

## International Society for Soil Mechanics and Geotechnical Engineering

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# Short Address to ISSMGE Members, Change of the Name of ISSMGE, A Personal View Professor Pedro Seco e Pinto, ISSMGE Immediate Past President

<ol> <li>INSIDE THIS ISSUE</li> <li>Short Address to ISSMGE Members</li> </ol>	1. Item 11 of the Agenda of ISSMGE Council meeting, that took place in Toronto on 2nd October 2011, was related with the change of the name of the society to ISGE (International Society for Geotechnical Engineering).
<ul> <li>8 President Reports</li> <li>11 News-1</li> <li>13 Technical Article</li> <li>24 NEWS FROM TECHNICAL COMMITTEE</li> <li>37 News-2</li> <li>40 News-3</li> </ul>	ISSMGE President has introduced the topic, followed by four presentations for the Change of the Name. I was the sixth speaker and my presentation was Against the Change of the Name. Subsequently there was a period for discussions, before voting. The results of Voting were:
42 Conference Report	Against the Change of the Name - 39 votes (61.9%) For the Change of the Name - 23 votes (36.5%) Abstentions - 1 I was very happy and well impressed, as in spite the hot discussions that took
Jean-Louis Briaud Ikuo Towhata Neil Taylor Pedro Sêco e Pinto Pongsakorn Punrattanasin Deepankar Choudhury Imen Said Erdin Ibraim Cholachat Rujikiatkamjorn	place there was a great respect for different opinions. The Chief Editor of ISSMGE Bulletin has requested me to write a short address related with my presentation. I would like to inform that the allocated time for my presentation in Toronto Council meeting was 3 minutes. This written version is a little more detailed than my presentation.
	2. The diversity of all 88 ISSMGE Member Societies, distributed in 6 Regions, with more than 19000 Individual members and represented in Figure 1, is our great richness and a source of inspiration. It is our great challenge, but also a unique opportunity to rethink ISSMGE, due to the changes of basic societal structures, and to reach a new model. We need to recognize the importance of dialogue to give our hands, to work together, and to reach the optimum solution. The activity developed by ISSMGE covers several domains of knowledge, particularly Research, Education and Professional Practice. ISSMGE has no mantra

## Short Address to ISSMGE Members (Continued) Professor Pedro Seco e Pinto, ISSMGE Immediate Past President

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Figure 1. ISSMGE membership.

and searches the innovation, as development, evolution and reinvention support the life. What pleasure gives the life without a little mystery? What joys give the life without some adventure? The route is made step by step to reach the final goal.

ISSMGE was created in 1936 and is celebrating now the 75th anniversary. Change in Membership and Member Societies is shown in Figure 2.



Figure 2. Change in Membership and Member Societies of ISSMGE

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## Professor Pedro Seco e Pinto, ISSMGE Immediate Past President

ISSMGE has interacted with all the member societies with hope, exploring the windows of opportunity and creativity, preparing also the future, supporting weak members and contributing for the cohesion and strength of our Society. But we should not forget that to listen to someone is the best manner to honor a person and to create a profound human link. The interaction with people is a great source of energy and inspiration. It is our profound desire to bring a better balance and harmonisation of geotechnical activities for different regions and more visibility for ISSMGE. I wish to the Member Societies and to the Individual Members immense blessings along this voyage called a life

3. Soil Mechanics (SM) represents our roots, the history of our society that was created in 1936 by Terzaghi and Co-Workers, and our memories. Soil Mechanics also incorporates the activities of several individual members that cover only Soil Mechanics.

I would like to take this opportunity to pay tribute to the Past ISSMGE Presidents, quoting Psalm of Life-Footprints:

"Lives of great men all remind us We can make our lives sublime, And departing, leave behind us Footprints on the sands of time".

4. Geotechnical Engineering (GE) integrates all the applied disciplines. This was the reason why we changed in 1997 the name of ISSMFE (International Society for Soil Mechanics and Foundations Engineering) to ISSMGE (International Society for Soil Mechanics and Geotechnical Engineering) to cover a larger spectrum of disciplines.

We are aware that engineering is an ambiguous word, in some language. An engineer is a man mastering engines, in Latin. He is a man with genius, something like art, that is skill plus intelligence. If the earth is viewed as a big engine, a set of parts linked into intricate mechanisms, the first acceptance is right, but a bit of genius is required to master its complexity.

"Nature to be mastered, must be obeyed" Francis Bacon (1620).

The good geotechnical engineer is one who knows the limits of his experience on problems related with soil conditions comparable with his current assignments and makes appropriate extrapolations. He knows what he knows and uses it confidently. More importantly, he knows what he does not know, seeks available knowledge, and then proceeds fully, acknowledging his limitations and uncertainties.

The geotechnical engineering knows that a good judgment comes from experience. Experience is gained by mistakes, but as Bernard Shaw states, "The error shows the truth, but we should not abuse from this practice".

The engineers should have competence, devotion and honesty. All of us possess the resources we need to achieve what we want if only we have the self-confidence to try. We face challenges, and we can overcome them, not because being special, but by co-operating and helping each other along the way. We should never forget the 7 Engineering Pillars of the Wisdom: Practice, Precedents, Principles, Prudence, Perspicacity, Professionalism and Prediction. Following Thomas Mann we should enjoy the activities during the day, but only by performing those that will allow us to sleep at the night.

## Professor Pedro Seco e Pinto, ISSMGE Immediate Past President

5. ISSMGE is easy to pronounce, and has an adequate size. We feel proud of it and, more importantly, ISSMGE makes a clear difference from other society names, e.g. IAEG, ISRM, ITA, IG, etc. By deleting SM, I fear that ISGE (International Society for Geotechnical Engineering) can provoke some confusion. "What is it? A new society?"

I would like to stress that we have the duty to preserve our heritage and our knowledge. This is a crucial decision and we should not hesitate to consider our creation of a very important action.

6. The diversity of our Technical Committees is our great richness and our source of inspiration. We benefit a lot from the Synergies between Theory (Soil Mechanics TC101-TC107) and Practice (Geotechnical Engineering TC201-TC 216).

It is important to interact with the society and the general public and to explain that the concern for man and fate has been always the core interest of the engineer profession, in order that the creations may be taken as a blessing for the Society.

The recognition for the engineer's work is lacking since the past; e.g., the Egyptian King Cheops has his name linked with the great pyramid, a master piece engineer work, but the history does not record the name of the engineer.

Also it is important to narrow the gap between the university education and the professional practice, but we should not forget that Theory without Practice is a Waste, but Practice without Theory is a Trap. Kant stated that Nothing is better than a good theory, but following Seneca "Long is the way through the courses, but short through the example." I will add through a careful analysis of Case Histories.

7. SM (Beauty, Love, History, Light) and GE (Logic, Wisdom, Analysis, Knowledge) are two hemispheres of our brains Yin & Yang totally linked.

The master piece of Van Gogh symbolizes in a wonderful way this link (Figure 3).



Figure 3. Langlois Bridge by Van Gogh, 1888.

## Professor Pedro Seco e Pinto, ISSMGE Immediate Past President

8. We should maintain this Bridge between SM and GE, give our hands, and work together to pursuit perfection of the life and the optimum solution.

To achieve this goal, it is important to take advantage of the energy of the youth. ISSMGE should prepare the Young Geotechnical Engineers that represent the future of our society to face the real needs and the new challenges of the society, to reduce the gap between theory and practice, to help them to explore their intuition and to teach them the importance of engineering judgement. Cooperation between SM and GE is essential.



Figure 4. Cooperation between SM and GE.

9. We want all of you to make parts of our community, to promote your growth and to make you feel that you are contributing so that our dream will come true.

The benefits from an open dialog between Academia, Researchers, Practitioners, Contractors, Owners, Decision Makers and Public are huge. We should never forget Aristotle's statement:

"We are what we do Consistently In fact Excellency Is not an Act But a Practice".

10. The Change of the name of ISSMGE should not be an obsession. There are other Priorities in our Society. Redundancy of SM is not a problem.

We need to humbly recognize that we have not yet achieved our goals related with the progress of knowledge and we have not been capable of communicating with important sectors of our society. We need to hear the voice of the youth, to renew the old practices and to promote innovation and new findings. Following William Hazlitt's memorable lines:

"A great passion for the object will assure success because the wish for the purpose will show the means".

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11. Co-operation with ISRM, IAEG, IGS and ITA is Important.

The Councils of the IAEG (6 September 2006), ISRM (7 November 2006) and ISSMGE (21 October 2007) have approved the Cooperation Agreement that governs FedIGS.

We have learned from Abe Lincoln, Mahatma Ghandi, Mother Teresa and Nelson Mandela that nothing focuses the mind more than a future ideal that moves the heart.

12. But we should preserve our Autonomy, History and Identity, and avoid Merging. The life is Multi-Dimensional.

Co-operation between Geo-Societies is important, but we should always preserve our autonomy. Our history reminds us of a saying:

When you get back to doing those Things that lifted your spirit and sent you soaring, You reconnect with that state of happiness That you may have lost.

Salvador Dali called our attention on the fact that life is multi-dimensional (Figure 5).



Figure 5. Searching for the fourth dimension (Salvador Dali, 1979).

#### 13. When we change our Life is for Better, not to move Backwards.

From the analysis of past incidents and accidents that occurred during geo-disasters, it can be noticed that all the lessons have not deserved total consideration, in order to avoid repeating the same mistakes. We need to enhance a global conscience and develop a sustainable strategy of global compensation how to better serve our society. The recognition of a better planning, early warning, and quality of evacuation should be taken for extreme events that will hit our civilization in the future. Plato (428-348 BC) in the Timaeus stressed that destructive events that happened in the past can happen again, sometimes with large time intervals between, and for prevention and protection we should follow Egyptians example and preserve the knowledge through the writing.

14. Your Wisdom, Patience and Kindness have shaped the Heart and the Soul of ISSMGE acting as a SM (Soil Mechanics) foundation of Inspiration and unforgettable Support.

### Professor Pedro Seco e Pinto, ISSMGE Immediate Past President

Many thanks for your encouragement. You have offered a foundation of inspiration and unforgettable support. This journey was an unforgettable experience. But we should never forget that, despite that we have tried to make a lot of things, still a lot of things remain and need to be done. Please remember Goethe lines:

"The duty accomplished leaves always A feeling of guilty, as we never do Absolutely everything".

15. As we live our life, we craft our destiny. To build a brilliant future and make life sublime we should not forget our roots.

I would like to address to all member societies a word of praise and gratitude for your contributions and a message of hope that your continuous support will allow us to overcome the difficulties, to develop a feeling of universal responsibility and to create the ambition to better serve our beloved ISSMGE.

Trust that the winter of your sorrow will yield to the summer of your joy, just as the brilliant rays of the morning always follow the darkest part of the night.

16. Let us keep our name ISSMGE

ISSMGE is blessed to be accompanied by many extraordinary people. Without them, it would not be possible to advance the mission to serve the Society.

We should not forget the memorable words of Anatole France:

"To accomplish great things we must not only act, but also dream, not only plan, but also believe and the belief in a thing makes it happen."

Many thanks for your kind attention.

## **ISSMGE President 880 Days Report**

## Professor J-L. Briaud

Distinguished Colleagues, Dear Friends,

This is my twenty ninth progress report after 880 days as your President. Note that previous reports are on the ISSMGE web site (http://www.issmge.org/) under "From the President" if you need them. In this report, I would like to talk to you about our upcoming webinar and mostly about ISSMGE Awards.

Webinar: our last webinar on Geotechnical Risk was again a great success. In fact, we reached our limit of 100 computers connected worldwide when some 180 were trying to join. Many thanks to Zenon Medina-Cetina (USA) and Marco Uzielli (Italy) for a great job not to forget the background support of K.K. Phoon (Singapore) and his Technical Committee team. Note that you can get on line and access the recording of past webinars if you have missed one. The next webinar is also very exciting and free. The topic is "Short and Long Term Leakage Through Composite Liners" and the speaker is Kerry Rowe (Canada). The date is set for 25 April 2012 at 14h00 UTC. If you need more information, please contact Theresa at ttaeger@civilmail.tamu.edu

Awards: About one year ago it became obvious to me that the number of ISSMGE Awards per member was much too low compared to most professional societies. So we created AWAC, the Awards Committee. Francois Schlosser (France) is the chair of the new ISSMGE Awards Committee (AWAC). I charged Francois and AWAC to create new awards so we could recognize properly all those who go the extra mile, sorry, the extra kilometer in their contributions to our profession. He, Esve Jacobs (South Africa), Bill Marcuson (USA), and other committee members have worked diligently over the last year. They created 5 new Awards which bring us to 10 Awards with the existing ones. I will briefly discuss each one of them but you can find the details including deadlines, nomination package, and who can make the nomination on the newly created Awards page on the ISSMGE web site athttp://www.issmge.org/web/page.aspx?refid=767.

Terzaghi Oration Award: this is an existing award and the most prestigious of all for technical contributions. The Terzaghi Orator is selected by the President after input from the Member Societies and the Board. The Oration is presented at the quadrennial conference. I seek your input on this award. I need a cover letter and a CV for anyone you wish to nominate. I plan to make a decision in June 2012.

Kevin Nash Gold Medal: this is an existing award which is more oriented towards service contributions to ISSMGE. It is decided by a committee made of all Past Presidents and chaired by the Immediate Past President (Pedro Seco e Pinto in this case). Past Presidents are not eligible.

Young Geotechnical Engineer Award (3): this is an existing award; there are 3 of those awards for young members. Young is defined here as less than 36 year old on 31December 2013. This award is for an outstanding paper to be published in the proceedings of the upcoming quadrennial conference in Paris in 2013. The nomination must come from a member society

Outstanding Technical Committee Award: this is a new award to recognize an outstanding technical committee of ISSMGE. The nomination must come from a member society and it would make sense to me that it comes from the member society of the chair of the TC.

Outstanding Geotechnical Project Award: this is a new award to recognize an outstanding project worldwide. This project should exemplify the ingenuity of geotechnical engineers and the value they bring to mankind. It is the kind of project that we would wish to propose to the television Discovery channel for example to highlight our achievements and enhance the image of our profession. Again, the nomination must come from a member society.

Outstanding Innovator Award: this is a new award to recognize a geotechnical engineer or team of geotechnical engineers for their creativity and innovation in solving difficult geotechnical problems and for their impact on our geotechnical life. Again, the nomination must come from a member society.

## ISSMGE President 880 Days Report(Continued)

## Professor J-L. Briaud

Outstanding Member Society Award: this is a new award to recognize an outstanding member society and to reward young and smaller Member Societies who are active. Self nomination is requested in this case.

Outstanding Paper in the International Journal of Geo-Engineering Case Histories Award: this is a new award to recognize the best paper in this ISSMGE Journal. The Editorial Board of the IJGCH will select the paper.

All awards are to be submitted to the Secretary General by the deadline who will relay them to the Awards Committee for consideration. The ISSMGE Board will receive the recommendations from the Awards Committee and make the final decision. Please take time to nominate your most valuable colleagues. All awards will be presented at the18th International Conference for Soil Mechanics and Geotechnical Engineering in Paris, France, 2-5September2013 (www.paris2013-icsmge.org/).

Best wishes, Jean-Louis Briaud President of ISSMGE

# **ISSMGE** President 910 Days Report

## Professor J-L. Briaud

Distinguished Colleagues, Dear Friends,

This is my thirtieth progress report after 910 days as your President. Note that previous reports are on the ISSMGE web site (http://www.issmge.org/) under "From the President" if you need them. In this report, I would like to talk to you about our upcoming webinar, the page allocations and sponsorship for the Paris-2013 quadrennial conference, and the ISSMGE Board meeting on 29April2012 in Nigeria.

Webinar. Our next webinar will be presented by Kerry Rowe (Canada) on the topic of "Short and Long Term Leakage through Composite Liners". Here is another occasion to listen to one of the best in the business. The webinar will be free of charge and is set for 25 April 2012 at 15h00 UTC. Note that this is a different date from the date I announced to you in my last progress report. If you need more information, please contact Theresa at ttaeger@civilmail.tamu.edu.

Additional Proceedings page allocation for Paris 2013. In November 2011, all Member Societies received a letter from Neil Taylor announcing the distribution of page allocation for the 18th ICSMGE in Paris (1-5 Sept 2013, www.paris2013-icsmge.org). We asked to have any request for additional pages from the Member Societies by 25 Jan 2012; we received 9 requests. On 26Jan2012, I distributed all of the additional pages that I had as a special Presidential allocation to those 9 member societies. Since then I have continued to receive requests for additional pages (5 member societies), but I have no pages left to give. I talked to the Conference Organizing Committee in Paris and here is what you need to do if you absolutely need more pages.

- 1. Upload on the web site as instructed by the deadline of 15April 2012 all the abstracts corresponding to your allocation. If you have received additional pages before the January 2012 deadline use it here.
- 2. For those of you who requested additional pages since the January deadline, send an email to the following email address (coc@paris2013-icsmge.org) before 15April2012 and officially request additional pages.
- 3. The chance that you will receive additional pages at this time is remote but we wish to help everyone as much as we can. Please understand that we are facing limitations as well.
- 4. The Conference Organizing Committee meets on 29May2012 and will make a decision at that time.

The request for additional pages is a very good sign for the success of the Paris 2013 conference.

Sponsors for Paris 2013. Please help us continue to find sponsors for this magnificent conference. This is definitely going to be one the best ever judging from the outstanding work of the organizing committee and the large request for additional pages. If you wish to get marketing exposure, this is the one not to miss. To be a sponsor or if you know someone who wishes to be a sponsor, go to www.paris2013-icsmge.org and then to "Sponsors - Exhibitors".

Board meeting agenda. The ISSMGE Board will meet in Lagos, Nigeria on 29April2012. I attach the draft agenda for that Board meeting for your information. If you have something urgent and important that should be discussed by the Board and that you do not see on the agenda or if you have a comment on some of the topics included, please let me know. I plan to give you a brief report of the board decisions and discussion in my next progress report.

Until then, best wishes. Jean-Louis Briaud, PhD, PE President of ISSMGE

# NEWS Visit to Chinese Taipei Geotechnical Society

## Prof. Askar Zhussupbekov

After one-year sabbatical leave and visiting study at Columbia U. in US, Prof. Askar Zhussupbekov, Vice President of ISSMGE for Asia visited the Chinese Taipei Geotechnical Society (CTGS) during February 23-March 14, 2012. CTGS President, Prof. San-Shyan Lin and several distinguished CTGS members, including the Past ISSMGE VP for Asia and the Founder/Past President of Southeast Asia Geotechnical Society (SEAGS), Dr. Za-Chieh Moh and the Past CTGS Presidents, Profs. Cheng-Hsing Chen, Rong-Her Chen, Meei-Ling Lin, Horn-Da Lin and Hung-Jiun Liao and the Past SEAGS Presidents, Drs. Chin-Der Ou, John Chien-Chung Li and Chung-Tien Chin were happy to welcome Zhussupbekov. During his visits, Askar delivered different lectures and offered good discussions at the Universities, engineering firms (CECI Engineering Consultants, Inc. and Moh and Associates, Inc.) and some government agencies (Public Work Department of Taipei City Government and National Center for Research in Earthquake Engineering). Site excursions for excellence of the Taiwanese cultures were planned during the visits. According to the inviter, Prof. Der-Wen Chang at Tamkang University, this visit is very successful to initiate possible collaborations and cooperation not only for issues regarding geotechnical engineering but also for high education and energy technologies between Kazakhstan and Taiwan.



Banquet with CTGS representatives I



Lecture at Tamkang University campus



Banquet with CTGS representatives II



Lecture at Chaoyang U. of Technology campus

# NEWS (Continued) Visit to Chinese Taipei Geotechnical Society



Photo taken at Taipei City Government



Awards by PWD Commissioner, Dr. Shannon SH Lee



With TKU President, Prof. Flora Chia-I Chang



Visit NCREE with NTU faculty



Visit NCKU with faculty members



Visit Chung Tai San Monastery

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# TECHNICAL ARTICLE ON COMBINED EFFECTS IN NATURAL DISASTERS AND THEIR MITIGATION

Ikuo Towhata, University of Tokyo, Appointed Board Member of ISSMGE Daniel C. Peckley Jr., Assistant Professor, University of the Philippines Mabelline T. Cahulogan, Science Research Specialist, Philippine Institute of Volcanology and Seismology Bangan Liu, Researcher, University of Tokyo Shogo Aoyama, Doctoral Student, University of Tokyo

Recently, the first author had a chance to submit a technical note to some journal. The content of that manuscript addressed recent experiences and findings during many technical visits at natural disaster areas. The first author hereby use one part of the article for readers' information concerning what is called the combined effect.

The combined effect stands for a situation in which two or more disasters occur simultaneously or sequentially and aggravate the results. In one situation, the first disaster triggers the second one, while in other situations two or more disasters occur independently but the consequence of the second one is made worse by the effects of the first event. Because the former situation appears to be very rare, this article addresses the second type. Because of the nature of this bulletin, the content mainly concerns slope problems.

The author made a technical investigation in 2005 immediately after the Kashmir earthquake. Among many slope failures in weathered surface materials, the situation in Fig. 1 was impressive in that the crack apparently provided a water channel into the subsoil. During a rainy season, the surface run-off water would easily flow into the slope and increase the weight of soil, reduce the effective stress, and possibly deteriorate the mechanical properties of the submerged soils. Thus, the negative effects of a heavy rain fall were made worse by the preceding strong earthquake shaking, which is herein called the combined effect.



Fig. 1 Earthquake-induced crack in mountain slope (after the 2005 Kashmir earthquake).



Fig. 2 Continuous failure of mountain slope initiated by strong earthquake motion (in Muzaffarabad after the 2005 Kashmir earthquake).

It was peculiar that the same earthquake triggered a long-term slope failure in a mountain behind a local capital of Muzaffarabad City (Fig. 2). Possibly the mechanical properties of the rock was disturbed by strong shaking and minor cracks were created. Consequently, the continuous failure of the slope and falling of debris especially during heavy rains have been a significant threat to the local community. These cases described above illustrate a combined effect of earthquake and rainfall.

## TECHNICAL ARTICLE (Continued) ON COMBINED EFFECTS IN NATURAL DISASTERS AND THEIR MITIGATION

There are more examples, similar to the aforementioned ones, where a preceding strong earthquake impact induced a long-lasting slope instability problem during rains. Fig. 3 illustrates the Ohya slope in Japan (Imaizumi et al., 2005; Shizuoka Prefecture at about 100 km to the west of Tokyo) that was most probably destroyed by the 1707 Ho-ei earthquake of Mw=8.7. Since then, slope instability and debris flow upon every heavy rain have continued for 300 years, and slope stabilization works are going on intensely even now. This situation will continue further as suggested by the current slope surface that is still covered by unstable stones and debris (Fig. 4).



Fig. 3 Unstable Ohya slope.



Fig. 4 Surface of Ohya slope covered by debris.

Mud flow from a mudstone slope



Fig. 5 Slope failure that occurred during the 2008 Wenchuan earthquake.



Fig. 6 Continued slope disasters in Beichuan after the earthquake on May 12th, 2008 (photograph taken on April 20th, 2009).

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## TECHNICAL ARTICLE (Continued) ON COMBINED EFFECTS IN NATURAL DISASTERS AND THEIR MITIGATION

Similarly, the Sichuan Province of China has suffered from many slope failures and debris flows after the 2008 Wenchuan earthquake of Mw=7.9. During the earthquake, first, many slope failures occurred; see Fig. 5. It seems that the many mountain slopes were disturbed significantly by the strong shaking, even if they did not fall down, and produced instability problems during the following years. One of the examples of this type of disaster is found in the local capital city of Beichuan. Fig. 6 illustrates two slope problems in this city. The upper one is a failure of a mudstone slope that started after the earthquake and the slope has been falling down repeatedly upon heavy rains. Another one seen near the bottom of the photograph is a debris flow that came down along a valley. The channel of this debris flow is extremely unstable (Fig. 7) and therefore the problem will continue for many years from now on. Both problems started after the earthquake. Because this dangerous situation could not be overcome by emergency works, the local capital was moved from Beichuan to a safer place.



Fig. 7 Debris channel behind Beichuan City.

The epicenter of the Wenchuan earthquake was near Yinxiu City. In 2008, an expressway was under construction to connect this city as well as Wenchuan City, both being situated in a mountainous area, with the main part of the Sichuan Basin. Although the construction was stopped for some time because of the earthquake, it was resumed and became nearly completed in the part near Yinxiu. In 2010, however, a heavy rain induced debris flow and destroyed the expressway (Fig. 8). Probably because of this unstable slope conditions along this part of the expressway, the expressway is now situated in the center of the valley; away from the slope and hence above river water.

A similar but much more significant disaster occurred in August, 2010, in Zhougu County that is



Fig. 8 Debris flow in front of Yinxiu City.



Fig. 9 Huge volume of debris deposits in the valley bottom at Wenjiagou.

located to the north of the Wenchuan earthquake area. Heavy rain triggered a huge amount of debris flow that attacked a township and claimed one thousand and four hundred lives. Ma (2010) stated that the debris came from valley deposits that were produced by an earthquake in the 19th Century. This is a kind of combined effect of an earthquake and rain fall.

# TECHNICAL ARTICLE (Continued) ON COMBINED EFFECTS IN NATURAL DISASTERS AND THEIR MITIGATION



Fig. 10 Township located at the exit of a valley prone to debris flow.

The tragedy in Zhoqu was a good lesson to local officials. One week later, another heavy rain occurred in a mountain area of the nearby Sichuan Province. Because the valleys in the area had a significant amount of debris deposits because of slope failures during the Wenchuan earthquake, an evacuation order was issued immediately. Fig. 9 illustrates a situation in Wenjiagou valley in November of 2010 where a huge debris deposit was washed by heavy rain. This case implies a long-term hazard of debris flow after a strong earthquake induced falling of slope material into the valley. Although human life was thus saved, more fundamental care is needed of land use and development design. Fig. 10 shows that there is a town at the exit of the hazardous valley. Safety planning should relocate human habitations away from this dangerous place.



Fig. 11 Slope failures caused by the 1999 Chi

Chi earthquake in Taiwan.



Fig. 12 Siltation rate in Tsengwen Dam Reservoir (drawn after Hsu, 2012).

The 1999 Chi Chi earthquake in Taiwan probably affects today the stability of mountain slopes; see Fig. 11. Fig. 12 illustrates the rate of siltation (soil flux per year) at the Tsengwen Dam Reservoir that is situated in the downstream area in south Taiwan. Generally, the extent of siltation has increased in the years when strong typhoons, particularly the Typhoon Morakot (Lee and Towhata, 2010), hit the upstream area. From a long-term viewpoint, however, it is further interesting that siltation increased around the year of

# TECHNICAL ARTICLE (Continued) ON COMBINED EFFECTS IN NATURAL DISASTERS AND THEIR MITIGATION

1999, possibly suggesting that the mountain slope was disturbed by the Chi Chi earthquake and more amounts of soils are eroded afterwards during heavy rain falls.

The cases introduced above make it possible to classify the combined effects of earthquake and rainfall into three groups as shown in Table 1. See the preceding earthquake effects continue for different periods of time, depending upon the mechanism of disaster combination.

Mechanism	Effects on material properties	Lasting time of slope instability
Crack opening and precipitation of water into soil	Generally no, but, if clay mineral absorbs water, swells, and deteriorates, yes.	Ending when slope with cracks falls down, but swelling effect may continue long.
Seismic disturbance and deterioration of material properties	Yes. Cementation and bonding are destroyed.	Quick recovery of deterioration is unlikely.
Washing out of debris deposits in valley	No.	Ending upon washing out.

#### Table 1 Classification of earthquake effects on post-seismic slope instability.

#### ON RELOACTION AND EVACUATION FOR DISASTER MITIGATION

Combined disasters are more powerful than an individual event whether they occur simultaneously or sequentially. To manage this extreme condition, it is often stated that relocation to safer places and/or evacuation in advance are essential. The case of Fig. 9 is one of the successful examples of this idea. It seems, however, that there are still points to be noted. In this regard, the authors visited the Mayon Volcano area in the Philippines and interviewed local people about the ongoing disaster mitigation efforts against lahar. Lahar is a flow of volcanic debris that is induced by heavy rain. Because the ash deposit was made by a preceding volcanic eruption, lahar is a combined disaster caused by eruption and rain.

The Mayon Volcano (Fig. 13) is a very active volcano in the Albay Province, Luzon Island, the Philippines and measures 2,463 m in altitude. It erupts very often and deposits ash in its slope. The disaster mitigation program has been conducted by a public sector named Albay Public Safety and Emergency Management Office (APSEMO) in Legazpi City. Its basic activities are relocation and evacuation (Delos Reyes et al., 2006). The ongoing program is accepted and supported by local people because they remember a very bad lahar disaster in 2006. The information obtained from interviews in several villages is introduced in what follows.



Fig. 13 Mayon in Albay Province of the Philippines.

## TECHNICAL ARTICLE (Continued) ON COMBINED EFFECTS IN NATURAL DISASTERS AND THEIR MITIGATION



Fig. 14 Lahar channel in Padang Village.

In the Padang Village that was devastated by lahar in 2006 (Fig. 14), a male resident who was able to survive the 2006 disaster made the following remarks:

- Because his residence was destroyed, he is living in a temporary house in a safer place.
- He is allowed to come back and work in the original home only in the day time, although some people stay overnight on their own risk.
- Although the risk of lahar is understood widely, people still prefer their home place to live.
- His ancestors taught him a lesson to evacuate at high places during heavy rain.
- Around himself, senior people and children could not evacuate during the 2006 lahar.
- Because the local school, which was a designated evacuation center, had been attacked by flooding in the same year, evacuation order to the same place was difficult to issue.

In spite of the lahar risk, people still prefer to come back to their home place because of the job and income. Many families wish to live near lahar-filled channels because their main income comes from collecting aggregates from river beds. Therefore, the risk and income are closely related with each other. Another important point is that people fully understand the problem of lahar and, as indicated by the ancestors' lesson, they are willing to evacuate during heavy rains. This makes the governmental evacuation order easy to be accepted.

In Salvacion Village (Fig. 15), people made the following remarks;

- Ancestors taught the danger of lahar as well as importance of evacuation.
- People do not feel 100% safe even if they live in a relocation place.
- When an official evacuation order is issued, they go to a designated place by a group; transportation is supplied by the government.
- People understand that the time lag between the evacuation order and onset of lahar is a few hours.
- The main industry is collecting aggregates from the river channel.
- Relocation may reduce their income.

Noteworthy is that the current risk of lahar is low because Mayon has not made big ash eruption since 2006 and hence there is not much ash deposit in the mountain slope. Accordingly, people use river channel for small agriculture (Fig. 16). This implies that people are keen to work in order to make their living even along slopes within the 6-km Permanent Disaster Zone (PDZ).

A local block manufacturer in lahar-prone Bunot Village (Fig. 17) said that he wished to live in his home place because the home was next to a local main road where many customers come. Again, income is more important than relocation.

# TECHNICAL ARTICLE (Continued) ON COMBINED EFFECTS IN NATURAL DISASTERS AND THEIR MITIGATION



Fig. 15 Salvacion village that is situated upon relatively high place.



Fig. 16 Small agriculture in lahar-prone river channel.



Fig. 17 Block production in lahar-prone village of Bunot.



Fig. 18 River channel in San Rafael.

In San Rafael, a house wife in her 30s mentioned what follows:

- Her family cannot move to a safer place because there is no money to employ a carpenter and build a new house, although land and building material are supplied by the government.
- The family collects aggregates from a river channel (Fig. 18) behind her house.
- Children's school is close to the present place.

In summary, people understand the importance of evacuation because they experienced a devastating lahar only a few years ago (2006) and a minor one in 2011. At the same time, however, convenience for business and working is more important than relocation to a safer but less convenient place. In other words, daily income is essentially important. Accordingly, the following points have to be borne in mind by disaster mitigation managers and engineers so that the mitigation programs would be successfully accepted by people;

- 1) Emphasis should be placed on early warning and evacuation, while relocation may not be fully preferred by people.
- 2) Hence, disaster management experts should not forget the importance of earning income and making a living.

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# TECHNICAL ARTICLE (Continued) ON COMBINED EFFECTS IN NATURAL DISASTERS AND THEIR MITIGATION

- 4) In other words, local main industries deserve special protection.
- 5) Education and evacuation drill are essential because otherwise people would soon forget the risk of natural disasters.
- 6) Engineers should help local governments and people foresee the incipient risk and initiate evacuation by supplying such appropriate technologies as early warning and construction of an evacuation shelter.

#### PEOPLE'S EMPIRICAL KNOWLEDGE OF SAFETY

Nature is complicated and there are many things that we do not know yet. In particular, modern engineering relies on stress-strain-strength issues and often misses what cannot be accounted for by analytical-numerical approaches. In contrast, many animals are able to sense risk in advance and avoid it. As one of the animals, human beings should have a similar sense but probably have lost such a sense significantly. It is, however, still possible to find non-engineering wisdom for disaster mitigation at different places. One of the aims of a damage reconnaissance after natural disasters is to find such wisdom.

Figure 19 indicates a situation in an alluvial fan near the capital (Timpu) of Bhutan. An alluvial fan is subject to flooding and other slope disasters. In contrast to old and abandoned houses that are situated behind a protection of forest, newer houses are located in the center of the fan which is more convenient for working. This may imply that recent people are forgetting old wisdom and put more emphasis on daily conveniences. Fig. 20 indicates that houses are located on parts of a slope that did not fail during the 2004 Niigata-Chuetsu earthquake in Japan. The first author was impressed after that earthquake to find that people's residents were not much affected by slope failures, while public buildings that came only recently were situated on less stable parts of slopes and were affected by the earthquake-induced slope failures. Probably the long (nearly 1000 years) history of the local community has taught people which parts of slopes are safer.



Fig. 19 Location of old and new houses in an alluvial fan near Thimphu of Bhutan.



Fig. 20 Houses located on safer parts of seismically affected slope (Yamakoshi Village, after 2004 Niigata-Chuetsu earthquake, Japan).

Relocation of human habitation to safer places is often discussed. The recent gigantic earthquake and the associating tsunami disaster in Japan are demonstrating a significant problem concerning the relocation. After the previous big tsunami disaster in 1933, a relocation program was conducted extensively in the affected coastal area and people started to live at high elevations. Fig. 21 shows one of the examples of this type. Later on, further safety efforts were made to construct a high sea wall (Fig. 22) so that the highest ever-known tsunami in 1896 would be stopped. Consequently, the local people felt safer than

# TECHNICAL ARTICLE (Continued) ON COMBINED EFFECTS IN NATURAL DISASTERS AND THEIR MITIGATION

before and started to live at low places behind the wall. This situation led to a tragedy again in 2011 because the tsunami height exceeded the height of the wall. Houses at low elevation were totally washed away, while those at high places survived the disaster (Fig. 23).



Fig. 21 Village at tsunami-free high place (Karani-Hongo, Iwate).



Fig. 22 High sea wall against tsunami attack (Karani-Hongo).



Fig. 23 Tsunami disaster behind the sea wall of Karani-Hongo (houses at higher elevations in the top right survived the tsunami).



Fig. 24 Tsunami water level well above the sea wall and close to the entrance gate of a local shrine.

The fundamental problem here was that people had been wishing to live near the sea because the main industry in this locality was fishing. Obviously, low places were much more convenient for daily life than high places. Hence, the construction of the high seawall gave people a good reason to move to the low places. People in 2011 did not take the earthquake and tsunami alert seriously because they fully trusted the "high" sea wall. Unfortunately, the tsunami evacuation drills and education in the local community were not very helpful. Probably similar situation occurred at many other places and increased the number of victims. Fig. 24 indicates that the tsunami reached an elevation much higher than the wall and close to the entrance gate of a local religious shrine.

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## TECHNICAL ARTICLE (Continued) ON COMBINED EFFECTS IN NATURAL DISASTERS AND THEIR MITIGATION

An interesting wisdom of people reasonably suggests the ever-greatest height of tsunami. This height is now very important for design of the local communities subjected to extremely high but rare tsunami. In the affected region, the record of tsunami in the modern sense dates back only to 1896. Height of older tsunamis may be found only by excavation of soil for deposits of tsunami sand. In addition to this way of study, another approach to the ever-highest tsunami is supplied by the location of holy gates of shrines (Fig. 24). Since the gate and shrine are holy, local people have been reconstructing shrines at higher and safer places after every tsunami disaster. Hence, today, it is possible that the elevation of the gate indicates the highest level of past tsunami; probably a record in the past 1000 years or so. This time length is much longer than modern written records and therefore is very useful. Recent trips of authors to the tsunami-hit area found many holy gates that are located immediately above the tsunami run-up height (Figs. 25 - 28). This probably means that the tsunami in 2011 was one of the highest in the past 1000 years or so.



Fig. 25 Shrine in Onagawa.



Fig. 26 Shrine gate in Rikuzen-Tokura.



Fig. 27 Shrine gate in Ohtsuchi.



Fig. 28 Shrine in Taro.

## TECHNICAL ARTICLE (Continued) ON COMBINED EFFECTS IN NATURAL DISASTERS AND THEIR MITIGATION

#### CONCLUSIONS

This article intends to demonstrate an idea of combined effects of two or more natural disasters that occur sequentially and worsen the consequence. Several cases indicate that the combined effects in slope instability during heavy rainfall are induced by preceding earthquakes in terms of material deterioration and/or cracks that affect the mechanical properties of rocks or allow more surface water to come into the depth. The worsened situation requires the increased effort for safety in spite of the increased cost. To accommodate this cost, "soft" approaches such as relocation and evacuation are often discussed. It is noteworthy therein that people considers the way of daily income as important as or more important than the life safety during an emergency situation. Finally, discussion was addressed to non-engineering wisdom for safety that local communities acquire after a long time of life under critical conditions.

#### ACKNOWLEDGEMENT

The authors' visit and interview in the area of Mayon Volcano was made possible through the collaboration with the University of the Philippines (UP), Philippine Institute of Volcanology and Seismology (PHIVOLCS) as well as the Albay Public Safety and Emergency Management Office (APSEMO). In particular, the assistances supplied by Dr. A. A. Acacio of UP, Dr. R, U. Solidun, Jr. and Dr. A. S. Daag of PHIVOLCS, and Dr. C. D. Daep of APSEMO are deeply appreciated. Moreover, another technical visit at the Tsengwen Reservoir in Taiwan was arranged by Prof. A. B. Huang of National Chiao Tung University in Taiwan. Their contribution and kindness are sincerely appreciated by the authors.

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# NEWS FROM TECHNICAL COMMITTEE-1 Technical meeting of TC207 - Workshop on Soil-Structure Interaction and Retaining Walls", Dubrovnik, CROATIA, 6-8 October 2011

Technical Committee TC207 belongs to one of the 30 Technical Committees of ISSMGE. The principal area of research at TC207 encompasses issues of Soil-Structure Interaction and Retaining Walls. The Committee currently has 44 members from 28 countries. For details, visit the website at http://www.tc207ssi.org/main-page.html.

Croatian Geotechnical Society (HGD) and ISSMGE Technical Committee 207 joined their forces in organizing an international event entitled "Technical Meeting TC207 - Workshop on soil-structure interaction and retaining walls". The meeting was held in Valamar President Hotel in Dubrovnik on 6-8 October 2011.



Historical Centre of Dubrovnik, Croatia.



Participants of the meeting: "Technical Meeting TC207 - Workshop on Soil-Structure Interaction and Retaining Walls", Dubrovnik, Croatia, 6-8.10.2011. (From left to right: Catherine Jacquard, Predrag Kvasnička, Ana Hršak, Bruno Škacan, Željana Skazlić, Guido Gottardi, Igor Sokolić, Victor CW Ong, Igor Sorić, Vladimir Lukin, Chris Haberfield, Michael Lisyuk, Konstantin Shashkin, Vladimir Ulitsky, Nik Kurchanov, Lars Vollmert, Polina Zimina, Igor Fomenko, Mandy Korff, Richard Finno, Ivana Lukić, Yasser El-Mossallamy, Olga Kuvaldina).

23 specialists from 9 countries participated in the meeting in Dubrovnik (12 TC207 members, 6 HGD members and 6 other ISSMGE members).

# NEWS FROM TECHNICAL COMMITTEE-1 (Continued) Technical meeting of TC207 - Workshop on Soil-Structure Interaction and Retaining Walls", Dubrovnik, CROATIA, 6-8 October 2011

The technical program of the meeting included lectures and special presentations, as well as papers and discussions of the Committee's main Task Forces' activities, *viz*.:

Task Force 1. Guidelines on Soil-Structure Interaction (leaders - Chris Haberfield and Konstantin, Shashkin),

Task Force 2. Retaining Walls (leader - Yasser El-Mossallamy), and

Task Force 3. Website of the TC207 (leader - Michael Lisyuk).

For each task there was a detailed report by the Task Force Leader presenting results of current work and outlining plans for future progress.



Presentations and discussions at the meeting.



Gala dinner and the City Tour.

During discussions the leader of Task Force 2 Yasser El-Mossallamy proposed to organize a sub-committee on Retaining Walls to encourage more efficient work in this direction. The proposal was approved, whereupon the sub-committee members were appointed. The ensuing meeting of the newly established sub-committee defined its main tasks and priorities.

## NEWS FROM TECHNICAL COMMITTEE-1 (Continued) Technical meeting of TC207 - Workshop on Soil-Structure Interaction and Retaining Walls", Dubrovnik, CROATIA, 6-8 October 2011

The participants also enjoyed two key-note lectures, viz.:

"Preservation and reconstruction of historic monuments in Saint Petersburg with account of Soil-Structure Interaction" (V. Ulitsky, C.S. hashkin, M. Lisyuk), and "Footing Design of the Nakheel Tower, Dubai, UAE" (C. Haberfield)

Additionally, 13 scientific reports were presented.

All the papers were published in the Proceedings: "Technical meeting TC207 - Workshop on Soil-Structure Interaction and Retaining Walls".

The social program of the meeting included a gala dinner at the meeting venue and a tour to the City of Dubrovnik and the historic City Center.

According to the members of the Organizing Committee and all participants, the meeting and the workshop were quite successful, achieving all the main goals previously set. The members of the TC successfully exchanged their experience and results of their current work in the TC. Additionally, the workshop was attended by practitioners involved with large-scale construction projects.

Based on exceedingly profound and intensive deliberations, the committee members ratified plans for future progress. All participants contributed to knowledge in the field of Soil-Structure Interaction and Retaining Walls. Also, further contacts among TC207 members and other specialists were established, giving the opportunity for quality progress and future work of the TC. The contributions of TC207 and Croatian Geotechnical Society are well recognized among the members of the ISSMGE.

The Proceedings of the Workshop can be ordered at: Lisyuk@gmail.som

Prof. Vladimir Ulitsky, Chairman of TC207 Dr. Michael Lisyuk, Co-chairman of TC207 Dr. Igor Sokolić, Organizing Secretary of the Meeting and Workshop in Dubrovnik

## NEWS

# TC-101 WORKSHOP ON ADVANCES IN MULTIPHYSICAL TESTING OF SOILS AND SHALES

3-5, September 2012 at EPFL, Lausanne, Switzerland



#### ISSMGE workshop organised by Prof. Lyesse Laloui and Dr. Alessio Ferrari, amtss.epfl.ch

#### WORKSHOP DESCRIPTION

This workshop will focus on the significant advances of knowledge regarding the experimental analysis of soils and shale that have been achieved during the last decade. Some fundamental issues have been solved, and important achievements have been made in certain areas, including the development of multiphase testing facilities for non-isothermal conditions and the characterization of the microstructural arrangement for complex geomaterials.

This outstanding progress in the field has had relevant consequences in the theoretical developments of geomechanical theories, such as the constitutive modelling of multiphysical and multiscale processes, as well as important engineering applications. This workshop aims at stimulating the debate on the advances in experimental geomechanics; contributions on unsaturated soil testing, non-isothermal experiments and chemo-osmotic experimental evidences are welcomed. The workshop proceedings will be published in the Springer Series in Geomechanics and Geoengineering.

The workshop will be held between 3 and 5 September 2012 at the conference facilities of the EPFL in Lausanne (Switzerland). The workshop is organized by the Laboratory for Soil Mechanics (LMS) at the EPFL under the auspices of the International Society for Soil Mechanics and Geotechnical Engineering - TC 101.

#### Scientific program

A total of sixty abstracts have been accepted. The titles, authors and their affiliations can be found in the workshop webpage at the address: <u>http://amtss.epfl.ch/programme.html</u>

The workshop will feature six theme lectures delivered by researchers from all over the world:

- "Gas tests on argillaceous rocks. Experimental results and simulations" Prof. Enrique Romero
   Department of Geotechnical Engineering and Geo-Sciences
   Universitat Politècnica de Catalunya, Spain
- "Advances in experimental modelling of unsaturated soil behaviour over a whole range of paths and modes of deformation"
   Prof. Laureano Hoyos
   Department of Civil Engineering
   University of Texas Arlington, USA

# **NEWS FROM TECHNICAL COMMITTEE-2 (Continued)**

# TC-101 WORKSHOP ON ADVANCES IN MULTIPHYSICAL TESTING OF SOILS AND SHALES

- "Undrained shear of soils under suction"
   Prof. Fernando A. M. Marinho
   Departamento de Engenharia de Estruturas e Geotécnica
   Universidade de Sao Paulo, Brazil
- "Triaxial testing of unsaturated soils" Prof. Eng Choon Leong School of Civil and Environmental Engineering Nanyang Technological University, Singapore
- "Desiccation cracking in clayey soils: mechanisms and modelling" Prof. Jayantha Kodikara Department of Civil Engineering Monash University, Australia
- "Thermo-hydro-mechanical testing of shales"
   Dr. Alessio Ferrari
   Laboratory of Soil Mechanics
   Ecole Polytechnique Fédérale de Lausanne, Switzerland

# Springer Series in Geoengineering

#### Workshop proceeding:

The workshop proceedings will be published in the Springer Series in Geomechanics and Geoengineering. The proceedings are indexed by SCOPUS and SpringerLink.

#### WORKSHOP LOCATION



Lausanne: At the shore of Lake Geneva lies Lausanne, the beautiful capital of Vaud, one of the twenty-six cantons of Switzerland. The "Olympic city", hosting the headquarters of the IOC as well as the well-known Olympic Museum is continuously developing and puts lots of effort in making life enjoyable, exciting, culturally challenging and sustainable. The location at the Swiss Riviera provides an inspiring and dynamic ambiance for learning, working and relaxing.

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# TC-101 WORKSHOP ON ADVANCES IN MULTIPHYSICAL TESTING OF SOILS AND SHALES



EPFL & Rolex Learning Center: The inspiring and dynamic learning ambiance comes fully to its right at the campuses of both the Swiss Federal Institute of Technology of Lausanne (EPFL) and the University of Lausanne. Participants will be welcomed in the remarkable Rolex Learning Center. The single-room space, covering 20'000 m<sup>2</sup>, incorporates an inspiring learning environment, as well as a well-filled library with volumes on all sciences taught at EPFL. On top of that, the "Wave" functions as a meeting point for regional, national and international parties of the most diverse backgrounds.

Registration: Please visit the webpage http://amtss.epfl.ch/registration.html

Contacts: Laboratory for Soil Mechanics Swiss Federal Institute of Technology in Lausanne (EPFL) EPFL-ENAC-LMS Station 18 CH-1015 Lausanne Switzerland

Workshop secretary: Ms Barbara Tinguely Phone: +41 21 693 23 15 Fax: +41 21 693 41 53 E-mail: amtss@epfl.ch Web: amtss.epfl.ch

# **NEWS FROM TECHNICAL COMMITTEE-3**

# TC 211 GROUND IMPROVEMENT

#### Dear colleagues,

As promised in our third Newsletter we inform you about the progress with the organization of IS-GI Brussels 2012 and the Short Courses on Wednesday 30 May 2012.

#### 1 Organization of the Symposium and of the Short Courses:

We have the great pleasure to announce that the TC 211 Symposium IS-GI 2012 and the Short Courses have an overwhelming success. Actually we have:

- 239 registrations for the Symposium
- 166 registrations for the Short Courses, distributed as follows
  - 48 for SC1 Marine Ground Improvement
  - 66 for SC2 Deep Mixing
  - 54 for SC3 Rigid Inclusions and Soil reinforcement

Until now we have registrations from 38 countries all over the world, about 50% of the participants being from Belgium and France. So we will have a really international event.

For practical reasons the number of participants to the Symposium will be limited to 280 and to 70 for the SC 1 and SC3 and to 100 for SC2.

2 Sponsoring:

The Organizing Committee acknowledges the support of 19 companies, subdivided as follows:

- 6 Platinum Sponsors
- 10 Gold Sponsors
- 3 Silver Sponsors.

It has been decided to limit the number of Platinum Sponsors to 6. So actually additional sponsoring is only possible for Gold and Silver. Sponsoring conditions can be found on the symposium website <u>www.bbri.be/go/IS-GI-2012</u>.

#### 2.1 Platinum sponsors



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# NEWS FROM TECHNICAL COMMITTEE-3 (Continued)

# **TC 211 GROUND IMPROVEMENT**



3 Short courses:

The programs of the 3 short courses on Wednesday 30 May have been finalized and are given below. It has to be remarked that minor changes in the program are still possible.

The final program of the Short Courses can be found on the symposium website and is also given here below.

# **TC 211 GROUND IMPROVEMENT**

SC 1: MARINE GROUND IMPROVEMENT	<b>Coordinators:</b> M. Van Den Broeck, DEME, Belgium S. Bretelle, GHD, Australia Ph. Liausu, MÉNARD, France			
PROGRAM				
<ul> <li>09h30 – 10h00 : General Overview of Ground Improvement methods, <i>P. Mengé, DEME, Belgium</i></li> <li>10h00 – 10h30 : Overview of major geotechnical concerns, <i>M. Van Den Broeck, DEME, Belgium</i></li> <li>10h30 – 11h00 : Site investigations for Marine Ground Improvement, <i>S. Bretelle, GHD, Australia</i></li> <li>11h30 – 12h00 : Dynamic compaction and replacement, <i>Ph. Liausu, Ménard, France</i></li> <li>12h00 – 12h30 : Vibroflotation, <i>S. Lambert, Keller France</i></li> <li>12h30 – 13h00 : Rapid Impact Compaction, <i>J. Dykstra, COFRA, The Netherlands</i></li> <li>14h00 – 14h30 : Consolidation PVD, <i>I. Chu, Iowa State University , USA-Singapore</i></li> <li>14h30 – 15h00 : Vacuumconsolidation, <i>B. Indraratna, University of Wollongong, Australia</i></li> <li>15h00 – 15h30 : Soft Soil Improvement, <i>M. Van Den Broeck, DEME, Belgium</i></li> <li>16h00 – 16h30 : Reuse of dredged material, Project AMORAS</li> <li>16h30 – 17h30 : Case studies, <i>P. Mengé and M. Van Den Broeck, DEME, Belgium</i></li> <li>17h40 – 17h55 : Discussion</li> </ul>				

During the presentations special attention will be given to the specific issues for underwater ground improvement design and to monitoring and quality control (constraints and practical solutions).

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# **NEWS FROM TECHNICAL COMMITTEE-3 (Continued)**

## **TC 211 GROUND IMPROVEMENT**



#### Coordinators:

J. Maertens, Jan Maertens BVBA & KU Leuven, Belgium N. Denies and N. Huybrechts, Belgian Building Research Institute, Belgium

#### PROGRAM

- 09h30 10h15 : General Overview, M. Topolnicki, Keller, Poland
- 10h15 11h00 : Deep Mixing in contamined soils, A. Al-Tabbaa, Cambridge University, UK
- 11h30 12h30 : Deep Mixing Equipment: Bauer, Germany, F.W. Gerressen, Germany Solétanche Bachy, S. Borel, France Liebherr, D. Quasthoff, Germany
  12h30 – 13h00 : Discussion
  14h00 – 14h45 : Deep Mixing Research Belgian Building research Institute, N. Denies
  14h45 – 15h05 : Deep Mixing Research KU Leuven, A. Vervoort, Belgium
  15h05 – 15h25 : Deep Mixing research Ghent University, D Verastegui, Belgium
  15h25 – 15h40 : Deep Mixing Monitoring, Noel Huybrechts, BBRI, Belgium
  16h10 – 16h55 : Deep Mixing Design, G. Filz, Virginia Tech, USA
  16h55 – 17h25 : Case study, E. Leemans, ABEF & Soiltech, Belgium
  17h25 – 17h55 : Discussion

18h00 - 20h00 : Reception

# **TC 211 GROUND IMPROVEMENT**

SC3: RIGID INCLUSIONS AND SOIL REINFORCEMENT	Coordinators: T. Durgunoglu, Zetas Zemin Teknolojisi A.A., Turkey, B. Simon, TERRASOL, France J. Sankey, The Reinforced Earth Company, USA			
PROGRAM				
RIGID INCLUSIONS				
<ul> <li>09h30 – 10h00 : Lessons from centrifuge model tests on piled embankments and foundation over soil reinforced by inclusions, <i>L. Thorel, IFSTTar</i>, <i>France</i></li> <li>10h00 – 10h45 : Piled embankments reinforced with Geosynthetics : model experiments and analytical model developments, <i>S. Van Eekelen, Deltares, The Netherlands</i></li> </ul>				
<ul> <li>11h00 - 11h30 : US practice in Load Transfer Platform design : Lessons learned, <i>M. Walker, GEI consultants, USA</i></li> <li>11h30 - 12h05 : A review of the ASIRI research project findings about behaviour and design of foundations on soil reinforced by rigid inclusions, <i>B. Simon, Terrasol, France</i></li> <li>12h05 - 12h20 : Design of spread footing on soil reinforced by rigid inclusions, <i>B. Simon Terrasol, France</i></li> <li>12h20 - 12h55 : Design of slabs on grade supported with reinforced soil by rigid inclusions and Design assessment of limiting pressure at head of inclusions, <i>J. Racinais, Ménard, France</i></li> </ul>				
REINFORCED SOIL				
<ul> <li>14h00 – 14h45 : Introduction to Mechanically Stabilized Earth (MSE) Wall Technology, J. Sankey, the Reinforced Earth Company, USA</li> <li>14h45 – 15h30 : Review of Inextensible and Extensible MSE Reinforcement Applications, J. Wynn, Consultant, UK</li> <li>15h30 – 15h45 : Discussion</li> </ul>				
<ul> <li>16h15 – 17h00 : Application of Local Country Codes for MSE Wall Design, N. Freitag, Terre Armée, France</li> <li>17h00 – 17h45 : Combined MSE Wall Applications with Ground Improvement Technologies, T. Durgunoglu, Zeta Zemin, Turkey</li> <li>17h45 – 18h00 : Discussion</li> </ul>				
18h00 – 20h00 : Reception				

# TC 211 GROUND IMPROVEMENT

#### Proceedings of the short courses:

The proceedings of the short courses will contain the PowerPoint presentations. Participants to the short courses will only receive the proceedings of the Short Course they are attending.

4 Symposium:

All available information can be found on the symposium website: <a href="http://www.bbri.be/go/IS-GI-2012">www.bbri.be/go/IS-GI-2012</a>

The selection of the papers to be presented during the Symposium will be finalized during the meeting of the Organizing Committee on 26 April. The list of selected papers will be included in the final program that will be available on the website in the first week of May.

5 Other TC 211 related events:

Through members of the TC 211 we received information on the following events:

- Gye-Chun Cho, Professor, Dept. of Civil & Env. Eng., South Korea and member of TC211 has send the following information:
   An international conference on Geomechanics and Engineering (ICGE12) takes place in Seoul, Korea on 26-30 August, 2012.
   More information is available on <u>http://acem12.cti3.com/icge\_email.htm</u>.
   The deadline for abstract submission is extended to April 27 2012.
   Prof. Gye-Chun Cho proposes to organize a mini-symposium (5-7 papers per session) on "Ground Improvement" or equivalent, and asks to let him know if you are interested in it.
- International Conference on Ground Improvement and Ground Control Transport Infrastructure Development and Natural Hazard Mitigation, ICGI Wollongong 2012, 30 October - 2 November 2012, <u>www.icgiwollongong.com</u> This Conference, on the Antipodes of Brussels conference is co-sponsored by the TC 211, and belongs to the core activity of the TC 211.
- George Filz, Professor of Civil and Environmental Engineering Virginia Tech Blacksburg, VA 24061, asked to inform you on the 2013 Geo-Congress on Stability and Performance of Slopes and Embankments III to be held from 3-6 March in San Diego, California. Information on this Congress can be found on the website <a href="http://www.asce.org/GeoCongress2013">www.asce.org/GeoCongress2013</a>.
- 6 Next Newsletter:

The next newsletter will be edited in July 2012 and will give some impressions of the Symposium and the Short Courses. Also some ideas will be given concerning the activities of TC 211 during the International Conference of ISSMGE to be held in Paris next year.

We will try to include in the next newsletter a list with recent references to publications and internet sites concerning the themes given in the terms of reference.

Please transmit all available information to the secretary Noël Huybrechts, <u>noel.huybrechts@bbri.be</u>

# TC 211 GROUND IMPROVEMENT

We hope to see you all in Brussels at the end of May.


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## NEWS-2 XVIIIth Károly Széchy Memorial Session and XXIst Geotechnical Evening Forum on 17th of February, 2012 ACTIVITY REPORT FROM MEMBER SOCIETY

The Hungarian National Committee of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) jointly with the Engineering Section of the Hungarian Academy of Sciences and Geotechnical Section of the Hungarian Chamber of Engineers celebrated the XVIIIth Károly Széchy Memorial Session on the 17th February, 2012, at the Great Lecture Hall of the Hungarian Academy of Sciences in Budapest with over 230 persons attending the event.



Photo of Károly Széchy

Participants of the Memorial Lecture

This series of festive gatherings has been highlighted from the beginning by lectures delivered by the most illustrious professors paying tribute to the memory of the Hungarian professor, Károly Széchy. This year, the guest speaker from abroad was Prof. Dr. Ing. Dr. Ing. E.H. Walter Wittke (WBI Achen). The presentation's title was "Tunnel Design Verified by Case Histories".



Prof. Dr. Walter Wittke



Dr. Árpád Deli

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## NEWS-2 (Continued) XVIIIth Károly Széchy Memorial Session and XXIst Geotechnical Evening Forum on 17th of February, 2012 ACTIVITY REPORT FROM MEMBER SOCIETY

The speaker from Hungary was Dr. Árpád Deli, director of the HBM LtD (Budapest) and delivered a speech on "What message can deliver the path of life of a big predecessor for the deep foundation specialists of our days?"

In keeping with tradition, a young engineer who has excelled as the best junior speaker at the annual national geotechnical conference is offered the opportunity to introduce himself by a lecture at the Memorial Session. This year the candidate was Ágnes Váró from Mott MacDonald M. LtD. The title of the presentation was "The structural design of the Bátaapáti NRHT tunnel driving."

About the event you can see the presentations and photos in the following website:

http://www.issmge-hungary.net

Again, as it is traditional in these events, the Károly Széchy memorial plaque and prize were delivered. This year the recipient was János Asbóth, and Roger Frank was awarded the honorary Károly Széchy prize 2011.



Prof. Roger Frank awarded the honorary Károly Széchy prize 2011.



Mr. János Asbóth (right) is awarded the Széchy Károly memorial plaque 2012 from Prof. József Mecsi (left).

The professional events were concluded by an informal dinner, with more than 200 participants. The joyful spirits of the evening were enhanced by the toasts and the amusing speeches given by the recipients of the awards and the main speakers.

Prof. József Mecsi President of the HNC ISSMGE

## NEWS-2 (Continued) XVIIIth Károly Széchy Memorial Session and XXIst Geotechnical Evening Forum on 17th of February, 2012 ACTIVITY REPORT FROM MEMBER SOCIETY

The history of the Széchy Memorial Lecturers are shown in what follows over the period of 1994-2012.

- 1994 FAZAKAS György (Budapest, Hungary), MISTÉTH Endre (Budapest, Hungary), VARGA László (Győr, Hungary), Heinz BRANDL (Wien, Austria), FARKAS József (Budapest, Hungary)
- 1996 KOVÁRI Kálmán (Zürich, Switzerland)
- 1997 VARGA László (Győr, Hungary), LAZÁNYI István (Budapest, Hungary)
- 1998 Heinz DUDDECK (Braunschweig, Germany), GRESCHIK Gyula (Budapest, Hungary)
- 1999 Ulrich SMOLTCZYK (Stuttgart, Germany), SCHARLE Péter (Budapest, Hungary)
- 2000 DULÁCSKA Endre (Budapest, Hungary), Marta DOLEŽALOVÁ (Praha, Czech Rep.)
- 2001 Robert MAIR (Cambridge, United Kingdom), MÜLLER Miklós (Budapest, Hungary)
- 2002 Michele JAMIOŁKOWSKI (Torino, Italy), NAGY János (Budapest, Hungary)
- 2003 Jubilee session James K. MITCHELL (Blacksburg, VA USA) POSGAY György (Budapest, Hungary), TRÄGER Herbert (Budapest, Hungary), MECSI József (Budapest, Hungary)
- 2004 Suzanne LACASSE (Oslo, Norway), SZEPESHÁZI Róbert (Győr, Hungary)
- 2005 Lothar MARTAK (Wien, Austria), SZABÓ Imre (Miskolc, Hungary)
- 2006 SECO E PINTO (Lisbon, Portugal), SZILVÁGYI Imre and SZILVÁGYI László (Budapest, Hungary)
- 2007 Serge VARAKSIN (Paris, France), KLADOS Gusztáv (Budapest and Kuala Lumpur)
- 2008 Roger FRANK (Paris, France), SOÓS Gábor (Budapest, Hungary)
- 2009 Rolf KATZENBACH (Darmstadt, Germany), JUHÁSZ József (Miskolc, Hungary)
- 2010 William VAN IMPE (Ghent, Belgium), BICZÓK Ernő (Budapest and Hamburg)
- 2011 Jean-Louis BRIAUD (USA), ZÁBRÁDI Ernő (Budapest, Hungary)
- 2012 Walter WITTKE (Germany), DELI Árpád (Budapest, Hungary)

## NEWS-3 GEOTECHNICAL CONFERENCE-WORKSHOP ACTIVITY REPORT FROM MEMBER SOCIETY

The University of Pécs organised its traditional "Blossoming Almond Trees" Science Days between the 27th of February and the 2nd of March 2012. This event gives a chance for outstanding teachers and scholars to present their work. The topics of the conference series are introduced by internationally renowned scholars, artists, and public figures. The co-organizers of the workshop were: TC 302 Committee (Forensic Geotechnical Engineering) of ISSMGE and the ISSMGE Hungarian National Committee.

The University of Pécs was founded in 1367 and is the oldest University of Hungary, with 30,000 students (<u>http://english.pte.hu</u>). The city of Pécs was the Cultural Capital of Europe in 2010, and it is located at the Southern part of Hungary, 200 km from Budapest. One of the 5 days program was the geotechnical conference-workshop:

"Collapses-understanding the problems and finding solutions"

that took place on 2nd March, 2012, at the Ceremony Hall of the University of Pécs, with over 120 persons attending the event from 7 different counties (<u>http://www.mandula.pte.hu</u>). The presentations and photos are available on the following website: <u>http://issmge-hungary.net</u>.



Prof. J. Mecsi's presentation

The given lecturers were:

Prof. Dr. Heinz Brandl (Vienna University of Technology)

"Failures of flood protection dykes"

Prof. József Mecsi (University of Pécs)

"The engineering analysis of the red mud disaster"

(1.2 million cubic meters of red mud spilled to the neighbouring villages causing the death of 10 and injured more than 130 persons)

Prof. János Szépvölgyi, director (Chemistry Institute of the Hungarian Academy of Sciences) "Material properties in the red mud disaster"

## NEWS-3 (Continued) GEOTECHNICAL CONFERENCE-WORKSHOP ACTIVITY REPORT FROM MEMBER SOCIETY

György Kossa, Head of Department (Hungarian Disaster Management Office) "Industrial safety in the light of the red mud disaster"

Prof. Dr. András Tímár and Prof. Mihály Klincsik (University of Pécs) "Extreme weather events in the incidence of the effects of the Hungarian state road network, maintenance and operation costs"



Prof. Heinz Brandl's presentation

Together with this program, the members of the special advanced studies college organised an exhibition in the faculty assembly hall, presenting more than 20 pieces, 100 cm x200 cm size posters with more than 100 photos and engineering presentations on the red mud disaster; not only the disaster, but first of all the engineering analysis of the causes of the disaster.

J. Mecsi

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#### **CONFERENCE REPORT**

#### AWARDEE OF ISSMGE FOUNDATION GRANT

The Foundation of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) was created to provide financial help to geotechnical engineers throughout the world who wish to further their geotechnical engineering knowledge and enhance their practice through various activities. These activities include attending conferences, participating in continuing education events, purchasing geotechnical reference books and manuals.

To apply for a grant from the Foundation please download a form from <a href="http://www.issmge.org/web/page.aspx?refid=563">http://www.issmge.org/web/page.aspx?refid=563</a>, fill it, and send it to the Secretary General at secretary.general@issmge.org.

The awardee is expected to submit a report after the supported activity. The present article was submitted by Ms. Nurgul Alibekova who was able to attend a conference in Saint Petersburg.

#### ISSMGE FOUNDATION REPORT ON CONFERENCE ATTENDANCE

Your Name:	Your Organization:	Date of report:
Nurgul Alibekova	L.N. Gumilyov Eurasian National	2012.02.04
	University	
Conference Title:	Location of Conference:	Dates of Conference:
Russian Geotechnical Conference "	Saint Petersburg, Russia	2012.02.01-03
Numerical methods for calculations		
in geotechnical practice"		
What you learned:		
At the conference I learned about the different numerical calculation methods in geotechnical practice,		
the advantages and disadvantages of geotechnical computer programs and algorithms to work in these		
programs.		
In addition, the conference presentations, which were set out some interesting facts of design and		
construction.		
<i>People you met:</i> Tanaka T. (The Japan Association of Rural Solutions for Environmental Conservation and Resource		
Recycling (JARUS), Tokyo, Japan);		
Yoshinori Iwasaki, Ph.D., Dr.Eng. P.E. (Geo Research Institute, Osaka, Japan);		
Eun Chul Shin, Ph.D., (University of Incheon, Incheon, Republic of Korea);		
Zhusupbekov A.Zh., Vice-President of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), Doctor of Technical Sciences, Professor, (Astana, Kazakhstan);		
Rybnov E.I., Rector of St. Petersburg State Architectural University, Doctor of Economic Sciences,		
Professor (St. Petersburg, Russia);		
Il'ichev V.A., First Vice-President of the Russian Academy of Architecture and Building Sciences, President		
of the Russian Society for Soil Mechanics, Geotechnics and Foundation Engineering, Doctor of Technical		
Sciences, Academic (St. Petersburg, Russia);		
Mangushev R.A., Member of the Russian Academy of Architecture and Building Sciences, Doctor of		
Technical Sciences, Professor (St. Petersburg, Russia);		
Aseev A.A., Deputy Chairman of the Committee on Urban Planning and Architecture of St. Petersburg Government (St. Petersburg, Russia);		
Kudryavtsev S.A., Ph.D., Professor (Far Eastern State Transport University, Khabarovsk, Russia) and other		
Geotechnics Russian and foreign countries.		

## CONFERENCE REPORT (Continued) AWARDEE OF ISSMGE FOUNDATION GRANT TECHNICAL ARTICLE

Main features of conference:

This conference will allow young professionals to demonstrate their abilities, geotechnics in the field of science and broaden their outlook of scientific activity.

At the conference, I attended very interesting and informative lectures delivered by leading geotechnics of Russia and foreign countries.

Your comments on the conference:

The conference was attended by a large number of specialists in geotechnics from different regions of Russia and other countries. Among them were many young professionals, who made very interesting presentations. In general, these reports have been reflected advantages and disadvantages of computer codes used in the field of geotechnical engineering and design. Attention was given to the algorithm in the calculation of these programs.

Please attach short report (maximum 400 words) suitable for publication in the ISSMGE Bulletin:

From 1 to 3 February 2012 in Saint-Petersburg State Architecture and Civil Engineering took the Russian Geotechnical Conference dedicated to the memory of Professor St. Petersburg State University of Architecture and Construction Alexander Borisovicha Fadeeva, "Numerical methods for calculations in geotechnical practice" The conference took an active part geotechnical specialists from around the world. The conference had very interesting and informative lectures given by leading geotechnical reports on the virtues of computer codes in geotechnics.

Photographs from Conference: Opening session



Presentation



Report of the Ph.D. Alibekova N.T. (Astana, Kazakhstan) on "Evaluation of reliability design solution for the foundation of a hotel complex in Borovoye the Republic of Kazakhstan"

#### UPCOMING CONFERENCE-1

# Forensic Engineering is planning a themed issue for 2013 on "Forensic Geotechnical Engineering"

#### Professor Wei F Lee PhD, Chief Executive Researcher, Facilities & Assets Management Center for Infrastructures National Taiwan University of Science and Technology, Taipei, Taiwan

Failure of geotechnical structures could always result in major economic loss and serious consequences. For examples, there were subway construction failures which had caused extensive ground disturbance and severe damages of adjacent structures; there were catastrophic landslides which had resulted in regrettable causalities and property losses. However, forensic geotechnical engineering is one of the most challengeable disciplines in forensic engineering because every geotechnical structure has its unique design and environment. Failure investigation of geotechnical structures faces difficulties such as retrieving material evidences at their original states, dealing uncertainties of multiple contributing factors at the same time, and, development of possible failure scenarios in the precise time or distress sequence.

Therefore, successful geotechnical forensic investigations provide important performance information and valuable engineering experiences. In addition, many advanced testing and inspection technologies were developed when engineers were exercising the forensic geotechnical engineering in recent time. Development and applications of such technologies are also essential to improve engineers' knowledge in forensic investigation and failure analyses. Purpose of this theme issue is to document appreciated case histories or technology developments in forensic geotechnical engineering and to help engineers avoid failures in the future.

Topics to address are not limited to this list but could include:

- Underground construction failures
- Landslide investigation
- Manmade slopes failure investigation
- Debris flow damages investigation
- Building foundation failure investigation
- Bridge foundation failure investigation
- Embankment failure investigation
- Performance/failure analyses of geotechnical structures
- Failures of geotechnical structures under critical natural hazards
- Case studies on forensic investigation using advanced geotechnical technologies
- Applications of geotechnical testing on forensic investigations
- The following target dates will be observed:
  - Submission of abstracts 21 May 2012
  - Submission of the full paper 1 August 2012

Please submit abstracts by e-mail to <u>ben.ramster@ice.org.uk</u> and papers to <u>www.editorialmanager.com/feng</u>.

The Institution of Civil Engineers of United Kingdom has launched the "Forensic Engineering" Proceeding. Together with the "Journal of Performance of Constructed Facilities" of American Society of Civil Engineers, this ICE journal is one of the most important forensic engineering journals in the worldwide civil engineering field. In respect to geotechnical engineering, ICE Forensic Engineering Journal will host a theme issue of "Forensic Geotechnical Engineering" in 2013. Detailed call for paper information is enclosed in the attached flyer. Members of ISSMGE are highly encouraged to make contributions to this theme issue to further promote challenges and difficulties faced in Geotechnical Engineering.

The fiber resistance of MSW accounts for the frequently observed phenomenon of high vertical (or near vertical) cuts in landfills. Since, however, MSW decomposes with time, unsupported slopes cannot be expected to remain stable indefinitely. The stability of the slope will therefore gradually deteriorate, and this must eventually lead to failure.



## UPCOMING CONFERENCE-2 INTERNATIONAL CONFERENCE ON GROUND IMPROVEMENT AND GROUND CONTROL: TRANSPORT INFRASTRUCTURE DEVELOPMENT AND NATURAL HAZARDS MITIGATION

(30 Oct - 2 Nov, 2012)

CALL FOR REGISTRATIONS (Early Bird Registration Ends: 1 July 2012)

The Centre for Geomechanics and Railway Engineering, University of Wollongong, Australia and the Australian Geomechanics Society (AGS) under the auspices of ISSMGE will be hosting the INTERNATIONAL CONFERENCE ON GROUND IMPROVEMENT AND GROUND CONTROL: TRANSPORT INFRASTRUCTURE DEVELOPMENT AND NATURAL HAZARDS MITIGATION. The Conference is fully supported by the ISSMGE, with active participation of Technical Committees, TC 211, 214, 303 and 202. It is also co-sponsored by the International Geosynthetics Society (IGS), Geo-Institute (GI) and the Southeast Asian Geotechnical Society (SEAGS).

Currently, we have received more than 200 full papers submitted to our conference. The Conference proceedings will be included in the Thomson Reuters (ISI) Citation Index within the Web of Science. This will facilitate easy access of the proceedings worldwide. For further information, please contact the ICGI Conference Secretariat: icgi\_2012@uow.edu.au

Several multinational firms have already agreed to be financial sponsors, and we expect this Conference to be the largest Ground Improvement Conference to be held in Australia to date.

Numerous Keynote Lectures, State of the Art presentations, Heritage Lectures, Theme Lectures among many other informative Technical Papers will contribute to three days of scientific and technical discourse, followed by attractive excursions encompassing the unique natural landscapes and the fabulous beaches of the Australian eastern coast.

The Conference will consider papers in the following themes:

- Soft Soil Consolidation
- Sand and Gravel Piles, Stone Columns and Rigid Inclusions
- Geosynthetics Reinforcement
- Compaction and Vibroflotation
- Grouting and Chemical Stabilization
- Electro-kinetic, Electro-osmotic, Bio-engineering, Thermal and Explosion-based Techniques
- Methods of Preventing Soil Erosion, Scour and Internal Piping
- Methods of Stabilisation of Landslides and Mass Movement
- Dewatering, Surface and Sub-surface Drainage controls and Groundwater management

#### Early Bird Registration:

Members of ISSMGE, AGS; IGS; G-I/ASCE, SEAGS : AUD 650

Non Members:

Please visit the following conference website for more details: <u>http://www.icgiwollongong.com</u>

: AUD 750

We look forward to receiving your response.

Buddhima Indraratna (Chair, ICGI 2012)

Professor of Civil Engineering and Research Director, University of Wollongong,

## UPCOMING CONFERENCE-2 (Continued) INTERNATIONAL CONFERENCE ON GROUND IMPROVEMENT AND GROUND CONTROL: TRANSPORT INFRASTRUCTURE DEVELOPMENT AND NATURAL HAZARDS MITIGATION

(30 Oct - 2 Nov, 2012) CALL FOR REGISTRATIONS (Early Bird Registration Ends: 1 July 2012)



Rail Track improvement using Geosynthetics.



Port Reclamation using Vertical Drains



Location map of UOW.



Innovation Campus of University of Wollongong.

## NEW BOOKS Information from the Institution of Civil Engineers

(1) Environmental Geotechnics, 2nd edition Robert W. Sarsby Price: £100.00, Hardbound ISBN: 978 07277 4187 5, Publishes Oct 2012 Number of Pages: 496pp, Illustrations: 420 b/w figures; 120 tables

This new edition provides engineers with an overview of the key aspects of the environmental interface with the construction industry and discusses a variety of geotechnical topics including some basic theoretical background knowledge, investigation methods and common geotechnical problems. It includes new coverage of geothermal energy and material on the use of natural/renewable materials in construction, e.g. timber, geosynthetics, vegetable fibres.

(2) ICE Manual of Project Management Price: £150.00, Hardbound ISBN: 978 07277 5711 1, publishes Sept 2012 Number of Pages: 608pp, Illustrations: 400 b/w figures; 200 tables

The ICE Manual of Project Management makes a major contribution towards the improvement of knowledge and skills in civil engineering project management through providing a central reference source for project managers working on civil engineering construction projects.

(3) Principles into Practice: Delivering Sustainable Infrastructure series **Richard Fenner and Charles Ainger** Price: £35.00, Paperbound ISBN: 978 07277 5754 8, Publishes Dec 2012 Number of Pages: 244pp, Illustrations: 60 b/w figures; 10 tables

Sustainability concepts are set within well-known engineering management processes of planning, designing and delivering infrastructure. Covering the core principles in this fundamental area, and numerous practical examples, this book is core reading for practicing civil and structural engineers internationally, project managers looking to comply with relevant codes as well as engineering students across the world.

Institution of Civil Engineers: www.icevirtuallibrary.com



ice

#### MESSAGE FROM CORPORATE ASSOCIATE "BENTLEY" gINT Geotechnical and Geoenvironmental Software



From the production of traditional logs and reports to enterprise data management of your subsurface data, gINT helps you collect, validate, organize, access, and turn it into intelligent information. Thousands of professional engineering firms, transportation authorities, mining houses and government agencies worldwide trust gINT for their data management and reporting needs.

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## DISTRIBUTION OF BOOKS GOLDER ASSOCIATES



Golder's Ground Engineering Group would like to distribute a set of two Geotechnical textbooks that have come available as surplus from a book publisher (BiTech) with which Golder has an affiliation. The books are:

- 1. Ralph B. Peck; Educator and Engineer—The Essence of the Man by John Dunnicliff and Nancy Peck Young
- 2. Judgment in Geotechnical Engineering: Professional Legacy of Ralph B. Peck

Golder is currently trying to establish a list of Universities or Libraries that would appreciate receiving these books, and has asked the ISSMGE Secretariat to help compile a list of possible recipients. Please send your nominations (with a contact name and full address) to the ISSMGE Secretariat by the 30th June 2012. You may nominate either your own institution or one which you know would be very pleased to receive such a generous gift. After the closing date, all nominations will be submitted to Golder, who will then decide on the recipients.

The ISSMGE Board would like to express their warmest appreciation to Golder for its generosity.

## **Event Diary**

#### **ISSMGE EVENTS**

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

#### 2012

Second International Conference on Performance-Based Design in Earthquake Geotechnical Engineering Date: 28 - 30 May 2012 Location: Conference Center, Taormina, Italy Language: English Organizer: ISSMGE TC-203 Contact person: Dr. Claudio Soccodato Address: Associazione Geotecnica Italiana (AGI), viale dell'Università, 11 00185 Roma Italy • Phone: 39 064465569 • Fax: 39 0644361035 • E-mail: agiroma@iol.it Website: www.2PBD-taormina.org

TC 211 International Symposium & Short Courses "Recent Research, Advances & Execution Aspects of GROUND IMPROVEMENT WORKS" Date: 30 May - 1 June 2012 Location: IS: Crowne Plaza Brussels, Brussels, Belgium Language: English Organizer: TC 211 Ground Improvement • Contact person: BBRI - Carine Godard

- Address: Avenue P. Holoffe 21
   B-1342 Limelette
- Belgium • Phone: 32 2 655 77 11
- Fax: 32 2 653 07 29
- E-mail: carine.godard@bbri.be

Website: www.bbri.be/go/IS-GI-2012

12th Baltic Sea Geotechnical Conference Date: 31 May - 2 June 2012 Location: Stadhalle (Town Hall) Rostock, Rostock, Germany Language: English Organizer: German Geotechnical Society

- Contact person: German Geotechnical Society
- Address: Gutenbergstr. 43
  - 45128 Essen Germany
- Phone: 49 201 78 27 23
- Fax: 49 201 78 27 43

• E-mail: <u>service@dggt.de</u> Website: <u>www.12bsgc.de</u>

Shaking the Foundations of Geo-engineering Education (SFGE) 2012 Date: 4 - 6 July 2012 Location: NUI Galway, Galway, Ireland Language: English Organizer: ISSMGE • Contact person: Dr. Bryan McCabe • Address: Civil Engineering, National University of Ireland, Galway (NUI Galway) Galway Ireland • Phone: 353 91 492021 • Fax: 353 91 494507

- E-mail: <u>bryan.mccabe@nuigalway.ie</u>
- Website: www.sfge2012.com

11th ANZ 2012 Geomechanics Conference Date: 15 - 18 July 2012 Location: Crown Promenade Hotel, Melbourne, Victoria, Australia Language: English Organizer: Leishman Associates • Contact person: Leishman Associates

• Address: 113 Harrington Street 7000 Hobart Tasmania Australia

- Phone: 61 36234 7844
- Fax: 61 6234 5958
- E-mail: <u>nicole@leishman-associates.com.au</u>
- Website: www.anz2012.com.au

22nd European Young Geotechnical Engineers Conference 2012 Date: 26 - 29 August 2012 Location: Chalmers Univ of Technology, Gothenburg, Sweden Language: English

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## **Event Diary (Continued)**

Organizer: Swedish Geotechnical Society

- Contact person: Victoria Svahn
- Address: Swedish Geotechnical Institute 412 96 Gothenburg Sweden
- Phone: 46-31-7786568

• E-mail: <u>eygec2012@sgf.net</u> Website: <u>www.sgf.net</u>

6ICSE - 6th International Conference on Scour and Erosion Date: 28 - 31 August 2012 Location: Ecole des Arts et Métiers, Paris, France Language: Organizer: • Contact person: contact@icse6-2012.com

Website: www.icse-6.com

Advances in Multiphysical Testing of Soils and Shales Date: 3 - 5 September 2012

Location: EPFL, Lausanne, Switzerland Language: English Organizer: L. Laloui, A. Ferrari

- Contact person: Barbara Tinguely
- Address: EPFL-ENAC-LMS 1015 Lausanne Switzerland
   Phone: 41 21 693 23 15
- Fax: 41 21 693 41 53
- Fax: 41 21 693 41 53 • E-mail: amtss@epfl.ch
- E-mail: amtss@epri.cl Website: amtss.epfl.ch

2nd International Conference on Transportation Geotechnics Date: 10 - 12 September 2012 Location: Hokkaido University, Sapporo, Hokkaido, Japan Language: English Organizer: ISSMGE (TC202) and JGS • Contact person: Dr. Tatsuya Ishikawa • Address: Faculty of Engineering, Hokkaido University Kita 13, Nishi 8, Kita-ku 060-8628 Sapporo Hokkaido Japan • Phone: 81-706-6202

- Fax: 81-706-6202
- E-mail: <u>tc3conference@eng.hokudai.ac.jp</u>

Website: congress.coop.hokudai.ac.jp/tc3conference/index.h tml

7th International Conference in Offshore Site Investigation and Geotechnics: Integrated Geotechnologies, Present and Future Date: 12 - 14 September 2012 Location: Royal Geographical Society, London, United Kingdom Language: English Organizer: TC209, SUT - OSIG • Contact person: Peter Allan • Address: Geomarine Ltd, A2 Grainger Prestwick Park NE20 9SJ NEWCASTLE UPON TYNE

England

• Phone: 44 (0) 191 4537900

• E-mail: <u>peter.allan@geomarine.co.uk;</u> <u>zenon@tamu.edu</u>

The Seventh Asian Young Geotechnical Engineers Conference (7AYGEC) Date: 12 - 14 September 2012 Location: The University of Tokushima, Tokushima, Tokushima, Japan Language: English Organizer: Japanese Geotechnical Society • Contact person: Prof. Ryosuke Uzuoka • Address: Dept. of Civil and Environmental Engineering, The University of Tokushima 2-1 Minamijyousanjima-cho 770-8506 Tokushima Tokushima JAPAN • Phone: 81-88-656-7345 • E-mail: uzuoka@ce.tokushima-u.ac.jp Website: sites.google.com/site/7aygec/

ISC'4 - 4th International Conference on Geotechnical and Geophysical Site Characterization Date: 18 - 21 September 2012 Location: Porto de Galinhas, Pernambuco, Brazil Language: Organizer: TC102

## Event Diary (Continued)

Contact person: Executive Secretary

• Address: Rua Ernesto de Paula Santos 1368, salas 603/604

Boa Viagem; Recife - PE CEP: 51021-330 Brazil

• E-mail: <u>isc-4@factos.com.br</u>

Website: <u>www.isc-4.com/index.php</u>

International Conference on Ground Improvement and Ground Control: Transport Infrastructure Development and Natural Hazards Mitigation Date: 30 October - 2 November 2012 Location: University of Wollongong, Wollongong,

New South Wales, Australia

Language: English

• Organizer: The Centre for Geomechanics and Railway Engineering, University of Wollongong, Australia, and the Australian Geomechanics Society (AGS)

. Contact person: Dr. Jayan Vinod

. Address: Centre for Geomechanics and Railway Engineering, Faculty of Engineering,

University of Wollongong, 2522 Wollongong, New South Wales, Australia.

- . Phone: 61 02 4221 4089
- . Fax: 61 02 4221 3238
- . E-mail: <u>icgi\_2012@uow.edu.au</u>
- . Website: www.icgiwollongong.com
- Third African Young Geotechnical Engineering Conference (3AyGEC'12)

Date: 16 - 18 November 2012

Location: Engineering Auth'y Guest House, Cairo, Egypt

Language:

Organizer: Egyptian Geotechnical Soc

- Contact person: Dr. Fatma Baligh, Dr. Nagwa El-
- Sakhawy, Ms Yvonne Hanna

• Address: 62 El - Orouba St. Heliopolis, 11361 Cairo

Egypt

- Phone: 202 24156573Fax: 20 1220071671
- Fax: 20 12200/10/1
- E-mail: <u>aygec3@yahoo.com</u>

#### 2013

4th International Seminar on Forensic Geotechnical Engineering Date: 10 - 12 January 2013 Location: Atria Hotel, Bangalore, Karnataka, India Language: English Organizer: Indian Geotechnical Society

- Contact person: Prof. G L Sivakumar Babu
- Address: Department of Civil Engineering, Indian Institute of Science, Bangalore 560012 Bangalore KA India
- Phone: 918022933124
- Fax: 918023600404
- E-mail: gls@civil.iisc.ernet.in

First Pan-American Conference on Unsaturated Soils (Pam-Am UNSAT 2013) Date: 20 - 22 February 2013 Location: Convention Center, Cartagena de Indias, Colombia Language: English

Organizer: UniAndes, UniNorte, Unal, Col

- Contact person: Diana Bolena Sánchez Melo
- Address: Carrera 1 Este No. 19A-40 Edificio Mario Laserna Piso 6 Departamento de Ingenieria Civil &

Ambiental

- Bogotá Colombia
- Phone: 571 3324312
- Fax: 571 3324313
- E-mail: panamunsat2013@uniandes.edu.co

Website: www.panamunsat2013.uniandes.edu.co

Second International Symposium on Geotechnical Engineering for the Preservation of Monuments and Historic Sites Date: 30 - 31 May 2013 Location: Conference Centre Federico II, Napoli, Italy Language: English Organizer: AGI and TC 301 • E-mail: <u>secretariat@tc301-napoli.org</u> Website: <u>www.tc301-napoli.org</u>

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## **Event Diary (Continued)**

TC215 ISSMGE - International Symposium on "Coupled Phenomena in Environmental Geotechnics (CPEG) - from theoretical and experimental research to practical applications" Date: 1 - 3 July 2013 Location: Politecnico di Torino, Torino, Italy Language: English Organizer: AGI and ISSMGE TC 215 • Contact person: Guido Musso - Andrea Dominijanni Address: Politecnico di Torino Corso Duca degli Abruzzi 24 10129 Torino Italy • Phone: 39 011 0904837 • E-mail: guido.musso@polito.it; andrea.dominijanni@polito.it

18th International Conference for Soil Mechanics<br/>and Geotechnical Engineering<br/>Date: 1 - 5 September 2013<br/>Location: Paris International Conf. Ctr, Paris, France<br/>• Contact person: Violaine Gauthier<br/>• Address: Le Public Système,Copenhage<br/>Denmark<br/>. Phone: +45 4810 420<br/>. Fax: +45 4810 4300<br/>. E-mail: moj@niras.c<br/>Website: www.ngm20

38, rue Anatole France -92594 Levallois-Perret Cedex France

• Phone: 33 1 70 94 65 04

• E-mail: vgauthier@lepublicsysteme.fr

Website: www.issmge2013.org/

#### 2014

8th European Conference on Numerical Methods in Geotechnical Engineering (NUMGE14) Date: 18 - 20 June 2014 Location: Delft University of Technology, Delft, Netherlands, The Language: English Organizer: Prof. Michael Hicks • Contact person: Mrs. Hannie Zwiers • Address: Delft University of Technology, Faculty of Civil Engineering & Geosciences Stevinweg 1 2628 CN Delft The Netherlands • Phone: +31 15 2788100 • E-mail: info@numge2014.org Website: www.numge2014.org

## NON-ISSMGE SPONSORED EVENTS

## 2012

NGM 2012. 16th Nordic Geotechnical Meeting Date: 9 - 12 May 2012

Location: Tivoli Congress Center, Copenhagen, Denmark Language: English Organizer: Danish Geotechnical Society . Contact person: Morten Jorgensen . Address: Sortemosevej 2 DK-3450 Allerod Copenhagen Denmark . Phone: +45 4810 4207 ; +45 4810 4207 . Fax: +45 4810 4300 . E-mail: moj@niras.dk Website: www.ngm2012.dk

11th International & 2nd North American Symposium on Landslides Date: 3 - 8 June 2012 Location: Fairmont Banff Springs Hotel, Banff, Alberta, Canada Language: Organizer: CGS, AEG, JTC1 • Contact person: Wayne Gibson, P.Eng. Conference Manager • Address: c/o Gibson Group Association Management, 8828 Pigott Road, V7A 2C4 Richmond BC

Canada

- Phone: 1 (604) 241-1297
- Fax: 1 (604) 241-1399

• E-mail: <u>info@isl-nasl2012.ca</u> Website: <u>www.isl-nasl2012.ca/index.php?lang=en</u>

Third International Conference on New Developments in Soil Mechanics and Goetechnical

## **Event Diary (Continued)**

Date: 28 - 30 June 2012 Location: Near East University, Nicosia, North Cyprus, Turkey Language: English Organizer: TNCSMGE, NEU • Contact person: Cavit Atalar • Address: ZM2012 Organising Committee Chair, Third International Conference on New **Developments in Soil Mechanics** and Geotechnical Engineering, Department of Civil Engineering, Near East University Nicosia North Cyprus Mersin 10, TURKEY • Phone: 90 392 223 6464 • Fax: 90 392 223 6461 E-mail: zm2012@neu.edu.tr; zm2012@kibris.net Website: zm2012.neu.edu.tr 34th International Geological Congress (34th IGC) Date: 5 - 10 August 2012 Location: Convention and Exhibition Ctr, Brisbane, Queensland, Australia Language: English **Organizer: IUGS** • Contact person: For full contact details see http://www.34igc.org/congress-manager.php

- Address: 34th IGC, PO Box 177 Redhill Queensland 4059 Australia • Phone: 61 7 3368 2644
- Fax: 61 7 3369 3731
- E-mail: info@34igc.org
- Website: www.34igc.org/index.php

XXI Congreso Argentino de Mecánica de Suelos e Ingeniería Geotécnica (CAMSIG XXI) Date: 12 - 14 September 2012 Location: Salón Terrazas del Parana, Rosario, Santa Fe, Argentina Language: Spanish Organizer: Soc Argentina Ing Geotecnica • Contact person: Ing Virginia Sosa Address: Boulevard Oroño 1572 Planta Baja 2000 Rosario Santa Fe Argentina • E-mail: secretaria@camsig2012.com.ar

Website: camsig2012.com.ar

IS-Kanazawa 2012, The 9th International Conference on Testing and Design Methods for **Deep Foundations** Date: 18 - 20 September 2012 Location: Kanazawa Bunka Hall, Kanazawa, Ishikawa, Japan Language: English Organizer: Japanese Geotechnical Society : • Contact person: Associate Prof. Shun-ichi Kobayashi Address: Kanazawa University 920-1192 Kanazawa Ishikawa Japan E-mail: office@is-kanazawa2012.jp

Website: is-kanazawa2012.jp

International Symposium on Coastal Engineering Geology(IS-Shanghai 2012) Date: 20 - 21 September 2012 Location: Tongji University, Shanghai, Shanghai, China Language: English Organizer: Tongji University • Contact person: Feifan Ren • Address: Department of geotechnical engineering,

- 1239 Siping Road 200092 Shanghai China
- Phone: 21-65983715
- Fax: 21-65983715

• E-mail: is.shanghai2012@hotmail.com Website: www.is-shanghai2012.org/

4th Central Asian Geotechnical Symposium: Geo-Engineering for Construction and Conservation of **Cultural Heritage and Historical Sites - Challenges** and Solutions Date: 21 - 23 September 2012 Location: Samarkand, Uzbekistan Language: English Organizer: Uzbekistan Geotechnical Societ • Contact person: Zokhir Hasanov Address: Lolazor St/70

## Page 55

## **Event Diary (Continued)**

140147 Samarkand Uzbekistan

- Phone: 998-66 220-2825
- Fax: +998-66 237-0016
- E-mail: <u>uzssmge@gmail.com</u>

Website: http://conference.geotechnics.uz

37th Annual Conference on Deep Foundations:
Foundations and Ground Improvement
Techniques: Adapting them to an Ever Changing
Environment
Date: 16 - 19 October 2012
Location: The George R. Brown Convention,
Houston, TX, United States
Organizer: DFI
Contact person: 2012 Program Chair c/o Deep
Foundations Institute,
Address: 326 Lafayette Avenue
07506 Hawthorne, NJ
United States
Website: www.dfi2012submissions.org

GA2012 - Geosynthetics Asia 2012 - 5th Asian Regional Conference on Geosynthetics Date: 10 - 14 December 2012 Location: Centara Grand, Bangkok Conv Ct, Bangkok, Thailand Language: English Organizer: IGS-Thailand • Contact person: GA2012 Secretariat

- Phone: +66-2-524-5523
- Fax: +66-2-524-6050
- E-mail: <u>igs-thailand@ait.ac.th</u> or <u>acsig@ait.ac.th</u> Website: <u>www.set.ait.ac.th/acsig/GA2012</u> /

#### 2013

3rd International Conference on Geotechnical Engineering (ICGE'13 Date: 21 - 23 February 2013 Location: Hotel Médina, Hammamet, Nabeul, Tunisia Language: English and French Organizer: URIG ENIT

• Contact person: Dr Wissem FRIKHA

• Address: Ecole Nationale d'Ingénieurs de Tunis

Unité de Recherche Ingénierie

Géotechnique, 1002 BP 37, Le Belvédère 1002 . Tunis

- Tunisia
- Phone: 216 98 594 970
- Fax: 216 71 872 729

• E-mail: frikha\_wissem@icge13.com or frikha.wissem@gmail.com Website: www.icge13.com

Seventh International Conference on Case Histories in Geotechnical Engineering Date: 29 April - 4 May 2013 Language: English Organizer: Missouri S&T

- Contact person: Kay Tillman
- Address: Missouri S&T, Distance & Continuing Ed., 216 Centennial Hall, 300 W. 12th St. 65409 Rolla. MO United States
- Phone: 573-341-6222
- Fax: 573-341-4992
- E-mail: <u>7icchge@mst.edu</u>
- Website: www.7icchge.mst.edu

International Symposium on Design and Practice of Geosynthetic-Reinforced Soil Structures Date: 14 - 16 October 2013 Location: Faculty of Engineering, Bologna, Italy Language: English Organizer: Tatsuoka, Gottardi, Ling, Han

- Contact person: Hoe I. Ling
- Address: 500 West 120th Street, Columbia University 10027 New York, NY USA
- Phone: 12128541203
- Fax: 12128546267
- E-mail: <u>ling@civil.columbia.edu</u>
- Website: www.civil.columbia.edu/bologna2013/

FOR FURTHER DETAILS, PLEASE REFER TO THE ISSMGE WEBSITE -

http://addon.webforum.com/issmge/index.asp

## **Corporate Associates**



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Norwegian Geotechnical Institute P.O. Box 3930 Ullevaal Stadion N-0806 OSLO NORWAY



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## Tensar.

Tensar International Ltd Cunningham Court Shadsworth Business Park Blackburn, BB1 2QX, UK



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#### TRACTEBEL DEVELOPMENT ENGINEERING S.A.

Tractebel Development Engineering SA Transportation Division Geotechnology Section 7 Avenue Ariane B-1200, BRUSSELS BELGIUM

# 중 Bentley<sup>,</sup>

Bentley Systems Inc. Corporate Headquarters 685 Stockton Drive 7710, Exton PA 19341, United States

#### **4 GEOTEKNİ**K

Geoteknik SA Dolapdere cad. 255, Şişli - İstanbul 80230 TURKEY

#### HUESKER

Huesker Synthetic GmbH Fabrikstrasse 13-15 48712 Gescher Germany



Zetas Zemin Teknolojisi AS Merkez Mah. Resadiye Cad. No. 69/A Alemdag, Umraniye Istanbul, 34794 TURKEY



Siemens Energy Kaiserleistrasse10 63067 Offenbach GERMANY



International I.G.M. s.a.r.l. P.O.Box: 166129 Achrafieh Beirut, LEBANON

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# Corporate Associates (continued)



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Construtora Norberto Odebrecht Av. Rebouças, 3970 - 31° andar Pinheiros CEP-05402-600 São Paulo/SP BRAZIL



Coffey Geotechnics 8/12 Mars Road Lane Cove West NSW, 2066 AUSTRALIA



Tecnogeo Engenharia e Fundações Ltda Av. Eliseu de Almeida nº 1415 - Butantã São Paulo/SP - 05533-000 Brazil

# Brasfond

Brasfond Fundacoes Especiais SA Rua Olimpiadas, 200, 13° Andar Cep: 04551-000 Vila Olímpia São Paulo / SP BRAZIL



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Huesker Ltda Attn: Flavio Teixeria Montez Rua Romualdo Davoli, 375 Cond. El Dorado CEP 12238.577 São José dos Campos SP

# BRAZIL

AECOM Asia Company Ltd Attn: Dr Axel KL Ng 8/F, Tower 2, Grand Central Plaza 138 Shatin Rural Committee Road Shatin, NT Hong Kong

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SOLUÇÕES EM JET GROUTING Novatecna Consolidações e Construções S/A Attn: Giorgio GuatteriRua Banibás 142São Paulo/SP Brasil



OFFICINE MACCAFERRI S.p.a. Via Kennedy 10 40069 Zola Predosa (Bologna) Italy

#### DASAN CONSULTANTS 🚯

Dasan Consultants Co. Ltd Dasan B/D 107 Mujeong-dong, Songpa-gu, Seoul 138-200, Korea

Dongha Geological Engineering Co. Ltd 1033-2 Guseo Dong Geumjeong-gu, Busan, Korea



Saegil Engineering and Consulting Co Ltd Hyunmin Building 6F 101 Ogeumno, Songpa-gu Seoul 138-828, Korea

## Page 57

## Corporate Associates (continued)

#### Dear ISSMGE Corporate Associates,

The International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) is eager to express its deepest gratitude for your continuous support of the society's many activities world-wide. One of the benefits offered by the MPAC (Membership, Practitioners, and Academicians Committee) in conjunction with the Editorial Board of the ISSMGE Bulletin, is a one-page article in the Bulletin as described below (An

example is attached to this e-mail for reference).

The ISSMGE Bulletin is an official publication of the society, and as such has a potential readership of over 19,000 individuals. Currently, 6 issues are produced and distributed a year. Corporate associates will be invited to use one page of the bulletin once a year, in order to highlight their achievements (technical, environmental, social, etc) or maybe give an indication of any current recruitment programmes. As long as the content meets the general mission of ISSMGE, details can be decided by individual corporate associates.

You can make a draft WORD file and send it to the chief editor (Ikuo Towhata at Towhata@geot.t.u-tokyo.ac.jp) at any time. One request is that your one-page draft does not exceed approximately 300 kB in its file size so that the total size of the bulletin remains manageable. Please feel free to consult the editor, however, if you have any questions or problems.

The ISSMGE Bulletin is published with Trebuchet MS font (minimum 10 points). But you can use bigger fonts if you like. The page size is A4 and the margin size is 60 mm at the top and 20 mm at left, right, and bottom.



Arjuna Consulting is a geotechnical consulting firm that is based in Kurusshera City of Paradiseland where infrastructure construction is very active. Its majoring fields are planning of field investigation, interpretation, and application to design of foundation. Some of its recent achievements are illustrated in the pictures below. In recognition of its remarkable contributions to the public welfare for decades, Ajuna Consulting has got recently a special award from the King of Paradiseland.



Position vacancies: We currently want Project Supervisor, Financial Director, Specialist of Numerical Analysis (Nonlinear FEM), and Geophysicist.

Contact person: Dr. Ashwathama at ashwathama@pandavas.arjunacon.co.qq Address: P.O.Box 777, Kurukshetra, Kuru Province, 939-3704, PARADISELAND http://www.arjunacon.co.qq

Example of Corporate Associate page

## **Foundation Donors**

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 geoengineering 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 a. ISSMGE-2010



http://www.issmge.org/

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  - e. CalGeo The California Geotechnical Engineering Association www.calgeo.org















## Foundation Donors (continued)

f. Prof. Ikuo Towhata



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## Message from ISSMGE Foundation

The ISSMGE Foundation is requesting donations from industries as well as individuals. The donated fund is spent to financially support promising geotechnicians who intend to further their geotechnical 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. All our ISSMGE members can contribute to the ISSMGE Foundation by sending President Briaud an email (briaud@tamu.edu). If you wish to apply for a grant, on the other hand, you can download the form

#### (http://www.issmge.org/web/page.aspx?pageid=126068),

fill it, and send it to the general secretary of ISSMGE at issmge@city.ac.uk. A request for grant above \$2000 is unlikely to be successful. Smaller requests especially with indication of cost sharing have the best chance.

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#### FROM THE EDITOR

#### Invitation to submission of article to ISSMGE Bulletin

ISSMGE Bulletin always welcomes contribution from readers who are interested in submitting technical and event articles. The number of subscribers in the world is more or less 19,000.

Examples of desired type of articles in recent issues have addressed "Soil Improvement under New Levees in New Orleans" and "Development of New Cone Penetrometer" as well as "Harbour Construction in Australia." For more idea, you can freely download past issues of the bulletin from the website of ISSMGE;

http://www.issmge.org/web/page.aspx?refid=430

Because the Bulletin is an electronic publication, there is no page limitation. Colour photographs and illustrations are highly welcome. Moreover, you can submit draft by a WORD file and there is no fixed format; the editing team will take care of formatting.

There is no fixed due date of submission. Submission is certainly free of charge. There is no peer review because the bulletin is not an academic journal but a newsletter. Only one request to authors is that the article has to be clear and easily understandable for practitioners. It is very advisable to use nice photographs and illustrations.

I would like to express my sincere thanks for you to consider this invitation in a positive manner and send me a reply at your earliest convenience. Please take this good opportunity to demonstrate to the world HOW GOOD YOU ARE.

Yours sincerely

Ikuo Towhata