Chilean Geotechnical Society
Contact Information
Contact person: Macarena Tugas
Email: coordinadorasochige@gmail.com
Website: http://www.sochige.cl
Email: directorio@sochige.cl

3rd International Conference on Geotechnical Engineering - New Dates
Location: Cinnamon Grand, Colombo, Sri Lanka;
Dates: 06-12-2021 - 07-12-2021
Language: English;
Organiser: Sri Lankan Geotechnical Society;
Contact person: Dr. JSM Fowze;
Address: 415, Bauddhaloka Mawatha;
Phone: +94-71-417-1239;
Fax: +94-11-266-8956;
Email: slgssecretariat@gmail.com;
Website: http://icgecolombo.org/2020/index.php
2022

2nd International Conference on Energy Geotechnics
Location: Robert Paine Scripps Forum for Science, Society and the Environment. La Jolla, CA, USA.
Date: 10-04-2022 - 13-04-2022
Language: English
Organiser: John McCartney (UC San Diego, USA) and Ingrid Tomac (UC San Diego, USA),
Contact Information: ICEGT-2020 Secretariat,
Address: 9500 Gilman Dr., La Jolla CA,
Phone: +1-858-822-5212,
Fax: +1-858-822-2260,
Email: secretariat@icegt-2020.com,
Website: https://icegt-2020.eng.ucsd.edu/home

5th International Symposium on Cone Penetration Testing (CPT’22)
Location: Centro Congressi CNR, Bologna, Italy
Language: English
Organiser: Italian Geotechnical Society (AGI) and University of Bologna (endorsed by TC102)
Contact person: Susanna Antonielli (AGI), Prof. Guido Gottardi (University of Bologna)
Email: guido.gottardi2@unibo.it
Email: agi@associazionegeotecnica.it

The 9th International Congress on Environmental Geotechnics
Location: Chania, Crete island, Greece,
Language: English
Organiser: Chair: Dimitrios Zekkos, University of California at Berkeley ; zekkos@berkeley.edu
Contact person: Dr. Rallis Kourkoulis
Email: rallisko@grid-engineers.com
Website: https://www.iceg2022.org/

28th European Young Geotechnical Engineers Conference and Geogames
Location: National Research Moscow State University of Civil Engineering, Russia, Moscow
Date: 15-09-2022 - 17-09-2020 - 19-12-2022
Language: English
Organiser: Russian Society for Soil Mechanics, Geotechnics and Foundation Engineering
Contact person: PhD Ivan Luzin
Address: NR MSUCE, 26 Yaroslavskoye shosse
Phone: +7-495-287-4914 (2384)
Email: youngburo@gmail.com
Additional Information: https://t.me/EYGEC2020
NON-ISSMGE SPONSORED EVENTS

2020

Buchanan Lecture - Texas A&M University
Location: Zoom virtual, College Station, TX, United States , College Station
Dates: 06-11-2020 - 07-11-2020
Language: English
Organiser: Texas A&M University
Contact person: Jean-Louis Briaud
Email: briaud@tamu.edu
Website: https://ceprofs.civil.tamu.edu/briaud/

16th International Conference of the International Association for Computer Methods and Advances in Geomechanics - IACMAG
Location: Politecnico di Torino Conference Centre, Italy
Dates: 03-05-2021 - 04-05-2021
Language: English
Organiser: Politecnico di Torino
Contact person: Symposium srl
Address: via Gozzano 14
Phone: +390119211467
Email: info@symposium.it, marco.barla@polito.it

Fifth International Conference on New Developments in Soil Mechanics and Geotechnical Engineering
Location: Atatürk Cultural and Congress Center Near East University, Nicosia, Northern Cyprus
Dates: 27-05-2021 - 29-05-2021
Language: English
Organiser: Turkish Society of Soil Mechanics and Geotechnical Engineering and Near East University
Contact person: Cavit ATALAR
Address: Near East Boulevard
Phone: 0090392 223 6464
Website: http://zm2020.neu.edu.tr
Email: zm.2020@neu.edu.tr

The Third International Conference on Environmental Geotechnology, Recycled Waste Materials and Sustainable Engineering
Location: Dokuz Eylul University, Izmir, Turkey,
Dates: 17-06-2021 - 19-06-2021
Organiser: Dokuz Eylul University
Contact person: Tugçe Ozdamar Kul
Address: Dokuz Eylul University
Phone: +905325164800
Email: egrwse2020@gmail.com
Website: http://www.egrwse2020.com
Event Diary (Con’t)

DFI Deep Mixing 2021
Location: Polish Baltic Philharmonic and Congress Centre, Gdansk, Poland
Dates: 05-07-2021 - 08-07-2021
Language: English
Organizer: Deep Foundations Institute
Contact person: Theresa Engler
Address: 326 Lafayette Avenue
Phone: 9734234030
Email: tengler@dfi.org
Website: http://www.dfi.org/DM2021

7th International Conf. on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics
Location: The National Science Seminar Complex, Indian Institute of Science Bangalore, India,
Date: 12-07-2021 - 17-07-2021
Organiser: Indian Society of Earthquake Technology
Website: http://7icragee.org/index.php
Email: conf@7icragee.org

Fifth World Landslide Forum
Location: Kyoto International Conference Center, Kyoto, Japan
Dates: 02-11-2021 - 06-11-2021
Organizer: International Consortium on Landslides
Contact person: Ryosuke Uzuoka
Address: Gokasho
Phone: +81-774-38-4090
Email: uzuoka.ryosuke.6z@kyoto-u.ac.jp
Website: http://wlf5.iplhq.org/
Email: secretariat@iclhq.org

FOR FURTHER DETAILS, PLEASE REFER TO THE WEBSITE OF THE SPECIFIC CONFERENCE
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http://kgs-astana.wixsite.com/society

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GERMANY

**Keller Ground Engineering**
Level 1, 4 Burbank Place, Baulkham Hills
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Australia

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**Jan de Nul N.V.**
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New Zealand

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QLD 4006
www.smc.com

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56 Tattersall Road,
Kings Park,
NSW 2148
Australia
The Foundation of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) was created to provide financial help to geo-engineers throughout the world who wish to further their geo-engineering knowledge and enhance their practice through various activities which they could not otherwise afford. These activities include attending conferences, participating in continuing education events, purchasing geotechnical reference books and manuals.

- **Diamond: $50,000 and above**
  b. Prof. Jean-Louis and Mrs. Janet Briaud [https://www.briaud.com](https://www.briaud.com) and [http://ceprofs.tamu.edu/briaud/](http://ceprofs.tamu.edu/briaud/)

- **Platinum: $25,000 to $49,999**

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  c. Japanese Geotechnical Society [http://www.jiban.or.jp/](http://www.jiban.or.jp/)
  e. Korean Geotechnical Society [www.kgshome.or.kr](http://www.kgshome.or.kr)
  f. Comité Français de Mécanique des Sols et de Géotechnique [www.cfms-sols.org](http://www.cfms-sols.org)

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  a. Prof. John Schmertmann
  b. Deep Foundation Institute [www.dfi.org](http://www.dfi.org)
  c. Yonsei University [http://civil.yonsei.ac.kr](http://civil.yonsei.ac.kr)
d. CalGeo - The California Geotechnical Engineering Association
   www.calgeo.org

e. Prof. Ikuo Towhata
towhata.ikuo.ikuo@gmail.com
http://geotle.t.u-tokyo.ac.jp/


g. Prof. Zuyu Chen
http://www.iwhr.com/zswenglish/index.htm

h. East China Architectural Design and Research Institute ECADI
   http://www.ecadi.com/en/

i. TC 211 of ISSMGE for Ground Improvement
   www.bbri.be/go/tc211


k. TC302 of ISSMGE for Forensic Geotechnical Engineering

l. Prof. Yoshinori Iwasaki yoshi-iw@geor.or.jp www.geor.or.jp

m. Mr. Clyde N. Baker, Jr.

n. Prof. Hideki Ohta

o. Prof. Eun Chul Shin www.incheo@incheon.ac.kr r.n.ac.krecshin

p. Prof. Tadatsugu Tanaka

q. ARGO-E (Geoengineer.org) http://www.argo-e.com

- Bronze: up to $999

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   mtumay@eng.lsu.edu
   http://www.coe.lsu.edu/administration_tumay.html

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