#### **NEWS FROM TECHNICAL COMMITTEE-1**

Technical meeting of TC207 - Workshop on Soil-Structure Interaction and Retaining Walls", Dubrovnik, CROATIA, 6-8 October 2011

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

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



Historical Centre of Dubrovnik, Croatia.



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

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

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

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

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

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

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

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





Presentations and discussions at the meeting.





Gala dinner and the City Tour.

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

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

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

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

Additionally, 13 scientific reports were presented.

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

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

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

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

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

Prof. Vladimir Ulitsky, Chairman of TC207 Dr. Michael Lisyuk, Co-chairman of TC207

Dr. Igor Sokolić, Organizing Secretary of the Meeting and Workshop in Dubrovnik

#### **NEWS**

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

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



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

#### WORKSHOP DESCRIPTION

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

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

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

#### Scientific program

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

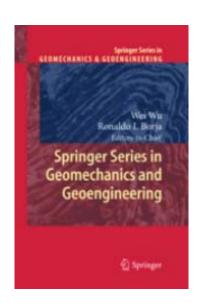
The workshop will feature six theme lectures delivered by researchers from all over the world:

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

University of Texas Arlington, USA

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

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



#### Workshop proceeding:

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

#### WORKSHOP LOCATION



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

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



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

#### Registration:

Please visit the webpage <a href="http://amtss.epfl.ch/registration.html">http://amtss.epfl.ch/registration.html</a>

#### Contacts:

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

Workshop secretary: Ms Barbara Tinguely

Phone: +41 21 693 23 15 Fax: +41 21 693 41 53 E-mail: amtss@epfl.ch Web: amtss.epfl.ch

#### **NEWS FROM TECHNICAL COMMITTEE-3**

#### TC 211 GROUND IMPROVEMENT

Dear colleagues,

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

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

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

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

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

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

#### 2 Sponsoring:

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

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

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

#### 2.1 Platinum sponsors













#### TC 211 GROUND IMPROVEMENT

#### 2.2 Gold sponsors





















#### 2.3 Silver sponsors







#### 3 Short courses:

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

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

#### TC 211 GROUND IMPROVEMENT

#### **SC 1: MARINE GROUND IMPROVEMENT**



#### Coordinators:

M. Van Den Broeck, DEME, Belgium S. Bretelle, GHD, Australia Ph. Liausu, MÉNARD, France

#### **PROGRAM**

09h30 – 10h00 : General Overview of Ground Improvement methods, *P. Mengé, DEME, Belgium* 10h00 – 10h30 : Overview of major geotechnical concerns, *M. Van Den Broeck, DEME, Belgium* 10h30 – 11h00 : Site investigations for Marine Ground Improvement, *S. Bretelle, GHD, Australia* 

11h30 - 12h00: Dynamic compaction and replacement, Ph. Liausu, Ménard, France

12h00 – 12h30 : Vibroflotation, S. Lambert, Keller France

12h30 - 13h00 : Rapid Impact Compaction, J. Dykstra, COFRA, The Netherlands

14h00 - 14h30 : Consolidation PVD, I. Chu, Iowa State University, USA-Singapore

14h30 – 15h00 : Vacuumconsolidation, B. Indraratna, University of Wollongong, Australia

15h00 – 15h30 : Soft Soil Improvement, M. Van Den Broeck, DEME, Belgium

16h00 - 16h30 : Reuse of dredged material, Project AMORAS

16h30 - 17h30 : Case studies, P. Mengé and M. Van Den Broeck, DEME, Belgium

17h40 - 17h55: Discussion

18h00 - 20h00 : Reception

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

#### TC 211 GROUND IMPROVEMENT

#### SC 2: DEEP MIXING



#### Coordinators:

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

#### **PROGRAM**

09h30 - 10h15 : General Overview, M. Topolnicki, Keller, Poland

10h15 – 11h00: Deep Mixing in contamined soils, A. Al-Tabbaa, Cambridge University, UK

11h30 – 12h30 : Deep Mixing Equipment:

Bauer, Germany, F.W. Gerressen, Germany

Solétanche Bachy, S. Borel, France

Liebherr, D. Quasthoff, Germany

12h30 - 13h00 : Discussion

14h00 – 14h45 : Deep Mixing Research Belgian Building research Institute, N. Denies

14h45 – 15h05: Deep Mixing Research KU Leuven, A. Vervoort, Belgium

15h05 – 15h25 : Deep Mixing research Ghent University, D Verastegui, Belgium

15h25 – 15h40: Deep Mixing Monitoring, Noel Huybrechts, BBRI, Belgium

16h10 – 16h55: Deep Mixing Design, G. Filz, Virginia Tech, USA

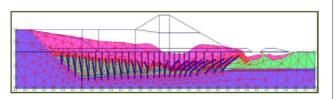
16h55 – 17h25: Case study, E. Leemans, ABEF & Soiltech, Belgium

17h25 - 17h55 : Discussion

18h00 - 20h00: Reception

#### TC 211 GROUND IMPROVEMENT

#### SC3: RIGID INCLUSIONS AND SOIL REINFORCEMENT



#### Coordinators:

- T. Durgunoglu, Zetas Zemin Teknolojisi A.A., Turkey,
- B. Simon, TERRASOL, France
- J. Sankey, The Reinforced Earth Company, USA

#### **PROGRAM**

#### **RIGID INCLUSIONS**

- 09h30-10h00: Lessons from centrifuge model tests on piled embankments and foundation over
  - soil reinforced by inclusions, L. Thorel, IFSTTar, France
- 10h00 10h45: Piled embankments reinforced with Geosynthetics: model experiments and analytical model developments, S. Van Eekelen, Deltares, The Netherlands
- 11h00 11h30 : US practice in Load Transfer Platform design : Lessons learned, M. Walker, GEI consultants, USA
- 11h30 12h05: A review of the ASIRI research project findings about behaviour and design of foundations on soil reinforced by rigid inclusions, *B. Simon, Terrasol, France*
- 12h05 12h20 : Design of spread footing on soil reinforced by rigid inclusions,
  - B. Simon Terrasol, France
- 12h20 12h55: Design of slabs on grade supported with reinforced soil by rigid inclusions and Design assessment of limiting pressure at head of inclusions,
  - J. Racinais, Ménard, France

#### REINFORCED SOIL

- 14h00 14h45: Introduction to Mechanically Stabilized Earth (MSE) Wall Technology,
  - J. Sankey, the Reinforced Earth Company, USA
- 14h45 15h30: Review of Inextensible and Extensible MSE Reinforcement Applications,
  - J. Wynn, Consultant, UK
- 15h30 15h45 : Discussion
- 16h15 17h00: Application of Local Country Codes for MSE Wall Design,
  - N. Freitag, Terre Armée, France
- 17h00 17h45: Combined MSE Wall Applications with Ground Improvement Technologies,
  - T. Durgunoglu, Zeta Zemin, Turkey
- 17h45 18h00: Discussion
- 18h00 20h00: Reception

#### TC 211 GROUND IMPROVEMENT

#### Proceedings of the short courses:

The proceedings of the short courses will contain the PowerPoint presentations.

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

#### 4 Symposium:

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

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

#### 5 Other TC 211 related events:

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

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

#### 6 Next Newsletter:

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

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

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

# **TC 211 GROUND IMPROVEMENT**

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

