

# IGS NEWS



## NEWSLETTER OF THE INTERNATIONAL GEOSYNTHETICS SOCIETY

*Dedicated to the scientific and engineering development of geotextiles, geomembranes, related products, and associated technologies*

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## President's Corner: 30 Years of the International Geosynthetics Society

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**Jorge Zornberg**

Dear Member of the IGS,

2013 marks the 30<sup>th</sup> anniversary of the International Geosynthetics Society (IGS). Over its 30 years of existence, the IGS has grown remarkably. As of November 2013, the IGS has 3,242 members, including 2,877 individual members, 202 student members, and 163 corporate members. The IGS chapters were initiated with pioneer chapters in western Europe, North America and eastern Asia, but subsequently spread out to the rest of the world, including South America, Africa, and eastern Europe.

During this period, the IGS has accomplished the organization of seven international conferences, fourteen regional (continental) conferences, and hundreds of national (chapter) conferences. In addition, current counts show IGS chapters in 41 countries or group of countries, with several other countries currently in the process of establishing new chapters. The society has established awards programs with emphasis on rewarding technical excellence, implemented numerous educational programs, hosted two technical journals of the highest quality, prepared documents in multiple languages, sponsored student programs, and organized numerous outreach programs, to name a few of its activities and achievements (Zornberg 2013). To provide a context to the IGS trajectory in fostering the good use of geosynthetics worldwide, I present below an overview of its 30 year-history.

The organization of early international conferences on geosynthetics (or “fabrics” at the time) provided the forum for discussions on the formation of an international society. An early international conference on the use of “Fabrics” in geotechnics was held in Paris, France, in 1977. However, the concept of an international society, which will later become the IGS, was only formulated in 1980 (Giroud 2008). Subsequently, during the Second International Conference on Geotextiles held in Las Vegas, USA in 1982, the formation of the IGS was explicitly discussed. Finally, the “International Geotextile Society,” as it was named at the time, was officially founded on November 10, 1983 with Charles Schaerer (Switzerland) as its President. This founding of the society initiates the 30 year-timeline shown in Figure 1.

The timeline highlights **important milestones** in the history of the society (see Figure 1, in pink). At the time of the society’s founding in 1983, the “G” in the IGS acronym originally corresponded to “Geotextiles,” but the growth of the scope of the society activities was reflected in 1994 when the IGS Assembly approved changing the society’s name into the International “Geosynthetics” Society. As also shown among the milestones in the figure, access to the highly regarded “Geotextile & Geomembranes” technical journal was added as a benefit to the IGS membership early in the history of our society (in 1987), becoming the first official journal of the IGS. A second and equally prominent technical journal, “Geosynthetics International,” became an official IGS journal in 1994. The availability of two technical journals is good evidence of the high emphasis of the IGS on the dissemination of information. It is notable that these two journals have been consistently ranked among the best journals in the field of geotechnical engineering.

Outreach to young members in our discipline has received special focus throughout the history of the IGS, with key milestones being the establishment of student membership in 1990 and the implementation of unique student awards programs since 2000. A fresh and equally relevant milestone is the creation by the IGS Council of the its Young Members Committee in December 2012, which aims at facilitating and promoting the active participation of young members (under 35 years old) in technical geosynthetics activities and the operation of the IGS.

More recent milestones in the history of the IGS include the formation of the IGS Technical Committees (TCs), approved by the IGS Council in 2010 as well as the implementation of Council Operating Units that include not only IGS Council Committees but also Council Task Forces. Also in 2010, the IGS Council approved a statement for the Core Purpose of the IGS, a 4-year operations plan, and a long-term Big Audacious Goal. In 2011, the office of the IGS Secretariat Manager was relocated to South Florida (in Jupiter, FL), after a long, productive operation of the IGS secretariat activities from Easley, South Carolina. Also in 2011, and following approval by the IGS Council, the IGS accepts invitation by the Federation of International Geo-Engineering Societies (FedIGS) to join this Federation as its first non-founding member. Finally, and at the time of preparation of this article (January 2013), the total IGS membership exceeded the mark of 3,000 IGS members, which probably deserves a place as a milestone in the 30 year-timeline (approximately 100 members per year over the existence of the IGS).

Also shown in the timeline are the **international conferences** organized by the IGS (see Figure 1, in blue). The international conferences, along with the regional and chapter conferences, are vital forums to discuss the continuous advancement and transfer of information regarding geosynthetics. Changes in the name of the international conferences reflect the growth of our discipline, from the first international conference (preceding the formation of the IGS) “on the Use of Fabrics,” to international conferences “on Geotextiles,” to international conferences on “Geotextiles, Geomembranes and Related Products,” to (since 1998) international conferences on “Geosynthetics.”

The international conferences also represent important landmarks in the affairs of the IGS as they are the setting of its quadrennial general assemblies, where change in the council and elected officers of the IGS occurs. The presidency of Schaerer, appointed by the first IGS Council in 1983, was followed by seven subsequent presidents which, following a procedure probably unique among international learned societies, were all elected by direct vote of each one of the IGS members. They include J.P. Giroud (USA, 1986-90), Kerry Rowe (Canada, 1990-94), Colin Jones (UK, 1994-98), Richard Bathurst (Canada, 1998-2002), Daniele Cazzuffi (Italy, 2002-06), Fumio Tatsuoka (Japan, 2006-10) and, since May 2010, Jorge G. Zornberg (USA).

Finally, the timeline also shows a number of important **“first” occasions/events** in the history of the IGS (see Figure 1, in yellow), starting with the formation of the first IGS Council in 1983. The first issue of the IGS Newsletter (IGSNews) was published in 1985 and has been regularly published since then. The first of the current 38 chapters of the IGS was the Japanese chapter, approved by the IGS Council in 1985. With the increasing relevance of the geosynthetics discipline and of the activities of the IGS came the opportunity of recognizing excellence. Accordingly, as shown in the timeline, the first Honorary membership was awarded in 1989 (to Prof. Masami Fukuoka), the first series of IGS Awards was presented in 1990 (to J.E. Fluet and E.R. Steinle) as was the first Young IGS Member Achievement Award (to R. Jewell), the first Mercer Lecture was awarded in 1992 (to Prof. R.M. Koerner), the First Giroud Lecture (also awarded to Prof. R.M. Koerner) was presented in 1998, the first IGS Service Award (to Prof. D. Elton) was presented in 2001, and first IGS Achievement Awards were presented in 2006 in recognition to exemplary service to an IGS chapter.

While the formation of the IGS was partly triggered by the forum of geosynthetic experts organizing international conferences (two of which preceded the creation of the IGS), it was the IGS that subsequently triggered the organization and successful implementation of other regional, specialty, and national geosynthetic conferences. Noteworthy among them are the series of IGS regional conferences, which are also organized every four years (two years apart from the International Conferences). The European regional conferences (EuroGeo series) was launched in 1996 (Maastrich, the Netherlands), the first Asian Regional conference (Geosynthetics Asia series) was held in 1997 (Bangalore, India), the Pan-American Regional conferences (GeoAmericas series) were initiated in 2008 (Cancun, Mexico), and the African Regional conferences (GeoAfrica series) launched in 2009 (Cape Town, South Africa). A more recent IGS “first” also shown in Figure 1 includes the First IGS Photo Contest in 2010, which received over 140 entries of photos documenting the good use of geosynthetics worldwide. Finally, and also in 2010, the IGS Council approved the creation its first Technical Committees (TCs) on Soil Reinforcement, Barrier Systems and Filtration all initiated in 2010.

Throughout its 30 years of existence, the army of volunteers that have served the IGS Council, its chapters, its publications, its committees, and its conferences has made a significant difference towards improving the knowledge on geosynthetics. Yet, the challenges and opportunities involving the dissemination of geosynthetics knowledge continue to be significant. Indeed, the role of the IGS in this dissemination is expected to continue to grow, and it is the intention of the IGS to tailor the assistance to the various geosynthetics interest groups according to their specific needs. A remarkable characteristic of the IGS has been its capability to evolve while, at the same time, always maintaining a clear aim at its core purpose, which is **“to provide the understanding and promote the appropriate use of geosynthetic technology throughout the world.”**

All best regards,



**Jorge G. Zornberg**, Ph.D., P.E.  
IGS President

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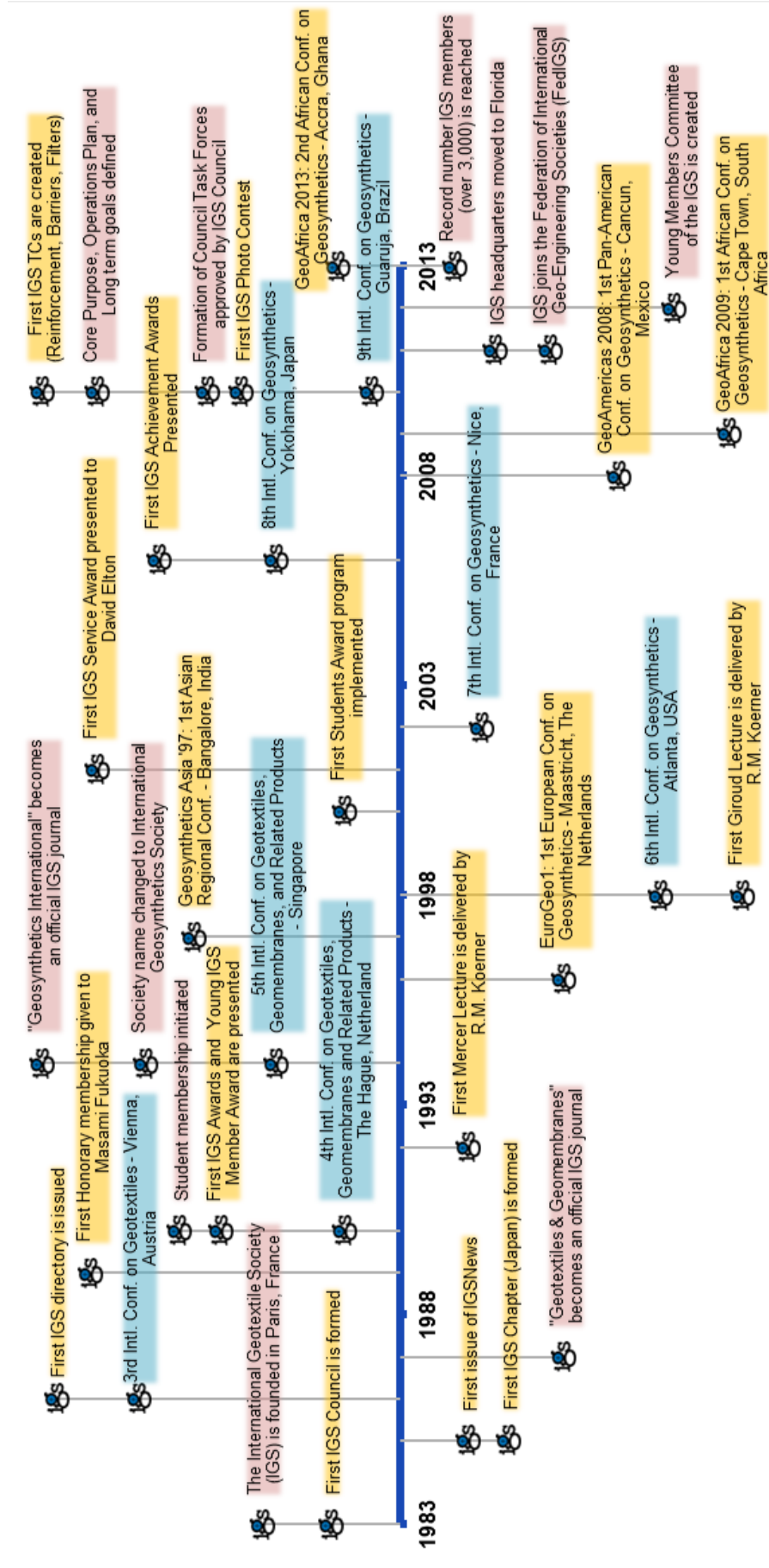


Figure 1: Overview of the thirty year-history of the IGS.

### Announcing the “International Geosynthetics Photo Contest 2014”



The IGS Photo Contest was conceived to create an excellent collection of photos showcasing outstanding work by IGS members. The response to the initial contest was phenomenal with many entries received. The winning photos, as well as being featured on the IGS website, have been tapped for use and recognized in various publications and lectures worldwide.

Winning photos will be acknowledged during the IGS International Conference in Berlin 2014.



#### Rules and Guidelines of the Photo Contest

- Photos should clearly display a geosynthetic material/technology in use
- Provide a clear understanding of what geosynthetic technology or event is being demonstrated
- Contestant must be an active IGS Member
- Each member is eligible to submit up to 5 photographs to the contest
- A title and description are required for each photo
- The file size should not exceed 4MB per picture
- File format must be .jpg
- Photos should be sharp, well focused and aesthetically pleasing
- “Before and After” photo sets are welcome and count as one entry
- Final selection of First, Second, Third and Honorable Mention photos will be made by an independent committee

2014 IGS Photo Contest submissions must be received no later than **15 May 2014**

To submit photos please go to: <http://www.geosyntheticsociety.org/PhotoUpload.aspx>

### 10th International Conference on Geosynthetics (10ICG) “Call for Papers” for the IGS Young Members Session

The 10<sup>th</sup> International Conference on Geosynthetics of IGS, organized by the IGS German Chapter and the German Geotechnical Society (DGGT), will be held in Berlin, Germany, from 21 to 25 September 2014 in connection with the “33<sup>rd</sup> Baugrundtagung” (i.e. the German Geotechnical Conference, 23 to 26 September 2014).

The IGS Young Members Session will take place on September, 23, 2014, on the same day as the “Forum for young geotechnical engineers” of the German Geotechnical Conference.

We are therefore looking for young highly-qualified members to take part in the IGS Young Members Session.

Nominees should be IGS members not older than 35 years at the date of the event. Corresponding proofs of membership and date of birth are required. The nominee has to be the first author of the paper and in case of election also the presenter.

From the proposals submitted, around 10 candidates will be selected to make reports at the Young IGS Members Session. These 10 candidates will receive a certificate and will be invited to join the 10ICG, the Baugrundtagung and the festive dinner at no fee.

They will also be invited to join the “Forum for young geotechnical engineers” of the Baugrundtagung that will be translated to English simultaneously. In the evening there will be an “informal” meeting of the young IGS members and geotechnical engineers.

The best lecturer will be selected based on the content of the paper, the style of the presentation and its delivery. The winner will get the opportunity to present his/her paper on the next day in a plenary session.

Abstracts should be no more than 300 words, to be submitted by 15.02.2014. If you have already submitted an abstract for the main program of the 10ICG please mention the according number, but nevertheless submit it again to this award procedure. Both evaluation processes will be performed in parallel.

Papers submitted only for selection in the Young IGS Members Session will not be considered for the main program of 10ICG.

Please submit your abstract, your IGS membership and proof of age to the following email addresses: [g.braeu@bv.tum.de](mailto:g.braeu@bv.tum.de), [nathalie.touze@irstea.fr](mailto:nathalie.touze@irstea.fr) and [igssec@geosyntheticssociety.org](mailto:igssec@geosyntheticssociety.org).

## IGS Awards: Call for Nominations 2010 – 2013

### Nominations due 31 January 2014

-- For Remembrance --



**Fumio  
Tatsuoka**

IGS Awards will be granted in 2014 to individuals or groups of individuals who have made an outstanding contribution to the development and use of geotextiles, geomembranes, related products, or associated technologies through their scientific and technological achievements. For example, an award can be given for design and construction of a structure; publication of a technical document (paper, book, article, manual); completion of a research program; development of new products and techniques.

The Awards recognize the achievements completed and/or the validity of which have been demonstrated during the four-year period preceding the year of the Award (i.e., 2010 through 2013 inclusive).

The winning entries will be publicized in IGS News, in a special press release on the IGS web site and in other IGS publications.

#### Timeline and Deadlines

Nominations must be received by the IGS Secretary (see address on page 36 of this IGS News) no later than **31 January 2014**.

The deadline for receipt of award candidate presentation packages is **31 March 2014**.

Presentation packages will be forwarded by the Secretariat to the Award Committee by **15 April 2014** for the Committee to review and to finalize their decisions, draft citations and report.

Awards will be presented at 10ICG, in Berlin, Germany, on 21 to 25 September 2014.

#### There are Two IGS Awards

- **The Young IGS Member Achievement Award**  
This Award is for IGS Members who are less than 36 years of age on **31 December 2013**.
- **The IGS Award**

The awards will consist of a specially commissioned medal and a diploma.

If a group submission is made for the Young IGS Member Achievement Award, all members of the group should satisfy the age requirement for this. If this requirement is not satisfied, the entire group will be not eligible for the Young IGS Member Achievement Award. If a candidate, individual or group, satisfies the age requirement for the Young IGS Member Achievement Award, the entry submitted by this candidate will be considered for both awards (unless requested otherwise by the candidate). However, a candidate may only receive one award.

#### Additional Information

For further information please refer to IGS News Issue 1, 2013.

The full text of the IGS Awards rules can be obtained from the IGS Secretary, Elizabeth Peggs, and the IGS webpage section "[Handbook, Part 4 Benefits and Awards](#)" in the "Membership only" section.

*Reported by  
Fumio Tatsuoka, Chair of IGS Awards Committee*

# News from the Technical Committees of IGS

## IGS Technical Committee on Filtration – TC-F

The main activities and initiatives of the IGS Technical Committee on Filtration are presented in the following items.

### Contacts with Similar Committees of Sister Societies

Prof. R. Jonathan Fannin has been in contact with the US Army Corp of Engineers, regarding joint collaboration on a new version of ICOLD Bulletin 55 (1986) on “Geotextile as Filters and Transitions in Fill Dams”. The change in persons responsible for those issues in those societies has delayed the progress on this. In parallel, ICOLD has commissioned the South African National Committee on Large Dams (SANCOLD) to update ICOLD Bulletin 55 of 1986 and on receipt of this, the ICOLD may adopt the submission as the international guideline. Peter Davies, from South Africa, was asked to write the update on Geosynthetic Applications in Embankment Dam Engineering. The IGS TC on Filtration is collaborating with Peter regarding to establish what guidelines or legislation exists on a national or state basis around the world.

### TC Participation in Conferences

#### *GeoAmericas 2012*

A short-course on Drainage and Filtration with geosynthetics was organized by the IGS-TC on Filtration during GeoAmericas 2012, held in Lima, Peru. The lecturers were Barry Christopher and Ennio M. Palmeira. The course presented several aspects on the use and design of geosynthetics in drainage and filtration applications, also approaching practical aspects of these applications. A significant number of professionals attended the course, which led to lively and very interesting discussions. The lecture notes were made available to the attendees, as well as for upload in the conference website.



Prof. R.J. Fannin receiving a gift from Prof. E.M. Palmeira on behalf of the Organizing Committee of GeoAmericas 2012 after his Keynote Lecture.

A technical session on Drainage and Filtration was also organized with the help of the TC on Filtration. Prof. R.J. Fannin was the keynote lecturer in this session and his keynote was entitled “Geotextile filters: the principles of design”.

#### *GeoFilters*

Dr. Michael Heibaum, who is the current chair of ISSMGE Technical Committee 213 on Scour and Erosion, plans to include the former GeoFilters-Conferences as part of one of their biannual conferences. The IGS TC on Filtration has proposed a joint collaboration regarding the organization of such conferences.

### Questionnaires on Geotextile Filters

A great response to the questionnaire on geotextile filters has been achieved, with a number of over 200 responses from different parts of the world. The deadline for the responses was extended with several notices having been issued to IGS members and other professionals on the questionnaire, which was available on the IGS website. The committee is now involved in analyzing and organizing the responses and to prepare a report to be made available soon to IGS.

#### *Reported by*

*Ennio M. Palmeira/R. Jonathan Fannin/Nicola Moraci/Eric Blond, IGS TC on Filtration Officers*

## IGS Technical Committee on Barrier Systems - TC-B

In late October 2013, the Indian Chapter of the International Geosynthetic Society celebrated its Silver Jubilee (25<sup>th</sup> anniversary). As part of a three-day workshop on geosynthetics, a special barriers seminar was held by IGS India with various industry stakeholders and the IGS Technical Committee (TC) on Barriers.

Designed to be a smaller, more focused seminar, approximately 70 professionals took part—which was a good sign when taking into consideration that simultaneously three other civil engineering seminars and conferences were taking place in Delhi and competing for the same attendees.

The Indian Chapter of IGS, it must be noted, did a wonderful job of organizing the session. The program included a number of engaging presentations and speakers from India and abroad to facilitate a strong exchange of knowledge. Presentations included:

- Landfills in India: Issues and Challenges – Dr. GV Rao (Past President of IGS India)
- Indian Experience in the Design and Construction of Barrier Systems – M. Venkataraman (Vice President, IGS India)
- Geosynthetic Clay Liners in Landfill Application – Kent von Maubeuge (NAUE, Germany)
- Leakage, Physical Response, and Service Life of Landfill Geomembranes – Dr. Richard Brachman (GeoEngineering Centre, Queen's University, Canada)
- The Behaviour of HDPE Geomembranes and Installation Quality Control – Andreas Wöhlecke (BAM, Germany)
- Enhanced Liner Leak Detection Surveys Using Electrically Conductive Geomembrane – HB Ng (GSE, Thailand)
- Service Life and Long-Term Performance of Geosynthetic Liners under Simulated Landfill Conditions – Dr. Dali Naidu Arnepalli (IIT Madras, India)
- Factors Affecting Long-Term Performance of Geosynthetic Clay Liners – Dr. Richard Brachman (GeoEngineering Centre, Queen's University, Canada)
- New Applications with Multi-Component GCLs – Kent von Maubeuge (NAUE, Germany)

Six of the presentations were included in the official Silver Jubilee proceedings.

Following the seminar, a board meeting was held. It was decided that Barrier the Seminar presentations would be made available to all.

Please follow updates in IGS News and look for the Barrier Seminar papers to appear in the secure, online library that all members of IGS have access to via [www.geosyntheticssociety.org](http://www.geosyntheticssociety.org).



Plenum of Indian the Indian IGS Chapter Silver Jubilee celebration



Mr Kent, Mr. M. Venkataraman (Vice President, Indian Chapter of IGS), Dr. G.V.S. Raju (president, Indian Chapter of IGS), Prof. G.V. Rao (Past President, Indian Chapter of IGS) after the morning session of the Barrier's symposium.



## SPECIAL ACKNOWLEDGEMENT

Everyone involved in the technical program for the Barriers Seminar did a fantastic job, but we would like to include a special acknowledgement of gratitude to Dr. Richard Brachmann and Andreas Wöhlecke who, acting as ambassadors for the IGS and the TC on Barriers, did a great job as well—and after significantly long travel! They were very active during the Silver Jubilee, joining board meetings, promoting geosynthetics, discussing IGS with participants, etc.

Their technical and professional society support was greatly appreciated and led to more than a few new members joining IGS.

## LOOKING FORWARD TO 2016

GeoAsia 2016—the next Asian Regional Conference on Geosynthetics—will be hosted by IGS India; and to judge by the energy and activity during the Silver Jubilee, GeoAsia 2016 is in great hands. The Indian Chapter has strength in technical outreach and event organization. Their influence on the fast-developing Indian infrastructure is notable, and we look forward to more seminars and conferences in India in the coming years.

On behalf of the IGS Technical Committee on Barriers, we want to thank IGS India for sharing their insight, promoting geosynthetics, and furthering IGS. And we hope to see IGS India continue the conversation along with IGS Germany in Berlin in September 2014 for the 10<sup>th</sup> ICG!



Prof. G.V. Rao, left (Past president, Indian Chapter of IGS) receiving a gift from Mr. A.C. Gupta, right (Director- Water Resources, Central Board of Irrigation and Power) for his excellent presentation, while Dr. G.V.S. Raju, chairman of the session (President, Indian Chapter of IGS) is following the ceremony.

*Reported by*

*Kent von Maubeuge, IGS TC on Barrier Systems Officer and IGS Council Member*

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## Conference Reports

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### IGS workshop during the 18<sup>th</sup> International Conference on Soil Mechanics and Engineering Paris 2 to 6 September 2013

COMITE FRANÇAIS



GEOSYNTHETIQUES

The Comité Français des Géosynthétiques (CFG), French chapter of the International Society (IGS) offered a half day dedicated to geosynthetics, in collaboration with the IGS during the 18th International Conference on Soil Mechanics and Geotechnical Engineering (ISSMGE).

This event took place on September 5, 2013 from 9:00 AM to 12:30



Speaker and Chairmen at IGS workshop at ISSMGE conference in Paris (left to right: Neil Dixon, Kent von Maubeuge, Kerry Rowe, Jorge Zornberg, Jean-Pierre Magnan)

PM, at the Palais des Congrès from Paris and was a great success, contributing to the emerging collaborations between IGS and ISSMGE.

About 40 attendees could benefit from the high quality presentations from 4 keynote speakers during two different sessions:

Session1 (chair : Jean-Pierre Magnan, Ifsttar, president of CFG)

- Introduction by Jean-Pierre Magnan, Président of the Comité Français des Géosynthétiques (CFG), who will give an insight in the missions and actions of the CFG.
- Ingenuity in Geotechnical Design using Geosynthetics, presented by Jorge Zornberg , Professor, University of Texas at Austin, Texas, USA, President of the International geosynthetics Society (IGS).

Session 2 (chair : N. Touze-Foltz, Irstea, member of the councils of CFG and IGS)

- The sustainability case for using geosynthetics: case studies, by Neil Dixon, Professor, Loughborough University, Edinbrough, Scotland, UK
- Recent insight regarding the performance of GCLs in bottom liners and covers, by Kerry Rowe, Professor, Queen's University, Canada
- Encapsulation of contaminated soils in damn construction for roads, by Kent Von Maubeuge, Naue Fasertechnik, Chair of the technical committee on barriers of the IGS

*Reported by*

*Nathalie Touze-Foltz, IGS Council Member*

## **International Symposium on Design and Practice of Geosynthetic-Reinforced Soil Structures (and Joint Sessions with 26<sup>th</sup> Italian National Conference on Geosynthetics) Bologna, Italy, 14 - 16 October 2013**

The symposium was held in Bologna, Italy, to honor the research achievements of Prof. Dov Leshchinsky of the University of Delaware. Dr. Leshchinsky is a world-renowned geotechnical researcher and educator in the design and practice of geosynthetic-reinforced soil structures.

The event took place for three days (14-16 October, 2013) with the first two days held at the School of Engineering and Architecture, Bologna University. The third day of symposium included joint sessions with the 26<sup>th</sup> Italian National Conference on Geosynthetics at Sala Topazio, close to SAIE Building Innovation Exhibition Center.

A total of 71 papers were selected for oral presentation. These papers have been reviewed and published in a hardcopy (751 pages, by DEStech Publications, Inc.) as well as digital version of proceedings. Limited numbers of copies are available (contact Hoe Ling about the cost).

Over 110 participants from more than 34 countries have participated in the symposium. The symposium consisted of several main technical sessions, as follows:

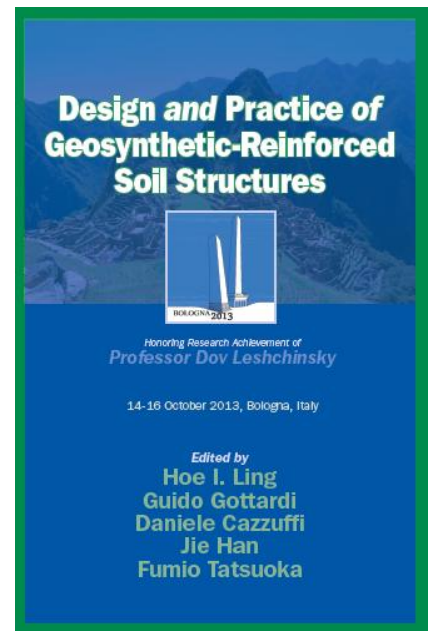
- Laboratory Testing and Physical Modeling
- Wall/Slope Design and Construction
- Pavement and Footing
- Bridge and Vertically Loaded Structure
- Embankment, Soft Ground and Geosynthetic Tube
- Application of Numerical Methods
- Case Studies of Wall/Slope and Embankment
- Case Studies of Off-shore, Road and Railway Construction



Dov Leshchinsky delivering the special lecture

The following seven keynote lectures were delivered by the international experts:

- Leshchinsky, D. (USA): Framework for limit state design of geosynthetic-reinforced walls and slopes
- Cazzuffi, D. (Italy): Geosynthetics engineering and vegetation growth in soil reinforcement applications
- Collin, J.G. (USA): Shored MSE walls research to practice
- Koseki, J. (Japan) and Shibuya, S. (Japan): Mitigation of disasters by earthquakes, tsunamis and rains by means of geosynthetic-reinforced soil retaining walls
- Tatsuoka, F. (Japan): The importance of good compaction of the backfill and the compaction control based on the dry density and the degree of saturation
- DiMaggio, J.D. (USA): Geosynthetic-reinforced soil walls and slopes: Best practices in design and construction and reality: Why they differ
- Moraci, N. (Italy): Soil-geosynthetic interaction: Design parameters from experimental and theoretical analysis



Conference Proceedings

Several of the keynote papers will appear in early 2014 in a forthcoming issue of the journal *Transportation Infrastructure Geotechnology* (published by Springer).

In addition to the technical presentations, several social events were organized. A welcome reception was offered in the first evening inclusive of a music concert featuring operatic excerpts by well-known 19th-century Italian composers. A banquet was organized in the second evening at Palazzo Isolani, which is one of the most beautiful and important historical buildings in Bologna. During the third day, participants were offered an opportunity to visit the SAIE Building Innovation Exhibition located near the conference venue.



Group photo taken at the School of Engineering and Architecture, Bologna University (Photo Credit: Ben Leshchinsky)



Organizing committee and Italian committee members during the closing ceremony at Sala Topazio



Dov and Ora Leshchinsky with Delaware Senator Harris McDowell III at the SAIE Building Innovation Exhibition

The symposium was held under the auspices of the International Geosynthetics Society, the Italian Geotechnical Association, the Italian Chapter of IGS, the International Society of Soil Mechanics and Geotechnical Engineering

(TC 101 & TC 305), the American Society of Civil Engineers Geo-Institute, Department of Civil, Chemical, Environmental and Materials Engineering of the University of Bologna, University of Delaware, and several Japanese research institutes (Public Works Research Institute, Railway Technical Research Institute and National Institute for Rural Engineering).

A total of fourteen leading firms participated as industrial sponsors (in alphabetical order): ACE Geosynthetics, ADAMA Engineering, Allan Block, Callide Technologies, Inc, Huesker Synthetic GmbH, Intergeo Services, Mich-eletto Pavimentazioni, Officine Maccaferri S.p.A, NAUE GmbH & Co. KG, Risi Stone Systems, TeMa Technologies and Materials srl, TENAX, TenCate Geosynthetics Asia Sdn Bhd, Tensar International Corporation. The industrial supports helped to reduce significantly the registration fee while upholding the highest quality of the symposium.

Conference website: <http://www.columbia.edu/cu/civileng/bologna2013/>

Reported by

Hoe I. Ling, Guido Gottardi, Daniele Cazzuffi, Jie Han, and Fumio Tatsuoka

## Fourteenth International Waste Management and Landfill Symposium – Sardinia 2013

### Santa Margherita di Pula, Italy, September 30<sup>th</sup> to October 4<sup>th</sup>, 2013

The fourteenth edition of the Sardinia Symposium, organized by the IWWG (International Waste Working Group, [www.iwwg.eu](http://www.iwwg.eu)), was held in Forte Village, Santa Margherita di Pula, Italy from September 30<sup>th</sup> to October 4<sup>th</sup>, 2013.

The event was attended by 760 participants (researchers, technicians, administrators and operators) from 63 different nations with the presentation of 571 scientific papers, selected according to quality by the Executive Programme Committee from 832 offers of papers from 75 different countries worldwide.

The traditional issues of waste prevention, material and energy recovery, waste treatment and final disposal were addressed in 32 general sessions, 48 specialized sessions, 34 workshops and 12 Italian sessions where new ideas and concepts were presented and thoroughly discussed. Specialized sessions provided for extensive discussion on the optimisation of existing technologies and development of new ideas, placing particular emphasis on controversial issues such as thermal treatment (incineration, pyrolysis, gasification), and the production and use of RDF, including monitoring environmental impact and health effects of emissions. Several workshops were devoted to the presentation of innovative international projects.

The opening lecture of Sardinia 2013 Symposium was given by Prof. Jean Bogner (University of Illinois at Chicago, US) who presented a comprehensive overview on landfill processes and the most important concepts that have characterized their developments in the last 40 years. Her lecture focused mainly on the following three aspects:

- creative strategies for improved quantification of urban-scale waste generation and diversion from landfilling, including quantification of the materials, energy & financial impact of the informal sector in developing countries;
- moving beyond strict reliance on a first order kinetic equation for landfill methanogenesis;
- using an improved quantitative approach for the understanding of landfill methane emissions & oxidation, based on a decade and a half of field measurements & modeling, to guide regulatory & carbon policy decisions.



Prof. Jean Bogner, University of Illinois at Chicago, delivering her speech during the Opening session of the Sardinia 2013 Symposium

Prof. Bogner summarized a lifelong research career with vibrant words: "Looking backward: exactly 40 years have passed since the publication of Farquhar & Rovers (1973, Gas Production during Refuse Decomposition, Water, Air, & Soil Pollution). For many of us, this groundbreaking publication on landfill gas evolution over decadal timeframes provided a starting point for our own careers in waste management. Those who attended Sardinia 2007 heard Graham Farquhar discuss the difficulties of publishing this paper in the early 1970's. However, it is time to move on. Today we have improved interdisciplinary understanding of waste management processes, more robust numerical tools with better scientific underpinnings, and better access to credible waste management data. Nevertheless, especially in the landfill regulatory & policy arena, we still rely on a variety of outdated concepts, tools & databases developed many decades ago, often for different applications. More disturbing, as applied today, some tools

can actually circumvent best engineering practices and site-specific judgment. We can do better. As I am retiring, it's not my job anymore, so this is a farewell lecture on some fertile topics for future waste research & improved waste policy. Some final words: many of us, including myself, got into the field of waste management by accident;

nevertheless, we can all bring our own scientific tools, ideas & strategies to the toolbox. Improve the science. Have fun.”

This year's Sardinia final Round Table, held on Friday 4th October, focused on 'The Role of Education in Waste Management' and was coordinated by Prof. Rainer Stegmann, Hamburg University of Technology (DE). Prof. Stegmann summarized the main concepts emerged as follows:

"The implementation of appropriate waste management (WM) concepts is not often a question of having the appropriate technology but of acceptance and in order to reach a decision on the acceptance or non-acceptance of a particular technology, knowledge is a prerequisite.

For this reason, high levels of education in WM are essential, not only in schools, universities but also in NGOs, the public and private sector, trade and commerce and industries in industrialized as well as especially in economically developing countries.”

During the closing roundtable highly experienced international experts from universities, international organizations as well as the public and private sector discussed how education in WM can be improved and how to get better access to the existing information material. Another question was what kind of new and proven education forms may be appropriate depending on the specific situation. Invited speakers to the Round Table discussion included:

- Luis Diaz, CalRecovery, Inc. (US)
- Sofía García-Cortés, GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit (DE)
- Jutta Gutberlet, University of Victoria (CA)
- Ian Williams, University of Southampton (GB)

Sardinia 2013 Symposium was then officially closed with a lecture by Prof. Hiroshi Takatsuki, who focused on an analysis concerning beverage containers, plastic packaging, kitchen waste (food waste), disposable paper products, clothes, electric appliances and hazardous waste (batteries, medical waste). Prof. Takatsuki showed the results of his analysis and revealed the ironies of our lifestyle through his cartoons.

As he correctly pointed out: “Although emphasis has been placed on 3R (Reduce, Reuse and Recycle) in order to solve the waste problem, there are still problems in recycling. The concept of Extended Producer Responsibility (EPR) is being gradually introduced to combat the waste problem and efforts involving partnership for 3R actions are under way. We have to review our lifestyle by reflecting on the waste problem, to aim for a truly sustainable society”.

## Awards

Six best paper awards were assigned during the Symposium and delivered to recipients in occasion of the Gala Dinner:

- Best Brazilian Paper Award: "Geogrid mechanical damages due to recycled construction and demolition wastes", by F.A.S. Barbosa and E.C.G. Santos (Polytechnic School of the University of Pernambuco, Brazil)
- Luigi Mendia Award for the best paper on waste management policy: "Ways and entanglements of the waste hierarchy", by A. Bartl (Vienna University of Technology, Austria)
- Kriton Kuri Award for the best paper on developing country waste management issues: "A close view of waste management in Africa: the 'Africa and its derivatives' project", by M.C. Lavagnolo and S. Failli (University of Padova, Italy)
- Giovanni Bozzini Award for the best Italian paper: "Biological hydrogen and methane productions from organic fractions of MSW with different composition", by L. Alibardi and R. Cossu (University of Padova, Italy)
- Alberto Rozzi Award for the best paper on biological treatment: "Enhancing methane production during two-phase anaerobic digestion of food waste by reutilizing hydrogen and carbon dioxide produced in acidogenic leach bed reactor" by B. Yan, A. Selvam and J.W.C. Wong (Hong Kong Baptist University, Hong Kong)
- Best Poster Award: "Plasma technology for the abatement of pollutants emitted by mechanical-biological



A moment from the Opening Session in the main Conference Hall



Prof. Hiroshi Takatsuki delivers his speech during the Closing Session of the Symposium

treatment plants" by M. Ragazzi, E.C. Rada, V. Torretta and M. Schiavon (University of Trento, Italy)  
The recipient of the eight edition of the "Life for Waste" Award, presented every two years to individuals who have made an outstanding contribution to advances in international waste management, was Prof. Jean Bogner. The Award was presented by Debra Reinhart, from the University of Central Florida, US.

Jean Bogner is a Research Professor at the University of Illinois at Chicago (UIC). Formerly, she worked at Argonne National Laboratory for more than 20 years. She has more than 35 years research experience and extensive publications related to landfill gas generation, emissions, migration, recovery & utilization. Commercial work has included numerous US and international landfill gas recovery projects, including Clean Development Mechanism (CDM) projects in developing countries. She was the Coordinating Lead Author (CLA) for the chapter on Waste Management for the 2007 IPCC (Intergovernmental Panel on Climate Change) 4th Assessment Report.

### Social events

As usual, Symposium participants were able to enjoy a detailed social programme throughout the five days of the conference: from the traditional welcome cocktail to the Gala Dinner that closed the Symposium. Following the huge success of the show in the 2009 and 2011 edition, another "Sardinia's Got Talent" evening was organized, where delegates attending the Symposium came up on the stage and performed singing and playing music. The traditional football match was extremely popular this year, with several teams taking part in a mini-tournament.

Moreover, three guided excursions plus a night tour of Cagliari were arranged during the week to enable Symposium participants and accompanying persons to discover the beauty of the Sardinian territory. These were some of the many opportunities to have fun even in the highly scientific context of the Sardinia Symposium!

The next edition of the Sardinia Symposium has been scheduled for October 2015, once again in the traditional venue of Forte Village Resort. The relevant info will be available in due time at the usual website: <http://www.sardiniasymposium.it/>

Proceedings from the Sardinia 2013 Symposium are available in the following formats:

- CD
- Printed volume + CD
- Access codes to reserved area on Symposium website

For detailed costs and availability please email the Organizing Secretariat at [info@eurowaste.it](mailto:info@eurowaste.it)

PowerPoint slides of papers presented during the Symposium will soon be made available in the members' area of the IWWG – International Waste Working Group website, together with PowerPoint presentations and proceedings of all past IWWG conferences.

For further information please contact the General Secretariat at [info@iwwg.eu](mailto:info@iwwg.eu)

*Reported by*

*Adelia Presutti and Roberto Raga, Sardinia 2013 Organizing Committee*

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## Announcements of Conferences of IGS

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### 10<sup>th</sup> International Conference on Geosynthetics – 10ICG Berlin, Germany, 21 – 25 September 2014



The German Geotechnical Society (DGGT) and the International Geosynthetics Society (IGS) German Chapter, as a special group within the DGGT, cordially invite you to participate in the 10<sup>th</sup> International Conference on Geosynthetics (10ICG) in 2014 in Berlin, Germany.

The conference will be held from 21 to 25 September 2014 in direct connection with the 33<sup>rd</sup> Baugrundtagung (BGT - German Soil Mechanics Conference) of DGGT (23 to 26 September 2014).

As the Baugrundtagung expects 1200 participants, great synergy and interaction is expected between these events, especially in the co-organized, co-located exhibition.

The overlapping of lectures from both events will also attract many additional experts from the geotechnique and geosynthetics professions. The BGT and the Young Geotechnical Engineering Session will be translated simultaneously to English and a combi ticket for 10ICG and the BGT with a fairly reduced prize will be offered.

### Venue

The 10ICG will be held in the south-eastern part of Berlin at the ESTREL convention centre.

ESTREL offers about 50 rooms for lectures and meetings in different sizes, integrated exhibition halls (approx. 5000 m<sup>2</sup>) and a 4-star hotel (1125 rooms).

Travelling time from there to the centre of Berlin is about 20 minutes.

### Language

The official language of 10ICG will be English.

### Berlin

Berlin is the capital city of Germany and offers a tremendous number of interesting cultural events, museums and sightseeing attractions directly in the city and its surrounding area.

Berlin is the "gateway" to the eastern part of Europe. The city is easily reachable and the site of many significant political milestones not only in the history of Germany but of Europe and the world as well.

More than 6.5 million visitors per year experience Berlin. The 10ICG programme for accompanying persons will cover guided city tours, visits to museums and galleries - such as the Museumsinsel (a "World Cultural Heritage" site of UNESCO since 1999) and the Brandenburg Gate – as well as special offers for individual trips and visits to the surrounding area (e.g., Spreewald, Potsdam, Mecklenburg Lakes).

Parallel to the 10ICG the International Trade Fair for Transport Technology - Innovative Components, Vehicles, Systems will take place in Berlin also: INNOTRANS 2014 (23 to 26 September 2014). Railway Infrastructure, Interiors (incl. Travel Catering & Comfort Services), Public Transport and Tunnel Construction are main topics and could of interest for our geotechnical and geosynthetics specialists as well.

Please be aware that accommodation might be a problem if you book late, although there is great contingent pre-booked by the organizers of 10ICG and BGT in and nearby the venue. The hotel reservation is already possible through the webpage.

### Special Lectures

The 10ICG is proud to announce the following special lectures to be held in Berlin 2014. The actual shown titles are working titles and subject to change:

- Giroud Lecture  
*by Richard Bathurst, Canada*
- Welcome Lecture  
History and actual state of Geosynthetic Applications in Germany  
*by Georg Heerten, Germany*
- Keynote Lectures
  - Natural Disasters Mitigation by using construction methods with geosynthetics (Landslides, Flooding, Earthquake)  
*by Dennes Bergado (Thailand), Michael Heibaum (Germany) and Fumio Tatsuoka (Japan)*
  - Environmental benefits by using construction methods with geosynthetics  
*by Holger Ballbaum (Switzerland)*
  - Costs savings by using construction methods with geosynthetics  
*by Barry Christopher (USA)*

### Technical Program

The call for abstracts was very successful. About 500 abstracts were submitted, are under review now and the result will be announced to the authors by December 2013. The dates for the final papers are listed below. Actually it is planned to have 4 to 5 parallel sessions to allow a maximum of 300 oral presentations of the best papers. The technical presentations will be accompanied by training lectures and discussions sessions.

As a special benefit for the **Young IGS Members** there will be an award winning procedure offering free entrance to both conferences (10ICG and BGT) and the festive evening (see also page 5 of this IGS News issue). The best lecturer will present his / her lecture in a keynote-like position in the program as well!

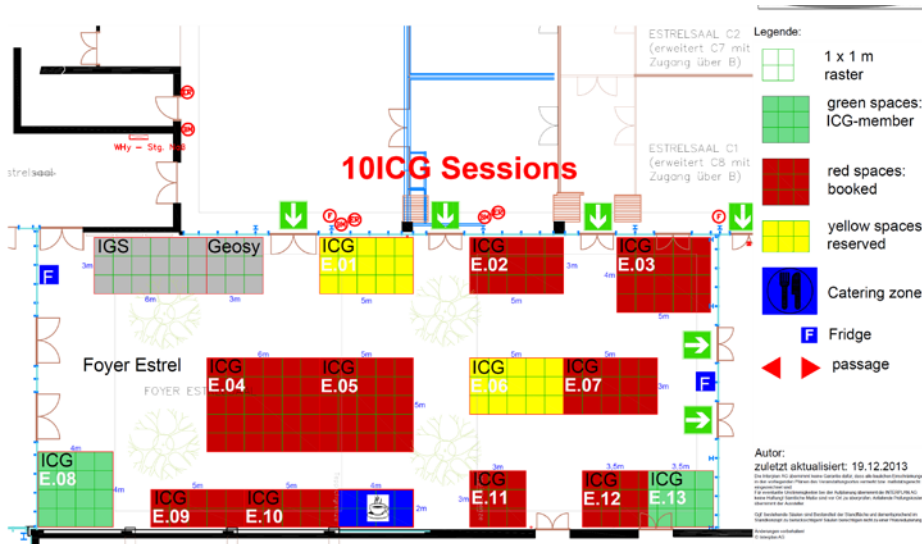
The provisional program is planned like this:

Time	Sun, 21.09.	Mon, 22.09.	Tue, 23.09.	Wed, 24.09.	Thu, 25.09.	Fri, 26.09.
08:30 - 09:00	Registration		Keynote Lectures by Fumio Tatsuoka Michael Heibaum Dennes Bergado			Technical Excursions
09:00 - 09:30		Opening Session and Opening of Exhibition		Parallel Sessions	Keynote Lecture by Holger Ballbaum	
09:30 - 10:00						
10:00 - 10:30		Coffee Break and Official walk around in Exhibition	Coffee Break	Coffee Break	Coffee Break	
10:30 - 11:00		Giroud Lecture by Richard Bathurst	Parallel Sessions	Parallel Sessions	Parallel Sessions	
11:00 - 11:30						
11:30 - 12:00		Welcome Lecture by Georg Heerten	Young IGS Members	Parallel Sessions	Parallel Sessions	
12:00 - 12:30						
12:30 - 13:00		Lunch	Lunch / TC Filtration	Lunch / TC Reinforcement	Lunch / TC Barriers	
13:00 - 13:30						
13:30 - 14:00						
14:00 - 14:30		Parallel Sessions	Parallel Sessions	Parallel Sessions	Parallel Sessions	
14:30 - 15:00						
15:00 - 15:30						
15:30 - 16:00						
16:00 - 16:30		Coffee Break	Coffee Break	Coffee Break	Coffee Break	
16:30 - 17:00		Parallel Sessions	Parallel Sessions	IGS General Assembly and IGS Awards		
17:00 - 17:30						
17:30 - 18:00						
Baugrund- tagung			Young Geotechnical Engineers	Main Session of Baugrundtagung	Main Session of Baugrundtagung	
Evening Events	17:00 - 19:30 Uhr Welcome Reception (Estrel)	Happy Hour in the exhibition  IGS Corporate Reception	IGS Soccer Game  Informal Meeting Young Geotechnical Engineers and Young IGS Members	Conference Dinner		

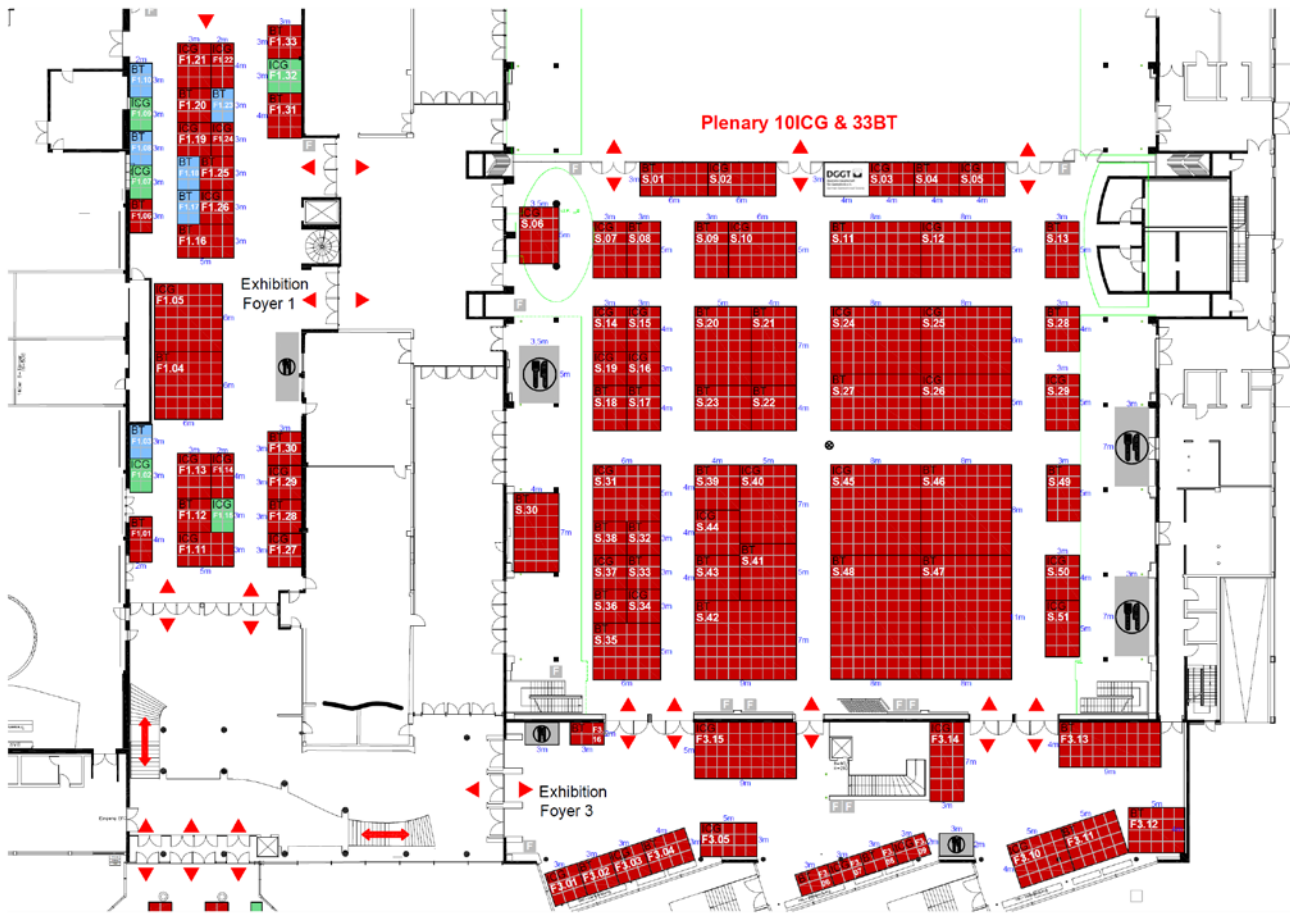
## Exhibition

The 5000 m<sup>2</sup> technical exhibition space is directly connected to the conference rooms, being located half-way between the hotel and lecture rooms and accessed without having to leave the centre. The exhibition space will be used both by 10ICG and the Baugrundtagung event. The reservation period for the exhibition is open through the webpage since July 2013. More than 90% of the area is already sold. Please be aware that there will be no additional exhibition areas possible as are shown in the brochures on the webpage.

The already registered exhibitors are listed on the webpage (<http://www.10icg-berlin.com/en/exhibition.html>) and the still available booths are shown in the following pictures.







**Important Dates**

Papers submission deadline	February 2014
Communication on paper acceptance REVIEW	April 2014
Deadline for final version of papers	May 2014
Sponsorships and exhibition sales opening	July 2013
Early registration opening	January 2014
Normal prices registration	June 2014

**For more information**

Please visit the website that will be updated in due time: [www.10icg-berlin.com](http://www.10icg-berlin.com)

For further information please contact:

Gerhard Bräu ([Gerhard.Braeu@bv.tum.de](mailto:Gerhard.Braeu@bv.tum.de))

Dr. Kirsten Laackmann ([service@dggt.de](mailto:service@dggt.de))

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## Announcements of Conferences under the Auspices of IGS

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### 7<sup>th</sup> International Congress on Environmental Geotechnics Melbourne, Australia, 10 - 14 Nov 2014



The International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), TC 215 Environmental Geotechnics is pleased to announce the 7<sup>th</sup> International Congress on Environmental Geotechnics (7ICEG2014), which will be held in Melbourne, Australia between the 10 - 14 November 2014.

This Congress is being organised by Engineers Australia and supported by the Melbourne Convention Bureau (MCB), City of Melbourne and the Australian Geomechanics Society. Furthermore this Congress will be held under the

auspices of the International Geosynthetics Society (IGS). Connected to the Congress there will take place an exhibition as well.

Environmental Geotechnics has evolved dramatically from the 80s/90s practice where the focus was on addressing problems related to contaminated sites as well as hazardous and non-hazardous waste management. Nowadays it deals also with emerging contaminants (nanoparticles, etc.), energy geotechnology (geothermal energy, CO<sub>2</sub> sequestration, coal seam and shale gas, methane hydrates, etc.), oil and gas resources, mining, reservoir engineering, effect of climate change on built structures and biogeotechnical engineering, attracting new challenges and new set of skills to the profession. These had the effect of bringing the different disciplines even closer than before.

This Congress aims to bring together practitioners and researchers in Environmental Geotechnics and related disciplines to discuss the advances which have been achieved in the past 20 years or so. Since the organisation of the 1<sup>st</sup> Environmental Geotechnics Congress in Edmonton, Canada in 1994, great progress has been made but we must address the new challenges of a rapidly changing world. In so doing, this Congress will contribute to the ongoing process of consilience between the different disciplines so that current and future challenges are addressed efficiently by our profession.

#### **The Congress-Theme is “Lessons, Learnings and Challenges”**

- Different lectures will be held to the following Topics: Planning, legislation and regulatory control
- Containment and management of waste
- Contaminant fate and transport assessment
- Soil, ground vapour and groundwater remediation and redevelopment of derelict land
- Landfill gas management and greenhouse emission abatement
- Energy related geoenvironmental technology
- Waste containment facilities closure and aftercare
- Waste management of disaster affected areas
- Biogeotechnical Engineering
- Developments in geosynthetics for environmental protection

#### **Keynote Speakers**

- Prof. Charles Shackelford Bs, Msc, PhD. P.Eng *Department of Civil and Environmental Engineering Colorado State University, Fort Collins, USA*
- Prof. R. Kerry Rowe PhD, D.Eng, F.Eng, FRSC, FCAE, FEIC, FACE, FIEA, FCSE, P.Eng. *Professor and Canada Research Chair – Tier I Department of Civil Engineering, Ellis Hall Queen’s University, Kingston, Canada*
- Dr Stephan Jefferis MA MEng, MSc, PhD, CEng, FICE, CGeol, FG *Director, Environmental Geotechnics Ltd., Oxford, UK*
- Dr Paul Brown Principal Advisor *Mineral Waste Management Rio Tinto, Melbourne, Australia*
- Prof. Craig Benson Bs, Msc, PhD. P.Eng *Wisconsin Distinguished Professor and Chair Director of Sustainability Research and Education University of Wisconsin, Madison, USA*
- Mike Summersgill *Chair, CLAIRE Technology and Research Group (TRG), UK*
- Shaun Davidge *Manager, Water Strategies – GLNG Project, Santos Ltd*
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Important Dates	Deadline for Draft Paper Submissions	14 April 2014
	Deadline for Final Paper Submissions	31 July 2014
	Registration Opens	9 May 2014
	Deadline for Presenter Registrations	31 July 2014
	Deadline for Early Bird Registrations	10 September 2014
	Congress Dates	10 – 14 November 2014

#### **Further Information**

For further information or assistance, please contact:

E-mail: [7iceg2014@wsm.com.au](mailto:7iceg2014@wsm.com.au)

[www.waldronsmith.com.au](http://www.waldronsmith.com.au)

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## News from the IGS Chapters and the Membership

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### GeoMontreal 2013

Montreal, Canada, 29 Sep – 3 Oct 2013



GeoMontreal was held 29 September to 3 October 2013 in beautiful downtown Montreal. The conference was a joint conference of the Canadian Geotechnical Society, the North American Geosynthetic Society (NAGS) and the Canadian Chapter of the International Association of Hydrogeologists.

The conference attracted over 875 delegates and 57 exhibitors. A total of 348 oral presentations were given in 7 parallel sessions over three days. Another 30 papers were delivered in a poster session. The technical program was very broad as a result of the three-society partnership.

Dr. Michael Heibaum gave the Mercer Lecture at the morning Plenary Session on the second day of the conference. His talk was titled "Geosynthetics for Waterways and Flood Protection Structures – Controlling the Interaction of Water and Soil". There were four geosynthetic sessions: Wall Reinforcement; Landfills and Mining Operations; Environmental and Transportation, and Drainage and Filtration - for a total of 27 papers.

One of the social highlights of the conferences was "Colour Night" which was a heavenly experience as can be seen in the photograph.

*Reported by  
Richard Bathurst, IGS Past-President, and Eric Blond, IGS Council Member*



Shown on the left is Dr. Michael Heibaum the Mercer Lecturer and joining him is Dr. Richard Bathurst, a past Mercer Lecturer and past-President of NAGS and IGS, and currently President of the Canadian Geotechnical Society.

## 11<sup>th</sup> Saxon Construction Textiles Symposium "Bautex 2014 – Building with geosynthetics" 30 January 2014, Chemnitz, Germany

The "BAUTEX 2014" will take place on 30 January, 2014, in the town hall of Chemnitz.

There will be given 13 lectures in the conference language German in combination with a special exhibition where, among others, producers of geosynthetics can present their products.

The plenary lecture will present infrastructure projects of the German railway. In the following lectures the tests of geosynthetics, experience reports on retaining structures as well as asphalt reinforcement in road construction will be introduced.

The conference is thought to offer an opportunity for producers of technical textiles, planning offices, departments, authorities and the building industry to exchange their experiences

### Further Information

The complete program, as well as all conference material, is available exclusively in German language.

You will find everything under: [www.bautex.org](http://www.bautex.org), where you can announce for the arrangement also.

*Reported by  
Matthias Mägel, IGS member*

# “GSI Fellowships for Students” Request for Proposals



The Geosynthetic Institute (GSI) is delighted to announce a worldwide call for requests-for-proposals (RFPs) focusing on innovative geosynthetics research and development projects. There will be multiple awards made, each for \$10,000 for the first year, and they are renewable for a second and third year up to a total amount of \$20,000 per student. It is important to note that students must have completed their candidacy examinations leading to a doctoral degree in engineering or science to be eligible. The proposals must be submitted in the following four page format (with no exceptions).

- Page 1 – Letter of recommendation from student’s department head or advisor
- Page 2 – Title and detailed abstract of project
- Page 3 – Student’s resume
- Page 4 – Documentation of completed candidacy examination

The RFPs for the 2014 - 2015 academic year must be submitted to both the undersigned by e-mail by June 10, 2014 and awards will be announced on, or before, July 15, 2014. Review of the proposals is by the nine-person Board of Directors of GSI. For information on the Geosynthetic Institute and past recipients, visit us at the following website: [www.geosynthetic-institute.org](http://www.geosynthetic-institute.org)

*Reported by*

*Robert M. Koerner, Jamie R. Koerner, IGS members*

## List of IGS Chapters

### Argentina

Argentinean Chapter (2009)  
President: Dr. Marcos Montoro  
[marcos\\_montoro@yahoo.com.ar](mailto:marcos_montoro@yahoo.com.ar)

### Australia and New Zealand

Australasian Chapter (2002)  
President: Dr A Malek Bouazza  
[acigss@gmail.com](mailto:acigss@gmail.com)

### Belgium

Belgian Chapter (2001),  
Chairman: Prof. Jan Maertens  
[jan.maertens.bvba@skynet.be](mailto:jan.maertens.bvba@skynet.be)

### Brazil

Brazilian Chapter (1997)  
President: Eng. Lavoisier Machado  
[igsbrasil@igsbrasil.org.br](mailto:igsbrasil@igsbrasil.org.br)  
[www.igsbrasil.org.br](http://www.igsbrasil.org.br)

### Chile

Chilean Chapter (2006),  
President: Luis Paredes  
[Luis.paredes@snclavalin.com](mailto:Luis.paredes@snclavalin.com)

### China

Chinese Chapter (1990)  
Chairman: Li, Guangxin  
[postmaster@ccigs.com.cn](mailto:postmaster@ccigs.com.cn)

### Colombia

Colombian Chapter (2013)  
President: Bernardo Caicedo Hormaza  
[bcaicedo@uniandes.edu.co](mailto:bcaicedo@uniandes.edu.co)

### Czech Republic

Czech Chapter (2003)  
Chairman: Mr. Petr Hubik  
[igs@igs.cz](mailto:igs@igs.cz)  
[www.igs.cz](http://www.igs.cz)

### Finland

Finish Chapter (2011)  
President: Minna Leppänen  
[igsfin.secretary@gmail.com](mailto:igsfin.secretary@gmail.com)

### France

French Chapter (1993)  
President: Mr. Jean-Pierre Magnan  
[francois.caquel@orange.fr](mailto:francois.caquel@orange.fr)

### Germany

German Chapter (1993)  
Chairman: Prof. Dr.-Ing. Martin Ziegler  
[service@dggt.de](mailto:service@dggt.de)  
[www.gb.bv.tum.de/fachsektion/index.htm](http://www.gb.bv.tum.de/fachsektion/index.htm)

### Ghana

Ghana Chapter (2012)  
President: Prof. Samuel I.K. Ampadu  
[skampadu.coe@knust.edu.gh](mailto:skampadu.coe@knust.edu.gh)  
[ikkemeh@hotmail.com](mailto:ikkemeh@hotmail.com)

### Greece

HGS, Greek Chapter (2005)  
President: Mr. Dimitrios K. Atmatzidis  
[dka@upatras.gr](mailto:dka@upatras.gr)  
under complete reconstruction!

### Honduras

Honduran Chapter – Honduran Society of Geosynthetics (2013)  
President: MSc. Ing. Danilo Sierra D.  
[sierradiscua@yahoo.com](mailto:sierradiscua@yahoo.com)

### India

Indian Chapter (1988)  
President: Dr. G.V. S. Suryanarayana Raju  
[cbip@cbip.org](mailto:cbip@cbip.org)

### Indonesia

INA-IGS, the Indonesian Chapter (1992)  
President: Mr. Gouw Tjie Liong  
[amelia.ina.igs@gmail.com](mailto:amelia.ina.igs@gmail.com) or [ameliamakmur@gmail.com](mailto:ameliamakmur@gmail.com)

### Iran

Iranian Chapter (2013)  
President: Dr. Kazem Fakharian  
[kfakhari@yahoo.com](mailto:kfakhari@yahoo.com)  
[hoseingh@yahoo.com](mailto:hoseingh@yahoo.com)

### Italy

AGI-IGS, the Italian Chapter (1992)  
President: Dr. Ing. Daniele Cazzuffi  
[agi@associazionegeotecnica.it](mailto:agi@associazionegeotecnica.it)  
[www.associazionegeotecnica.it/~agi/](http://www.associazionegeotecnica.it/~agi/)

### Japan

Japanese Chapter (1985)  
Chairman: Dr. Hiroshi Miki  
[miki-egri@nifty.com](mailto:miki-egri@nifty.com)  
[www.soc.nii.ac.jp/jcigs/](http://www.soc.nii.ac.jp/jcigs/)

### Kazakhstan

Kazakhstanian Chapter (2012)  
President: Zhusupbekov Askar Zhagparovich  
[astana-geostroi@mail.ru](mailto:astana-geostroi@mail.ru)

### Korea

KC-IGS, The Korean Chapter (1993)  
President: Dr. Youseong Kim  
[yusung@jbnu.ac.kr](mailto:yusung@jbnu.ac.kr)

## Malaysia

Malaysian Chapter – Pertubuhan IGS Malaysia (MyIGS)  
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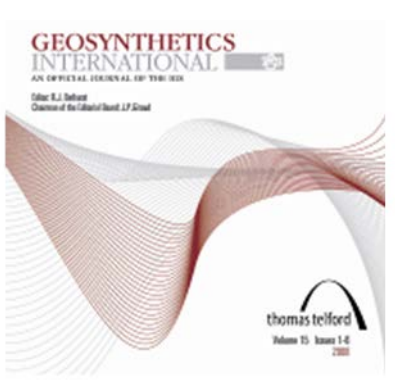
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## Geosynthetics International



Geosynthetics International is an official journal of the IGS and has established itself as a premier peer-reviewed journal on geosynthetics. The Journal publishes technical papers, technical notes, discussions, and book reviews on all topics relating to geosynthetic materials (including natural fiber products), research, behaviour, performance analysis, testing, design, construction methods, case histories, and field experience.

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## Best Geosynthetics International Paper for 2012

*Geosynthetics International* is an official journal of the International Geosynthetics Society and serves the mandate of the society to disseminate important technical developments to its members.

We are delighted to announce the best paper in Volume 19 (2012) based on votes cast by the Editorial Board Members. In this competition the Editor and Editorial Board Chairman were not eligible for this award and did not vote.

The "Best *Geosynthetics International* Paper for 2012" award goes to:

- Chappel, M. J., Rowe, R. K., Brachman, R. W. I. & Take, W. A. (2012). A comparison of geomembrane wrinkles for nine field cases. *Geosynthetics International*, 19, No. 6, 453–469.

The following paper was voted runner-up and thus receives honourable mention as "one of the best papers published in *Geosynthetics International* in 2012":

- Munoz, H., Tatsuoka, F., Hirakawa, D., Nishikiori, H., Soma, R., Tateyama, M. & Watanabe, K. (2012). Dynamic stability of geosynthetic-reinforced soil integral bridge. *Geosynthetics International*, 19, No. 1, 11–38.

We thank the members of the Editorial Board for participating in the best paper selection process and congratulate the authors of these excellent papers. Each paper reflects the high standards of the Journal and is an important contribution to our geosynthetics discipline. All IGS members have free access to these papers.

*Geosynthetics International* is published by Thomas Telford Ltd.

R.J. Bathurst, Editor

J.P. Giroud, Chairman of the Editorial Board

## Content of Volume: 20, Issue: 5 (October 2013)

Prediction of geosynthetic clay liner desiccation in low stress applications, R.K. Rowe; A. Verge

Reinforcement of railway ballasted track with geosynthetic bags for preventing derailment, T. Kachi; M. Kobayashi; M. Seki; J. Koseki

Modeling hydraulic conductivity of a geotextile filter during suspended solids accumulation, C.A. Franks; A.H. Aydilek; A.P. Davis

Using copulas to characterise the dependency of GCL shear strengths, X.Z. Wu

Tensile and hydraulic properties of geosynthetics after mechanical damage and abrasion laboratory tests, A. Rosete; P. Mendonça Lopes; M. Pinho-Lopes; M.L. Lopes

Please find the download of the articles at:

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## Content of Volume: 20, Issue: 6 (December 2013)

Best Geosynthetics International Paper for 2012, R.J. Bathurst; J.P. Giroud

Influence of subgrade strength on the performance of geocell-reinforced foundation systems, A. Biswas; A. Murali Krishna; S.K. Dash

Experimental study of sediment trapping by geotextile mattress installed with sloping curtain, L. Xie; W. Huang; Y. Yu

Influence of woven structure on coir rolled erosion-control products, V.K. Midha; S. Suresh Kumar

A formula to predict the effect of the variable discharge capacity of prefabricated vertical drains, P.J. Venda Oliveira

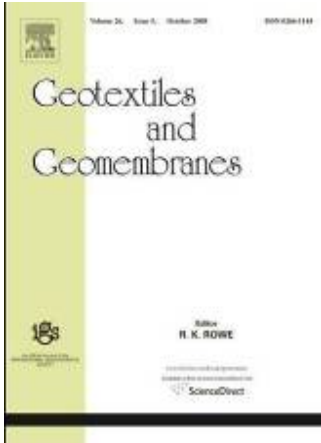
Effect of geosynthetic creep on reinforced pile-supported embankment systems, P. Ariyaratne; D.S. Liyanapathirana; C.J. Leo

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# Geotextiles & Geomembranes



*Geotextiles and Geomembranes* is dedicated to the mission of the IGS, which is to promote the scientific and engineering development of geotextiles, geomembranes, related products, and associated technologies.

The Journal publishes technical papers, technical notes, discussions, and book reviews on all topics relating to geosynthetics, research, behaviour, performance analysis, testing, design, construction methods, case histories, and field experience.

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## Geotextiles and Geomembranes: Best papers in 2012

The high flow of excellent papers being submitted to *Geotextiles and Geomembrane* continues and G&G was again both the highest two-year and five-year impact journal in Geotechnical Engineering with a two-year impact factor for 2012 of 2.159\* and a five-year impact factor of 2.437\* (Journal Citation Reports, published by Thomson Reuters). In the SRJ Rankings we got 3.949 and again were top of class.

Following the Editorial Board meeting held in Yokohama in September 2006 it was decided that it would be desirable to recognise some of the best papers published in *Geotextiles and Geomembranes*. We started with Volume 23 and have selected the Best paper in each subsequent year. This year the Editorial Board were charged with selecting what they considered to be the "Best Paper" published in *Geotextiles and Geomembranes* in 2012. Papers were considered for their contribution to the discipline in terms of providing significant new insights and/or of being of high potential impact on the discipline. All Technical Articles, except those co-authored by the Editor, were eligible. The selection of wining papers was decided based on a vote of the Editorial Board members.

Following a rigorous review of the papers I am pleased announce that the winner for the Best Paper for 2012 was:

- "Model experiments on piled embankments" by S.J.M. van Eekelen, A. Bezuijen, H.J. Lodder and A.F. van Tol, *Geotextiles and Geomembranes*, 32: 69-81.

Two papers were selected for Honourable Mention

- "Sagging and filtration behaviour of nonwoven geotextiles overlying different bedding materials" by Ennio M. Palmeira, Janaina Tatto and Gregorio L.S. Araujo, *Geotextiles and Geomembranes*, 31: 1-14.

and

- “Visualization of soil arching on reinforced embankment with rigid pile foundation using X-ray CT” by T. Eskisar, J. Otani and J. Hironakai, *Geotextiles and Geomembranes*, 32: 44-54.

as runners-up and hence being judged to be amongst the three best papers published in *Geotextiles and Geomembranes* in 2012. Congratulations to all of the authors for their very significant contribution to the geosynthetics discipline.

R. Kerry Rowe  
Editor

### Content of Volume 40 (October 2013)

Editorial Board/Aims & Scope

Permeation of two GCLs with an acidic metal-rich synthetic leachate, Francesco Mazzieri, Gemmina Di Emidio, Evelina Fratolocchi, Marta Di Sante, Erio Pasqualini

Physical modelling of nonwoven/nonwoven GCL shrinkage under simulated field conditions, R. Kerry Rowe, M.T. Rayhani, W.A. Take, G. Siemens, R.W.I. Brachman

A data base, statistics and recommendations regarding 171 failed geosynthetic reinforced mechanically stabilized earth (MSE) walls, Robert M. Koerner, George R. Koerner

Evaluation of the effects of facing stiffness and toe resistance on the behavior of GRS walls, M. Ehrlich, S.H. Mirmoradi

Effect of underliner on geomembrane strains in heap leach applications, R. Kerry Rowe, R.W.I. Brachman, H. Irfan, M.E. Smith, R. Thiel

Analysis of soil-welded steel mesh reinforcement interface interaction by pull-out tests, S.H. Lajevardi, D. Dias, J. Racinais

Calculating local geomembrane indentation strains from measured radial and vertical displacements, R.W.I. Brachman, M.K. Eastman

Buried high-density polyethylene pipe deflections at elevated temperatures, R.P. Krushelnitzky, R.W.I. Brachman

### Content of Volume 41 (December 2013)

Editorial Board/Aims & Scope

Geotextiles and Geomembranes: Best papers in 2012, R. Kerry Rowe

Limit equilibrium analyses of geosynthetic-reinforced two-tiered walls: Calibration from centrifuge tests, Suliman B.A. Mohamed, Kuo-Hsin Yang, Wen-Yi Hung

Comparison of the adhesion and shear tensile strength of needle-punched GCLs, Belén M. Bacas, Elena Blanco-Fernandez, Jorge Cañizal

Improved performance of soft clay foundations using stone columns and geocell-sand mattress, Sujit Kumar Dash, Mukul Chandra Bora

The performance of a sand column internally reinforced with horizontal reinforcement layers, Yung-Shan Hong, Cho-Sen Wu

A practical methodology for the determination of failure envelopes of fiber-reinforced cemented sands, Nilo Cesar Consoli, Bernardo Scapini Consoli, Lucas Festugato

Design and construction of geocell foundation to support the embankment on settled red mud, T.G. Sitharam, A. Hegde

Self healing capacity of geosynthetic clay liners and influencing factors, Kartika Sari, Jinchun Chai

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FIBERWEB GEOSYNTHETICS (TERRAM LTD)	United Kingdom	<a href="mailto:plangley@fiberweb.com">plangley@fiberweb.com</a>	<a href="http://www.fiberweb.com">www.fiberweb.com</a>	1989
FIRESTONE SPECIALTY PRODUCTS COMPANY LLC	USA	<a href="mailto:oliveirapaul@firestonesp.com">oliveirapaul@firestonesp.com</a>	<a href="http://www.firestonesp.com">www.firestonesp.com</a>	2010
FITI TESTING AND RESEARCH INSTITUTE	Korea	<a href="mailto:hogankim@fiti.re.kr">hogankim@fiti.re.kr</a>	<a href="http://www.fiti.re.kr">www.fiti.re.kr</a>	1997
FONTANA INTERNATIONAL GMBH	Austria	<a href="mailto:g.puehringer@fontana-international.com">g.puehringer@fontana-international.com</a>	<a href="http://www.fontana-international.com">www.fontana-international.com</a>	2008
FRITZ LANDOLT AG	Switzerland	<a href="mailto:Joseph.schittly@landolt.com">Joseph.schittly@landolt.com</a>	<a href="http://www.landolt.com">www.landolt.com</a>	1988
GARWARE-WALL ROPES, LTD.	India	<a href="mailto:mvoffice@garwareropes.com">mvoffice@garwareropes.com</a>	<a href="http://www.garwareropes.com">www.garwareropes.com</a>	2006
GAST INTERNATIONAL SA PTY LTD	South Africa	<a href="mailto:kgastjr@gast.co.za">kgastjr@gast.co.za</a>	<a href="http://www.gast.co.za">www.gast.co.za</a>	2012
GEOFABRICS AUSTRALASIA PTY LTD.	Australia	<a href="mailto:b.swifte@geofabrics.com.au">b.swifte@geofabrics.com.au</a>	<a href="http://www.geofabrics.com.au">www.geofabrics.com.au</a>	2009
GEOFABRICS LTD.	United Kingdom	<a href="mailto:gdonald@geofabrics.com">gdonald@geofabrics.com</a>	<a href="http://www.geofabrics.com">www.geofabrics.com</a>	1995
GEOFELT GMBH	Austria	<a href="mailto:geofelt@geofelt.com">geofelt@geofelt.com</a>		1996
GEOMAS	Turkey	<a href="mailto:elifcallan@geomas.com.tr">elifcallan@geomas.com.tr</a>	<a href="http://www.geomas.com.tr">www.geomas.com.tr</a>	2012
GEOPLASTEXTIL SAS	Colombia	<a href="mailto:santiago.giraldo@plastextil.com.co">santiago.giraldo@plastextil.com.co</a>	<a href="http://www.geoplastextil.com">www.geoplastextil.com</a>	2011
GEOPOLIMEROS SAS	Colombia	<a href="mailto:geopolimeroslda@yahoo.com">geopolimeroslda@yahoo.com</a>	<a href="http://www.geopolimeros.net">www.geopolimeros.net</a>	2011
GEOSYNTHETICA.NET (MINERVA)	USA	<a href="mailto:elizabeth@geosynthetica.net">elizabeth@geosynthetica.net</a>	<a href="http://www.geosynthetica.net">www.geosynthetica.net</a>	2006
GEOSYNTHETIC MATERIALS ASSOCIATION (GMA)	USA	<a href="mailto:amaho@ifai.com">amaho@ifai.com</a>	<a href="http://www.ifai.com">www.ifai.com</a>	1988
GEOSYNTHETICS TECHNOLOGIES CO., LTD.	Saudi Arabia	<a href="mailto:geogrid@latifia.com">geogrid@latifia.com</a>		2007
GEOSYSTEM CO. LTD.	Japan	<a href="mailto:m_aoshima@geosystem.co.jp">m_aoshima@geosystem.co.jp</a>	<a href="http://www.geosystem.co.jp">www.geosystem.co.jp</a>	2000
GEOTECHNICAL SYSTEMINDO, PT	Indonesia	<a href="mailto:info@ptgsi.com">info@ptgsi.com</a>	<a href="http://www.ptgsi.com">www.ptgsi.com</a>	2012
GEOTEXAN	Spain	<a href="mailto:jaquilar@geotexan.com">jaquilar@geotexan.com</a>	<a href="http://www.geotexan.com">www.geotexan.com</a>	2009
BONAR GEOSYNTHETICS KFT. (GEO-TIPPTEX LTD.)	Hungary	<a href="mailto:geotipptex@geotipptex.hu">geotipptex@geotipptex.hu</a>	<a href="http://www.geotipptex.hu">www.geotipptex.hu</a>	2010
GIDROKOR CONSTRUCTION COMPANY LTD.	Russia	<a href="mailto:yakovlev@gidrokor.ru">yakovlev@gidrokor.ru</a>	<a href="http://www.gidrokor.ru">www.gidrokor.ru</a>	2004
GLOBAL SYNTHETICS	Australia	<a href="mailto:info@globalsynthetics.com.au">info@globalsynthetics.com.au</a>	<a href="http://www.globalsynthetics.com.au">http://www.globalsynthetics.com.au</a>	2013
GORANTLA GEOSYNTHETICS Pvt Ltd	INDIA	<a href="mailto:praveenkumar@gorantlageos.com">praveenkumar@gorantlageos.com</a> ,	<a href="http://www.gorantlageos.com">www.gorantlageos.com</a>	2013
GRANITE ENVIRONMENTAL, INC.	USA	<a href="mailto:mwilkie@graniteenvironmental.com">mwilkie@graniteenvironmental.com</a>	<a href="http://www.graniteenvironmental.com">www.graniteenvironmental.com</a>	2011

Company Name	Country	Contact Email	Website	Year
GSE LINING TECHNOLOGY GMBH	Germany	<a href="mailto:sbaldauf@gseworld.com">sbaldauf@gseworld.com</a>	<a href="http://www.gseworld.com">www.gseworld.com</a>	2004
GSE LINING TECHNOLOGY, INC.	USA	<a href="mailto:bramsey@gseworld.com">bramsey@gseworld.com</a>	<a href="http://www.gseworld.com">www.gseworld.com</a>	1987
H&R CHEMPHARM (UK) LTD.	United Kingdom	<a href="mailto:Michael.Aerts@hur.com">Michael.Aerts@hur.com</a>	<a href="http://www.hur.com">www.hur.com</a>	2012
HIGH STIFFNESS POLY-ETHYLENE PIPES ASSOCIATION	Japan	<a href="mailto:jouji_hinobayashi@daipla.co.jp">jouji_hinobayashi@daipla.co.jp</a>	<a href="http://www.kotaikyo.jp">www.kotaikyo.jp</a>	2005
HUESKER SYNTHETIC GMBH.	Germany	<a href="mailto:wolfgang.huesker@huesker.de">wolfgang.huesker@huesker.de</a>	<a href="http://www.huesker.de">www.huesker.de</a>	1989
HUI KWANG CORPORATION	Taiwan (R.O.C.)	<a href="mailto:johnnie@huikwang.com">johnnie@huikwang.com</a>	<a href="http://www.huikwang.com">www.huikwang.com</a>	2000
HULS ASIA SDN BHD	Malaysia	<a href="mailto:ragu@hulsmalaysia.com">ragu@hulsmalaysia.com</a>	<a href="http://www.hulsmalaysia.com">www.hulsmalaysia.com</a>	2013
INTEGRATED GEOTECHNOLOGY INSTITUTE	Japan	<a href="mailto:y_tamura@igi.co.jp">y_tamura@igi.co.jp</a>	<a href="http://www.igi.co.jp">www.igi.co.jp</a>	1998
INTERMAS NETS S.A.	Spain	<a href="mailto:csanchez@intermas.com">csanchez@intermas.com</a>	<a href="http://www.intermas.com">www.intermas.com</a>	2008
ISTANBUL TEKNİK INSAAT	Turkey	<a href="mailto:export@istanbulteknik.com">export@istanbulteknik.com</a>	<a href="http://www.istanbulteknik.com">www.istanbulteknik.com</a>	2012
JAPAN SPUNBOND - TORAY CORP.	Japan	<a href="mailto:zz-esaki@unitika.co.jp">zz-esaki@unitika.co.jp</a>		1989
JETSJ - GEOTECNIA, LDA	Portugal	<a href="mailto:apinto@jetsj.pt">apinto@jetsj.pt</a>	<a href="http://www.jetsj.pt">www.jetsj.pt</a>	2010
JOFO ZHAOQING WEBFORMA CO., LTD.	China (People's Republic)	<a href="mailto:denghong@jofo.com.cn">denghong@jofo.com.cn</a>	<a href="http://www.jofo.com.cn">www.jofo.com.cn</a>	2012
JUTA A.S.	Czech Republic	<a href="mailto:vagnerm@juta.cz">vagnerm@juta.cz</a>	<a href="http://www.juta.cz">www.juta.cz</a>	1998
KAJIMA CORPORATION - KAJIMA TECHNICAL RESEARCH INSTITUTE	Japan	<a href="mailto:yt@kajima.com">yt@kajima.com</a>	<a href="http://www.kajima.co.jp">www.kajima.co.jp</a>	1989
KAYTECH ENGINEERED FABRICS	South Africa	<a href="mailto:garth@kaytech.co.za">garth@kaytech.co.za</a>	<a href="http://www.kaytech.co.za">www.kaytech.co.za</a>	2008
KURARAY CO., LTD.	Japan	<a href="mailto:noriko_Kawasima@kuraray.co.jp">noriko_Kawasima@kuraray.co.jp</a>	<a href="http://www.kuraray.co.jp">www.kuraray.co.jp</a>	1989
LABORCONTROL	Spain	<a href="mailto:radia@laborcontrol.es">radia@laborcontrol.es</a>	<a href="http://www.laborcontrol.es">www.laborcontrol.es</a>	2010
LAYFIELD ENVIRONMENTAL SYSTEMS	Canada	<a href="mailto:erangel@layfieldgroup.com">erangel@layfieldgroup.com</a>	<a href="http://www.layfieldgroup.com">www.layfieldgroup.com</a>	2011
MACCAFERRI AUSTRALIA	Australia	<a href="mailto:philball@maccaferri.com.au">philball@maccaferri.com.au</a>	<a href="http://www.maccaferri.com.au">www.maccaferri.com.au</a>	2013
MACCAFERRI (MALAYSIA) SDN BHD	Malaysia	<a href="mailto:mm@maccaferri-asia.com">mm@maccaferri-asia.com</a>	<a href="http://www.maccaferri.com.my">www.maccaferri.com.my</a>	2012
MACCAFERRI DE ARGENTINA S.A.	Argentina	<a href="mailto:info@maccaferri-arg.com.ar">info@maccaferri-arg.com.ar</a>	<a href="http://www.maccaferri-arg.com.ar">www.maccaferri-arg.com.ar</a>	2010
MACCAFERRI DE CENTROAMERICA	Costa Rica	<a href="mailto:sramirez@maccaferri.co.cr">sramirez@maccaferri.co.cr</a>	<a href="http://www.maccaferri.co.cr">www.maccaferri.co.cr</a>	2010
MACCAFERRI DO BRASIL LTDA	Brazil	<a href="mailto:maccaferri@maccaferri.com.br">maccaferri@maccaferri.com.br</a>	<a href="http://www.maccaferri.com.br">www.maccaferri.com.br</a>	1998
MACCAFERRI INDONESIA	Indonesia	<a href="mailto:mi@maccaferri.co.id">mi@maccaferri.co.id</a>	<a href="http://www.maccaferri.co.id">www.maccaferri.co.id</a>	2012
MACCAFERRI NZ LTD.	New Zealand	<a href="mailto:sales@maccaferri.co.nz">sales@maccaferri.co.nz</a>	<a href="http://www.maccaferri.co.nz">www.maccaferri.co.nz</a>	2013
MAEDA KOSEN CO. LTD.	Japan	<a href="mailto:yokota@mdk.co.jp">yokota@mdk.co.jp</a>	<a href="http://www.mdk.co.jp">www.mdk.co.jp</a>	1992
MANIFATTURA FONTANA S.P.A.	Italy	<a href="mailto:info@drefon.com">info@drefon.com</a>	<a href="http://www.manifatturafontana.net">www.manifatturafontana.net</a>	2008
MAPEI S.P.A.	Italy	<a href="mailto:mapei@mapei.it">mapei@mapei.it</a>	<a href="http://www.mapei.com">www.mapei.com</a>	2012
MATTEX GEOSYNTHETICS	United Arab Emirates	<a href="mailto:philippe.g@mattex.com">philippe.g@mattex.com</a>	<a href="http://www.mattex.com">www.mattex.com</a>	2011
MITSUBISHI PLASTICS, INC.	Japan	<a href="mailto:akinaga.takuya@md.mpi.co.jp">akinaga.takuya@md.mpi.co.jp</a>	<a href="http://www.mpi.co.jp">www.mpi.co.jp</a>	1992
MIITSUI CHEMICALS INDUSTRIAL PRODUCTS, INC.	Japan	<a href="mailto:yoko.akana@mitsui-chem.co.jp">yoko.akana@mitsui-chem.co.jp</a>	<a href="http://jp.mitsuichem.com">http://jp.mitsuichem.com</a>	1992
NARVIN GOSTAR PARSIAN	Iran	<a href="mailto:info@ngp-co.com">info@ngp-co.com</a>		2010
NAUE GMBH & CO. KG	Germany	<a href="mailto:kvmaubeuge@naue.com">kvmaubeuge@naue.com</a>	<a href="http://www.naue.com">www.naue.com</a>	1988

Company Name	Country	Contact Email	Website	Year
NEWGRIDS LIMITED.	United Kingdom	<a href="mailto:contact@newgrids.com">contact@newgrids.com</a>	<a href="http://www.newgrids.com">www.newgrids.com</a>	2004
OBAYASHI CORPORATION	Japan	<a href="mailto:takahashi.shinichi@obayashi.co.jp">takahashi.shinichi@obayashi.co.jp</a>	<a href="http://www.obayashi.co.jp">www.obayashi.co.jp</a>	1989
OFFICINE MACCAFERRI S.P.A.	Italy	<a href="mailto:UTP@maccaferri.com">UTP@maccaferri.com</a>	<a href="http://www.maccaferri.com">www.maccaferri.com</a>	1997
OJSC "494 UNR"	Russia	<a href="mailto:unrmarket@prudon.ru">unrmarket@prudon.ru</a>	<a href="http://www.unrhs.com">www.unrhs.com</a>	2003
OKASAN LIVIC CO. LTD.	Japan	<a href="mailto:konami@okasanlivic.co.jp">konami@okasanlivic.co.jp</a>	<a href="http://www.okasanlivic.co.jp">www.okasanlivic.co.jp</a>	1989
PERMATHENE, LTD.	New Zealand	<a href="mailto:mc@permathene.com">mc@permathene.com</a>	<a href="http://www.permathene.com">www.permathene.com</a>	2003
PIETRUCHA	Poland	<a href="mailto:export@pietrucha.pl">export@pietrucha.pl</a>	<a href="http://www.pietrucha.pl">www.pietrucha.pl</a>	2012
PLATIPUS ANCHORS LIMITED	United Kingdom	<a href="mailto:darren@platipus-anchors.com">darren@platipus-anchors.com</a>	<a href="http://www.platipus-anchors.com">www.platipus-anchors.com</a>	2013
POLYTEX S.A.	Peru	<a href="mailto:ejarufe@polytex.cl">ejarufe@polytex.cl</a>	<a href="http://www.polytex.cl">www.polytex.cl</a>	2010
PRESTO PRODUCTS CO-GEOSYSTEMS	USA	<a href="mailto:bill.handlos@prestogeo.com">bill.handlos@prestogeo.com</a>	<a href="http://www.prestogeo.com">www.prestogeo.com</a>	1996
PROPEX INC.	USA	<a href="mailto:Andy.Burran@propexglobal.com">Andy.Burran@propexglobal.com</a>	<a href="http://www.propexus.com">www.propexus.com</a>	1991
PT MULTIBANGUN REKATAMA PATRIA	Indonesia	<a href="mailto:mrpatria@indo.net.id">mrpatria@indo.net.id</a>	<a href="http://www.multibangunpatria.com">www.multibangunpatria.com</a>	2012
PT TETRASA GEOSININDO	Indonesia	<a href="mailto:office@geosinindo.co.id">office@geosinindo.co.id</a>	<a href="http://www.geosinindo.co.id">www.geosinindo.co.id</a>	2010
REINFORCED EARTH COMPANY, THE	USA	<a href="mailto:rbloomfield@reinforcedearth.com">rbloomfield@reinforcedearth.com</a>	<a href="http://www.reinforcedearth.com">www.reinforcedearth.com</a>	1989
RENOLIT IBERICA	Spain	<a href="mailto:esteban.hernandez@renolit.com">esteban.hernandez@renolit.com</a>	<a href="http://www.renolit.com">www.renolit.com</a>	2013
ROWAD INTERNATIONAL GEOSYNTHETICS CO.LTD	Saudi Arabia	<a href="mailto:info@rowadgeo.com">info@rowadgeo.com</a>	<a href="http://www.rowadgeo.com">www.rowadgeo.com</a>	2013
SAGEOS - CTT GROUP	Canada	<a href="mailto:eblond@gcttg.com">eblond@gcttg.com</a>	<a href="http://www.gcttg.com">www.gcttg.com</a>	2012
SAMYANG CORPORATION	Korea	<a href="mailto:juhwan.ahn@samyang.com">juhwan.ahn@samyang.com</a>	<a href="http://www.samyang.com">www.samyang.com</a>	2003
SERVICIOS DE INGENIERIA GEOSINTETICA S.A. (SIGSA)	Costa Rica	<a href="mailto:geosigsa@ice.co.cr">geosigsa@ice.co.cr</a>		2008
SEVEN STATES ENTERPRISE CO., LTD.	Taiwan (R.O.C.)	<a href="mailto:SQUOT@MS33.HINET.NET">SQUOT@MS33.HINET.NET</a>	<a href="http://www.seven-states.com.tw">www.seven-states.com.tw</a>	2005
SHANDONG HOCK MINING ENGINEERING CO. LTD	China (People's Republic)	<a href="mailto:export@sdhock.com">export@sdhock.com</a>	<a href="http://www.sdhock.com">www.sdhock.com</a>	2012
SHENZHEN SHENG YI ENVIRONMENTAL CO., LTD.	China (People's Republic)	<a href="mailto:shengyi@sz-shengyi.com">shengyi@sz-shengyi.com</a>	<a href="http://www.sz-shengyi.com">www.sz-shengyi.com</a>	2002
SIVER UNE 104	Spain	<a href="mailto:calidad@siverune104.com">calidad@siverune104.com</a>	<a href="http://www.siverune104.com">www.siverune104.com</a>	2011
SIPLAST ICOPAL	France	<a href="mailto:frppy@icopal.com">frppy@icopal.com</a>	<a href="http://www.siplast-international.com/">www.siplast-international.com/</a>	2013
SKZ-GERMAN PLASTICS CENTER	Germany	<a href="mailto:h.zanzinger@skz.de">h.zanzinger@skz.de</a>	<a href="http://www.skz.de">www.skz.de</a>	2012
SOLMAX INTERNATIONAL, INC.	Canada	<a href="mailto:dberube@solmax.com">dberube@solmax.com</a>	<a href="http://www.solmax.com">www.solmax.com</a>	1997
SOLMAX INTERNATIONAL ASIA PACIFIC SDN. BHD.	Malaysia	<a href="mailto:dtan@solmax.com">dtan@solmax.com</a>		2013
SOTRAFA, S.A.	Spain	<a href="mailto:construccion@sotrafa.com">construccion@sotrafa.com</a>	<a href="http://www.sotrafa.com">www.sotrafa.com</a>	2009
STEKLONIT MANAGEMENT, LLC	Russia	<a href="mailto:e.krashenin@steklonit.com">e.krashenin@steklonit.com</a>	<a href="http://www.steklonit.com">www.steklonit.com</a>	2011
STRATA	USA	<a href="mailto:lstocker@geogrid.com">lstocker@geogrid.com</a>	<a href="http://www.geogrid.com">www.geogrid.com</a>	2012
SWISS ASSOCIATION FOR GEOSYNTHETICS SVG	Switzerland	<a href="mailto:Martin.stolz@bfh.ch">Martin.stolz@bfh.ch</a>	<a href="http://www.geotex.ch">http://www.geotex.ch</a>	1989
TAIAN MODERN PLASTIC CO., LTD	China (People's Republic)	<a href="mailto:info@tmpgeosynthetics.com">info@tmpgeosynthetics.com</a>	<a href="http://www.tamodern.com">www.tamodern.com</a>	2012
TAIYO KOGYO CORPORATION (SUN)	Japan	<a href="mailto:MT001304@mb.taiyokogyo.co.jp">MT001304@mb.taiyokogyo.co.jp</a>	<a href="http://www.taiyokogyo.co.jp">www.taiyokogyo.co.jp</a>	1991
TECHFAB INDIA INDUSTRIES LTD.	India	<a href="mailto:anant@techfabindia.com">anant@techfabindia.com</a>	<a href="http://www.techfabindia.com">www.techfabindia.com</a>	2008
TECNOLOGIA DE MATERIALES	Peru	<a href="mailto:contactenosperu@tdm.com.pe">contactenosperu@tdm.com.pe</a>	<a href="http://www.tdm.com.pe">www.tdm.com.pe</a>	2010

Company Name	Country	Contact Email	Website	Year
ALS S. A.				
TEKNINDO GEOSISTEM UNGGUL, PT	Indonesia	<a href="mailto:info@geosistem.co.id">info@geosistem.co.id</a>	<a href="http://www.geosistem.co.id">www.geosistem.co.id</a>	2009
TEMA TECHNOLOGIES AND MATERIALS SRL	Italy	<a href="mailto:nico-la.busatta@temacorporation.com">nico-la.busatta@temacorporation.com</a>	<a href="http://www.temacorporation.com">www.temacorporation.com</a>	2006
TENAX S.P.A.	Italy	<a href="mailto:mariangela.motta@tenax.net">mariangela.motta@tenax.net</a>	<a href="http://www.tenax.net">www.tenax.net</a>	1991
TENCATE GEOSYNTHETICS EUROPE GMBH	Austria	<a href="mailto:j.gruber@tencate.com">j.gruber@tencate.com</a>	<a href="http://www.tencate.com">www.tencate.com</a>	1988
TENCATE GEOSYNTHETICS NORTH AMERICA	USA	<a href="mailto:j.henderson@tencate.com">j.henderson@tencate.com</a>	<a href="http://www.tencate.com">www.tencate.com</a>	1998
TENSAR GEOSYNTHETICS (CHINA) LTD.	China (People's Republic)	<a href="mailto:David@tensar.com.cn">David@tensar.com.cn</a>	<a href="http://www.tensar.com.cn">www.tensar.com.cn</a>	2004
TENSAR INTERNATIONAL CORPORATION	USA	<a href="mailto:jcavanaugh@tensarcorp.com">jcavanaugh@tensarcorp.com</a>	<a href="http://www.tensarcorp.com">www.tensarcorp.com</a>	1989
TENSAR INTERNATIONAL LIMITED	United Kingdom	<a href="mailto:ifraser@tensar.co.uk">ifraser@tensar.co.uk</a>	<a href="http://www.tensar.co.uk">www.tensar.co.uk</a>	1989
TERRE ARMÉE INTERNATIONALE	France	<a href="mailto:nicolas.freitag@terre-armee.com">nicolas.freitag@terre-armee.com</a>	<a href="http://www.terre-armee.com">www.terre-armee.com</a>	2002
TESSILBRENTA SRL	Italy	<a href="mailto:antonio.perissinotto@tessilbrenta.com">antonio.perissinotto@tessilbrenta.com</a>	<a href="http://www.tessilbrenta.it">www.tessilbrenta.it</a>	2012
TEXOFIB	Saudi Arabia	<a href="mailto:ctc@ctcltd.com">ctc@ctcltd.com</a>	<a href="http://www.texofib.com">www.texofib.com</a>	2012
TEXINOV	France	<a href="mailto:jpducol@texinov.fr">jpducol@texinov.fr</a>	<a href="http://www.texinov.fr">www.texinov.fr</a>	2007
THRACE NONWOVENS & GEOSYNTHETICS	Greece	<a href="mailto:papagiannis@thraceplastics.gr">papagiannis@thraceplastics.gr</a>	<a href="http://www.thraceplastics.gr">www.thraceplastics.gr</a>	2010
TOKYO PRINTING INK MFG.CO.LTD.	Japan	<a href="mailto:dobokugijyutu@tokyoink.co.jp">dobokugijyutu@tokyoink.co.jp</a>	<a href="http://www.tokyoink.co.jp">www.tokyoink.co.jp</a>	2005
TOKYU CONSTRUCTION CO. LTD.	Japan	<a href="mailto:tomita.yuuichi@tokyu-cnst.co.jp">tomita.yuuichi@tokyu-cnst.co.jp</a>	<a href="http://www.tokyu-cnst.co.jp">www.tokyu-cnst.co.jp</a>	1989
TRI/ENVIRONMENTAL INC.	USA	<a href="mailto:sallen@tri-env.com">sallen@tri-env.com</a>	<a href="http://www.tri-env.com">www.tri-env.com</a>	2008
URETEK	Italy	<a href="mailto:alberto.paschetto@uretek.it">alberto.paschetto@uretek.it</a>	<a href="http://www.uretek.it">www.uretek.it</a>	2012
VIGANÒ PAVITEX S.P.A.	Italy	<a href="mailto:m.resmini@pavitex.com">m.resmini@pavitex.com</a>	<a href="http://www.pavitex.com">www.pavitex.com</a>	2006
YIXING SHENZHOU EARTH WORKING MATERIAL CO., LTD.	China (People's Republic)	<a href="mailto:sz.geosynthetics@gmail.com">sz.geosynthetics@gmail.com</a>	<a href="http://www.geogrid-cn.com">www.geogrid-cn.com</a>	2011

Notes:

- The corporate members are encouraged to check their entry there!
- Date is earliest year of continuous membership

# Corporate Profile – Siplast

IGS Corporate Members are encouraged to publish a Corporate Profile in IGS News. The criteria for the preparation and submission of Corporate Profiles are available from the Editor. There is no charge for having a Corporate Profile published; it is a benefit of corporate membership.



Morwell Main Drain rehabilitation  
- Australia -



Gardhaia natural sewage treatment  
- Algeria -



Millau Viaduct Bridge  
- France -

## About Siplast

Siplast is a member of the ICOPAL Group, World reference in waterproofing technology for roofing and civil works. Siplast has been a forerunner in the waterproofing sector for more than 50 years, designing, manufacturing and marketing waterproofing technology for civil engineering applications such as hydraulic works (pounds, canal lining, waste water management), landfills (waste containment, tailing and leachate containment), road bridges, railways bridges, underground structures, drainage.

## Teranap TP geomembrane

Siplast offers a complete range of geosynthetics (geomembranes, drainage & protection layers) and provides support to installers and contracting firms designing reliable and long lasting water-tight systems.

The company launched the elastomeric bitumen geomembrane Teranap TP in 1975, targeting hydraulic works (dams, canals or pounds).

Millions of sqm of Teranap TP have been installed worldwide ever since, and the

range has evolved to always adapt to new technical and environmental constraints.

## Teranap TP range

Teranap 231 TP, Teranap 331 TP, Teranap 431 TP, Teranap 531 TP and Teranap 631 TP with different thicknesses (from 2,5 mm to 5,6 mm), in 2 m or 4 m wide.

## Fields of uses

◊ **Hydraulic works:** water retention installations such as irrigation works, dams, drinking water reservoirs, basins and ponds.

◊ **Mining and Environmental Protection Solutions:** mining waste deposits (tailings, leachates), sewage treatment, landfill sites, industrial and agricultural waste storage.

◊ **Transportation infrastructures:** waterproofing of bridge-decks for road and railway new works and renovations.

◊ **Tanking and Underground Works:** protection of underground walls against the action of water and damp.

◊ **Cut & Cover waterproofing:** waterproofing of tunnels.

## Teranap TP properties

- ☞ Very high resistance to puncturing: the geomembrane can be laid on a substrate which is not specially prepared.
- ☞ Elongation and flexibility thanks to the elastomeric bituminous blend.
- ☞ Excellent resistance to ageing when UV exposed: resistance to high differences of temperatures and severe climatic conditions, even for unprotected applications.
- ☞ Adapted to any kind of support design and differential settlements thanks to SBS modified bitumen elasticity properties.
- ☞ No thermal expansion and easy anchoring and joining to concrete structures.
- ☞ High resistance to hydrostatic pressure.
- ☞ High level of mechanical properties.
- ☞ High friction angle thanks to sanded surface.
- ☞ Excellent chemical resistance.
- ☞ Not sensitive to climatic conditions during installation.

## International technical certificates

- ◊ Asqual certificate (France).
- ◊ Avis technique (France).
- ◊ BBA Certificate.
- ◊ NSF drinking water certificate.
- ◊ ASTM compliant.
- ◊ EN compliant.

Teranap TP is a geomembrane manufactured from SBS elastomeric bitumen reinforced with a non-woven polyester geotextile. The underside, covered with a polyester film, is highly resistant to root penetration. The surface is coated with silica sand.



\*It is possible to strengthen one or several characteristics of Teranap TP, by bonding an anti-puncturing or a drainage geotextile, UV-stabilised: Teranap GTX.

## Siplast contact details:

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[www.siplast-international.com](http://www.siplast-international.com)

An Icopal Group Company

# Corporate Profile – Geosynthetic Materials Association

IGS Corporate Members are encouraged to publish a Corporate Profile in IGS News. The criteria for the preparation and submission of Corporate Profiles are available from the Editor. There is no charge for having a Corporate Profile published; it is a benefit of corporate membership.

## Geosynthetic Materials Association (GMA)

The Geosynthetic Materials Association (GMA), a division of the Industrial Fabrics Association International (IFAI) is the central resource for information on geosynthetic products. GMA provides a forum for consistent and accurate information to increase acceptance and promote the correct use of geosynthetic products. Representing nearly 80 member companies and dedicated to their success, GMA actively identifies, assesses, analyzes and acts upon market growth opportunities and issues that affect its members.



GMA's activities center on five areas:

- **Engineering Support:** GMA offers a wide variety of studies and other research materials, including the educational series on Canal Lining with Geosynthetics.
- **Business Development:** GMA publishes the annual Geosynthetic Market Report in the U.S. and Canada, which measures production of geosynthetics by major product types, such as geotextiles, geotextile tubes, geogrids, geosynthetic drainage composites and geomembranes. This annual report is available for purchase at IFAI's bookstore at <http://www.ifai.com/bookstore>.
- **Education:** GMA provides a wealth of resources on the geosynthetic industry through reports from industry groups and associations, research projects and other educational material. Partnering with the North American Geosynthetics Society (NAGS), GMA also hosts a series of short courses around the United States.
- **Government Relations:** GMA has a robust government relations program to educate and promote the use of geosynthetic products on roadway and other construction applications. GMA members visit the U.S. Capitol Hill twice a year to advocate on behalf of the entire geosynthetic industry. Additional advocacy is also conducted on a state and local level to further promote and expand the use of geosynthetic materials.
- **Industry Promotion:** GMA produces promotional materials to provide its members and the public with generic information about geosynthetic materials and their applications.

GMA is also the proud organizer of the biennial Geosynthetics conference, a must-attend event for the geotechnical, civil and geo-environmental communities. The conference is complete with full educational components featuring informative technical sessions and thought-provoking keynote speakers, as well as a robust show floor showcasing the newest developments in geotechnical engineering technologies. Industry experts from across the globe gather to network, attend the educational sessions, participate in short courses and walk the packed conference floor. The next Geosynthetics conference will be on Sun. February 15 – Wed. February 18, 2015 in Portland, Ore. at the Oregon Convention Center, co-locating with the International Erosion Control Association's (IECA) annual Environmental Connection Show. Visit [www.geosyntheticsconference.com](http://www.geosyntheticsconference.com).

In addition to these activities, GMA's official publication, Geosynthetics, provides timely and accurate industry information about geosynthetic products, applications and services. Visit [www.geosyntheticsmagazine.com](http://www.geosyntheticsmagazine.com).

GMA membership is open to any company interested in this niche marketplace. Join today by visiting <http://www.ifai.com/membership> or visit <http://www.gmanow.com> to learn more about GMA.

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# Corporate Profile – Exeed Geotextile LLC

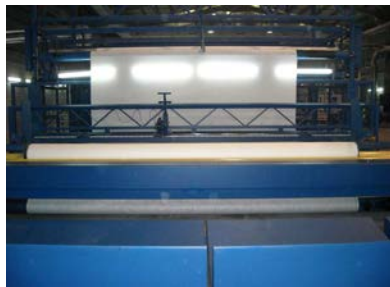
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As the industrial arm of National Holding, Exeed Industries LLC is a diversified and specialized manufacturing industrial company, consisting of fifteen entities, spanning building materials and fibers, agriculture business and international investments.

**Exeed Geotextile LLC** is a subsidiary of Exeed Industries LLC, located in the Industrial City of Abu Dhabi (ICAD 1) in the United Arab Emirates. Under the brand name PrimeGeotextile, we manufacture Polypropylene and Polyester needle punched nonwoven Geotextiles and Polypropylene staple fibers for the use in the infrastructure and construction sector, waterproofing and carpet industry.

The only manufacturer in the UAE, Exeed Geotextile LLC commenced operation in February 2009 with a max. production capacity of 12,000 t of staple fibers and 6,000 t/a geotextiles.



A state of the art facility that operates production equipment from Europe and with an in-house testing laboratory, in addition ZonesCorp EHS and ISO 9001 – 2008 certified.

Geotextiles are the most cost-effective tools for all geotechnical applications.

Exeed Geotextile L.L.C. produces both, Polypropylene and Polyester based Geotextile fabrics, 90 gsm to 1200 gsm; geotextile product range width up to 6m.

All products are UV stabilized. Product quality is established on the basis of internationally accepted test standards like ASTM or its compatible ISO/EN standards.

Below is a partial list of our local projects, feel free contact us for any references you may like for your type of Geotextile application.

Project	Location
Sadiyat Island	Abu Dhabi/UAE
Sheikh Zayed Bridge	Abu Dhabi/UAE
Khalifa Port	Abu Dhabi/UAE
Al Raha Beach	Abu Dhabi/UAE
Bloom Gardens	Abu Dhabi/UAE
Al Raha Beach	Abu Dhabi/UAE
Al Dabiya Break Water	Abu Dhabi/UAE
Yankel Road Project	Oman
Coastal Road Phase II	Oman



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# Corporate Profile – SOLMAX

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# SOLMAX

Covering the world. **Protecting the earth.**

Solmax is a worldwide leader in the manufacturing of PE geomembranes and offers both containment and fluid transportation solutions including HDPE pipes, valves, fittings and accessories. Manufactured from Canada, Malaysia and Chile, its products are sold in over 60 countries and are used by the biggest names in the mining, petroleum, waste management, water, and civil engineering sectors. Solmax products are vital in protecting soils from contamination in applications as critical as the landfills of the world's most populated cities to the tailings or heap leach pads of mines operating in environmentally fragile ecosystems.

### HDPE, LLDPE, PVC

Standard material exceeding GRI-GM standards

### Reflective geomembranes

White colored material for on-site benefits and increased longevity in harsh conditions

### Premium geomembranes

Enhanced durability material

### Conductive liner

Electrically conductive material for enhanced quality control



[SOLMAX.COM](http://SOLMAX.COM)

CANADA - MALAYSIA - CHILE - CHINA - SOUTH AFRICA - FRANCE - INDIA

# Corporate Profile – EUROIZOL

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## GEOSYNTHETICS

**EUROIZOL Geosynthetics is one of the largest and fastest growing companies that performs the full range of research, design and supervision works in the field of application of geosynthetic materials being a leading supplier of such products.**

**Wide range of products of Euroizol Geosynthetics is represented with the following materials:**

- ✓ Nonwoven geotextiles: Typar® SF thermally bonded geotextile and Tiptex® BS, B needle-punched geotextile
- ✓ Kortex® GT, GTPP woven geotextile
- ✓ Geogrids: Armatex® G, M knitted geogrid, Tenax® TT uniaxial rigid grids and Tenax® LBO biaxial grids
- ✓ Armatex® RSR, RSM composite for reinforcement of asphalt pavements
- ✓ Geomembranes: Xavan® three-layer membrane, Geosvit® HDPE and Geosvit® LDPE
- ✓ ИЗОЛИТ® drainage membrane
- ✓ Enkadrain® drainage composite
- ✓ Edilmodulo® and Geobent® bentonite mats
- ✓ Erosion control mats: Enkamat® polyamide geomat and Jutenon® natural geomat
- ✓ Geosvit® Tube geotextile geotubes
- ✓ Gabions

### **What we do:**

- We offer engineering approach to solving various construction and design problems with application of geosynthetics in transportation, civil engineering, hydraulic engineering, environmental and landscape areas;
- designing of objects in complicated geological conditions;
- visual and instrumental inspection of facilities;
- laboratory testing of soils and materials;
- assessment of object actual state according to the results of construction;
- supervision installation of geosynthetics;
- developing recommendations for object maintenance, its maintenance and renovation strategy;
- performance of certain installation and construction works;
- development of regulatory documents.

### **So far we have developed the following regulatory documents:**

- ✓ Branch construction norms VBN B.2.3-218-544: 2008 "Geosynthetic Materials in Road Construction",
- ✓ Standards of the Organization of Ukraine SOU 45.2-00018112-025:2007 "Geosynthetic Materials. Test Methods",
- ✓ Manual on designing subgrade and road pavements with application of geosynthetic materials",
- ✓ Evaluation guidelines MR B.2.3-218-24729256: 2009 "Synthetic Materials for Asphalt Concrete Reinforcement. Test Methods"
- ✓ Standards of Ukraine DSTU 7372:2013 "Geotextile and Geotextile Related Products. Necessary Characteristics for Application in Drainage Systems» (EN 13252:2000, MOD),
- ✓ Amendment No. 3 to VBN B.2.3-218-186: 2004 "Non-rigid Type Road Pavements"

### **Due to automated calculation systems and software our specialists perform the following calculations:**

- Calculation of slope stability and reinforcement of high embankments, reinforced ground retaining walls and dams, embankments and dams on weak base;
- Calculation of temporary road construction on weak base;
- Calculation of non-rigid and rigid types of pavement structure;
- Design and calculation of stability of gabion retaining wall;
- Calculation of embankment settlement on weak base and time of consolidation;
- Calculation of structures with corrugated metal structures;
- Calculation of drainage and dewatering systems;
- Development of vertical leveling of territory;
- Development of cartograms on soil shifting;
- Calculation of structural safety of billboards;
- Development of horizontal alignment, its longitudinal and cross-sections;
- Evaluation for erosion protection;
- Calculation of railway roadbed stability;
- Calculation of roadbed structure of runway.

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**Visit the IGS Website:**

[www.geosyntheticssociety.org](http://www.geosyntheticssociety.org)

**IGS MEMBERSHIP REQUIRES ELECTRONIC COMMUNICATION –  
PLEASE ENSURE WE HAVE YOUR CURRENT E-MAIL ADDRESS!**



The International Geosynthetics Society was formed with the following objectives:

- to collect, evaluate, and disseminate knowledge on all matters relevant to geotextiles, geomembranes, related products, and associated technologies;
- to improve communication and understanding regarding geotextiles, geomembranes, related products, and associated technologies, as well as their applications;
- to promote advancement of the state of the art of geotextiles, geomembranes, related products, and associated technologies; and
- to encourage, through its Members, the harmonization of test methods, and equipment and criteria for geotextiles, geomembranes, related products, and associated technologies.

### WHY BECOME A MEMBER OF THE IGS?

#### First, to contribute to the development of our profession.

By becoming an IGS Member you can:

- help support the aims of the IGS, especially the development of geotextiles, geomembranes, related products, and associated technologies;
- contribute to the advancement of the art and science of geotextiles, geomembranes, related products, and their applications;
- provide a forum for designers, manufacturers, and users, where new ideas can be exchanged and contacts improved; and
- become increasingly informed, involved, and influential in the field of geotextiles, geomembranes, related products, and associated technologies.

#### Second, to enjoy the benefits.

The following benefits are now available to all IGS Members:

- the online IGS Membership Directory, updated in real time;
- the newsletter, IGS News, published three times per year;
- free electronic issues of Geosynthetics International and Geotextiles & Geomembranes;
- 19 IGS Mini Lecture Series are available online;
- information on test methods and standards;
- discount rates on the purchase of any future documents published by the IGS and on the registration cost of all international, regional, or national conferences organized by or under IGS auspices;
- preferential treatment at conferences organized by or under the auspices of the IGS; and
- the possibility of being granted an IGS award.

Please check whether there is a local IGS Chapter in your country (list at page 20)!

Otherwise please use the online form at <http://www.geosyntheticssociety.org> or the following

## IGS Membership Application

Membership of the Society is open to Individuals or Corporations "...engaged in, or associated with, the research, development, teaching, design, manufacture or use of geotextiles, geomembranes and related products or systems and their applications, or otherwise interested in such matters." The annual fee for membership is (US) \$45 for Individual Members and (US) \$1000 for Corporate Members. Individuals or Corporations who voluntarily contribute a minimum of (US) \$200 annually to the Society, in excess of

their membership dues, will be mentioned in the IGS Membership Directory in a separate list as benefactors.

Send this completed form to:

The International Geosynthetics Society, 1934 Commerce Lane, Suite #4, Jupiter, FL 33458, USA

TEL: +1.561.768.9489 FAX: +1.561.828.7618

Email: [IGSsec@geosyntheticssociety.org](mailto:IGSsec@geosyntheticssociety.org)

Attach your business card or fill in your address (print or type if possible), as you wish it to appear in the next IGS Membership Directory.

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Company, Division, Function (if applicable): \_\_\_\_\_

Eligibility (connection with geotextiles, geomembranes, related products or associated technologies): \_\_\_\_\_

Position/Title: \_\_\_\_\_

Keyword (up to 25): \_\_\_\_\_

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## Calendar of Events

Event	Location	Date	E-Mail, Website
8 <sup>th</sup> International Conference on Physical Modelling in Geotechnics 2014 (ICPMG)	Perth, Western Australia, Australia	14 - 17 Jan 2014	<a href="mailto:icpmg2014@arinex.com.au">icpmg2014@arinex.com.au</a> <a href="http://icpmg2014.com.au/">http://icpmg2014.com.au/</a>
GeoShanghai 2014	Shanghai, China	26 - 28 May 2014	<a href="mailto:xzhang11@alaska.edu">xzhang11@alaska.edu</a> <a href="http://www.geoshanghai2014.org">www.geoshanghai2014.org</a>
8 <sup>th</sup> European Conference on Numerical Methods in Geotechnical Engineering (NUMGE14)	Delft, Netherlands, The	18 - 20 Jun 2014	<a href="mailto:info@numge2014.org">info@numge2014.org</a> <a href="http://www.numge2014.org">www.numge2014.org</a>
Geohubei International Conference 2014	Hubei, China	20 - 22 Jul 2014	<a href="mailto:GEOHUBEI.ADM@GMAIL.COM">GEOHUBEI.ADM@GMAIL.COM</a> <a href="http://geohubei2014.geoconf.org">http://geohubei2014.geoconf.org</a>
2 <sup>nd</sup> International Conference on Information Technology in Geo-Engineering	Durham, United Kingdom	21 - 22 July 2014	<a href="mailto:icitg@duram.ac.uk">icitg@duram.ac.uk</a> <a href="http://www.icitg.dur.ac.uk">www.icitg.dur.ac.uk</a>
TC204 ISSMGE International Symposium on "Geotechnical Aspects of Underground Construction in Soft Ground" - IS-Seoul 2014	Seoul, Korea	25 - 27 Aug 2014	<a href="mailto:csyoo@skku.edu">csyoo@skku.edu</a>
International Symposium on Geomechanics from Micro to Macro (TC105)	Cambridge, United Kingdom	01 - 03 Sep 2014	<a href="mailto:ks207@cam.ac.uk">ks207@cam.ac.uk</a>
XV Danube-European Conference on Geotechnical Engineering	Vienna, Austria	09 - 11 Sep 2014	<a href="mailto:igb@tuwien.ac.at">igb@tuwien.ac.at</a> <a href="http://www.decge2014.at">http://www.decge2014.at</a>
<b>10<sup>th</sup> International Conference on Geosynthetics (10ICG)</b>	Berlin, Germany	21 – 25 Sep 2014	<a href="mailto:g.braeu@bv.tum.de">g.braeu@bv.tum.de</a> <a href="http://www.10icg-berlin.com">www.10icg-berlin.com</a>
<b>33<sup>rd</sup> Baugrundtagung with Exhibition „Geotechnik“</b>	Berlin, Germany	23 – 26 Sep 2014	<a href="http://www.dggt.de">www.dggt.de</a>
<b>7<sup>th</sup> International Congress on Environmental Geotechnics</b>	Melbourne, Australia	10 – 14 Nov 2014	<a href="http://www.7icceg2014.com">www.7icceg2014.com</a>
7th International Conference on Scour and Erosion (ICSE-7)	Perth, Western Australia	02 – 04 Dec 2014	<a href="http://www.2014icse.com/index.html">www.2014icse.com/index.html</a>
12 <sup>th</sup> Australia and New Zealand Conference on Geomechanics–The Changing Face of the Earth: Geo-Processes & Human Accelerations	Wellington, New Zealand	22 - 25 Feb 2015	<a href="mailto:secretary@nzgs.org">secretary@nzgs.org</a>
<b>10<sup>th</sup> Rencontres Géosynthétiques</b>	<b>La Rochelle, France</b>	<b>24 - 26 March 2015</b>	<a href="http://www.rencontresgeosynthetiques.org">www.rencontresgeosynthetiques.org</a>
XVI African Regional Conference on Soil Mechanics and Geotechnical Engineering- Innovative Geotechnics for Africa	Hammamet, Tunisia	27.- 30 April 2015	<a href="mailto:mehrez.khemakhem@gmail.com">mehrez.khemakhem@gmail.com</a> <a href="http://www.16cramsg.org">www.16cramsg.org</a>
ISFOG 2015	Oslo, Norway	10 - 12 Jun 2015	<a href="mailto:isfog2015@ngi.no">isfog2015@ngi.no</a> <a href="http://www.isfog2015.no">www.isfog2015.no</a>
XVI European Conference on Soil Mechanics and Geotechnical Engineering	Edinburgh, Scotland, United Kingdom	13 - 17 Sep 2015	<a href="mailto:derek_smith@coffey.com">derek_smith@coffey.com</a> <a href="http://www.xvi-ecsmge-2015.org.uk">www.xvi-ecsmge-2015.org.uk</a>
Workshop on Volcanic Rocks & Soils	Isle of Ischia, Italy	24 - 25 Sep 2015	<a href="mailto:agi@associazionegeotecnica.it">agi@associazionegeotecnica.it</a> <a href="http://www.associazionegeotecnica.it">www.associazionegeotecnica.it</a>
15 <sup>th</sup> Pan-American Conference on Soil Mechanics and Geotechnical Engineering	Buenos Aires, Argentina	4 - 8 Oct 2015	<a href="mailto:panamericano2015@saig.org.ar">panamericano2015@saig.org.ar</a>
The 15th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering - New Innovations and Sustainability	Fukuoka, Kyushu, Japan	9 - 13 Nov 2015	<a href="mailto:15tharc@kumamoto-u.a.c.jp">15tharc@kumamoto-u.a.c.jp</a> <a href="http://www.iqskyushu.net/uploads/15ARC/">http://www.iqskyushu.net/uploads/15ARC/</a>
NGM 2016, The Nordic Geotechnical Meeting	Reykjavik, Iceland	25 - 28 May 2016	<a href="mailto:has@vegagerdin.is">has@vegagerdin.is</a>

Event	Location	Date	E-Mail, Website
3 <sup>rd</sup> PanAmerican Regional Conference on Geosynthetics	Miami South Beach, USA	11 - 14 Apr 2016	<a href="mailto:NAGSDirector05@gmail.com">NAGSDirector05@gmail.com</a> <a href="mailto:epiggs@minervatri.com">epiggs@minervatri.com</a>
EuroGeo 6 – European Regional Conference on Geosynthetics	Istanbul, Turkey	25 – 29 Sep 2016	<a href="mailto:eguler@boun.edu.tr">eguler@boun.edu.tr</a>
6 <sup>th</sup> Asian Regional Conference on Geosynthetics	New Delhi, India	8 - 11 Nov 2016	<a href="mailto:uday@cbip.org">uday@cbip.org</a>
<b>11<sup>th</sup> International Conference on Geosynthetics (11ICG)</b>	Seoul South Korea	16 - 20 Sep 2018	<a href="mailto:csyoo@skku.edu">csyoo@skku.edu</a>

Note:

The conference announcements are shown with different graphics due to their priority for IGS:

<b>IGS Conference</b>	<b>Conference organized under the auspices of the IGS</b>	<b>Conference under the auspices or with the support of an IGS Chapter</b>
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