

## ISSMGE Bulletin

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## International Society for Soil Mechanics and Geotechnical Engineering

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## President's message

Dear colleagues and friends,

Time flies and it has already been a year since I was elected as the President of the ISSMGE in Seoul. I would like to thank all of you for your trust and support over the past year. Since getting elected, I have been implementing my presidential plan for improving Education, Innovation and Diversity



at the ISSMGE, which was announced during my presidential address and published in last October's issue of Bulletin. I am delighted to say that we have since made significant progress.

#### (i) Education—ISSMGE Virtual University

The proposed "ISSMGE virtual university" is rapidly taking shape. Under the leadership of Professors Mounir Bouassida and Kok Kwang Phoon, all existing ISSMGE webinars were reviewed and categorised for the first time into four "themed series of webinars or postgraduate courses". The four postgraduate courses are (a) Risk Mitigation, Monitoring & Observational Methods; (b) In Situ Testing; (c) Earthquake Engineering and (d) Foundations. Each course is comprised of three to four webinars giving students and engineers a total of no less than five hours of viewing. Please visit the website below for details. https://www.issmge.org/education/virtual-university

Nine new postgraduate courses have been identified. These need to be further developed by creating more relevant new webinars to give a total of no less than five hours of viewing for each course. Some VPs and relevant chairs of technical committees have nominated webinar speakers and recording is in progress. Moreover, I am pleased to announce that two webinars delivered in French are now available online for the first time. For details, please visit <a href="https://www.issmge.org/education/recorded-webinars">https://www.issmge.org/education/recorded-webinars</a>

## President's message (Con't)

#### (ii) Innovation—ISSMGE Library and Publisher

The open access policy initiated by Professor Roger Frank during his presidential term has been continued and expanded rapidly. Naturally, the open access materials would form the "ISSMGE library" as a part of the "ISSMGE virtual university". The latest materials appeared online are the proceedings of the 7<sup>th</sup> International Conference on Unsaturated Soils held at the Hong Kong University of Science and Technology in August 2018. Please visit https://www.issmge.org/publications/online-library for more information.

Under the leadership of Professors Dimitrios Zekkos and Kok Kwang Phoon, the Innovations and Development Committee has begun exploring and developing our own publisher — the "ISSMGE virtual publisher" — with the intention of reviewing and publishing conference papers online by our own.

I am also very pleased to inform you that a new technical committee (TC) called TC309 "Machine Learning and Big Data" has been created. The chair of this new TC is Dr Zhongqiang Liu from the Norwegian Geotechnical Society. The Vice-chair and Secretary are Mohammad Rezania from the UK and Zenon Medina-Cetina from the US, respectively. To learn more about this new TC, visit:

https://www.issmge.org/committees/technical-committees/impact-on-society/machine-learning.

#### (iii) Diversity

Recruiting new Corporate Associates to narrow the gap between academics and practitioners

Under the leadership of the Chair of Corporate Associates Presidential Group (CAPG), Mr Sukumar Pathmanandavel, significant progress has been made since September 2017 to narrow the divide between academics and practitioners. Moreover, we have recruited four new Corporate Associates. They are Geoharbour Group from China, GDS Instruments from Malaysia, and AOSA SA and SRK Consulting from Argentina. Following my very recent visit to Kochi, Japan, Giken Ltd has agreed to join us as our first Japanese Corporate Associate.

In addition, the CAPG together with the Young Members Presidential Group (YMPG) have been working closely with the organising committees of various conferences such as the 16<sup>th</sup> Pan-American Conference on Soil Mechanics and Geotechnical Engineering (SMGE), 16<sup>th</sup> Asian Regional Conference on SMGE and the 17<sup>th</sup> European Conference on SMGE to create a dialog among geotechnical engineers around the world on matters directly affecting the welfare of the profession. The main purpose is to bridge the gap between academics and practitioners so that they may find a common understanding and take collective actions.

Creating key lecturing opportunities for young members

As our young members (less than 36 years of age) have been under-represented in major international lectures for many years, I have created the ISSMGE Bright Spark Lecture series to enable more young members to take the main stage at conferences. I would like to thank the YMPG for coming up with the wonderful title of this young members' lecture series. Guidelines on organising these lectures can be found at https://www.issmge.org/the-society/issmge-awards.

The first Bright Spark Lecture was delivered by Dr Lin Dong at the 7<sup>th</sup> Technical Conference in Eastern Asia on Geo-Natural Disasters in Chengdu, China. The conference was organised by Asian Technical Committee 3. I was very pleased to attend that lecture and to present a certificate to the lecturer.

## President's message (Con't)

Dr Lin Dong from the Lanzhou Institute of Seismology of China Earthquake Administration receives the first "ISSMGE BRIGHT SPARK LECTURER" certificate.

Another four ISSMGE Bright Spark Lectures were delivered at the 7<sup>th</sup> International Conference on Unsaturated Soils held between 3<sup>rd</sup> and 5<sup>th</sup> August 2018 at the Hong Kong University of Science and Technology. The four lecturers were also presented with ISSMGE certificates.





Dr Amin Askarinejad (TU Delft, the Netherlands)



Dr Majid Ghayoomi (University of New Hampshire, US)



Dr Annan Zhou (RMIT University, Australia)



Dr Chao Zhou (HKUST, HKSAR)

Other ISSMGE Bright Spark Lectures are being planned by the YMPG and various organising committees at different conferences such as the 16<sup>th</sup> Asian Regional Conference on SMGE, the 16<sup>th</sup> Pan-American Conference on SMGE and the 17<sup>th</sup> European Conference on SMGE.

## President's message (Con't)

Connecting the forgotten societies and exploring new ones

Promoting soil mechanics and geotechnical engineering in different parts of the world, engaging with our existing members and reaching out to new ones are parts of my central presidential plan. One way to do so is through ISSMGE international seminars. Under the outstanding leadership of Professor Pedro Seco e Pinto, one ISSMGE International Seminar was held in Brest (Belarus) in April 2018 and four more are confirmed to be held in November 2018 in Asunción (Paraguay), Buenos Aires (Argentina), Mexico City (Mexico) and León (Mexico). I would like to thank Pedro Seco e Pinto (Portugal), Roger Frank (France), Liudas Furmanovich (Lithuania), Nikitenko Mikhail (Belarus), Sernov Vyacheslav (Belarus), Roberto Terzariol (Argentina), Alejo Sfrisio (Argentina), Tim Newson (Canada), Sukumar Pathmanandavel (Australia), Eun Shin (South Korea) and Gabriel Auvinet (Mexico) for speaking at one or more of these seminars.

Looking ahead, I am confident that the ISSMGE will continue to flourish and reach new heights with the help and support from all of you.

Charles W.W. Ng 28 September 2018

## **Young Member Arena**

## Inaugural ISSMGE TC304 Student Contest on Data Analytics

#### Overview

ISSMGE TC304 on Engineering Practice of Risk Assessment and Management Student Contest on Data Analytics aims to encourage students to learn statistical and probabilistic methods (e.g., machine learning, big data, deep learning) and implement them in geotechnical data (e.g., 304dB complied by TC304, referred to <a href="http://140.112.12.21/issmge/Database\_2010.htm">http://140.112.12.21/issmge/Database\_2010.htm</a>). The inaugural TC304 Student Contest was held on August 18<sup>th</sup> 2018 in Harbin Institute of Technology in Harbin, China. A contest challenge question related to 304dB was released and given to all participants, and participants were given 3 months to address the question. Participants can work on the question alone or in team. They were asked to submit a full length paper in English and to present their works in conferences (10 minutes presentation plus 5 minutes Q&A). The ISSMGE TC304 will regularly hold TC304 Student Contest on Data Analytics in future conferences.

#### Contest question and logistics

The question for the first TC304 Student Contest on Data Analytics was released on May 1st 2018. It involves a site investigation dataset comprising of multivariate data of liquidity index, vertical effective stress, preconsolidation stress, remolded undrained shear strength and undrained shear strength obtained at different depths of a clay site, as shown in Fig. 1. The dataset was manipulated in the way that several numbers were replaced by outliers with various degrees of departure from the norm, which are indicated by solid circles in the figure. Participants were required to find the outliers using data analytics methods (e.g., statistics, probability, machine learning, data mining, etc.) and to present clearly the criteria, methods, and algorithms of detecting those outliers in their full paper. The full paper was due by August 3rd 2018, and 14 teams (36 participants, see Fig. 2) submitted their papers to the award committee by the date. All of these papers were presented by participants on August 18th 2018.

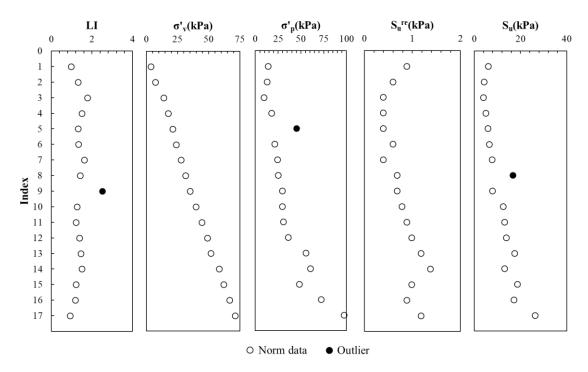


Figure 1. Dataset used in the Inaugural ISSMGE TC304 student contest on data analytics

## **Young Member Arena**

## Inaugural ISSMGE TC304 Student Contest on Data Analytics

#### **Awards**

Depending on how this contest question was addressed, one TC304 Student Contest Award and three Encouragement Awards were selected and given by the award committee. The award committee members for the inaugural contest includes Prof. Kok Kwang Phoon (Chair of the award committee, National University of Singapore), Prof. Jianye Ching (National Taiwan University), and Prof. Limin Zhang (Hong Kong University of Science and Technology). The inaugural TC304 Student Contest Award was given to a team comprised of graduate students (Shuo Zheng, Qinxuan Deng, and Yuxin Zhu, see Fig. 3) from Wuhan University, who proposed a novel, but fairly simple, method for outlier detection of multivariate data and applied the proposed method to the given contest dataset for illustration and validation. Three other teams from Tongji University (Jingjian Hu, Jinzheng Hu, Tao Cheng), Wuhan University (Te Xiao and Jian He), Harbin Institute of Technology (Jingze Gao, Guoliang Wang, Renming Deng, and Laiming Deng) won the three Encouragement Awards (see Fig. 4). The TC304 Student Contest Award paper and Encouragement Award papers can be found on ISSMGE TC304 webpage via the following link: <a href="http://140.112.12.21/issmge/tc304.htm?=10.">http://140.112.12.21/issmge/tc304.htm?=10.</a>



Figure 2. Group photo of TC304 student contest participants



Figure 3. Winners of TC304 Student Contest Award (from left to right: Shuo Zheng, Qinxuan Deng, and Yuxin Zhu)



Figure 4. Winners of Encouragement Awards

## Young Member Arena (Con't)

## Inaugural ISSMGE TC304 Student Contest on Data Analytics

As a follow-up, a three question survey were sent to winners (Shuo Zheng, Qinxuan Deng, and Yuxin Zhu) to get their feedback about their experiences on the contest. The questions and answers from the winners are provided in the appendix of this article. Besides, they also indicated that "It is of our great honor to participate in this student contest. We cannot deny that the contest is a hard-fought campaign for us, especially considering the long-time span in three months and many other excellent teams. We are glad that our team performed well and were solidly united during the contest. We worked hard and exerted our all-out intelligence and compatibility to the limit. For sure, the process helped us a lot in terms of widening our vision and expanding our knowledge boundary. We are also grateful for contest organization committee and award committee for their efforts on organizing this contest and are thankful for knowing friends from other teams during the contest."

#### Appendix:

Q1. What did you learn from the contest?

Winners: First of all, the contest made us realize the importance of data analytics and its value in dealing with data from real word, such as 304dB complied by TC304. Besides the technical parts, this contest taught us the importance of courage and confidence in conducting research. By independently working on the contest question, we start thinking about the process of research when confronted with a new topic we did not work on. That is a great training process for us.

### Q2. How will this affect your approach to uncertainty in geotechnical engineering?

**Winners:** It is well-recognized that geotechnical data may fluctuate due to various reasons. We hope that the method we proposed can screen out the outliers in advance so as to obtain more meaningful statistical analysis results from geotechnical data. This may help understand the information provided by geotechnical data in a more precise way.

#### Q3. What is your opinion of machine learning in engineering?

Winners: Machine learning and its increasing applications in engineering may change a lot in future. Machine learning gives a more general framework to analyze various types of data obtained in engineering by providing a plenty of advanced probabilistic models and efficient statistical inference algorithms. This allows us to acquire more useful information and values from data, and may change our decision-making process in design and retrofitting of engineering structures.

The 7th International Conference on Unsaturated Soils, Hong Kong



# The 7<sup>th</sup> International Conference on Unsaturated Soils

The 7<sup>th</sup> International Conference on Unsaturated Soils (UNSAT2018) successfully took place on August 3<sup>rd</sup> - 5<sup>th</sup>, 2018 at the Hong Kong University of Science and Technology (HKUST; Figure 1). This conference was financially sponsored by the HKUST's School of Engineering and supported by the Hong Kong Geotechnical Society (HKGES) and the Geotechnical Division Committee of the Hong Kong Institution of Engineers (HKIE). Support was also received from TC106 (Unsaturated Soils) of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE).



Figure 1. Overview of the HKUST campus

UNSAT2018 has provided an excellent opportunity for students, academics, engineers, scientists and government officials to present and discuss the latest developments in theories, experimental techniques and findings. The conference featured one Blight Lecture, 6 keynote lectures, 6 general reports and 9 special invited lectures delivered by prominent professors and researchers around the world.

#### **Blight lecturer**

#### Prof. Del Fredlund

**Keynote speakers** 

Prof. Eduardo Alonso Prof. Yumin Chen/ Prof. Tony Liangton Zhan Prof. Antonio Gens Prof. Pierre Delage

Prof. Lyesse Laloui Prof. Lidija Zdravkovic

#### Presentation topic

Role of the soil-water characteristic curve in unsaturated soil mechanics

Advances in landslide modelling of unsaturated soils

Lessons from the catastrophic landslide of construction waste dump occurred in Shenzhen of China on 20th December 2015

On the hydration of unsaturated barriers for high-level nuclear waste disposal Macroscopic effects of the hydration mechanisms in smectites; applications to engineered and geological barriers for radioactive waste disposal

Gas shales: geomechanical challenges and analysis

On the modelling of soil-atmosphere interaction in cut and natural slopes

## The 7<sup>th</sup> International Conference on Unsaturated Soils (UNSAT2018), Hong Kong (Con't)

#### **General reporters**

Prof. David Toll Fundamental soil behaviour (Part I)

Prof. Vinayagamoothy Fundamental soil behaviour (Part II) - a wider perspective of hydro-

Sivakumar mechanical and thermal behaviour of unsaturated soils

Prof. John McCartney Geotechnical engineering problems in unsaturated soils

Prof. Marcelo Sanchez Energy and environmental issues
Prof. Fernando Marinho New equipment and testing methods

Dr. David Masin Constitutive, numerical and physical modelling

#### Special invited speakers

Prof. Daichao Sheng Importance of SWCC equations in modelling vapour flow in unsaturated

freezing soils

Prof. Ning Lu Soil sorptive potential: root of matric potential

Prof. Yangping Yao The UH model for unsaturated soils

Prof. Yu Jun Cui Compacted unsaturated lime treated soils of different aggregate sizes

Prof. Harianto Rahardjo Geospatial Distribution of Unsaturated Soil Properties for Slope Stability

Assessment

Prof. Changfu Wei Chemomechanical Behavior of Unsaturated Soils: Conception and formulation

Prof. Malek Bouazza Unsaturated geosynthetics: a promising intersection for unsaturated soils and

geosynthetics

Prof. Bernardo Caicedo Soil-atmosphere interaction

Prof. De'an Sun Hydro-mechanical behavior and strength prediction of unsaturated soils over

wide suction range

The conference received and reviewed a total of 203 six-page regular papers from six continents: Africa, Asia, Australasia, Europe, South and North Americas. Two conference proceedings were produced. Volume One contains the Blight lecture, six Keynotes, two Special Invited Papers, six General Reports and 84 regular papers under the theme of "Fundamental Soil Behaviour". This theme covers the areas of *Strength and Stiffness, Water Retention Properties, Flow and Wettability, Volume Change and Desiccation Cracks, Temperature Effects* and *Microscopic Behaviour*. Volume Two contains 26, 34, 33 and 26 papers under the themes of "New Equipment and Testing Methods", "Constitutive, Numerical and Physical Modelling", "Geotechnical Engineering Problems" and "Energy and Environmental Issues", respectively. All the papers have been made open-accessed to the public via: <a href="http://gcf-conf.ust.hk/unsat2018/paper/index.pdf">http://gcf-conf.ust.hk/unsat2018/paper/index.pdf</a>, and the online *ISSMGE Library* <a href="https://www.issmge.org/publications/online-library">https://www.issmge.org/publications/online-library</a>

On 2<sup>nd</sup> Aug, a welcome reception financially supported by the Fraser Construction Company Ltd, is organised (Fig. 2). More than 250 people registered and attended the event (Fig. 3).

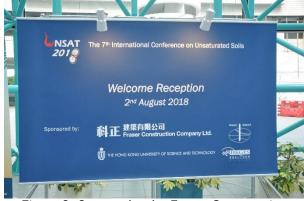


Figure 2. Sponsor by the Fraser Construction Company Ltd.



Figure 3. Participants greeting with each other

## The 7<sup>th</sup> International Conference on Unsaturated Soils (UNSAT2018), Hong Kong (Con't)

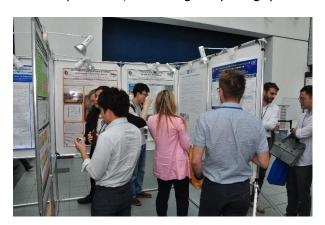
The first day of the conference (3<sup>rd</sup> Aug) started with an opening ceremony (Fig. 4), followed by the Blight lecture, two keynote lectures and two general reports in a plenary session in the morning (Fig. 5). In the afternoon, two parallel sessions were run and started with two special invited speakers, followed by five-minute elevator pitch session where speakers are invited to present the key elements of their work. During the coffee breaks, each speaker had the opportunity to further present and discuss their work to the participants with the help of posters (Fig. 6).



Figure 4. Prof. Charles Ng (chair of UNSAT2018 and ISSMGE president) delivering an opening speech



Figure 5. Audience paying attention to the lecture in the plenary session



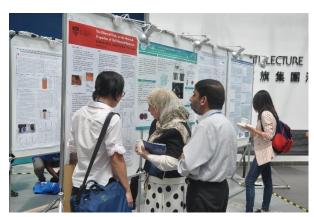


Figure 6. Delegates studying and discussing posters during coffee break

The second and the third day of the conference (4<sup>th</sup> and 5<sup>th</sup> Aug) followed a similar format as the first day. To enable young members (those aged 36 or below) of ISSMGE to take the main stage at this conference, four ISSMGE Bright Spark Lecturers were selected to deliver their state-of-the-art work in the plenary session on 5<sup>th</sup> August. These four young lecturers (Fig. 7) were Dr Amin Askarinejad from TU Delft, the Netherlands, Dr Majid Ghayoomi from University of New Hampshire, USA, Dr Annan Zhou from RMIT, Australia and Dr Chao Zhou from HKUST, HKSAR.

The 7<sup>th</sup> International Conference on Unsaturated Soils (UNSAT2018), Hong Kong (Con't)



Figure 7. Prof. Charles Ng (right on each picture; Chair of UNSAT2018) and Prof. Apiniti Jotisankasa (left on each picture; Chairman of the plenary session) presenting the certificate to four ISSMGE Bright Spark Lecturers to (a) Dr Chao Zhou; (b) Prof. Majid Ghayoomi; (c) Prof. Amin Askarinejad and (d) Dr. Annan Zhou

During lunch time on the three days of the conference, lab tours to HKUST Geotechnical Laboratory (Fig. 8) and the Geotechnical Centrifuge Facility (Fig. 9) were arranged.

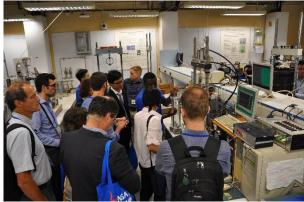


Figure 8. Students explaining the working principle of an HKUST developed temperature-controllable triaxial apparatus



Figure 9. Students showcasing a new wave tank equipped in the HKUST geotechnical centrifuge for offshore foundation testing

## The 7<sup>th</sup> International Conference on Unsaturated Soils (UNSAT2018), Hong Kong (Con't)

The conference banquet was held on the second day of the conference on a Star Ferry sailing the Victoria Harbour of Hong Kong (Fig. 10). Delegates took in the wonderful night scene of the harbour from the comfort of the ferry while enjoying a sumptuous dinner (Figs 11 -14).



Figure 10. A stunning night view of Hong Kong along the Victoria Harbour



Figure 11. Delegates enjoying the night view of Hong Kong



Figure 12. Delegates having buffet dinner in the ferry sailing along the Victoria Harbour



Figure 13. Students never stop learning (dancing)



Figure 14. Delegates dancing in the pool

The 7<sup>th</sup> International Conference on Unsaturated Soils (UNSAT2018), Hong Kong (Con't)



Figure 15. Participants cheering for the success of the conference

On the closing ceremony of the conference, the TC106 announced that the 8<sup>th</sup> International Conference on Unsaturated Soils will be host by the Hellenic Society of Soil Mechanics and Geotechnical Engineering in Milos, Greece, 2022.

Prof. Anthony Leung, Technical Secretary of UNSAT2018

## The 9<sup>th</sup> International Conference in Physical Modelling in Geotechnics (ICPMG2018), London, U. K.

#### Introduction

The 9<sup>th</sup> International Conference in Physical Modelling in Geotechnics (ICPMG 2018) was held at City, University of London, UK. The event was hosted between 17<sup>th</sup> - 20<sup>th</sup> July and attracted practicing engineers, academics and students from over 35 countries. 230 papers were published in the proceedings where approximately 140 oral presentations were given and around 90 posters were presented.

The conference followed the successful series of physical modelling conferences that first began in Paris in 1988. The conference disseminated a wide range of modelling techniques which covered topics such as dams, offshore and seismic modelling, tunnelling and foundations. Authors were also encouraged to report on; education in physical modelling in geotechnics, the use of plant roots in ground improvement, recent developments in imaging techniques, infrastructure, sample preparation and modelling methods and temporary works platforms. Many authors also discussed excellent findings bridging the gap between physical and numerical modelling.

#### **Notable lectures**

The fourth Schofield Lecture was given by Professor R. Neil Taylor of City, University of London on 17<sup>th</sup> July 2018. Professor Andrew N. Schofield, the founding father of centrifuge modelling in geotechnical engineering, attended the lecture to support his former PhD student. Professor Taylor briefly described his contribution to physical modelling and emphasised the importance of enjoying the research you do.

A special themed day presented some of the physical modelling community's work to invited members of industry. The event promoted the best of physical modelling techniques and many of the applications to industry. The day was well attended with an opening speech given by Professor Lord Robert Mair, the President of the Institution of Civil Engineers. Industry leaders discussed the problems that they face to give researchers direction to increase their impact on industry.

The ICPMG 2018 local organising committee were honoured that the following lecturers presented keynote and themed lectures to the conference delegates.

- Associate Professor Emilio Bilotta from the University of Napoli Federico II, Italy, presented the "Modelling tunnel behaviour under seismic actions: an integrated approach".
- Professor Christophe Gaudin from the University of Western Australia, Australia, presented on "Geotechnical modelling for offshore renewables"
- Dr Richard Goodey from City, University of London, UK, presented on the "Physical modelling applied to infrastructure development"
- Professor Susan Gourvenec, of the University of Southampton, UK, presented "The role of centrifuge modelling in capturing whole-life responses of geotechnical infrastructure to optimise design".
- Professor Yujing Hou of China Institute of Water Resources and Hydropower Research, China presented on the "Development of Geotechnical Centrifuges and Facilities in China".
- Dr Jonathan Knappett of the University of Dundee, UK, presented on "Physical modelling of structural and biological soil reinforcement"
- Professor Andy Take from Queen's University, Canada presented on "Current and emerging physical modelling technologies"
- Dr Dan Wilson (University of California at Davis, USA) on "An example of effective mentoring for research centres"

## The 9<sup>th</sup> International Conference in Physical Modelling in Geotechnics (ICPMG2018), London, U. K. (Con't)

#### Laboratory tours

Delegates were invited to visit the Schofield Centre at Cambridge University to meet Professor A.N. Schofield and have a guided tour given by Professor Gopal Madabhushi and Professor Stuart Haigh. This visit was attended by 37 delegates. Tours of the Geotechnical Centrifuge facility and laboratories at City, University of London were also available during the conference with over 120 delegates in attendance. Details of recent projects were presented, including the apparatus used in the models.

#### Conference activities

Over the course of the conference, delegates were treated to a number of social activities organised by the ICPMG 2018 local organising committee. Events included a Welcome Reception at Skinners' Hall; home to one of the "Great Twelve" livery companies which has its roots in medieval trade guilds.

Following the 4<sup>th</sup> Schofield lecture a drinks reception was hosted at City, University of London. A special beer was brewed to mark the occasion and in honour of Professor A.N. Schofield and Professor R.N. Taylor.

A gala dinner was held at Middle Temple Hall, one of the four Inns of Court. The historic hall boasts a table made from ancient timbers and hosted the first recorded performance of Shakespeare's Twelfth Night. The evening was a magical experience for many delegates who commented on its similarity to Harry Potter's Hogwarts.

Delegates were taken to Greenwich on vintage red Routemaster buses for a relaxing afternoon. A casual reception was held at the Trafalgar Tavern, overlooking the River Thames. Guests were treated live music and an enjoyable evening.

#### Future physical modelling events

- ICPMG 2022 will be held in Daejeon, Korea
- Eurofuge 2020 will be hosted in Lulea, Sweden
- Asiafuge 2020 will be in Singapore



Figure 1. Main lecture theatre at City, University of London, UK



Figure 2. From left to right, Dr S. Nadimi, Professor M.D. Bolton, Professor R.N. Taylor, Professor A.N. Schofield and Dr B.T. Le following the 4<sup>th</sup> Schofield Lecture

The 9th International Conference in Physical Modelling in Geotechnics (ICPMG2018), London, U. K. (Con't)





Figure 3. Gala dinner at Middle Temple Hall

## The 26<sup>th</sup> European Young Geotechnical Engineers Conference, Reinischkogel, Austria

The 26<sup>th</sup> European Young Geotechnical Engineers Conference was held at the Hotel Klugbauer at the Reinischkogel near Graz in Austria from September 11<sup>th</sup> to 14<sup>th</sup>, 2018. The venue (Hotel Klugbauer) is situated at an elevation of 1000 m above sea level near the top of the small mountain called Reinischkogel. It is quite a remote place (the next village is several kilometres away) and therefore participants have been forced to stay together for the time of the conference. According to the rules of the ISSMGE, all European Member Countries have been invited to select 2 participants for this conference and it is also a rule that all participants have to present their work. The response was very good in the first place and eventually, we had 45 participants from 26 countries. Overall, the presentations were of high level and well prepared by the young geotechnical engineers, covering a wide range of geotechnical problems. Participants represented a well balance of academics and practitioners. Therefore, not only high quality research outcomes have been discussed, but also interesting problems arising in practice. In addition, four keynote lectures were presented by Janko Logar (University of Ljubljana, Slovenia), Clemens Kummerer (Keller Kolding, Germany), Dietmar Adam (Vienna University of Technology, Austria) and Helmut F. Schweiger (Graz University of Technology, Austria). The presence of Prof. Mario Manassero, Vice-President of ISSMGE for Europe, was highly appreciated.

As there was no possibility to escape from the conference venue, the evening programmes have also been arranged. On Wednesday, a presentation by Keller Holding provided some insights into long term strategies of a construction company and challenges that a worldwide operating specialists in geotechnical engineering is faced with. On the second evening, a "social event" was scheduled. The task for each group (representing a country or a team of countries) was to present themselves in a "performance" of maximum 60 seconds long. It could be dancing, singing, talking, acting etc. The performances were recorded and replayed during the evening and together with a few drinks this turned out to be quite an enjoyable evening. A small "photostudio" was also set up and all performers received a polaroid-picture as a memory to carry away. The conference ended with an excursion to a power plant under construction on the last day.

I would like to express my sincere thanks to our sponsors of the event, namely Keller Holding, Germany and the Austrian Society for Geomechanics. Their generous support made it possible to hold the conference at this wonderful place at a very reasonable cost for participants, produce nice proceedings and giving a top quality rucksack as a conference bag. Finally, I want to thank the team at Hotel Klugbauer for making our stay so enjoyable and in particular my colleague Franz Tschuchnigg, who perfectly organized and managed the event.







Figure 2. Group photo of the participants

Helmut F. Schweiger Institute of Soil Mechanics, Foundation Engineering and Computational Geotechnics Graz University of Technology

## The international geotechnical seminar for Megacities and New captials, Kazakhstan

The 2<sup>nd</sup> Kazakhstan Geotechnical Society (KGS) - Chinese Taipei Geotechnical Society (CTGS) international geotechnical seminar on TC 305 Geotechnical infrastructure for Megacities and New Capitals was held under the auspices of the Kazakhstan Geotechnical Society (Kazakhstan) and the Chinese Taipei Geotechnical Society (Taiwan), August 3<sup>th</sup> - 4<sup>th</sup>, 2018 in Astana, Kazakhstan and August 5<sup>th</sup> - 6<sup>th</sup>, 2018 in Almaty, Kazakhstan.

The main targets of seminar were to increase the interactions between KGS and CTGS and identifying opportunities for future collaborations. The seminar had a strong industry-related component to highlight geotechnical and construction opportunities.

The themes of this seminar covered various geotechnical issues, including underground construction, numerical modeling of the interaction of the raft-pile foundation, slope stability, improvement of soils, laboratory soil testing and field tests, soft soils, pile and deep foundations and geotechnologies.

The co-chairmen of the scientific committee of the seminar were Prof. Assemgul Moldazhanova, the first Vice-Rector for Academic Affairs of L.N. Gumilyov ENU and Prof. Keh-Jian Shou, President of the CTGS. The co-chairmen of the organizing committee of the international seminar were Prof. Askar Zhussupbekov (President of Kazakhstan Geotechnical Society, Head of the Department of Design of Buildings and Structures of L.N. Gumilyov ENU) and Prof. Der-Wen Chang (Secretary General of TC 305 Geotechnical infrastructure for Megacities and New Capitals of the ISSMGE, Professor of Tamkang University, Taipei, Taiwan), also included the faculty members, researchers of L.N. Gumilyov ENU, Nazarbayev University, LRT Construction, LLP and KazDORNII, JSC.

The seminar was held in two stages in Astana at the L.N. Gumilyov ENU (August 3<sup>rd</sup> - 4<sup>th</sup>, 2018) and in Almaty at the KazDORNII, JSC (August 5<sup>th</sup> - 6<sup>th</sup>, 2018).

More than 50 delegates from Taiwan, the USA, South Korea, the Republic of Belarus, Syria and Kazakhstan participated in the seminar. Head of the Chinese Taipei geotechnical delegation was Prof. Keh-Jian Shou (National Chung-Hsing University). Others delegates from Taiwan who participated in the seminar were Prof. Yung-Show Fang (National Chiao Tung University), Prof. Der-Wen Chang (Tamkang University), Prof. Meei-Ling Lin (National Taiwan University), Prof. Yu-Ning Ge (National Taiwan University), Prof. Hung-Jiun Liao (National Taiwan University of Science and Technology), Prof. Show-Ling Wen (Chinese Culture University), Prof. Chih-Wei Lu (National Kaohsiung First University of Science and Technology), Assistant Professor Shih-Hao Cheng (National Taiwan University of Science and Technology), Assistant Professor Fuchen Teng (National Taiwan University of Science and Technology).



Figure 1. Plenary session of the international seminar

## The international geotechnical seminar for Megacities and New captials, Kazakhstan (Con't)

Prof. Assemgul Moldazhanova in the opening ceremony of the seminar gave a welcoming speech to the delegates. She mentioned about the strong cooperation between Tamkang University (Taiwan) and L.N. Gumilyov ENU (Kazakhstan) in the field of education and science. Also welcoming speeches were given by Prof. Keh-Jian Shou and Prof. Askar Zhussupbekov. They wished a fruitful work in the plenary and panel sessions of the seminar to the participants.

On the first day of the seminar the panel sessions included the oral presentations of keynote lecturers from Taiwan and Kazakhstan - Prof. Keh-Jian Shou (Department of Civil Engineering National Chung-Hsing University) on the key issues of trenchless excavation for underground pipelines; Prof. Askar Zhussupbekov (L.N. Gumilyov ENU) on geotechnical construction and testing of piling foundations on problematic soils of Kazakhstan; , Prof. Yung-Show Fang (Department of Civil Engineering, National Chiao Tung University) on reduction of interface friction between pressed-in caisson and soil deposits by non-friction method; Associate Professor Zhanbolat Shakhmov (L.N. Gumilyov ENU) on frozen soil ground characteristics impacting to hazards, and also included a special lecture from the sponsor of the seminar Vremya LLP, at Keller company (Atyrau, Kazakhstan). Mr. Waldemar Kwiatkowski focused on advanced geotechnical solutions for deep excavations in the city areas.





Figure 2. Prof. Yung-Show Fang during his lecture

Figure 3. Prof. Zhanbolat Shakhmov shared about Frozen soil properties and hazards

Young scientists and engineers from Kazakhstan, Taiwan and the USA presented their reports at the panel sessions. There were many questions devoted to laboratory and field testing of soils, in particular soft soils.

A closing statement was delivered by the co-chairs of the organizing committee Prof. Askar Zhussupbekov and Prof. Der-Wen Chang, as well as closing remarks by Prof. Keh-Jian Shou, President of the Chinese Taipei Geotechnical Society. Prof. Der-Wen Chang gave to the delegates and guests a brief introduction of the

## The international geotechnical seminar for Megacities and New captials, Kazakhstan (Con't)

forthcoming Asian Regional Conference on Soil Mechanics and Geotechnical Engineering (the 16ARC), which will be held on October 14<sup>th</sup> - 18<sup>th</sup>, 2019 in Taipei, Taiwan. Detailed information of the 16ARC can be found at the official website of the conference http://www.16arc.org/.

On the second day of the seminar, August 4<sup>th</sup>, 2018, a technical tour was conducted by the organizing committee to review the unique buildings and structures of Astana. In the second part of this day, a technical tour to LRT construction sites was held, organized by LRT Construction, LLP and KGS.

During the meeting in the office of LRT Construction, a General Director Adelsha Yermukhanov provided a brief overview of the LRT construction project for 2015-2019. Delegates discussed about some specifics of technical support for the project and on further construction plans during the office meeting.





Figure 4. Delegates at the construction site of the transport bridge over the Yessil River

Then, the delegates visited the construction sites of a transport bridge over the Yessil River, 113 LRT station, and a depot near the international airport. At the construction sites, the delegates were informed about current stages of the construction work.

On August 5<sup>th</sup>, 2018 the delegates went to a technical tour in Almaty, where they visited Chimbulak, Medeo stadium, the Kok-Tobe TV Tower and other unique construction projects in Almaty.

The second stage of the seminar was held at KazDORNII, JSC on August 6<sup>th</sup>, 2018. The delegates from Taiwan and Kazakhstan took part of this seminar. Prof. Bagdat Teltaev, President of KazDORNII JSC, a member of Kazakhstan Geotechnical Society, an Academician of NIA RK was the chairman of this joint event.

During the seminar, the main directions of activities of JSC KazDORNII in the construction of highways and bridge structures were presented. Furthermore, a technical tour was conducted in the highways materials testing laboratory, where the methods and equipment for testing road building materials used in the Republic of Kazakhstan were introduced.

Prof. Bagdat Teltayev and Prof. Keh-Jian Shou gave closing speeches at the closing ceremony of the second part of the seminar. They wished all the participants a success in civil engineering, science and education areas.

The organizing committee of the seminar expresses the deep gratitude to the delegates for their successful and fruitful works during the technical sessions of the seminar and to the sponsors who provided invaluable support to organize the above-mentioned seminar:

## The international geotechnical seminar for Megacities and New captials, Kazakhstan (Con't)

Kazakhstan Geotechnical Society, Kazakhstan
Chinese Taipei Geotechnical Society, Taiwan
TC 305 of the ISSMGE members
L.N. Gumilyov Eurasian National University, Kazakhstan
Delta Drilling Company, Belarus
Vremya LLP a Keller Company, Kazakhstan
MUNAIGAZKURYLYS, Kazakhstan
KazDorNII, Kazakhstan
LRT Construction, Kazakhstan
KaragandaGIIZ and K\*, Kazakhstan
KazMRDI, Kazakhstan
GEOLAB, Kazakhstan
Mrs.Zhanat Shakirova, Kazakhstan



Figure 5. Group photo of the Second KGS-CTGS Geotechnical Seminar (Astana)

The Organizing Committee of the Second KGS-CTGS Geotechnical Seminar on TC305 of the ISSMGE

### Hot news

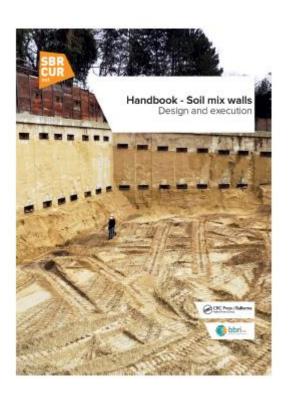
### Handbook - Soil mix walls

#### Handbook - soil mix walls

Written by:

Nicholas Denies, Deputy Head of Laboratory, BBRI, Belgium Noel Huybrechts, Head of the Geotechnical Division, BBRI, Belgium

For several decades now, the deep mixing method has been used for ground improvement works. A more recent application is the use of soil mix as structural elements for the construction of earth-water retaining structures and cutoff walls. Since 2000, due to the economic and environmental advantages of the method, these particular applications have shown an amazing growth. Nevertheless, in practice, no pragmatic standards or guidelines were available for the design, the execution, the quality control and the maintenance of this kind of applications. This is the reason why the present publication was initiated. The Handbook - Soil mix walls is based on existing literature and the knowledge and experiences of committee members, and includes an extensive description of the design and execution processes. It also establishes the link between the conditions of use (functional requirements), the design



#### **Key features:**

- First reference handbook dedicated to the use of soil mix as structural elements for the construction of earth-water retaining structures and cut-off walls.
- Establishes the link between the functional requirements, the design and the quality control of the final soil mix structure.
- The design methodology presented in this handbook is in agreement with the Euro codes.

## Hot news (Con't)

## The 1<sup>st</sup> International Symposium on Debris flow mechanisms and mitigation for sustainable development, Hong Kong

Date: 2<sup>nd</sup> December 2018 (Sunday)

**Time:** 9:00 am - 5:30 pm

Venue: HKUST Jockey Club Institute for Advanced Study

**Enquiry:** For enquires, please contact Clarence Choi (email: <a href="mailto:ceclarence@ust.hk">ceclarence@ust.hk</a>)

Registration: No prior registration is required. Seating capacity is provided for approximately 150

people. CPD certificates will be provided after the symposium. If free parking is needed

please contact Ms. Shirley Tse (stse@ust.hk).

#### Synopsis:

Landslides are difficult to predict and monitor. They endanger infrastructure and human lives in mountainous regions worldwide, including Canada, China, Hong Kong, Italy and Switzerland. Understanding landslide mechanisms and developing effective mitigation measures are thus urgently needed. This international symposium aims to advance scientific knowledge of landslide mechanisms and mitigation measures for safe and sustainable development. The sessions will include: (i) interaction between flows and structural countermeasures; (ii) mobility and flow mechanisms; and (iii) risk assessment of landslides.



## Hot news (Con't)

## The 1<sup>st</sup> International Symposium on Debris flow mechanisms and mitigation for sustainable development, Hong Kong

### Event program

Time	Event
09:00 to 09:05	Opening remarks  Charles Ng, President of ISSMGE, Associate Vice-President (Research and Graduate Studies), HKUST
Session 1 (Chairperson: Malcolm Bolton, The University of Cambridge)	
09:05 to 09:35	Flow-like landslides - The need to unify the global experience Luciano Picarelli, Università degli Studi della Campania
09:35 to 10:05	Technical development in natural terrain landslide risk management in Hong Kong Julian Kwan, Geotechnical Engineering Office
10:05 to 10:35	Multiple flexible barrier systems: physical modelling Clarence Choi, HKUST
10:35 to 10:45	Coffee break
10:45 to 11:15	Observations of basal friction in debris flows at the Illgraben catchment, Switzerland  Brian McArdell, Swiss Federal Institute for Forest, Snow and Landscape Research
11:15 to 11:45	Flowslides in sensitive clays Serge Leroueil, Laval University
11:45 to 12:00	Discussion
12:00 to 13:00	Lunch break
Session 2 (Chairperson: Luciano Picarelli, Università degli Studi della Campania)	
13:00 to 13:30	New model for analysis of runout Suzanne Lacasse, Norwegian Geotechnical Institute
13:30 to 14:00	Multi-scale, multi-phase modelling of interaction between debris flow and flexible barriers  Jidong Zhao, HKUST
14:00 to 14:30	Debris flow modelling for quantitative risk assessments in Western Canada Scott McDougall, The University of British Columbia
14:30 to 14:45	Discussion
14:45 to 14:55	Coffee break
Session 3 (Chairperson: Suzanne Lacasse, Norwegian Geotechnical Institute)	
14:55 to 15:25	Influence of material type on the tribological behavior of grain-to-grain contacts: Experimental study  Kostas Senetakis, City University of Hong Kong
15:25 to 15:55	Vegetation succession on landslides in a decade: a lesson learnt for ecological restoration  Billy Hau, The University of Hong Kong
15:55 to 16:25	Reliability analysis: A tool for effective landslide risk reduction Farrokh Nadim, Norwegian Geotechnical Institute
16:25 to 16:55	Physical vulnerability models for assessing building damage by debris flows Limin Zhang, HKUST
16:55 to 17:25	Discussion
17:25 to 17:30	Closing remarks  Charles Ng, President of ISSMGE, Associate Vice-President (Research and Graduate Studies), HKUST

## **Obituary**

In Memoriam: Professor Adbul-Kareem Ismet Zainel (1959 – 2018)



Professor Abdul-Kareem Ismet Zainel, BSc (Civil Eng.), BSc (Comp. Eng.), MSc, PhD, MISSMGE (1959-2018)

Dr. Abdul-Kareem was born in Baghdad in 1959. He had his primary and secondary level education at *Mansour Private School* in Baghdad. After earning the Iraqi secondary education baccalaureate, he enrolled at the Department of Civil Engineering of the University of Basrah. After four years of hard work and study at this university, he earned a Bachelor's degree in 1980. After graduation from college, he practiced the civil engineering profession in maintenance projects for the period from 1985 to 1989. In 1990 and in addition to his usual professional tasks, he worked part time as a software engineer at the *Iraqi Company for Electronic Systems*. From 1989 to 1993, he was appointed as *Chairman* of the *Department of Computer Applications* at municipalities acting under the umbrella of the *Mayorship of Baghdad*, the capital city of Iraq. From 1993 to 1997, he was appointed as *Director of the Computer Center of the Mayorship of the City of Baghdad*. In 1994, he applied for postgraduate studies at the *Department of Civil Engineering of the University of Baghdad* where he was accepted at the *Sanitary Engineering* section of it.

In 1997, he earned a Master's degree in Civil Engineering after successfully defending a thesis entitled: Selection of Optimal Path for Garbage Waste Disposal Vehicles in the City of Kadhimiyah in Baghdad. After that, he pursued a Doctorate degree in Geotechnical Engineering this time at the Department of Civil Engineering of the University of Baghdad. At this stage, I gave him course lectures and was a member of the comprehensive exam that he took at that department and found him knowledgeable and most eligible for conducting original research work in the realm of geotechnical engineering. After passing those exams, I jointly supervised his Doctorate degree thesis with Professor Yousif al-Shakarchi and found him studious, meticulous and diligent in all the tasks he was assigned to complete. His submitted a doctorate degree thesis that was entitled: Solution of Some Problems of Partially Saturated Soils Using the Finite Element Method. Again, he was most successful in defending the concepts encompassed in it before an examination committee which earned him the degree with distinction in 2002. His thesis introduced numerical solutions of the consolidation process in partly saturated soils by taking into consideration variations in temperatures. Two dimensional plane strain problems were studied according to his proposed algorithms and were found to be practical and effective. The study concentrated on vertical and lateral displacements in addition to prediction of pore water and air pressures and temperature changes. Due to his dedication for reaching numerical solutions to engineering problems by the use of computers, he joined the Department of Computer Science at the University of Technology in Baghdad and earned a second Bachelor's degree in Software and Computer Engineering this time. He earned the degree in 2002 with distinction.

Dr. Abdul-Kareem was appointed as an Assistant Professor at the Department of Civil Engineering of the University of Baghdad after earning his doctorate degree in Geotechnical Engineering in 2004. He gave lectures to students in various topics including: Soil Mechanics and Computer Applications for undergraduate students and Advanced Computer Programming, Numerical Applications in Geotechnical Engineering, Seepage of Fluids in Porous Media by the Finite Element Method and Unsaturated and Expansive Soils for postgraduate students at the Master and Doctorate degree levels. He supervised several postgraduate student theses at this academic Department of the University of Baghdad and published several papers and

## **Obituary (Con't)**

In Memoriam: Professor Adbul-Kareem Ismet Zainel (1959 – 2018)

books in the realm of geotechnical engineering. The most recent were four books published in Germany; topics of which included: Assessment of Collapsibility Rate of Unsaturated Soils, Bearing Capacity of Concrete Piles in UnSaturated Clayey Soils and Bearing Capacity of Footings on Unsaturated Soils. He was also an active Member at the Iraqi Geotechnical Society, the Iraqi Engineers Union and The International Society of Soil Mechanics and Geotechnical Engineering.

Professor Abdul-Kareem Ismet Zainel was a most pleasant person, humble and warm. He passed away on Wednesday July 17, 2018. He phoned me a couple of weeks earlier in good health to discuss requirements for submitting his full length paper entitled: 'Water Vapor Transfer Though Unsaturated Soils Due to Temperature Variations and Its Effect on Soil Shear Strength'. The Abstract of this paper was accepted earlier to be published at the Proceedings of the 16th Asian Regional Conference (16th ARC) of Soil Mechanics and Geotechnical Engineering which is going to be held in Taipei, Taiwan in October 14-18, 2019. I was shocked to learn about his early decease. He will be much missed, but never forgotten by his family, colleagues and former and current students at the university. May his soul rest in peace and in heaven.

Omar al-Farouk Salem al-Damluji, President, Iraqi Geotechnical Society, August 30<sup>th</sup>, 2018

## **ISSMGE** Foundation Reports

11<sup>th</sup> International Conference on Geosynthetics (11<sup>th</sup> ICG) Coex, Seoul, South Korea, September 16-21, 2018. The conference was organized by Korean Geosynthetics Society (KGSS) and the International Geosynthetics Society (IGS) Korea Chapter. The theme of the conference is "Geosynthetics: Innovative solutions for sustainable development". The conference started with two short courses. Basal reinforced piled embankment). Geosynthetic- stabilized roads: from application to mechanism followed by prestigious lecture delivered by Prof. F. Tatsuoka, on the topic entitled "Geosynthetic- reinforced soil technology in railway applications- from walls to bridges". The first day ended with a welcome reception.

The second day started with an opening ceremony. The first lecture started with the Giroud lecture delivered by Dr. Nathalie Touze-Foltz on the topic entitled "Healing the world: A geosynthetic solution". Five keynote lectures delivered by eminent professors from various countries. The keynote lectures covered a wide range of research areas in geosynthetics, from the mechanism to applications in the sustainable development.

From September 18<sup>th</sup> to 20<sup>th</sup>, 2018, the conference was fully dedicated to the paper presentation along with training lectures and special sessions. Around 450 full papers were presented under different themes, themes covered almost all field of research in geosynthetics. The themes are not only dedicated to researchers, also it was very useful to the practicing engineers as well as people from industry.

On the last day of the conference, the organising committee provided an opportunity to visit either a Sudukwon land fill site or cultural tour to national museum of Korea. The exhibition organised by 11<sup>th</sup> ICG made the participants to experience the recent developments in the geotechnical construction industries. The conference organising committee conducted the special event: IGS soccer game.

Here, once again I would like to thank ISSMGE foundation for providing me an excellent opportunity for participating in such a high quality conference.



Figure 1. Picture with Prof. R. J. Bathurst, Prof. R. Kerry Rowe, Prof. K Rajagopal along with other participants



Figure 2. Dr. J. P. Giroud delivering a lecture on "Geosynthetic- stabilized roads: from mechanisms to applications"

A. M. Nandhi Varman Indian Institute of Science, Bangalore, India

## **ISSMGE Foundation Reports (Con't)**

The 26<sup>th</sup> European Young Geotechnical Engineers Conference 2018 was held in the hotel "Der Klugbauer", which was located in a picturesque place near the city of Graz. Fresh air and beautiful landscapes helped to get distracted in the evening after a long day spent in the conference hall behind the discussion of a large number of reports of young scientists from all over Europe. Each of them has already achieved a lot in its direction and has supported its assumptions with analytical calculations or grids in software complexes.

It was very interesting to hear the reports of leading professors: Prof. H.F. Schweiger, D. Adam, Dr. C. Kummerer, J. Logar. Prof. H.F. Schweiger tried to convey very important messages to young scientists in his report "The role of numerical modelling in practical geotechnical engineering".

Each evening ended with an interesting joint entertainment in which each person could talk about his country.

On the last day we have a site visit and learnt about the details of the project "Murkraftwerk Graz". After listening to the presentation it became clear that this is an important and exemplary project in which not only all the constructive features were taken into account, but all the environmental impact that the new facility can have on the existing natural environment was taken into account.

In order to be able to provide domestic energy supply to such an extent, it is still necessary to import from abroad. Therefore, the purpose of the project is to enable to use as much electricity as possible from its own production. A sustainable hydropower plant based on the example of Hessendorf or Kalsdorf in Graz will help make the city to be more energy efficient. Murkraftwerk is considered one of the main projects of Energie Steiermark, which is to provide specially produced electricity to Graz. Thanks to the green energy provided by hydropower, they can abandon the import of nuclear energy from abroad and curb the massive emissions of CO<sub>2</sub> from other power plants.

Thanks to the ISSMGE and these conferences I had an excellent opportunity to meet and talk to many professors, researchers and engineers from different countries and many other potential research collaborators as well. I would like to thank the ISSMGE in general and the ISSMGE Foundation for the opportunity to participate in such high-level conferences and for their award.



Figure 1. During my presentation in the conference



Figure 2. Site visit for a project "Murkraftwerk Graz"

Svitlana Yesakova

Kharkiv National University of Civil Engineering and Architecture, Kharkiv city, Ukraine

## **Event Diary**

### ISSMGE EVENTS

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

#### 2018

#### 8<sup>th</sup> International Congress on Environmental Geotechnics

Date: 28-10-2018 - 01-11-2018

Location: Sheraton Hangzhou Wetland Park Resort, Hangzhou, China

Language: English

Organiser: MOE key Laboratory of Soft Soils and Geoenvironmental Engineering; CISMGE; HKGES

Contact person: Bate Bate

Address: 866 Yuhangtang Road, B428 Anzhong Building, Hangzhou, China

Phone: +86-18757582046 Fax: +86 (0)571-88208793 Email: <u>batebate@zju.edu.cn</u>

Website: http://www.iceg2018.org

Email: iceg2018@zju.edu.cn

#### 4ème Colloque International Sols Non Saturés & Construction Durable UNSAT Oran 2018

Date: 30-10-2018 - 31-10-2018 Location: Oran, Algeria Language: French, English

Organiser: Université des Sciences et de la Technologie M. Boudiaf d'Oran Faculté d'Architecture et de

Génie Civil, Laboratoire Matériaux, Sols et Thermique (LMST) et le réseau UNSAT-DZ

Contact person: Secrétariat Unsat Oran 2018

Address: Faculty of Architecture and Civil Engineering USTO-MB

Phone: (+213) (0) 41 62 71 77 Fax: (+213) (0) 41 62 71 77 Email: unsatoran2018@gmail.com

Website: <a href="http://www.unsat-dz.org/index.php">http://www.unsat-dz.org/index.php</a>

#### 16th World Conference of the Associated Research Centers for the Urban Underground Space

Date: 05-11-2018 - 07-11-2018

Location: S421 - S430, Hong Kong Convention and Exhibition Centre (HKCEC), Hong Kong

Language: English

Organiser: The Hong Kong Institution of Engineers - Geotechnical Division, Hong Kong Geotechnical Society

and Associated Research Centers for the Urban Underground Space

Contact person: Tony Ho Phone: (852)27625400

Email: tonyykho@cedd.gov.hk Website: http://www.acuus2018.hk Email: enquiry@acuus2018.hk

#### 9th International Conference on Scour

Location: Taipei International Conference Center, Taipei, China

Date: 05-11-2018 - 08-11-2018

Language: English

Organiser: National Chiao Tung University

Contact person: Ms. Cherry Hsu

Address: 4F, No. 285, Sec. 2, Tiding Blvd., Taipei, Taiwan (R.O.C)

Phone: +886-2-2798-8329 Email: <u>icse2018@icse20</u>18.com

Website: http://www.icse2018.com/index.html

#### 6<sup>th</sup> African Young Geotechnical Engineering Conference (6TH AYGEC)

Date: 24-11-2018 - 27-11-2018

Location: University of Khartoum, Sudan

Organiser: Sudanese Society for Soil Mechanics and Geotechnical Engineering

Contact person: Prof Ahmed El Sharief

Phone: 00249912144181

Email: <a href="mail:aelsharief@hotmail.com">aelsharief@hotmail.com</a>
Website: <a href="mail:http://www.sssmge.org">http://www.sssmge.org</a>

Email: info@sssmge.org

### **GEOMEAST 2018 International Congress and Exhibition**

Date: 24-11-2018 - 28-11-2018

Location: Cairo, Egypt

Organizer: Soil-Structure Interaction Group in Egypt (SSIGE) and Housing & Building National Research

Center (HBRC)

Contact person: Dr. Eng. Hany Farouk Shehata

Email: hanyfarouk808@gmail.com,

Website: <a href="http://www.geomeast2018.org/">http://www.geomeast2018.org/</a>

#### Second JTC1 Workshop on Triggering and Propagation of Rapid Flow-Like Landslides

Date: 03-12-2018 - 05-12-2018

Location: Hong Kong University of Science and Technology, Hong Kong

Language: English

Organiser: Joint Technical Committee on Natural Slopes and Landslides (JTC1)

Co-organiser: The Hong Kong Geotechnical Society; The Geotechnical Division of the Hong Kong Institution

of Engineers; The Hong Kong University of Science and Technology

Contact person: Professor Clarence Choi

Address: Hong Kong University of Science and Technology, Clear Way Bay, Kowloon

Email: ceclarence@ust.hk

Website: <a href="http://www.hkges.org/JTC1\_2nd/">http://www.hkges.org/JTC1\_2nd/</a>

### 2019

### 13th Australia New Zealand Conference On Geomechanics 2019

Date: 01-04-2019 - 03-04-2019

Location: Perth Convention and Exhibition Centre, Australia

Language: English

Organiser: Australian Geomechanics Society

Contact person: Conference Managers Arinex Pty Ltd

Address: 3/110 Mounts Bay Road

Phone: +61 8 9486 2000 Fax: +61 8 9486 2000

Website: <a href="http://geomechanics2019.com.au/">http://geomechanics2019.com.au/</a> Email: anzgeomechanics2019@arinex.com.au

#### Geotechnical Challenges In Karst

Location: Hotel Plaža Omiš, Omiš, Croatia

Date: 11-04-2019 - 13-04-2019 Language: Croatian/English

Organiser: Croatian Geotechnical Society

Contact person: Igor Sokolić Address: Nikole Pavića 11 Phone: +385 (0)91 301 2437

Email: <a href="mailto:igor.sokolic@geotehnicki-studio.hr">igor.sokolic@geotehnicki-studio.hr</a>; <a href="mailto:omis2019.hgd@grad.hr">omis2019.hgd@grad.hr</a>

Website: http://www.hgd-cgs.hr

#### International Conference on Silk-roads Disaster Risk Reduction and Sustainable Development

Date: 11-05-2019 - 12-05-2019 Location: Beijing, China

Language: English

Hosts: Chinese Academy of Sciences (CAS); China Association for Science and Technology (CAST); Ministry of Emergency Management of the People's Republic of China; National Natural Science Foundation of

China (NSFC); Associated Faculties of United Nations

Contact person: Prof. Chaoiun Ouvang

Phone: +86 15928089209 Fax: +86 28 85238460 E-mail: <u>sidrr@imde.ac.cn</u>

Website: <a href="http://www.sidrr.com/">http://www.sidrr.com/</a>

#### 4th International Conference "Transportation Soil Engineering in Cold Regions"

Location: St .Petersburg, Russia, Date: 20-05-2019 - 23-05-2019

Language: English

Organiser: Emperor Alexander I Petersburg State Transport University

Contact person: Anastasiia Konon

Address: 9, Moskovsky av, Phone: +7 (921) 795-58-57 Email: geotech@pgups.ru

Website: http://conf-geotech.wixsite.com/transoilcold2019

14th International Conference on Under-Ground Construction Prague 2019

Location: Clarion Congress Hotel Prague, Czech Republic

Date: 03-06-2019 - 05-06-2019

Languages: English & Czech (simultaneous translation provided)

Organiser: Czech Tunnelling Association, ITA-AITES

Contact person : Dr. Markéta Prušková

Address: Dělnická 12 Phone: +420 702 062 610

Email: pruskova@ita-aites.cz; ps2019@guarant.cz

Website: https://www.ucprague.com/

#### 7 ICEGE 2019 - International Conference on Earthquake Geotechnical Engineering

Date: 17-06-2019 - 20-06-2019

Location: Rome, Italy Language: English

Organizer: TC203 and AGI (Italian Geotechnical Society)

Contact person: Susanna Antonielli

Address: AGI - Viale dell' Università 11, 00185, Roma, Italy

Phone: +39 06 4465569 Fax: +39 06 44361035

E-mail: agi@associazionegeotecnica.it

#### ISDCG 2019 - 7th International Symposium on Deformation Characteristics of Geomaterials

Date: 26-06-019 - 28-06-2019

Location: Technology and Innovation Centre (TIC) of the University of Strathclyde, Scotland, UK,

Language: English Organizer: TC101

Website: in construction

#### 7<sup>th</sup> Asia-Pacific Conference on Unsaturated Soils

Date: 23-08-2019 - 25-08-2019

Location: Nagoya Congress Center, Nagoya, Japan

Language: English

Organiser: Prof. Feng ZHANG - The Japanese Geotechnical Society. Supported by: TC106 Unsaturated Soils

of ISSMGE

Contact person: Dr. Hiromasa Iwai (Technical Secretary)

Phone: (+81) 052-735-7525 Fax: (+81) 052-735-7525

Email: ap-unsat2019@jiban.or.jp; iwai.hiromasa@nitech.ac.jp

Website: https://www.jiban.or.jp/e/activities/events/20190823-25-seventh-asia-pacific-conference-on-

unsaturated-soils/

ECSMGE 2019 - XVII European Conference on Soil Mechanics and Geotechnical Engineering

Date: 01-09-2019 - 06-09-2019

Location: Harpa 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 E-mail: has@road.is

Website: http://www.ecsmge-2019.com

3rd International Conference "Challenges in Geotechnical Engineering" CGE-2019

Date: 10-09-2019 - 13-09-2019

Location: University of Zielona Gora (Poland),

Language: English

Organiser: University of Zielona Gora (Poland) and Kyiv National University of Construction and

Architecture (Ukraine)

Contact person: Co-Chairmen of the Organising Committee: Volodymyr Sakharov, Waldemar Szajna

Address: 1, Prof. Zygmunta Szafrana str

Fax: +48 (68) 328 47 23 Email: info@cgeconf.com

Website: <a href="http://www.cgeconf.com">http://www.cgeconf.com</a>

1st Mediterranean Young Geotechnical Engineers Conference

Location: Kefaluka Resort Hotel, Bodrum, Mugla, Turkey

Dates: 23-09-2019 - 24-09-2019

Language: English

Organiser: Turkish Society for ISSMGE - ZMGM

Contact person: Altug Saygili

Address: Mugla Sitki Kocman University, Engineering Faculty, Department of Civil Engineering, Kotelki,

Mugla, Turkey

Phone: +90 252 211 1942 Fax: +90 252 211 1912

Email: <a href="mailto:secretariat@mygec2019.org">secretariat@mygec2019.org</a>
Website: <a href="mailto:http://mygec2019.org">http://mygec2019.org</a>

27th European Young Geotechnical Engineers Conference

Location: Kefaluka Resort Hotel, Bodrum, Mugla, Turkey

Dates: 26-09-2019 - 27-09-2019

Language: English

Organiser: Turkish Society for ISSMGE - ZMGM

Contact person: Altug Saygili

Address: Mugla Sitki Kocman University, Engineering Faculty, Department of Civil Engineering, Kotekli,

Mugla, Turkey

Phone: +90 252 211 1942 Fax: +90 252 211 1912

#### 3<sup>rd</sup> International Conference on Information Technology in Geo-Engineering (3RD ICITG2019)

Date: 29-09-2019 - 02-10-2019

Location: Cultural Centre of Vila Flor, Guimarães, Portugal

Language: English

Organiser: University of Minho and Portuguese Geotechnical Society under the auspices of JTC2 of FedIGS)

Contact person: 3<sup>rd</sup> ICITG Secretariat

Address: University of Minho/ School of Engineering/ Civil Engineering Department, Campus de Azurem

Phone: (+ 351) 253 510 750 Fax: (+ 351) 253 510 217

Email: 3rd-icitg2019@civil.uminho.pt

Website: http://www.3rd-icitg2019.civil.uminho.pt/

### XVII African Regional Conference on Soil Mechanics and Geotechnical Engineering

Date: 07-10-2019 - 10-10-2019

Location: Cape Town Convention Centre, South Africa

Language: English Organiser: SAICE

Contact person: Dr Denis Kalumba Email: denis.kalumba@uct.ac.za

#### XVI Asian Regional Conference on Soil Mechanics and Geotechnical Engineering

Date: 21-10-2019 - 25-10-2019

Location: Taipei, China

Contact person: 16<sup>th</sup> ARC Secretariat Phone: 886-2-27988329 ext.35 Fax: 886-2-27986225 (fax) Email: secretariat@16arc.org Website: http://www.16arc.org

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

Date: 18-11-2019 - 22-11-2019

Location: Cancun, Quintana Roo, Mexico

Organizer: SMIG

Phone: +(52) 1 55 5677-3730, +(52) 1 55 5679 3676 E-mail: <a href="mailto:support@panamerican2019mexico.com">support@panamerican2019mexico.com</a> Website: <a href="mailto:http://panamerican2019mexico.com">http://panamerican2019mexico.com</a>

## 15<sup>th</sup> International Conference on Geotechnical Engineering, and 9<sup>th</sup> Asian Young Geotechnical Engineers Conference

Location: Lahore, Pakistan, Date: 05-12-2019 - 07-12-2019

Language: English

Organiser: Pakistan Geotechnical Engineering Society (PGES)

Contact person: Dr. Muhammad Irfan (for 15ICGE); Dr. Jahanzaib Israr (for 9AYGEC)

Address: Civil Engineering Department, UET Lahore, Pakistan

Phone: +92 306 66 666 010; +92 334 413 2808 Email: 15icge@uet.edu.pk , 9aygec@uet.edu.pk

#### 2020

#### 14th Baltic Sea Geotechnical Conference 2020

Date: 25-05-2020 - 27-05-2020

Location: Clarion Hotel Helsinki, Finland

Language: English

Organiser: Finnish Geotechnical Society Contact person: Leena Korkiala-Tanttu Email: <a href="mailto:leena.korkiala-tanttu@aalto.fi">leena.korkiala-tanttu@aalto.fi</a>

Website: http://www.ril.fi/en/events/bsgc-2020.html

Email: ville.raassakka@ril.fi

#### 18th NGM Nordic Geotechnical Meeting

Date: 25-05-2020 - 27-05-2020 Location: Helsinki, Finland Contact person: Ville Raassakka Email: ville.raassakka@ril.fi

Website: http://www.ril.fi/en/events/ngm-2020.html

#### 4th European Conference on Unsaturated Soils - Unsaturated Horizons

Location: Instituto Superior Técnico, Lisbon, Portugal,

Address: Av Rovisco Pais, 1 Date: 24-06-2020 - 26-06-2020

Language: English

Organiser: IST, TUDelft and UPC

Contact person: <a href="mailto:info@EUNSAT2020.tecnico.ulisboa.pt">info@EUNSAT2020.tecnico.ulisboa.pt</a> Website: <a href="http://www.EUNSAT2020.tecnico.ulisboa.pt">http://www.EUNSAT2020.tecnico.ulisboa.pt</a>

#### TC204: Geotechnical Aspects of Underground Construction In Soft Ground - TC204 Cambridge 2020

Date: 29-06-2020 - 01-07-2020

Location: University of Cambridge, United Kingdom

Language: English

Organiser: University of Cambridge Contact person: Dr Mohammed Elshafie

Address: Laing O'Rourke Centre, Department of Engineering, Cambridge University

Phone: +44(0) 1223 332780 Email: me254@cam.ac.uk

### 6<sup>th</sup> International Conference on Geotechnical and Geophysical Site Characterization

Date: 07-09-2020 - 11-09-2020

Location: Budapest Congress Center, Hungary, Budapest

Language: English

Organizer: Hungarian Geotechnical Society

Contact person: Tamas Huszak Address: Muegyetem rkp. 3. Phone: 0036303239406 Email: huszak@mail.bme.hu

Website: http://www.isc6-budapest.com

Email: info@isc6-budapest.com

### NON-ISSMGE SPONSORED EVENTS

### 2018

The First Vietnam Symposium on Advances in Offshore Engineering

Date: 01-11-2018 - 03-11-2018

Location: National University of Civil Engineering, Hanoi, Vietnam

Language: English

Organiser: Association of Vietnamese Scientists and Experts

Contact person: DOAN, Dinh Hong

Phone: +33 1 40 97 38 03

Email: DinhHong.DOAN@Subsea7.com

Website: <a href="https://vsoe2018.sciencesconf.org/">https://vsoe2018.sciencesconf.org/</a>

Email: vsoe2018@sciencesconf.org

International Seminar On Roads, Bridges, And Tunnels: Challenges And Innovation (ISRBT2018)

Date: 09-11-2018 - 15-11-2018

Location: Aristotle University, Centre for Dissemination of Research Results (Red Building), Thessaloniki,

Greece

Address: Highway Engineering Laboratory (for the ISRBT2016 Seminar), School of Civil Engineering,

Aristotle University of Thessaloniki

Language: English

Organiser: School of Civil Engineering, Aristotle University of Thessaloniki

Contact person: Mrs. D. Gatoula

Phone: +30 2310 994385 Fax: +30 2310 995789 Email: isrbt@civil.auth.gr

Website: <a href="http://isrbt.civil.auth.gr">http://isrbt.civil.auth.gr</a>

3<sup>rd</sup> South American Symposium on Rock Excavations

Date: 19-11-2018 - 21-11-2018 Location: Santiago, Chile Language: Spanish and English

Organiser: Chilean Society of Rock Mechanics (SCMR, Chilean Group of the ISRM)

Contact person: Alejandra Villouta

Address: Av. Apoquindo 6750, Piso 21, Las Condes, Santiago, Chile

Phone: +56 2 2718 7500 Email: secretario@scmr.cl

Website: <a href="https://www.scmr.cl/eventos">https://www.scmr.cl/eventos</a>

### 2019

Winter School on Geomechanics for Energy and the Environment

Location: Eurotel Victoria, Villars-sur-Ollon, Switzerland

Date: 22-01-2019 - 24-01-2019

Language: English

Organiser: Prof. Lyesse Laloui and Prof. Alessio Ferrari (Swiss Federal Institute of Technology Lausanne -

EPFL)

Contact person: Angelica Tuttolomondo (Ph.D. student - GETE 2019 organizing committee)

Address: Ecole Polytechnique Fédérale de Lausanne (EPFL) Laboratory of Soil Mechanics (LMS), Station 18

Phone: +41 21 69 32333 Email: gete-school@epfl.ch

Website: https://gete-school.epfl.ch/

Intensive Short-Course on "Energy Geostructures: Analysis and Design" - 2nd Edition

Location: Lausanne, Switzerland, Date: 06-03-2019 - 08-03-2019

Language: English

Organizer: Swiss Federal Institute of Technology in Lausanne (EPFL)

Contact person: Formation Continue UNIL-EPFL Address: EPFL Innovation Park Bâtiment E

Email: <a href="mailto:formcont@unil.ch">formcont@unil.ch</a>

Website: http://www.formation-continue-unil-epfl.ch/en/formation/energy-geostructures-analysis-design/

Email: alessandro.rottaloria@epfl.ch

International Conference on Advances in Structural and Geotechnical Engineering 2019

Location: Hurghada, Egypt Date: 25-03-2019 - 28-03-2019

Language: English

Organiser: Structural Engineering Department - Tanta University - Egypt

Contact person: Prof. Marawan Shahien

Address: Faculty of Engineering, Tanta University

Phone: +201005117064

Email: marawan.shahin@f-eng.tanta.edu.eg; icasge@unv.tanta.edu.eg

Website: http://www.icasge.com/

2<sup>nd</sup> International Intelligent Construction Technologies Group Conference

Date: 23-04-2019 - 25-04-2019

Location: Beijing Hotel, Beijing, China Language: English and Mandarin

Organiser: International Intelligent Construction Technologies Group (IICTG)

Contact person: George Chang (President of IICTG)

Address: 6111 Balcones drive

Phone: 5124516233

Email: gkchang@TheTranstecGroup.com

Website: http://www.iictg.org/2019-conference/

#### 2<sup>nd</sup> International Conference on Natural Hazards and Infrastructure

Location: Minoa Palace Resort, Chania, Greece, Chania

Date: 23-06-2019 - 26-06-2019

Language: English

Organiser: The Innovation Center on Natural Hazards and Infrastructure

Contact person: Dr. Rallis Kourkoulis

Address: Efesou 15 Phone: +30 210 6721798 Email: secretary@iconhic.com Website: https://iconhic.com/2019/

ISRM - 14th International Congress of Rock Mechanics

Location: Bourbon Cataratas Convention & Spa Resort, Foz do Iguassu, Brazi

Date: 13-09-2019 - 18-09-2019

Language: English

Organiser: ABMS, SAIG, SPG

Contact person: Sergio A. B. da Fontoura

Email: fontoura@puc-rio.br

Website: http://www.isrm2019.com

#### DFI 44th Annual Conference on Deep Foundations

Dates: 15-10-2019 - 18-10-2019

Location: Hilton Chicago, United States Organizer: Deep Foundations Institute Contact person: Theresa Engler Address: 326 Lafayette Avenue

Phone: 19734234030 Fax: 19734234031 Email: tengler@dfi.org Website: http://www.dfi.org

Email: staff@dfi.org

#### 2020

DFI Deep Mixing 2020

Dates: 15-06-2020 - 17-06-2020 Location: TBD, Gdansk, Poland Organizer: Deep Foundations Institute Contact person: Theresa Engler

Address: 326 Lafayette Avenue, Hawthorne, NJ 07506, USA

Phone: 19734234030 Fax: 19734234031 Email: tengler@dfi.org Website: <a href="http://www.dfi.org">http://www.dfi.org</a>

Email: staff@dfi.org

## 16<sup>th</sup> International Conference of the International Association for Computer Methods and Advances in Geomechanics - IACMAG

Location: Politecnico di Torino Conference Centre, Italy,

Date: 29-06-2020 - 03-07-2020 English

Organiser: Politecnico di Torino Contact person: Symposium srl Address: via Gozzano 14 Phone: +390119211467

Email: info@symposium.it; marco.barla@polito.it

#### DFI 45th Annual Conference on Deep Foundations

Dates: 13-10-2020 - 16-10-2020

Location: Gaylord National Resort & Convention Center, Oxon Hill, MD, USA

Organizer: Deep Foundations Institute Contact person: Theresa Engler

Address: 326 Lafayette Avenue, Hawthorne, NJ 07506, USA

Phone: 19734234030 Fax: 19734234031 Email: tengler@dfi.org Website: http://www.dfi.org

Email: staff@dfi.org

## Fifth World Landslide Forum

Dates: 02-11-2020 - 06-11-2020

Location: Kyoto International Conference Center, Kyoto, Japan

Organizer: International Consortium on Landslides

Contact person: Ryosuke Uzuoka

Address: Gokasho Phone: +81-774-38-4090

Email: uzuoka.ryosuke.6z@kyoto-u.ac.jp

Website: <a href="http://wlf5.iplhq.org/">http://wlf5.iplhq.org/</a> Email: <a href="mailto:secretariat@iclhq.org">secretariat@iclhq.org</a>

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

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



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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.

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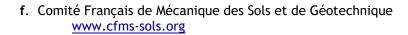


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f. Chinese Taipei Geotechnical Society

www.tgs.org.tw

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



h. East China Architectural Design and Research Institute *ECADI* <a href="http://www.ecadi.com/en/">http://www.ecadi.com/en/</a>

- TC 211 of ISSMGE for Ground Improvement www.bbri.be/go/tc211
- j. Prof. Askar Zhussupbekov www.enu.kz/en, www.kgs-astana.kz



- k. TC302 of ISSMGE for Forensic Geotechnical Engineering http://www.issmge.org/en/technical-committees/impact-on-society/163-forensic-geotechnical-engineering
- I. Prof. Yoshinori lwasaki <u>yoshi-iw@geor.or.jpwww.geor.or.jp</u>
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