



## International Society for Soil Mechanics and Geotechnical Engineering

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## INSIDE THIS ISSUE

- 1 Message from TC102
- 7 President's Reports
- 8 Technical Article
- 18 News on recent conference
- 31 Report to ISSMGE Foundation
- 41 Reminiscence
- 42 Event Diary
- 49 Corporate Associates
- 51 Invitation to page of Corporate Associates
- 52 Foundation Donors
- 53 ISSMGE's International Journal of Geoenvironmental Case Histories
- 55 From the Editor

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## MESSAGE FROM TC 102

## Ground Property Characterization by In-Situ Tests

## Prof. Paul Mayne, Chairman of TC102

**Preface:** ISSMGE Technical Committee TC 102 (formerly TC 16) involves the areas of geotechnical and geophysical exploration. Site characterization is a first fundamental step towards the proper design, construction, and long term performance of all types of geotechnical projects, ranging from foundations, excavations, earth dams, embankments, seismic hazards, environmental issues, tunnels, and near to offshore structures. As such, the TC 102 committee is active in the dissemination of technical documents, papers, and international & national standards on various in-situ tests including SPT, CPT, CPTu, DMT, PMT, VST, CHT, DHT, and other methods. The committee has helped organize and plan a series of international conferences on the topic of site characterization (ISC) that have been held in Atlanta (ISC-1, 1998), Porto (ISC-2, 2004), Taipei (ISC-3, 2008), and most recently Brazil (ISC-4, September 2012). The TC 102 committee has also participated in conferences held by other technical committees including TC 101 series on Deformational Characteristics of Geomaterials, ICSMGE, ASCE GeoCongresses, ECSMGE, and the Baltic Sea Conferences. Details on the recently held ISC-4 (2012) are given below and additional information about our technical activities are posted at our website: [www.webforum.com/tc16](http://www.webforum.com/tc16)



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Photo: Core Committee meeting of TC 102 held in Singapore (2006)

## MESSAGE FROM TC 102 (continued)

### Prof. Paul Mayne, Chairman of TC102



Photo: An open meeting of TC 102 on In-Situ Testing held during ISC-3 in Taipei (2008)

**ISC'4 - The Fourth International Conference on Site Characterization**  
**September 17-21, 2012**  
**Porto de Galinhas, Pernambuco - Brazil**



**EPILOGUE: ISC'4 (2012 Brazil):** The Fourth International Conference on Site Characterization (ISC'4) was held near the beautiful coastal town of Porto de Galinhas, Pernambuco - Brazil, from September 17-21, 2012, under the responsibility of ISSMGE TC-102/TC-16 on In-Situ Testing, the Brazilian Society for Soil Mechanics and Geotechnical Engineering (ABMS), and the Federal University of Pernambuco, Brazil (UFPE). The Host and Chairman of the ISC'4 Organizing Committee was Roberto Quental Coutinho, professor of the Federal University of Pernambuco, who was assisted by the TC 102 chair Paul W. Mayne (Georgia Institute of Technology) and vice-chair António Viana da Fonseca (Univ. of Porto).

The ISC'4 was held directly following the XVI Brazilian Congress of Soil Mechanics and Geotechnical Engineering - Cobramseg 2012 which is the most traditional and important event of geotechnical engineering in Brazil (15 to 18 September 2012). On the last day of the Brazilian event was a joint session with ISC'4.

The conference venue was the Hotel Summerville, the first five star hotel and spa located in Porto de Galinhas, approximately 65 km (40 miles) south of Recife - State of the Pernambuco, undeniably one of the top seaside destinations in Brazil. The resort integrates perfectly with the Atlantic coastline, nestled among coconut trees and mangroves, surrounded by lush vegetation, and blessed with vast natural pools formed by coral reefs.

The ISC'4 had the participation of 540 registered participants from 36 different nationalities, and more than 60 companions. More than 213 exhibitors were distributed in 43 technical stands during the event. The ISC'4 congregated geotechnical researchers, professional engineers, academicians and practitioners involved with the conference general themes, namely practical application of novel and innovative technologies in geotechnical and geophysical engineering, along with their interpretation and utilization for the purposes of site characterization. The conference proceedings (two complete volumes - CRC Press, Taylor & Francis Group - Balkema Book: 1872 pages) contains 8 Keynote Lectures prepared by experts in the themes, including the **5th James K. Mitchell Lecture** presented by Dr. Peter K. Robertson; 4 Workshop Lectures, and 216 technical papers from 40 different countries. Emeritus Prof. Jim Mitchell orchestrated the last workshop on Thursday afternoon. Papers were refereed in the reviews to obtain a high quality publication and technical standards.

## MESSAGE FROM TC 102 (continued)

### Prof. Paul Mayne, Chairman of TC102

Accordingly, the papers are sorted into 11 general themes and 15 technical sessions for presentation, including: 1. Direct-push and borehole-type in-situ test; 2. Development of new equipment and methods; 3. New approaches for interpreting data; 4. Applications to shallow and deep foundations; 5. Special uses of in-situ tests; 6. Site investigation for infrastructure projects; 7. geophysics, 8. Seismic ground hazards; 9. Investigations in very soft soils; 10. Non-textbook-type geomaterials; 11. Environmental geotechnics. A listing of all papers in the proceedings entitled *Geotechnical & Geophysical Site Characterization 4* may be found at: <http://www.usucger.org/books.html>

During ISC'4, several cultural activities were provided to the attendees, including Pernambuco Arts and Crafts exhibition - SEBRAE/PE, Pernambuco Culinary Workshop in the Quebra-Mar Restaurant, ISC'4 Cocktail Welcoming at the Aquatic Park of the Hotel Summerville, Conference Banquet, Guided Tour of Vila de Porto de Galinhas for companions, and Guided Tour of Vila de Porto de Galinhas for companions.

Photographs taken during the conference are shown in what follows.



**Opening Ceremony**



**2012 JK Mitchell Lecture**



**Victor de Mello Lecture**



**Summerville Resort Welcome Reception**



**MESSAGE FROM TC 102 (continued)****Prof. Paul Mayne, Chairman of TC102****Cultural Activity****Technical sessions**

In addition to the technical, social, and local activities, ISC-4 events included four Short Courses: Foundation on analysis using in-situ and geophysical tests - Paul Mayne; Geophysical methods for geotechnical site characterization - Sebastiano Foti, Denis Hiltunen and Cesare Comina; Cone penetration testing in geotechnical practice - T. Lunne, P.K. Robertson and J.J.M. Powell; and Dilatometer / Pressuremeter testing and applications - Silvano Marchetti and Roger Frank. Also, a formal meeting of the TC 102 was held with some 44 participants in attendance. Of special note, the initial planning of ISC'5 for Australia has begun.

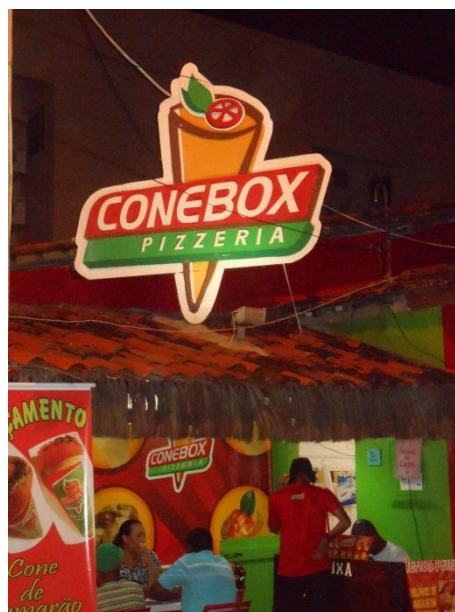


The ISC-4 Technical Tour visited some of the construction projects of SUAPE in Pernambuco which include some 15 different large facilities, primarily related to shipping of minerals, ores, oil, and gas, and related refineries, storage, and handling operations. Above, the construction of the new port involved the driving of precast concrete pilings to form the wharf.

**MESSAGE FROM TC 102 (continued)**  
**Prof. Paul Mayne, Chairman of TC102**

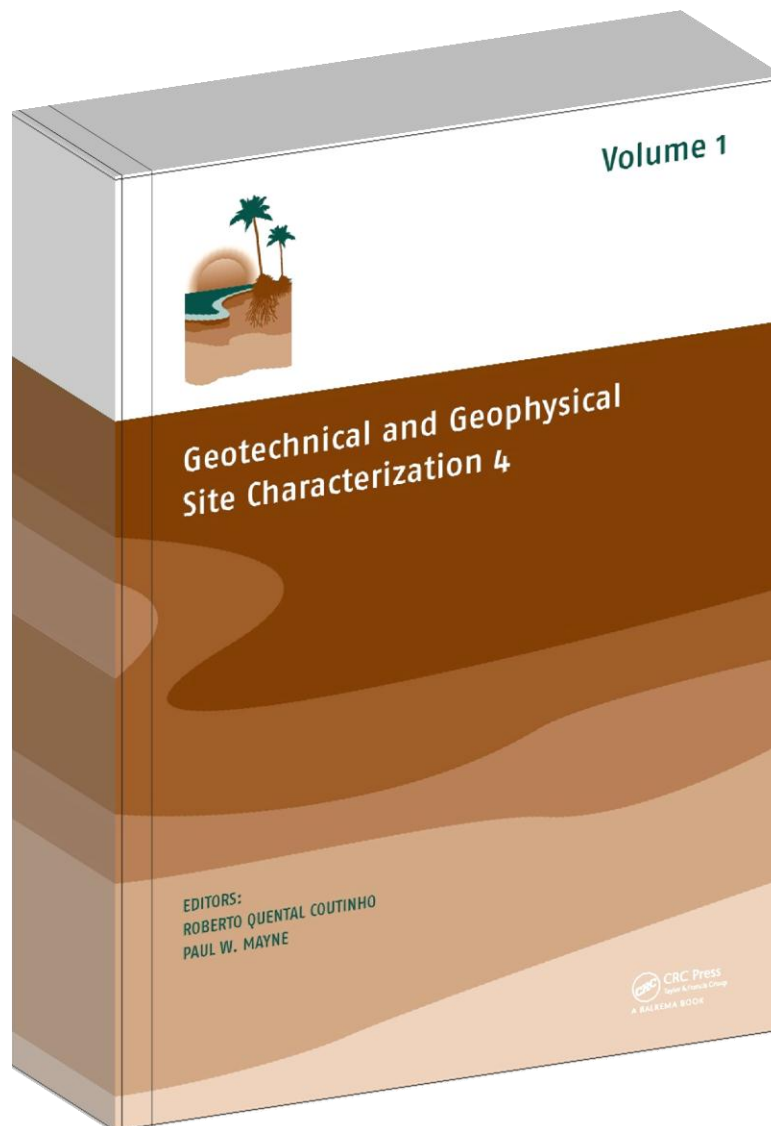


ISC-4 participants (left to right): Roberto Coutinho, James K. Mitchell, Peter K. Robertson, Mike Jamiolkowski, Paul W. Mayne, and Ant3nio Viana da Fonseca.



What an appropriate name for a restaurant in the little town of Porto de Galinhas nearby the ISC-4.

**MESSAGE FROM TC 102 (continued)**  
**Prof. Paul Mayne, Chairman of TC102**



The ISC-4 two-volume proceedings include 1872 pages hard copy plus a CD disk and are available for purchase from CRC Press:

<http://www.crcpress.com/product/isbn/9780415621366>

The keynote and technical papers from the prior ISC events may be found at the links below:

ISC-1 Proceedings (Atlanta 1998): <http://www.cpt10.com/cpt10pdfpapers.html>

ISC-2 Proceedings (Porto 2004) :

<http://www.iospress.nl/book/geotechnical-and-geophysical-site-characterization/>

ISC-3 Proceedings (Taipei 2008): <http://www.crcpress.com/product/isbn/9780415469364>



## ISSMGE President 1155 Days Report Professor J-L. Briaud

### Distinguished Colleagues, Dear Friends,

This is my thirty eighth progress report after 1155 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 will talk to you about our upcoming webinar, the election of the next Vice Presidents and President, the ISSMGE Bulletin, and then I have a present for you.

**Webinar.** The topic of the next webinar will be "**An Introduction to Geosynthetics**". It will be presented by Robert Koerner (USA). **Professor Koerner** is a word expert on this topic and has written a well known book entitled "Designing with Geosynthetics". The date and time are **22 January 2013 at 2:00 UTC** (London). I will have more details for you in my 9Jan2013 progress report. As you know we offer these webinars free of charge as a service to our members and we encourage you to continue to sign up in great numbers to benefit from these unique and free opportunities to listen for 90 minutes to some of the best minds in geotechnical engineering worldwide. These webinars are not free for ISSMGE and we need to minimize our cost so I have a very important request. When you listen to these webinars, you use your computer to view the slides. Please use your computer also to listen to the speaker's voice, **DO NOT USE YOUR TELEPHONE**. When you use your telephone ISSMGE is charged for your calls and it is quite expensive. If you use your computer (voice over IP or audio conference), it is free of charge. Thank you for helping us save your money.

**Vice Presidents and President election.** The process to elect the next Vice Presidents is under way and will be followed by the process for the election of the President. The deadline for the official nominations for Vice President is **14 Dec 2012** (just a few days). Nominations go to the Secretary General (Neil Taylor, [secretary.general@issmge.org](mailto:secretary.general@issmge.org)). As you may recall ISSMGE has organized the world in 6 regions and there is 1 VP per region. All nominations must come from a member society not an individual. The deadline for President is **15 Mar 2013** so you still have time to make up your mind but it is not wise to wait too long as early candidates will be ahead of you in campaigning. I urge many of you to consider running for this position which, while very demanding, is a tremendous honor and a great way to help all your colleagues worldwide.

**ISSMGE Bulletin.** The Editor in Chief of the ISSMGE Bulletin is our distinguished colleague Ikuo Towhata (Japan) and I wish to recognize him for a truly magnificent job. Over the last 3 years **Professor Towhata** and his team of editors has relentlessly produced a high quality bulletin which many of us enjoy reading. Under his leadership the Bulletin has gone from 4 issues per year to 6 issues per year. The Bulletin represents an enormous amount of work to produce. It is in color and you can find all the past issues in pdf format on the ISSMGE web site (<http://www.issmge.org/en/issmge-bulletins-newsletters-la-lettre-en/issmge-bulletin>). The Bulletin is the best place for you to send news from your Member Society, Technical Committee, Board level Committee, and more. Take advantage of this excellent opportunity to share information with your 19,000 colleagues worldwide. You can contact Professor Towhata at [towhata@geot.t.u-tokyo.ac.jp](mailto:towhata@geot.t.u-tokyo.ac.jp). On behalf of our 90 countries and 19,000 members, I wish to thank you, Professor Towhata, and your team of editors for a job very well done.

**Present.** This is the time of the year where many of our members celebrate, our families get together, and we exchange presents. So I have a present for you if you wish. As you may know, in my travels, I offer a tie or a scarf to some of our members in each country that I visit to thank them for their contribution to our profession. The tie and scarf have flags of many countries and represent the spirit of cooperation between countries. I would like to offer you such a tie or scarf if you wish. Unfortunately I cannot guarantee that the flag of your country will be on it because we have 90 country members and the number of flags on the tie and scarf is limited. So if you wish for me to send you one, give me your mailing address, tell me if you want the tie or the scarf, and it will be my pleasure to send you one.

Seasons Greetings,  
Jean-Louis Briaud  
President of ISSMGE

## TECHNICAL ARTICLE

# Ongoing Study on Protection of Personal Houses from Liquefaction Problems

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Kazuo Konagai Professor, Institute of Industrial Science, the University of Tokyo  
Takashi Kiyota Associate Professor, Institute of Industrial Science, the University of Tokyo

### INTRODUCTION

Two years are going to pass after the M=9 gigantic earthquake in Japan that took place on March 11, 2011. Because the earthquake damage caused many new problems, attempts for reconstruction are still going on, and one of the very difficult problems concerns the liquefaction damage on personal properties. Because the authors had an opportunity to present their study during the 4th International Symposium on Forensic Geotechnical Engineering, Bangalore, India, in January, 2013, they re-write their paper for this issue of ISSMGE Bulletin. It is aimed to discuss what has been missing in the traditional kind of geotechnical earthquake engineering.

Traditional technology on mitigation of liquefaction problems started to develop in 1960s after two earthquake disasters in Alaska and Niigata. Many achievements have been made with rational or sophisticated approaches such as the use of SPT-N or CPT for subsoil investigations, collection of undisturbed soil samples for laboratory tests, and densification or grouting or installation of gravel drains for damage mitigation by using big construction machines. Consequently, the vulnerability of many structures have been drastically reduced in the recent times and the earthquake in 2011 caused few liquefaction problems in engineered important structures. It is, however, noteworthy that those measures are feasible only when sufficient financial resources are available.

During the earthquakes in 2010 and 2011, liquefaction affected such structures as river levees (Photo 1), embedded life lines (Photo 2), and personal houses (see the next chapter). Those structures are characterized by their limited budgets that are available for disaster mitigation. Levees and lifelines are too long for the overall reinforcement against subsoil liquefaction. Their construction cost per unit length does not allow the significant reinforcement either. Consequently, the disaster management philosophy in the past aimed to restore any seismic damage within a short period of time after a quake.



Photo 1. Liquefaction damage in Hinuma levee



Photo 2. Disconnection of sewage pipeline and deposit of sand after liquefaction (damage study in Tokyo Bay area, 2011)



## Protection of Personal Houses from Liquefaction Problems (continued)

After the 2011 earthquake, the authors have been deeply involved in restoration works. This article attempts to address one part of their activities.

### HOUSE DAMAGE CAUSED BY SUBSOIL LIQUEFACTION

There are many manmade lands along the shore of Tokyo Bay. Because of the proximity to the Tokyo downtown and convenience in commuting, those lands have been developed as residential areas. In 2011, liquefaction severely affected houses in the lands (Photo 3). The house damage consists not of structural breakage but of significant subsidence and tilting. Subsidence causes inconvenience in life, poor drainage of rain water, and disconnection of lifelines. Tilting is more serious; tilting more than 1% is fatal in daily life; causing headache and dizziness.



Photo 3. Tilting of house caused by liquefaction in a manmade island in the Tokyo Bay area

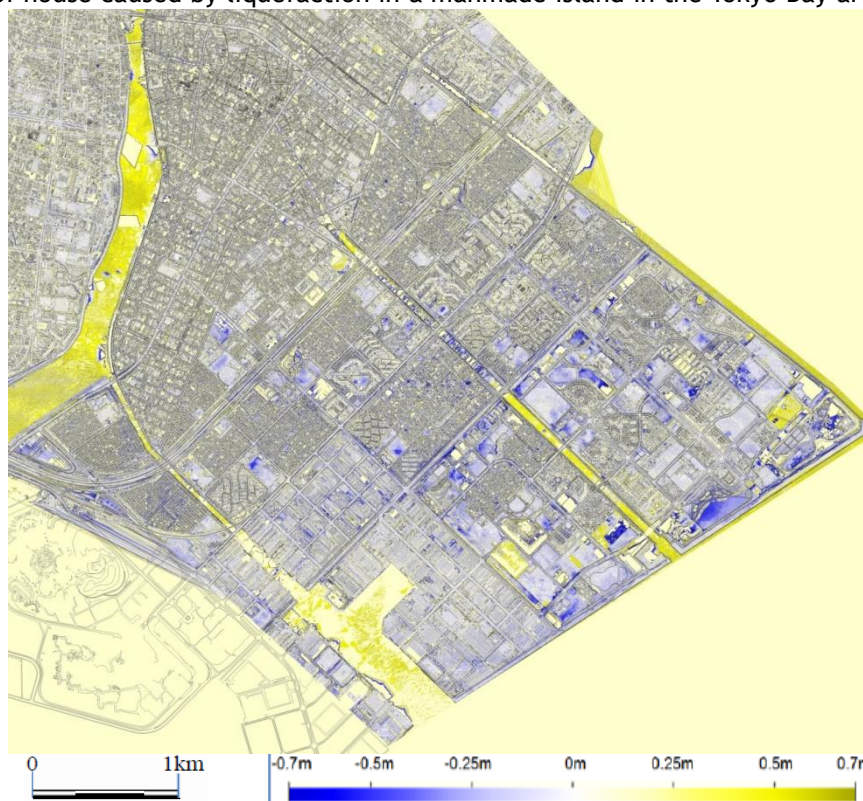


Figure 1. Soil subsidence map of Urayasu city (Konagai et al., 2011)

## Protection of Personal Houses from Liquefaction Problems (continued)

In order to measure liquefied soil subsidence, two sets of Digital Surface Models (DSMs) obtained by airborne LiDAR (Light Detection and Ranging) surveys before and after the earthquake were compared with pile-supported RC buildings and bridge piers as templates for aligning the two sets. Figure 1 shows the obtained soil-subsidence map of Urayasu city. Although the subsidence can be seen over the entire stretch of the reclaimed land, the severity of liquefaction within this area was not uniform. In particular, remarkable subsidence is seen in the area reclaimed during the second half of the 20th Century, and it overlaps approximately with the spatial distribution of observed boiled sands in Photo 4.

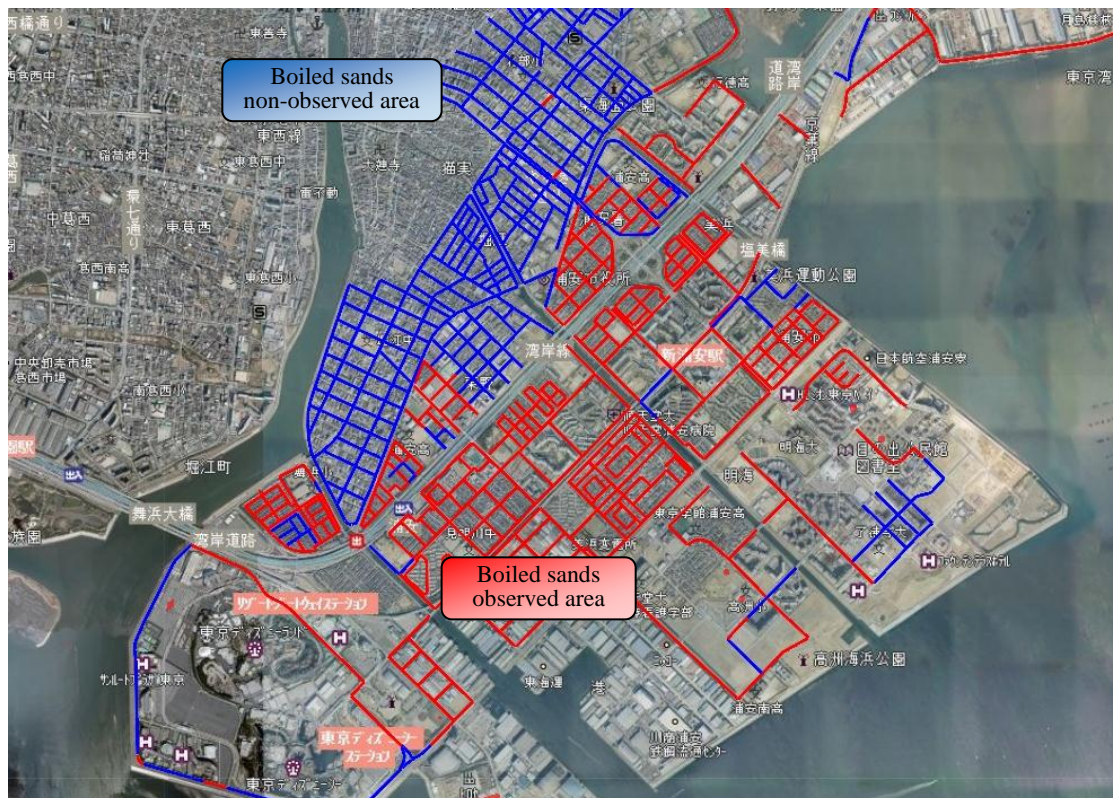


Photo 4. Boiled sands observed/non-observed areas in Urayasu city after the 2011 Tohoku earthquake (after joint research by Japan Geotechnical Society and Kanto Regional Development Bureau of the Ministry of Land, Infrastructure, Transport and Tourism)

Personal houses have not been well prepared for liquefaction in the foundation. People have not been aware of this kind of hazard in spite of public education. In a typical example, the person knew a liquefaction hazard map that was prepared by the local government but still did not take it seriously. This may imply that some safety measure should be set in force by regulation. On the other hand, there is an opinion that liquefaction does not kill people and that costly countermeasure against liquefaction is a matter of personal decision. It should be pointed out here that liquefaction in a personal house lot leads to breaching of personal sewage pipes from which lots of liquefied sand flow into the sewage pipe networks and finally destroys the function of trunk lines (Photo 2). Thus, public involvement in liquefaction of personal land has a good reason to be practiced.

The problem lying in the liquefaction problem of houses is the limited personal budget that is available to prevent or mitigate the damage. Accordingly, compaction or drainage measures that are often employed in public or industrial projects are not commonly practiced in residential developments. It is also the case that people did not pay much attention to the liquefaction problem before the recent earthquake disasters, even though liquefaction hazard maps had been published by local authorities. Consequently, soil improvement for mitigation of liquefaction problems was not a common practice.



## Protection of Personal Houses from Liquefaction Problems (continued)

After the 2011 earthquake, the Japanese residents of liquefaction-affected areas wished to restore their houses. However, the following problems made their restoration difficult.

1. Aftershocks continued for a long time and people were afraid that restored houses might be affected again by repeated liquefaction.
2. Most mitigation technologies were too expensive for personal efforts for future safety.
3. In Japan, the earthquake insurance was not enough for soil improvement to mitigate future liquefaction. The insurance concerned structural damage above the ground surface. Hence, subsidence and tilting induced by subsoil liquefaction were out of scope (Photo 3). This problem was later solved to a certain extent by considering the significant tilting of houses as a kind of structural damage.
4. People did not wish to demolish their houses because the damage was limited to subsidence and tilting, without structural failure. Soil improvement under existing structures is substantially more expensive than that in an open space.

### SUBSOIL CONDITION IN MANMADE ISLAND

The urban expansion in the 20th Century converted such liquefaction-prone geomorphology as abandoned river channels and swampy area to residential areas. Construction of manmade islands took place as well for the same purposes. Accordingly, the constructed lands obtained such a liquefaction-prone subsoil as cohesionless fine loose materials with water saturation and young age. As a consequence, recent earthquakes in Dagupan of the Philippines and Kobe as well as the ones in New Zealand and Japan caused significant liquefaction and damage to houses.

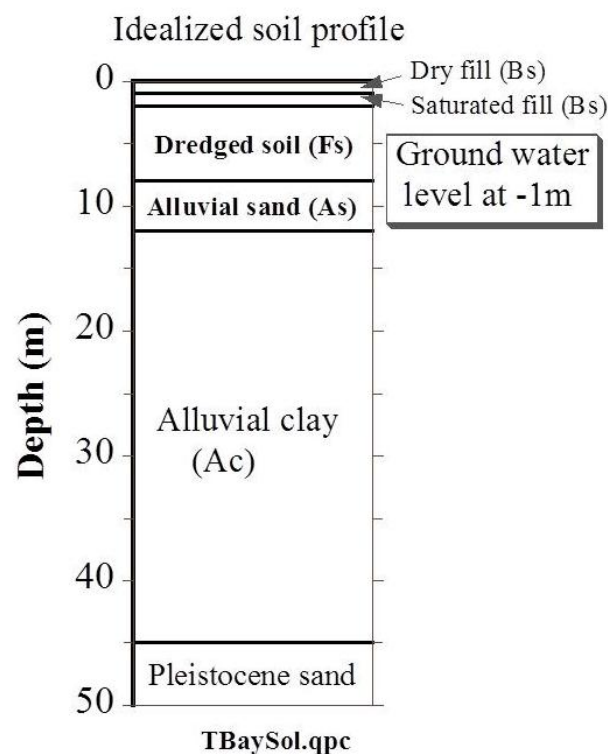


Figure 2. Idealized illustration of subsoil conditions in manmade islands in the Tokyo Bay area



## Protection of Personal Houses from Liquefaction Problems (continued)

Figure 2 illustrates an idea of the subsurface stratification in a manmade island in the Tokyo Bay area. There is a thick layer of alluvial clay in the lower elevation. This layer was formed when the sea water level rose during the post-glacier period. Being normally consolidated, this soil caused significant consolidation settlement during the construction of a manmade island at the surface. Above clay, there is an alluvial sandy layer that was formed when the sea level dropped a few meters during the more recent time.

In 1960s and 70s, many manmade islands were constructed mostly by means of dredging of the seabed sand. Although intended to be sandy, this sand often includes non-plastic silts whose liquefaction potential is not fully understood yet. After liquefaction, the boiled sand exhibited high content of fines, accordingly. Note that the fine grain size of dredged sand leads to a slow rate of sedimentation during land construction and, consequently, loose packing of grains, increasing the liquefaction potential of sand. The weight of the dredged layer caused significant consolidation settlement in the underlying alluvial clay for a long time. After the consolidation was completed, human community started.

Above the ground water level, the surface soil is made of sand that was obtained from borrow pits in hilly regions. Because it is not saturated with water, liquefaction is not a problem in this soil.

As stated above, the liquefaction risk was considered high in the dredged sandy layer. Hence, many industrial or public land users (owners) conducted available mitigation measures. In contrast, residential development projects adopted different policies. One was that the vulnerable sand had to be compacted for safety. This policy automatically increased the price of land sales. The other policy was that the lower land price without soil improvement met the people's (market's) demand. It was unfortunate that the real estate market accepted the second policy.

People in the liquefaction-affected area are of concern whether or not future earthquakes will cause a similar problem. This fear is reasonable because there are examples where liquefaction occurred repeatedly; for example, Christchurch in New Zealand in 2010 and 2011. Geotechnical engineering is able to answer this question.

In order to investigate the subsurface soil conditions after the 2011 earthquakes, Swedish weight sounding (SWS) tests were carried out at intervals of two or several months at the same location in Urayasu City, east of Tokyo, where severe liquefaction occurred during the earthquake. Herein, the estimated  $N_{spt}$  value was obtained from the observed SWS data according to the JIS A 1221.

Figure 3 compares the temporal variation of the estimated  $N_{spt}$  values. The test result before the earthquake which were obtained in 2002 are also plotted in this figure. From the result before the earthquake, soft soil deposits with estimated  $N_{spt}$  values of 5-10 could be found for a thickness about 9 m, and it clearly indicates likelihood of liquefaction in this soft layer. Fig. 4 shows the temporal variation of the average  $N_{spt}$  values in the estimated liquefied sand layer after the earthquake. Significant reduction in  $N_{spt}$  value can be observed about 7 days after the earthquake, while the estimated  $N_{spt}$  values increased with time later and returned to the original values or more about 2 months after the earthquake. Afterwards, there has been no noticeable increment in  $N_{spt}$  values. Consequently, the change in  $N_{spt}$  values between before and after the earthquake was almost negligible, which indicates that the investigated area is still of high risk of earthquake-induced liquefaction in future.

## Protection of Personal Houses from Liquefaction Problems (continued)

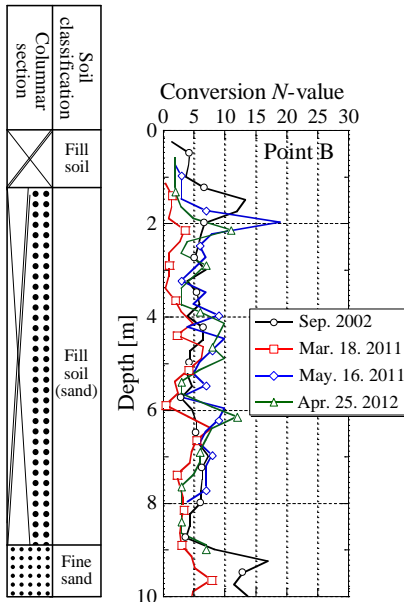


Figure 3. SWS test results measured in Urayasu city

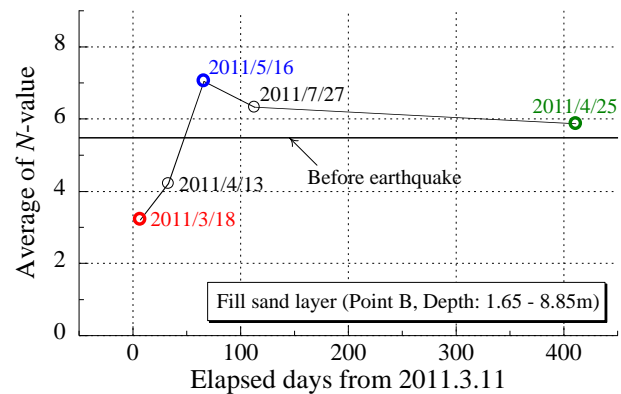


Figure 4. Variation with time of average  $N_{spt}$  values after the 2011 Tohoku earthquake

### ONGONG ATTEMPTS FOR RECONSTRUCTION

There may be such an opinion that liquefaction-prone manmade islands are not relevant for human settlement. However, the place to live should be decided on the basis of such other issues as environments, distance of commuting and living convenience in addition to safety from natural disasters. The role of engineering is to improve the safety by developing new technologies.

The biggest problem for safety improvement was the limited financial ability of people. This was significant because the earthquake insurance was not enough and public support was not available for improvement of personal properties. The second point is important in a country prone to natural disasters where typhoons, heavy rains and landslides affect so many houses every year and public supports would be a heavy burden to the public budget.

(a) Overall view



(b) Detail of uplifted sidewalk



Photo 5. Distortion of sidewalk probably caused by subsidence of building behind

## Protection of Personal Houses from Liquefaction Problems (continued)

What is going on is the combination of public and personal funds for reconstruction of communities. Basically, the public parts such as streets and lifelines are reconstructed and improved by the public fund. However, the execution of liquefaction-mitigation only under streets is not enough and, to fully protect the public facilities, the private land (house lots) should not develop liquefaction. This is because the ground deformation due to liquefaction in the private land easily affects the streets (Photo 5) and underlying lifelines. Moreover, the breakage of family sewage pipes introduced a huge amount of liquefied sand into the entire sewage lifeline networks and caused sand clogging in trunk pipes. Thus, it is considered reasonable to spend some amount of public funds to mitigate liquefaction in personal lands as well. Certainly, residents should pay due amount of money as well for fairness.

It deserves attention that people do not want to demolish and reconstruct their houses in spite of liquefaction risk under the foundation. Because soil improvement such as compaction and installation of drainage measures under existing houses is extremely difficult and costly, special technology has to be attempted.

The first idea for the mitigation of liquefaction risk is the installation of underground walls that constrain cyclic shear deformation of dredged sand and avoid liquefaction (Fig. 5). Installed under a pile-supported building with a wall spacing of 4-7 m at maximum, this technology successfully prevented liquefaction problem under a building in Kobe in 1995.

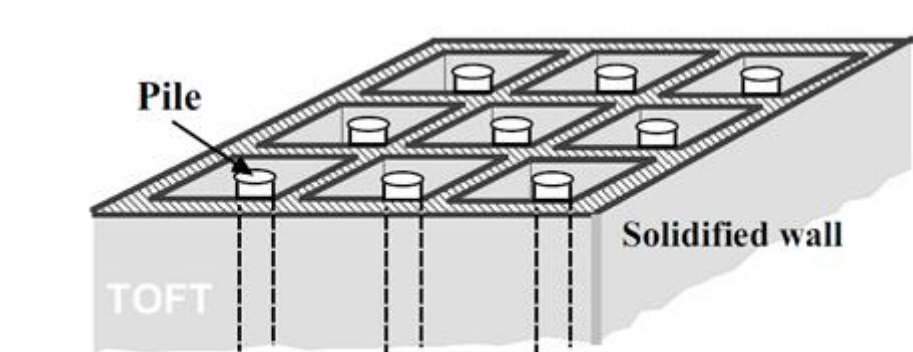


Figure 5. Square grid of underground rigid wall to prevent cyclic shear deformation of liquefaction-prone sand (piles in this illustration have nothing to do with liquefaction mitigation)

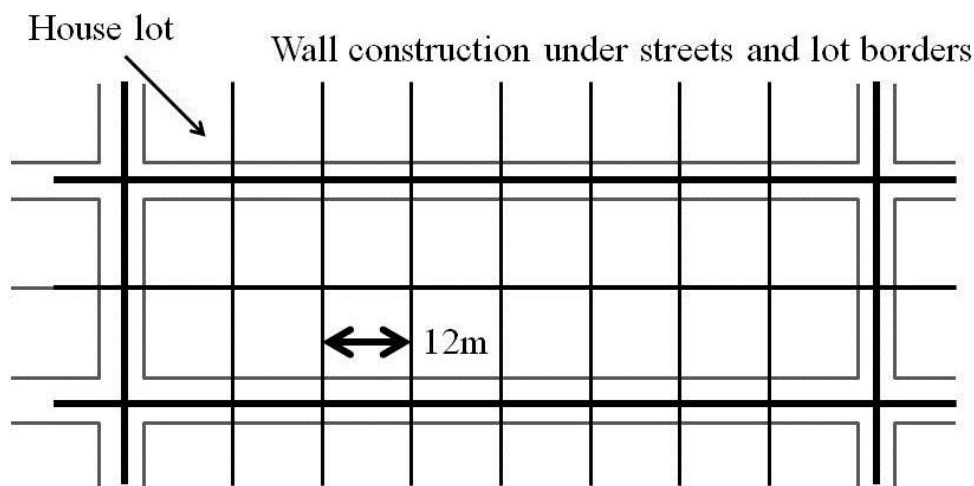


Figure 6. Installation plan of underground walls along both streets and housing lot boundaries



## Protection of Personal Houses from Liquefaction Problems (continued)

In the case of a residential area, it is very possible to first install such walls under streets so that an entire residential block may be surrounded by an underground wall. However, this is not enough because the spacing between walls is of the order of 100 m (size of a block) and cyclic shear deformation of soil cannot be constrained. Thus, more walls have to be installed under borders of individual house lots (Fig. 6). This measure makes the wall spacing about 12 m. Currently, discussion is still going on about effectiveness of walls with this spacing. Because the depth of ground water is only 1 m or 1.5 m, the constraint effects of walls may or may not be enough in soils immediately below the ground water table. Note that further wall construction under existing houses is extremely difficult or costly.

The second idea is to lower the ground water table so that unliquefiable surface crust is formed. There is an empirical knowledge that a reasonably thick crust of soil reduces the effect of liquefaction in the lower part of the ground (Ishihara, 1985). To achieve this goal, a reasonably large area of residential community is surrounded by underground impervious walls and the ground water inside the wall is pumped up. Fig. 7 illustrates the first successful example of this measure that was constructed in an oil refinery near Tokyo.

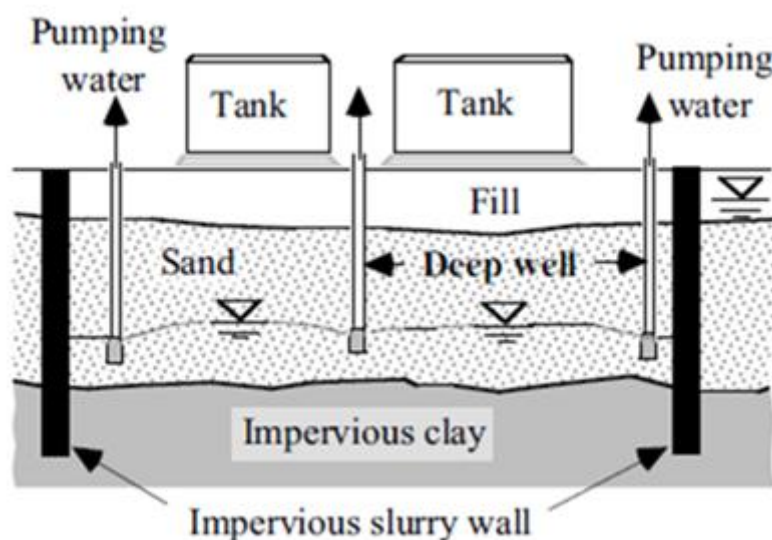


Figure 7. Example of lowering ground water level for mitigation of liquefaction in an oil refinery

Photo 6 shows another example in which ground water level was lowered for mitigation of liquefaction. Most houses in this area were destroyed by subsoil liquefaction during the 1995 Kobe earthquake. Also, the ground level in this area had been lower than the surrounding sea level because of ground water pumping and consolidation of soft clay, and inundation had been a problem. To solve these two problems at the same time, all the damaged houses were demolished, drainage pipes were installed to lower the ground water level by 1.5 to 2 m, and new soil of 1.5 m in thickness was filled at the surface, thus creating an unliquefiable layer of 3 to 3.5 m in thickness. To date, the weight of the new fill has not caused a problem of consolidation settlement. Most probably, the pumping of ground water was prohibited in 1960s, the water level rose since then, the effective stress in the clayey subsoil decreased, the clay became over-consolidated, and hence the settlement has been kept small even after the placement of the new fill at the surface. In contrast, the soft clay in the Tokyo Bay area is normally consolidated and a care must be taken of significant settlement in case of pumping ground water.

## Protection of Personal Houses from Liquefaction Problems (continued)



Photo 6. Tsukiji area of Amagasaki City where ground water level was lowered

Installation of liquefaction mitigation measures will help re-establish the value of the affected towns as good residential areas. Although the proposed lowering of ground water and installation of underground walls have many good points, they have shortcomings as well. Moreover, the execution of these measures requires general agreement of residents, which may not be very easy. Further, there seems to be the following issues to be solved:

1. Some people have already installed liquefaction measures under their houses. They do not like further expenditures for the proposed measures.
2. People with low income may not want to pay money for future liquefaction mitigation.
3. Lowering of ground water may cause ground subsidence and differential subsidence of houses to some extent. People in general have to understand this risk or decline the installation of water lowering.
4. The proposed measures are designed against what is called the Level-1 design earthquake that may happen once during the life period of structures; the return period being approximately 50 years or so. House protection from a possibly stronger earthquake is the business of individual residents.

### CONCLUSION

- After the 2011 gigantic earthquake of  $M=9$ , one of the major issues is the damage to personal properties for which the disaster mitigation cannot expect sufficient funding and the conventional mitigation measures are not very useful. Moreover, people wish to maintain their houses untouched, in spite of the liquefaction-induced tilting and subsidence.
- In this regard, two possible mitigation measures have been considered and addressed here, which are construction of underground walls for constraint of cyclic shear strain in the subsoil and lowering of ground water table. Both of them are of some deficiencies, and residents have to do additional efforts for the safety of their personal real estates.
- To install those measures, general agreement of people is necessary.

## Protection of Personal Houses from Liquefaction Problems (continued)

### ACKNOWLEDGMENT

The present paper addresses a small part of more comprehensive activities of damage reconnaissance and damage mitigation after significant liquefaction during the M=9 gigantic earthquake in Japan. The activities in this paper were carried out in collaboration with the Japanese Geotechnical Society, the Japan Society of Civil Engineers, and Urayasu Municipal government. The authors express their sincere gratitude to those assistances.

### REFERENCES

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- Konagai, K., Asakura, T., Suyama, S., Kyokawa, H., Kiyota, T., Eto, C. and Shibuya, K. (2012): Soil subsidence map of Tokyo Bay Area liquefied in the March 11th, 2011 Great East Japan Earthquake. *Proc. of the International Symposium on Engineering Lessons Learned from the 2011 Great East Japan Earthquake*, March 1-4, 2012, Tokyo, Japan, pp. 855-864.  
<http://www.jaee.gr.jp/event/seminar2012/eqsympo/proceedings.html>



## NEWS ON RECENT CONFERENCE

### AGENTINE CONFERENCE OF SOIL MECHANICS AND GEOTECHNICAL ENGINEERING



The Sociedad Argentina de Ingeniería Geotécnica (SAIG) has delivered the XXI CONGRESO ARGENTINO DE MECÁNICA DE SUELOS E INGENIERÍA GEOTÉCNICA (CAMSIG), in Rosario, Santa Fe, Argentina, from the 12th to the 14th of September 2012, gathering once again the geotechnical community, professionals, researchers, agencies, related companies, and students committed to the geotechnics study and development.

The addressed topics which were considered essential for civil-engineering professional development were promoting the debate, experience exchange, and technical update, including the introduction of news regarding the design and construction. The developed modalities were sessions for technical paper expositions, national and international expert's conferences, and products, services and devices presentations.

The conference themes included Physical and Mechanical Properties of Soil and Rocks, Laboratory and in Situ Geotechnical Testing, Application of Geology to Engineering, Digging, Retaining Structures and Slope Stability, Foundations, Buried Structures, Tunnels and Underground Systems, Dams Engineering, Transportation, Geotechnics, Ground Improvement/Remediation, Geoenvironmental Engineering, and Teaching and Learning.

Together with the XXI CAMSIG organization, apart from the Congress itself, two additional events were performed: the First Workshop for Geotechnics area for Teachers of Argentinean Universities, where a final document was written containing the conclusions regarded to the issue "Minimum contents and workload." The other event was the ISSMGE Board meeting, 2012.

The opening ceremony was attended by the ISSMGE President, Prof. Jean Louis Briaud, and most of the ISSMGE Board members as well as University authorities from both Universidad Nacional de Rosario and Universidad Tecnológica Nacional. The authorities from the Colegio de Ingenieros de la Provincia de Santa Fe were present, too.

Although this is a national event, the professional colleagues, teachers, researchers, students and related companies made participation that exceeded our estimations, achieving 250 attendants from all over the country and from Brazil, Chile, Colombia, Costa Rica, Spain, Italy, Mexico, Nicaragua, Paraguay, Peru and United States. The relative composition was about 25% teachers and researchers, 40% professionals, 30% students, and 5% other categories.

The institutions related to geotechnics that offered their auspice were Facultad de Ciencias Exactas, Ingeniería y Agrimensura (FCEIA); Universidad Nacional de Rosario (UNR); Universidad Tecnológica Nacional (UTN); Colegio de Profesionales de la Ingeniería Civil de la Provincia de Santa Fe (CPIC); Centro Argentino de Ingenieros (CAI); Cámara Argentina de Empresas de Fundaciones de Ingeniería Civil (CAEFI); International Geosynthetic Society (IGS); and Instituto Nacional de Tecnología Industrial (INTI-CIRSOC).

The companies that sponsored the Congress obtained a large national and international prestige. These were Coripa, Fine, SRK Consulting, Maccaferri, Tecmaco, and Prof. Marchetti Studio.

As a result, the Congress memoirs were published, edited by SAIG.

The organizers', attendants' and sponsors' expectations were in general enjoyed high satisfaction.

## AGENTINE CONFERENCE OF SOIL MECHANICS AND GEOTECHNICAL ENGINEERING (continued)



Photo 1: Group photograph taken after the opening ceremony, at the Monument to the Flag, This monument commemorates the first raising of the Argentine flag, on the banks of the Paraná River



Photo 2: ISSMGE Board Meeting, held at the Ros Tower and Convention Centre



## AGENTINE CONFERENCE OF SOIL MECHANICS AND GEOTECHNICAL ENGINEERING (continued)



Photo 3: First workshop for Geotechnology lecturers from Universities in the Argentine Republic



Photo 4: Board members, as well as other audience members during the opening ceremony of the congress



## AGENTINE CONFERENCE OF SOIL MECHANICS AND GEOTECHNICAL ENGINEERING (continued)



**Photo 5:** Speech by Prof. Jean Louis Briaud, President of ISSMGE, during the opening ceremony, together with the full opening panel (from left to right): President of the School of Engineers of the Province of Santa Fe, Alejandro Laraia, President of the XXI CAMSIG Pablo Torres, Dean of the Faculty of Exact Sciences, Engineering and Agriculture, Oscar Peire, ISSMGE Vice-President for South America Roberto Terzariol, President of the Argentine Society for Geotechnical Engineering, Alejo Sfriso.

## NEWS ON RECENT CONFERENCE

### 2nd International Conference on Transportation Geotechnics

Seiichi Miura  
Professor of Hokkaido University, Sapporo

The 2nd International Conference on Transportation Geotechnics (2nd ICTG) took place in the city of Sapporo, Japan from 10th September 2012 to 12th September 2012. It attracted 243 participants from 30 countries and 140 papers were presented. The conference theme of Transportation Geotechnics is recently attracting heavy concern from the engineering discipline because the transportation geotechnics is a new academic framework which pursues practical issues such as design, construction and maintenance management of transportation infrastructures like roads, railways, and airfields.

The invited lectures were delivered as what follows;

Prof. António Gomes Correia	Trends and Challenges in Earthworks for Transportation Infrastructures
Prof. Seiichi Miura	Mechanical Behavior and Earthquake-induced Failures of Volcanic Soils in Japan
Prof. Hervé Di Benedetto	Bituminous Mixtures: from Thermo-mechanical Properties of Components to Structure Calculation
Prof. Delwyn G. Fredlund	Soil Suction Measurements in Highway Subgrades
Prof. Buddhima Indraratna	Performance Evaluation of Shock Mats and Synthetic Grids in the Improvement of Rail Ballast
Prof. Fumio Tatsuoka	GRS Structures Recently Developed and Constructed for Railways and Roads in Japan
Prof. Erol Tutumluer	Sustainable Pavement Construction Utilizing Engineered Unbound Aggregate Layers

Prior to the conference, three pre-conference workshops were held on Intelligent Compaction, Challenges in Transportation Geotechnics in Extreme Climates and Geotechnical Challenges in Rail Track and its Transitional Zones.

The next conference of this series will be hosted by Guimarães, Portugal in the year of 2016.

Photographs taken during the conference are shown below.



Photo 1 Group photograph of participants



Photo 2 Prof. Seiichi Miura delivering his opening speech

## NEWS ON RECENT CONFERENCE

### INTERNATIONAL CONFERENCE ON GROUND IMPROVEMENT AND GROUND CONTROL

Wollongong University hosted the International Conference on Ground Improvement and Ground Control from 30th October to 2nd November 2012. Showcasing ground improvement concepts and applications in the fields of transport infrastructure and natural hazards mitigation, the conference acted as a platform to disseminate the most recent research and field advances to the global geotechnical community. Over 300 participants from 30 countries took part. Outstanding Keynote lectures, State of Art presentations, Heritage lectures and numerous technical discussions were delivered during the three days of scientific and technical discourse elucidating a comprehensive coverage of the current State-of-the-Art in Ground Improvement from theory to practice. The technical program was complimented with excursions encompassing reclaimed land at Port Kembla designed by the University of Wollongong's geotechnical group and landslide hazards mitigation works at the Lawrence Hargrave Drive Bridge.

During the closing ceremony, University of Wollongong's Professor Buddhima Indraratna, was awarded the prestigious Medal of the Eurasian National University for his contributions to ground improvement and transport geotechnology making a significant international impact. The medal has previously been awarded to a wide cross-section of the professional community, artists, political and religious leaders. Professor Indraratna is the second civil engineer to receive this award which was presented by Professor Askar Zhussupbekov, a senior representative of the Eurasian National University and current Vice-President for ASIA of the International Society for Soil Mechanics and Geotechnical Engineering.

#### Highlights of the events

##### Opening Ceremony





## INTERNATIONAL CONFERENCE ON GROUND IMPROVEMENT AND GROUND CONTROL (continued)

### Invited speakers



Prof. Jean-Louis Briaud, Texas A&M University  
College Station, USA  
ISSMGE President



Prof. Buddhima Indraratna  
Conference Chairman



Prof. Sarah Springman, ETH Zurich  
Hönggerberg, Switzerland



Prof. Serge Leroueil, Laval University,  
Canada

### Discussion during the conference





## INTERNATIONAL CONFERENCE ON GROUND IMPROVEMENT AND GROUND CONTROL (continued)

### Conference banquet



### Medal and Award Recipients

**Best paper award sponsored by the ARC Centre of Excellence in Geotechnical Science and Engineering**

L.S. Sowmiya, J.T. Shahu  
& K.K. Gupta

*Effect of Geosynthetics Reinforcement on Clayey Subgrade - Three Dimensional Finite Element Analysis on Railway Track*



**Best paper award sponsored by the ARC Centre of Excellence in Geotechnical Science and Engineering**

D. Lombardi, A. Flora & S. Lirer

*A New Approach for Reducing Seismic Hazard on Existing Buildings by Unusual Deep Soil Grouting*



# INTERNATIONAL CONFERENCE ON GROUND IMPROVEMENT AND GROUND CONTROL (continued)

## Medal and Award Recipients

Best paper award sponsored by the Australian Geomechanics Society

Richard Kelly

*Assessment of Smear Parameters for Use in Wick Drain Design*



Medal of the Eurasian National University

Professor Buddhima Indraratna



## Closing Ceremony





## NEWS ON RECENT CONFERENCE

### Korean Geotechnical Society and Kazakhstan Geotechnical Society Joint Geotechnical Seminar

The Korean Geotechnical Society (KGS) and Kazakhstan Geotechnical Society (KGS) held a joint seminar on August 21st-22nd in the University of Incheon, Korea with 40 KGS members and 13 visitors from the Republic of Kazakhstan. This was the second such meeting between the two societies in two years, the first being held in Astana, Kazakhstan on July 20th, 2010.

In the Opening Ceremony, KGS President Prof. Yeon-Soo Jang welcomed Kazakhstan friends first, and Prof. Askar Zhussupbekov (ISSMGE VP for Asia), the President of Kazakhstan Geotechnical Society, returned a Congratulatory Address.



Welcome Address by Prof. Yeon-Soo Jang  
(President of Korean Geotechnical Society)



Returned Congratulatory Address by Prof. Askar Zhussupbekov  
(President of Kazakhstan Geotechnical Society; ISSMGE VP Asia)



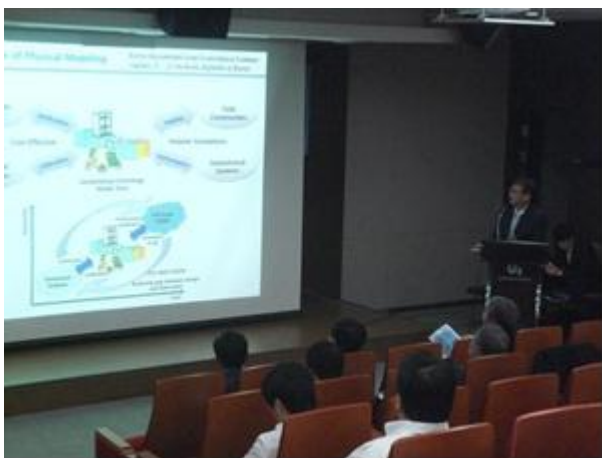
Gift presentation (traditional Kazakhstan and Korean clothes)



Group photograph  
(after the Opening Ceremony)

## Korean Geotechnical Society and Kazakhstan Geotechnical Society Joint Geotechnical Seminar (continued)

At first, a workshop with three technical sessions (including 10 presentations among 26 papers) was convened. Reflecting its remarkable economic growth in recent years, presenters from Kazakhstan focused on geotechnical issues associated with large scale social infrastructure developments. Prof. Askar Zhussupbekov delivered an interesting talk on “Geotechnical problems of Megaprojects on soil ground in Kazakhstan.” From the Korean counterpart, Prof. Dong-Soo Kim from KAIST introduced “Current research activities in KOCED geo-centrifuge center,” in which Kazakhstan participants showed high interest. After presentations, an open forum was held where each participant actively discussed on the presented topics.



Presentation of Prof. Kim, Dong-Soo



Presentation of Dr. Kanat S. Umertayev



Chairman (Prof. Eun Chul Shin and Prof. Adil Zhakulin)



Discussion ( Prof. Kim, Dong -Soo and Prof. Vitaly Khomjkov)

In the evening, a Welcome Reception was hosted with a Cocktail Opening, and traditional Kazakhstan and Korean dishes for fun and networking.

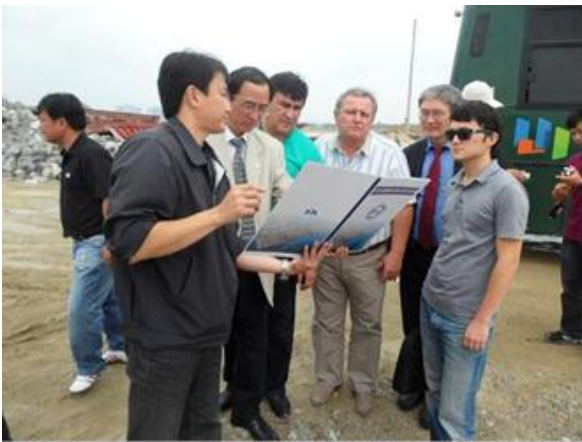


## Korean Geotechnical Society and Kazakhstan Geotechnical Society Joint Geotechnical Seminar (continued)



Welcome Reception

On the second day, Kazakhstan participants took a field trip arranged by our cooperate members visiting several sites in Incheon such as the Incheon Green Environment Center (IGEC, <http://www.igec.re.kr>), the Incheon metro construction site (Hanyang Construction, <http://www.hycorp21.co.kr>), the Incheon new harbor (Incheon Port Authority, <http://www.icpa.or.kr>) construction site, and the Incheon Free Economic Zone Authority.



Incheon new harbor



Incheon metro construction site



Incheon Free Economic Zone Authority  
(Compact city)



Incheon Green Environment Center

## **Korean Geotechnical Society and Kazakhstan Geotechnical Society Joint Geotechnical Seminar (continued)**

The Korean Geotechnical Society is very glad to have hosted this event and deepened the friendship between Korea and Kazakhstan. The Korean Society will be furthering its effort to interact and build up better relationships with the global geotechnical community.

The 3rd KGS-KGS joint geotechnical seminar will take place in Almaty in Kazakhstan in 2014.

## REPORT TO ISSMGE FOUNDATION

### REPORT OF 3AyGEC

After the recent 3rd African Young Geotechnical Engineers Conference in Cairo, Egypt, from 12th to 14th of November, 2012, four reports were submitted by participants whose conference attendances were supported by the ISSMGE Foundation. Their reports are presented here.

#### A SHORT REPORT ON 3AyGEC, CAIRO, EGYPT by Kabari, Baribeop (Nigeria)

The 3rd African Young Geotechnical Engineers conference which took place in Cairo, Egypt, was the best of its kind. The three-day conference started with registration of the participants on the 11th of November, 2012, and ended after a breath-taking technical visit at a project site and an exciting trip to the historical site of the Pyramids in Giza on the 14th. The conference was flawlessly organised and relatively well attended.

On Day 1, the Chairperson, Professor Fatma Baligh who presided over the opening ceremonies presented a warm welcome address and quickly invited Professors Samuel U. Ejezie and Jean-Louis Briaud who take their turn. This remarkable start was followed by Paper sessions and tea and lunch breaks.

Paper session 1 titled, "Soil Behaviour, Properties & Correlation" was preceded by a thrilling Keynote Lecture which was delivered by the ISSMGE President. The President exposed the subject of Saturated soils with specific emphasis on Shrink-Swell Soils and the Design of Shallow Foundations. Quite a number of young geotechnical engineers followed suits by responding to questions following individual presentations. I participated fully in the paper session 1 by making a presentation on "Soil Properties Correlation for Shallow Foundation Design".

Other paper sessions held on Day 1 and 2 assumed similar structure as paper session 1 and were also laced with motivating Keynote lectures by the VP Africa and Peter Day (former VP Africa), and also followed by awesome presentations by the young geotechnical engineers. Other distinguished professors from universities across Egypt also made tremendous impact through their contributions.

On Day 3 of the event a visit was made to the Multi Story Garage being constructed below El-Tahrir Square in Cairo. The project managers (ARAB Contractors) took us around the project site and explained different components of the drawings. Thereafter, we visited the historical Pyramids and the Sphinx in the Giza area.

The 3AyGEC has founded in me a deep-seated interest in geotechnical engineering research activities. I had the opportunity to engage in discussions with both young researchers and our enviable senior colleagues. It was a well organised conference and the best of its kind. I believe continual hosting of this event will always ignite the already existing passion in young engineers for research and practice of geotechnical engineering. This will lead to enhanced future activities of our dear profession especially in Africa and the entire globe.

Many thanks to the ISSMGE Foundation for sponsorship.



## REPORT OF 3AyGEC (continued)



12 November 2012 (end of paper session 1)

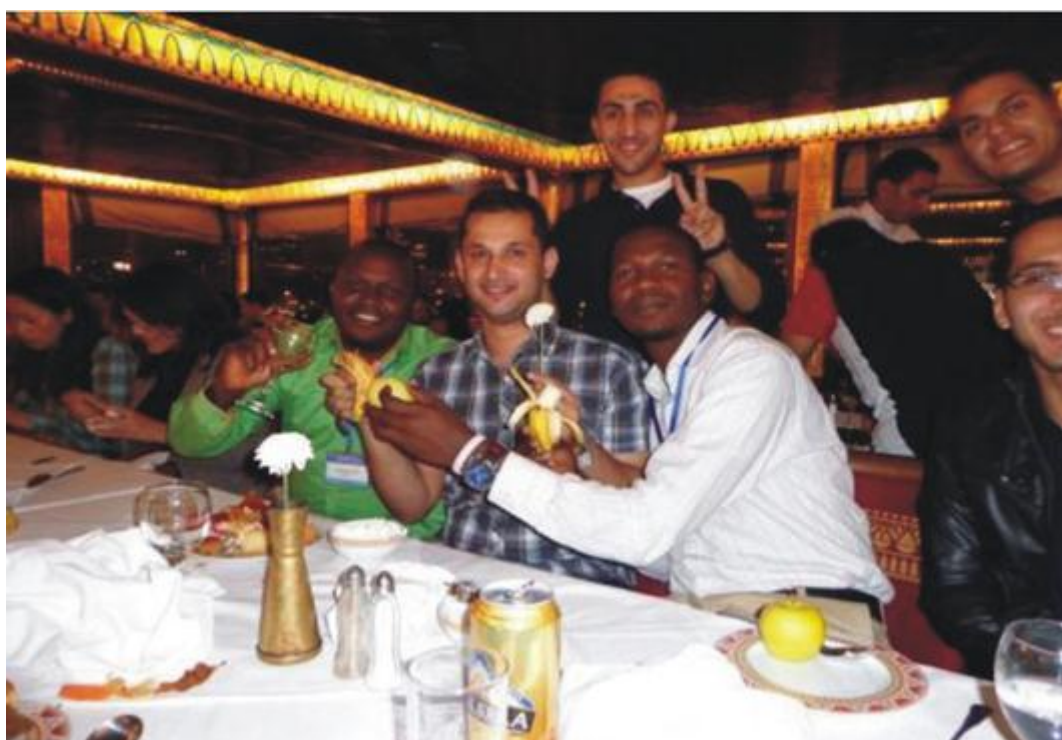


Some of the participants - *during tea break*

## REPORT OF 3AyGEC (continued)



Our most valued Senior Geotechnical Engineers - The People I met.



Dinner in the Nile Pharoah (B. Kabari - on green)



**REPORT OF 3AyGEC (continued)**



Ongoing Underground Multi-Story Garage at Tahrir Square



The Pyramids



## REPORT OF 3AyGEC (continued)

### The Third African Young Geotechnical Engineers Conference (3AyGEC'12) by Abir Mejri (Tunisia)

The conference was attended by young engineers (Tunisia, Egypt, Nigeria, Sudan) and also by specialists and professionals, in the field of geotechnical engineering, from different countries (Egypt, South Africa, Nigeria, France).

The conference was held at Housing and Building Research Center in Cairo and it lasted 3 days.

During the conference, very interesting keynote lectures were given by university professors and practitioners, namely, Prof. Jean Louis Briaud “Shrink-Swell Soils and the Design of Foundations for Light Buildings”, Prof. Samuel U. Ejezie “Vibration Transmission and Attenuation in Humid Tropical Soils”, Mr. Peter Day “Soil Profiles not Amenable to Conventional Investigation and Testing”, Eng Ashraf Wahby “Projects Carried Out by Bauer in Africa”.

Presentations were great, and lecturers did amazing jobs trying to explain and give answers to all questions.

5 paper presentation sessions were also programmed:

1. Soil behaviour, properties & correlations
2. Ground improvement & soil treatment
3. Shallow foundations
4. Miscellaneous-Analysis
5. Deep foundation design & practice

Presentations were very interesting and every presentation was followed by a discussion and exchanging ideas about the presented work.

The program of the conference included a technical visit to the “multi story garage below El-Tahrir Square” which is a project carried out by the Arab Contractors.

Also, a cultural evening and a visit to the Pyramids’ area helped get in touch with different participants in the conference.

Finally, I would like to thank the ISSMGE Foundation for offering the opportunity and the financial support to attend the Third African Young Geotechnical Engineers Conference (3AyGEC'12).



## REPORT OF 3AyGEC (continued)



## REPORT OF 3AyGEC (continued)

3AyGEC'12 , The Third African Young Geotechnical Engineers Conference.  
by OGBODO MUNACHISO C. (Nigeria)

The Third African Young Geotechnical Engineers Conference (3AyGEC '12) hosted by the Egyptian Geotechnical Society (EGS) in Cairo drew the attention of over 40 young geotechnical engineers and 13 Geotechnical Professors and many shakers of the industry all over Africa. About 9 African countries were represented. I was one of the three young geotechnical representatives from Nigeria.

The conference started on the 12th with speeches made by the chairperson 3AyGEC '12 organizing committee; Prof Fatma El-Zahraa Baligh, Vice-President The Egyptian Geotechnical Society (EGS); Prof Ahmend Hossny, ISSMGE Vice-President for Africa; Prof Samuel U, Ejezie and finally the ISSMGE President; Prof Jean-Louis Briaud.

Outstanding Keynote Lectures were given on different subjects by the ISSMGE President, ISSMGE Vice-president for Africa, Dr. Peter Day; Chairman Jones & Wagener (Pty) Ltd. (South Africa), Engr Ashraf Rateb; Head of Africa Sector Arab Contractors and Engr Ashraf Wahby; Head of Bauer Egypt.

The conference had 5 sessions with the following topics;

Session 1: Soil Behavior, Properties & Correction

Session 2: Ground Improvement & Soil Treatment (my Presentation was on this session)

Session 3: Shallow Foundations

Session 4: Miscellaneous - Analysis

Session 5: Deep Foundation Design & Practice.

Between sessions the conference also had Refreshment breaks and Lunch which allowed for mingling and interactions.

The last day of the conference was for technical visit which took place in an Underground Multi Storey garage construction site being handled Arab contractors. Also a visit to the Great Pyramids of Egypt and some "salute" to the Sphinx took place and in all it was a very interesting conference.

Finally, I am very thankful to the ISSMGE Foundation for the financial support provided for me to attend the 3AyGEC'12. I will not fail to express my appreciation to all that are linked to the Foundation from the Donors across to the ISSMGE President, ISSMGE Vice-President for Africa, the Administrative officer of ISSMGE; Paloma Peers, and every other person that contributed to the grant.



Ogbodo Munachiso making a presentation



## REPORT OF 3AyGEC (continued)



Cross section of the ISSMGE Foundation beneficiaries with the ISSMGE President

### The Third African Young Geotechnical Engineers' Conference (3AyGEC'12) by Miss Faith E. Osegi (Nigeria)

I was privileged to be nominated by the Nigerian Geotechnical Association (NGA) to attend the Third African Young Geotechnical Engineers' Conference held from November 12 - 14, 2012 in Cairo, Egypt. I participated as a young geotechnical engineer and presented my research on "Correlation of undrained pile-soil adhesion and undrained soil cohesion for clay deposits in the Niger Delta region of Nigeria".

The conference venue was the Housing and Building Research Centre, in the heart of the city of Cairo. It was well organized. There were five keynote lectures by renowned senior professional geotechnical engineers. Two centered on very interesting geotechnical engineering projects carried out in Africa by two major contractors. Young geotechnical engineers also got to present their research on a variety of geotechnical topics. The question and answer sessions were very enlightening. Outstanding paper presentations were recognized. I am glad to have won the prize for the best presentation of Paper Session V (Deep Foundation Design & Practice).

The conference provided a good atmosphere for gainful interactions and discussions through coffee and lunch breaks between technical sessions and other social events. We went on a technical visit to a Multi Storey Garage below El-Tahrir Square, an on-going project by the Arab Contractors. It was a lovely experience cruising on River Nile in the Nile Pharaoh boat during the cultural evening, where we were entertained by Egyptian folk dancers and treated to tradition of oriental meals and drinks. We also visited the pyramids area and saw the sphinx. The conference was indeed very successful based on what was learnt, useful contacts made and exciting places visited.

## REPORT OF 3AyGEC (continued)

I want to use this opportunity to express my heartfelt gratitude to the following persons/organisations whose contributions made it possible for me to participate in the conference. Prof. Samuel U. Ejezie, thank you for laying the foundation for my research and painstakingly reading through the manuscript. Engr. Enoch George, I appreciate your inputs which helped to frame my research. I am particularly grateful to Enoch George Associates Ltd for providing me with the much-needed data for the work. Prof. Fatma El-Zahraa Baligh, your patience and understanding is most appreciated. To the ISSMGE Foundation, I am truly grateful for your financial support.

Finally, to everyone who was present and who contributed to the conference I say a big thank you for making it a huge success.



Senior professional geotechnical engineers with young geotechnical engineers/participants



Mr. M. Ogbodo (Nig.), Myself, and Dr. Peter Day (from left to right)

## REPORT OF 3AyGEC (continued)



Myself receiving prize for best paper presentation in Paper Session V (Deep Foundation Design & Practice)



At pyramid in Giza (pyramid used as conference logo)



## REMINISCENCE

### Prof. Za Chieh Moh

An interview with Dr. Moh was made in Taipei on November 14th, 2012. As is well known, Dr. Moh has made remarkable achievements in the fields of education at Asian Institute of Technology (AIT), practice through his consulting firm, and societal activities in the Southeast Asian Geotechnical Society of which he is the founder.

During the interview, the first topic was his recent activities and interests. In addition to infrastructure developments, he is concerned with projects of bigger scales. Moreover, he believes that future geotechnical engineering should pay more attention to disaster mitigation. Design of disaster prevention/mitigation structures is one of his target businesses. From the viewpoint of the future geotechnical engineering, he mentioned that GIS will be a useful tool. Another future direction is “Green Design” by which clean and ecological community is developed. He is doing practice internationally on design of office buildings, subways, and even urban design. Risk analysis is another important topic of his activity.



The second topic was his good memory of geotechnical engineering. His best memory is that he took Karl Terzaghi's course in his final year at Harvard. His lecture showed many slides of photographs. While Dr. Moh's advisor was Prof. Lamb, Terzaghi also visited MIT occasionally and gave many valuable advices to him and other students. Dr. Moh states that Terzaghi had a very wide range of knowledge including soil chemistry.

After his degree from MIT, Dr. Moh worked for Woodward-Clyde and then moved to Yale University. It was this time that AIT was recruiting academic staffs for the new development of geotechnical engineering division. Initially, he got an appointment for 18 months, which was later extended to 11 years. During that period, he obtained good supports from AIT and installed good educational programs and equipments. He devoted enthusiastically to AIT as a vice president.

After AIT, he turned to practice. At the beginning, only he and his brother worked together. The first job was the restoration of runway pavement in the Taipei Airport. A 6m\*6m panel of an existing pavement was removed, the subsoil was compacted, and the new pavement was cured. The challenge was that the entire process had to be completed in six hours during the night when no flight was scheduled. He recalls one night when a typhoon unexpectedly attacked the site, irrespective of the weather forecast, where new concrete had just been cast. It is still his good memory that next morning Boeing 747 safely landed on his brand-new pavement. Another good achievement of his was a construction of tunnel at only 6 meters below an airport runway. This job was successfully done without affecting the operation of the airport. With these achievements, his company grew to an international giant.

Finally, the interviewer made a request to Dr. Moh to give valuable advices to younger generations. He is afraid that recent fresh bachelors are not so much interested in basic academic issues as before, possibly because their lives are too easy. To improve this situation, his company takes care of 6-month internship for master students from abroad. He believes that an internship for 6 weeks, which is often the case for undergraduate students, is too short.

During the interview, the interviewer felt that Dr. Moh maintains his deep interest and strong enthusiasm in soil and geotechnical matters. It is desired that Dr. Moh will keep playing important roles in the world of geotechnical engineering and even in other areas.

by Ikuo Towhata

## Event Diary

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

### 2013

#### **4th International Seminar on Forensic Geotechnical Engineering**

Date: Wednesday 09 January 2013 - Saturday 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, ,KA, India

Phone: 918022933124

Fax: 918023600404

E-mail: [gls@civil.iisc.ernet.in](mailto:gls@civil.iisc.ernet.in)

Website: <http://www.4isfge.org/>

#### **First Pan-American Conference on Unsaturated Soils (Pam-Am UNSAT 2013)**

Date: Tuesday 19 February 2013 - Friday 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](mailto:panamunsat2013@uniandes.edu.co)

Website: <http://panamunsat2013.uniandes.edu.co>

#### **3rd International Conference on Geotechnical Engineering (ICGE'13)**

Date: Thursday 21 February 2013 - Saturday 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](mailto:frikha_wissem@icge13.com) or [frikha.wissem@gmail.com](mailto:frikha.wissem@gmail.com)

Website: <http://www.icge13.com/>

## Event Diary (continued)

### Experimental Micromechanics for Geomaterials

Date: Thursday 23 May 2013 - Friday 24 May 2013

Location: The University of Hong Kong, China (Hong Kong S.A.R.)

Language: English

Organizer: TC101, TC105, HKGES, HKU

Contact person: Ms Bridget Lam

Address: Department of Civil Engineering, The University of Hong Kong, Pokfulam, Hong Kong, China (Hong Kong SAR)

Phone: (852) 2859 2666

Fax: (852) 2559 5337

E-mail: [owlam@hku.hk](mailto:owlam@hku.hk)

### 18th Southeast Asian Geotechnical Conference cum Inaugural AGSSEA

Date: Wednesday 29 May 2013 - Friday 31 May 2013

Location: Singapore

Language: English

Organizer: Geotechnical Society of Singapore

Contact person: Office of Professional Engineering & Executive Education

Address: Faculty of Engineering, National Univ of Singapore, Block E1 #05-15, 3 Engineering Drive 2, 117578 Singapore

Phone: +65 65165113

Fax: +65 68745097

E-mail: [18seagc@nus.edu.sg](mailto:18seagc@nus.edu.sg)

Website: <http://www.18seagc.com>

### Second International Symposium on Geotechnical Engineering for the Preservation of Monuments and Historic Sites

Date: Wednesday 29 May 2013 - Friday 31 May 2013

Location: Conference Centre Federico II, Napoli, Italy

Language: English

Organizer: AGI and TC 301

E-mail: [secretariat@tc301-napoli.org](mailto:secretariat@tc301-napoli.org)

Website: <http://www.tc301-napoli.org/>

### The first international conference on Foundation and Soft Ground Engineering Challenges in MeKong Delta

Date: Wednesday 05 June 2013 - Thursday 06 June 2013

Location: Thu Dau Mot University, Binh Duong, Binh Duong, Vietnam

Language: English

Organizer: Dr. Nguyen Ke Tuong and M. Eng. Nguyen Minh Hai

Contact person: Nguyen Minh Hai

Address: 06 Tran Van On Street, 650, Binh Duong, Binh Duong, Viet Nam

Phone: 84-650-3.822.518.

Fax: 84-650-3.837.150

E-mail: [haitdmu@gmail.com](mailto:haitdmu@gmail.com)

Website: <http://www.ictdmu.com/>



## Event Diary (continued)

### TC 215 ISSMGE International Symposium on "Coupled Phenomena in Environmental Geotechnics (CEPG) - from theoretical and experimental research to practical applications"

Date: Monday 01 July 2013 - Wednesday 03 July 2013

Location: Politecnico di Torino, Torino, Italy

Language: English

Organizer: TC 215 ISSMGE and Italian Geotechnical Association (AGI)

Contact person: Guido Musso, Andrea Dominijanni

Phone: +39 011 0904837

E-mail: [guido.musso@polito.it](mailto:guido.musso@polito.it); [andrea.dominijanni@polito.it](mailto:andrea.dominijanni@polito.it)

Website: [www.tc215-cepg-torino.org](http://www.tc215-cepg-torino.org)

### Fifth International Young Geotechnical Engineers' Conference (5iYGEC'13)

Date: Saturday 31 August 2013 - Sunday 01 September 2013

Location: École des Ponts ParisTech, Paris, France

Language: English/French

Contact person: Prof. Yu-Jun Cui

Address: Paris, France

E-mail: [yujun.cui@enpc.fr](mailto:yujun.cui@enpc.fr)

Website:

<http://www.lepublicsystemepco.com/EN/events.php?IDManif=696&IDModule=21&PPAGE=&PAGE=&TEMPLA TE=&CSS=&IDRub=>

### 18th International Conference on Soil Mechanics and Geotechnical Engineering, Paris,

Date: Monday 02 September 2013 - Friday 06 September 2013

Location: Palais des congrès de Paris, Porte Maillot, Paris, France

Language: English, French

Organizer: Le Public Système, 38, rue Anatole France-Levallois-Perret Cedex, 92594 France

Contact person: Violaine Gauthier, Valérie Métral

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

Phone: +33 1 70 94 65 04

Fax: +33 1 70 94 65 01

E-mail: [vgauthier@le-public-systeme.fr](mailto:vgauthier@le-public-systeme.fr), [vmetral@le-public-systeme.fr](mailto:vmetral@le-public-systeme.fr),

Website: <http://www.issmge2013.org/EN/events.php?IDManif=561&IDModule=71&IDRub=79>

More info: Organizer Phone: 33 1 70 94 65 04 Contact persons: Violaine Gauthier: [vgauthier@le-public-systeme.fr](mailto:vgauthier@le-public-systeme.fr) Valérie Métral: [vmetral@le-public-systeme.fr](mailto:vmetral@le-public-systeme.fr)

### International Symposium on Design and Practice of Geosynthetic-Reinforced Soil Structures

Date: Sunday 13 October 2013 - Wednesday 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: [ling@civil.columbia.edu](mailto:ling@civil.columbia.edu)

Website: <http://www.civil.columbia.edu/bologna2013/>

## Event Diary (continued)

### International Conference Geotechnics in Belarus: Science and Practice

Date: Wednesday 23 October 2013 - Friday 25 October 2013

Location: Belarussian National Technical University, Minsk, Belarus

Language: Russian and English

Organizer: Belorussian Geotechnical Society

Contact person: Ulasik T., Sernov V., Ignatov S.

Address: Republic of Belarus, prospectus Nezavimosti, building 65, 220013 Minsk, Belarus

Phone: +37517 2659769

E-mail: [geotechnika2013@gmail.com](mailto:geotechnika2013@gmail.com) [belgeotech@tut.by](mailto:belgeotech@tut.by)

### The 19th NZGS Symposium “Hanging by a Thread - Lifelines, Infrastructure and Natural Disasters”

Date: Wednesday 20 November 2013 - Saturday 23 November 2013

Location: Millennium Hotel, Queenstown, New Zealand

Language: English

Organizer: New Zealand Geotechnical Society

Contact person: Amanda Blakey

Address: Auckland, New Zealand

Phone: +64 9 575 2744 or +64 21 025 11 628

E-mail: [secretary@nzgs.org](mailto:secretary@nzgs.org)

Website: <http://www.nzgs13.co.nz/>

### 10th International Symposium of Structures, Geotechnics and Construction Materials

Date: Tuesday 26 November 2013 - Friday 29 November 2013

Location: International Convention Center, Santa Clara, Villa Clara, Cuba

Language: English, Spanish

Organizer: Facultad de Construcciones, Universidad Central de Las Villas

Contact person: Dra. Ana Virginia González - Cueto Vila

Address: Facultad Construcciones, UCLV, Carretera a Camajuani, km 5.5, 54830, Santa Clara, Villa Clara, Cuba

Phone: (53) 42 281655, 42 281065, 42 28 1561

Fax: (53) 42 281655

E-mail: [ana@uclv.edu.cu](mailto:ana@uclv.edu.cu) , [quevedo@uclv.edu.cu](mailto:quevedo@uclv.edu.cu)

Website: [www.uclv.edu.cu](http://www.uclv.edu.cu)

### GEOTEC HANOI 2013 “Geotechnics for Sustainable Development”

Date: Thursday 28 November 2013 - Friday 29 November 2013

Location: Melia Hotel, 44B Ly Thuong Kiet Street, Hoan Kiem District, Hanoi, Vietnam

Language: English

Organizer: FECON (Vietnam), VSSMGE (Vietnam) and AIT (Thailand)

Contact person: Dr. Le Quang Hanh, Ms Vu Thuy Dung

Address: FECON Foundation Engineering & Underground Construction JSC.15F, CEO Building, HH2-1 Plot, Pham Hung Road, Tu Liem District, Hanoi, Vietnam

Phone (+ 84) 46.269.0481 or 46.269.0482, Ext: 335

Fax: (+ 84) 46.269.0484

E-mail: [secretariat@geotechn2013.vn](mailto:secretariat@geotechn2013.vn)

Website: <http://www.geotechn2013.vn>

## Event Diary (continued)

### 2014

#### 8th International Conference on Physical Modelling in Geotechnics 2014 (ICPMG)

Date: Tuesday 14 January 2014 - Friday 17 January 2014

Location: University Club, The University of Western Australia, Perth, Western Australia, Australia

Language: English

Organizer: Centre for Offshore Foundation Systems, The University of Western Australia

Contact person: arinex pty limited

Address: GPO Box 316, Belmont WA 6984 Australia,

Phone: +61 2 9265 0890

Fax: + 61 2 9265 0880

E-mail: [icpmg2014@arinex.com.au](mailto:icpmg2014@arinex.com.au)

Website: <http://icpmg2014.com.au/>

#### TC204 ISSMGE International Symposium on "Geotechnical Aspects of Underground Construction in Soft Ground" - IS-Seoul 2014

Date: Monday 25 August 2014 - Wednesday 27 August 2014

Location: Sheraton Grande Walkerhill, Seoul, Korea

Language: English

Organizer: TC204 of ISSMGE and Korean Geotechnical Society

Contact person: Prof. Chungsik Yoo

Address: 300 Chun-Chun Dong, Jang-An Gu, 440-746, Suwon, Kyoung-Gi Do, Korea

Phone: +82-32-290-7518

Fax: +82-32-290-7549

E-mail: [csyoo@skku.edu](mailto:csyoo@skku.edu)

### 2015

#### XVI European Conference on Soil Mechanics and Geotechnical Engineering

Date: Sunday 13 September 2015 - Thursday 17 September 2015

Location: Edinburgh International Conference Centre, Edinburgh, Scotland, United Kingdom

Language: English

Organizer: British Geotechnical Association

Contact person: Derek Smith

Address: Coffey Geotechnics Limited, The Malthouse, 1 Northfield Road, Reading, Berkshire, RG1 8AH, Reading, UK

Phone: +44 1189566066

Fax: +44 1189576066

E-mail: [derek\\_smith@coffey.com](mailto:derek_smith@coffey.com)

Website: <http://www.xvi-ecsmge-2015.org.uk/>

### 2016

#### NGM 2016, The Nordic Geotechnical Meeting

Date: Wednesday 25 May 2016 - Saturday 28 May 2016

Location: Harpan Conference Centre, Reykjavik, Iceland

Language: English

Organizer: The Icelandic Geotechnical Society

Contact person: Haraldur Sigursteinsson

Address: Vegagerdin, Borgartún 7, IS-109, Reykjavik, Iceland

Phone: +354 522 1236

Fax: +354 522 1259

E-mail: [has@vegagerdin.is](mailto:has@vegagerdin.is)



## Event Diary (continued)

### NON-ISSMGE SPONSORED EVENTS

2013

#### International Conference on "Landslide Risks"

Date: Thursday 14 March 2013 - Saturday 16 March 2013

Location: Ain Draham ,Tabarka,,Tunisia

Language: English

Organizer: Civil Engineering Laboratory (National Engineering School of Tunisia)

Contact person: Professor Mehrez Jamei

Address: National Engineering School of Tunis, The Civil Engineering Laboratory, BP 37, Le Belvédère,1002, Tunis, Tunisia

Phone: +216 (98) 665 556

Fax: +216 (71) 872 729

E-mail: [mehrez.jamei@enit.rnu.tn](mailto:mehrez.jamei@enit.rnu.tn)

Website: [http://www.iclr13.com/#HOME\\_PAGE.A](http://www.iclr13.com/#HOME_PAGE.A)

#### International Conference on Installation Effects

Date: Sunday 24 March 2013 - Wednesday 27 March 2013

Location: Rotterdam, The Netherlands, Rotterdam, The Netherlands

Language: English

Organizer: TU Delft

Contact person: Marti Lloret

Address: Stevinweg 1 / PO-box 5048,2628 CN Delft ,Delft, The Netherlands

Phone: +31 1527 84009

E-mail: [geoinstall@tudelft.nl](mailto:geoinstall@tudelft.nl)

Website: <http://geo.citg.tudelft.nl/geoinstall/>

#### EURO:TUN2013

Date: Wednesday 17 April 2013 - Friday 19 April 2013

Location: Ruhr-Universität Bochum, Bochum, Germany,

Language: English

Organizer: Günther Meschke, Josef Eberhardsteiner, Tom Schanz ([tom.schanz@rub.de](mailto:tom.schanz@rub.de)), Kenichi Soga, and Markus Thewes

Website: <http://www.eurotun2013.ruhr-uni-bochum.de/>

#### First International Conference-Seminar on Deep Foundations in Bolivia

Date: Tuesday 23 April 2013 - Wednesday 24 April 2013

Location: Economic Sciences Auditorium - UAGRM Campus, Santa Cruz de la Sierra, Santa Cruz, Bolivia

Language: English - Spanish with simultaneous translation

Organizer: UAGRM- INCOTEC SRL- Chamber Of Construction- Engineers Society- Dr. Bengt H. Felenius - Dr. K. Rainer Massarsch

Contact person: Ricardo Soliz

Address: Av. 5o Anillo esq. Radial 27 - PO Box 868, Santa Cruz de la Sierra, Santa Cruz, Bolivia

Phone: +591 3 3429522 (ext 112)

Fax: 342 9525

E-mail: [congreso@cfpbolivia.com](mailto:congreso@cfpbolivia.com)

Website: [www.cfpbolivia.com](http://www.cfpbolivia.com)

## Event Diary (continued)

### Seventh International Conference on Case Histories in Geotechnical Engineering

Date: Sunday 28 April 2013 - Saturday 04 May 2013

Location: The Westin Chicago North Shore, Wheeling, Illinois, United States

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: [7icchge@mst.edu](mailto:7icchge@mst.edu)

Website: <http://7icchge.mst.edu/>

### International Symposium on Advances in Foundation Engineering

Date: Thursday 05 December 2013 - Friday 06 December 2013

Location: Furama Riverfront Hotel, Singapore

Language: English

Organizer: Geotechnical Society of Singapore

Contact person: Phoon Kok Kwang (Chair)

Address: Block E1A, #07-03, 1 Engineering Drive 2, Singapore 117576, Singapore

Phone: 65-65166783

Fax: 65-67791635

E-mail: [kkphoon@nus.edu.sg](mailto:kkphoon@nus.edu.sg)

Website: <http://rpsonline.com.sg/isafe2013/>

## 2014

### 8th European Conference on Numerical Methods in Geotechnical Engineering (NUMGE14)

Date: Tuesday 17 June 2014 - Friday 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](mailto:info@numge2014.org)

Website: <http://www.numge2014.org>

FOR FURTHER DETAILS, PLEASE REFER TO THE WEBSITE OF THE SPECIFIC CONFERENCE

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GERMANY



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## Corporate Associates (continued)



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8/F, Tower 2, Grand Central Plaza  
138 Shatin Rural Committee Road  
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Hong Kong



Construtora Norberto Odebrecht  
Av. Rebouças, 3970 - 31º andar  
Pinheiros CEP-05402-600  
São Paulo/SP  
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S/A  
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Paulo/SP  
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Brasfond Fundações Especiais SA  
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Vibropile Australia  
Attn: Serhat Baycan  
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AUSTRALIA



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

## INVITATION TO PAGE OF CORPORATE ASSOCIATES

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.

Message from Corporate Associate:  
Arjuna Consulting Inc.



Arjuna Consulting is a geotechnical consulting firm that is based in Kurukshetra 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.



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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 geo-engineering knowledge and enhance their practice through various activities which they could not otherwise afford. These activities include attending conferences, participating in continuing education events, purchasing geotechnical reference books and manuals.

- **Diamond: \$50,000 and above**

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- b. Geo-Institute of ASCE  
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- c. Japanese Geotechnical Society  
<http://www.jiban.or.jp/>



- d. The Chinese Institution of Soil Mechanics and Geotechnical Engineering - CCES  
[www.geochina-cces.cn/en](http://www.geochina-cces.cn/en)



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- b. Deep Foundation Institute  
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- d. Korean Geotechnical Society  
[www.kgshome.or.kr](http://www.kgshome.or.kr)





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www.calgeo.org



- f. Prof. Ikuo Towhata



<http://geotle.t.u-tokyo.ac.jp/>  
[towhata@geot.t.u-tokyo.ac.jp](mailto:towhata@geot.t.u-tokyo.ac.jp)

- g. Chinese Taipei Geotechnical Society

[www.tgs.org.tw](http://www.tgs.org.tw)

- h. Prof. Zuyu Chen



<http://www.iwhr.com/zswenglish/index.htm>

- i. East China Architectural Design and Research Institute **ECADI**

<http://www.ecadi.com/en/>

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- a. Prof. Mehmet T. Tümay

[http://www.coe.lsu.edu/administration\\_tumay.html](http://www.coe.lsu.edu/administration_tumay.html)  
[mtumay@eng.lsu.edu](mailto:mtumay@eng.lsu.edu)

- b. Nagadi Consultants (P) Ltd



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- c. Professor Anand J. Puppala  
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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](mailto: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](mailto: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.



## ISSMGE's International Journal of Geoengineering Case Histories

### CALL FOR PAPERS for the ISSMGE Case History Journal

The International Journal of Geoengineering Case Histories (IJGCH) is an official journal of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) and Geoengineer.org, focusing on the publication of well- documented case histories. **The journal is the ONLY refereed journal focusing exclusively on geoengineering practice and has many unique features.**

#### Topics of Interest

The IJGCH covers the broad area of practice in geoengineering. Researchers and practitioners worldwide are invited to submit their paper related to Soil Mechanics, Engineering Geology, Geotechnical Earthquake Engineering, Soil Dynamics, Geoenvironmental Engineering, Deep and Shallow foundations, Retaining structures, Deep Excavations, Rock Mechanics, Tunneling, Underground structures, Applications of Geosynthetics, Landslides and Slope Stabilization, Dam engineering and embankments, Special Geotechnical Structures, Forensic engineering, Applications of Constitutive Modelling, Landfill engineering, Reconnaissance of Natural Disasters, Geotechnical Aspects of Monuments and Historic Sites.

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*The Case Histories journal is funded by our sponsors GEI Consultants, Inc. & Zetaş Zemin Teknolojisi A.Ş..*

**To learn more about ISSMGE's Case Histories Journal and submission guidelines, visit:**

<http://casehistories.geoengineer.org>.

#### **From the editor of ISSMGE Bulletin**

There is some confusion about case-history articles in this fantastic journal and those in Bulletin. As the editor of Bulletin, I would clarify the differences between them. Bulletin is something like a magazine that emphasizes simplicity, clarity, and speed. Hence, there is no peer review and I do my best to improve the submitted draft quickly so that the readers may get the latest information from the article. The articles are usually short and nice photographs are considered important. In contrast, the International Journal of Geoengineering Case Histories seeks for high quality as an academic journal with good peer reviews. Thus, the two publications of ISSMGE are different but work together as evidenced by many Bulletin articles that are invited to be re-submitted to the journal after their quality is improved and more information is added.

## 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.

Bulletin is not an academic journal. It aims to increase the interest of readers in what are going on at the earth's surface as an interaction between human and our planet. Examples of desired type of articles in recent issues have addressed "*Soil Improvement under New Levees in New Orleans*," "*Development of New Cone Penetrometer*," "*Harbour Construction in Australia*" and "*Preliminary Understanding of the 1255 Seti River Debris-Flood in Pokhara, Nepal*" as well as "*Development of Small-Scale Exciter for Condition Rating of Retaining Structures*" among many others. 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>

In particular, the editor is waiting for submission on recent great technical achievements such as foundation of big buildings under difficult natural conditions and tunneling through Alps, for instance.

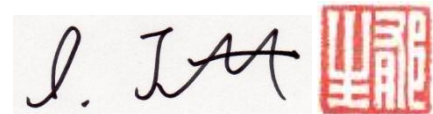
Because the Bulletin is an electronic publication, there is no page limitation. Color photographs and illustrations are highly welcome. Moreover, you can submit draft by a WORD file and there is no fixed format; the editing team will take care of formatting.

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 am happy to acknowledge the support provided by the editorial board member, Dr. Marcelo Gonzalez to bring out this issue of the Bulletin.

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 **THAT YOU ARE VERY GOOD.**

Yours sincerely



Ikuo Towhata