

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



Fumio Tatsuoka

This summer and fall, several trips abroad kept me very busy again: i.e., to Cape Town for GeoAfrica and IGS meetings in the beginning of September, to Alexandria for the ISSMGE council meeting and 17th ICSMGE, to Bologna for 22nd Italian National Geosynthetic Conference on: *Guidelines and design approach for geosynthetic-reinforced soil structures in seismic areas*, 28th Oct. 2009; and to Taiwan for a geosynthetic conference (4th GSI Taiwan Conference) in National Pingtung University of Science and Technology. My lecture for this important Italian Conference on “*Seismic behaviour of geosynthetic-reinforced structures: lessons from recent earthquakes and design approaches*”, had the following three topics:

- “*Lessons from recent earthquakes and laboratory shaking table tests*” to show: a) much higher performance of geosynthetic-reinforced soil (GRS) retaining walls (RWs) than conventional type RWs and embankments; and b) significant importance of facing rigidity, high connection strength, good drainage and good backfill compaction for high seismic performance.
- “*Recent seismic design code for Japanese railway structures*” developed by introducing the following new concepts and procedures: a) very high design seismic loads

(i.e., level 2), as those experienced during the 1995 Kobe Earthquake; b) design against level 2 based on residual displacement; c) the use of both peak and residual shear strengths with well-compacted backfill; d) design based on the limit equilibrium stability analysis; e) control to high backfill compaction and good drainage; f) strong recommendation of GRS structures as highly earthquake-resistant soil structures; and g) no creep reduction to obtain the design tensile strength of geosynthetic reinforcement. When following this design code, engineers naturally choose GRS structures.

- “*Applications of Geosynthetic Technology to bridge abutments*”, about: a) a new type placing a girder on the top of the full-height rigid (FHR) facing of GRS RWs, which is now standardized, employed at many sites; and b) the latest type, called the GRS integral bridge, comprising a continuous girder integrated to the top of FHR facing of the GRS RW.

I found that these topics are very interesting to our Italian colleagues as Italy is among highly seismic countries.

For the last three and a half years, I was invited to deliver technical keynote or special lectures on *Geosynthetic Engineering* at international or domestic conferences, symposia in the UK, Germany, Italy, Mexico, the USA, India, Thailand, China, Taiwan, Hong Kong, Korea, Indonesia, Kazakhstan, Egypt, ... I accepted

these invitations considering as the IGS President that the IGS is a learned society. That is, by presenting relevant technical lectures, the IGS President can advocate for the IGS as well as for *Geosynthetic Engineering* among engineers, researchers, administrators, students, ..., in particular among young generations and in regions that are new to geosynthetic. For me, these lecturing trips are therefore really enjoyable. In an evening 1979 at the University of Illinois at Chicago Circle, for the first time, I heard a lecture about *Geosynthetic Engineering*. It was for about one hour by Dr Giroud. Of course, he did not recognize at all one unknown young person who was visiting the university, sitting in the back corner of the lecture room but trying to absorb all new knowledge and information (I was at the age of 33!). I was introduced with a good surprise into this new world by that his lecture. I still remember very well a number of his impressive slides showing construction sites in France using geosynthetic in many new ways. Without listening to that his lecture, I never started my research on *Geosynthetic Engineering* after I returned to Japan and so I never became the IGS President. I have been feeling that the IGS President is requested to have not only a strong leadership in running the IGS but also relevant perspective and views on *Geosynthetic Engineering*. I believe that these two qualifications are the spirit of the founding President, Dr. J.P. Giroud. I should admit however that they have been very difficult tasks for me.

Fumio Tatsuoka
IGS President

IGS in the Americas




**Jorge
Zornberg**


The Americas have played an important role in the history of geosynthetics and of the IGS. A significant portion of the materials, testing methods and design approaches we currently use in geosynthetics engineering have their origins in the New World. Yet, it is only very recently that "The Americas" became a region in the eyes of the IGS. It is true that for years the US and Canada have been organizing excellent and very well attended technical conferences, and that Brazil has been leading the Latin American geosynthetics market through innovation and well organized events, and that Peru has been coordinating highly unique educational geosynthetic initiatives. Yet, we did not work with each other that much. True synergy developed with the planning and execution of GeoAmericas 2008. That collaboration has triggered a series of initiatives that are now leading to a better understanding of the benefits of geosynthetics in many countries of this region. To begin with, three new IGS Chapters have been recently created (Mexico, Chile, Argentina). Also, new communications channels have been established among new and existing chapters. Finally, a country in the region has taken on the challenge of organizing the very first International Geosynthetics Conference in the southern Hemisphere (please continue reading, this event is covered towards the end of this article). This is good for the Americas, promising for geosynthetics, and extremely rewarding for the IGS.

The IGS Chapters in the Americas have grown into a premier outlet, and in many cases they have been indeed the catalyst, of many of the advances in geosynthetics which have originated in the Americas. In addition, our chapters have taken on the important IGS mission of com-


municating geosynthetics knowledge to those that are not familiar with our discipline. There are currently six IGS chapters in the Americas, with 3 of them (half!) having been founded within the last three years. When evaluating the accomplishments of these chapters a striking consistency is their ability to organize high-quality technical events that convey the message of the IGS in multiple ways. Each chapter is successfully fulfilling the IGS mission in ways that are tailored to resonate with the local engineering practitioners. The number of high-quality events is simply impressive. A sample of the proceedings of the national conferences (and of the one regional conference) held in the Americas is shown in **Figure 1**. This collage includes the proceedings of only some of the conferences. However, it provides good indication of the breath of technical contributions and geosynthetic educational efforts in the Americas.

Founded in 1986, **NAGS** () was the very first IGS Chapter in the Americas and the second Chapter in the history of the IGS (the first IGS Chapter, founded in 1985, was our Japanese Chapter). As indicated by Bob Holtz and Bob Koerner (1993), the chapter started after an informal ASTM meeting held in Florida in January 1986. The chapter was indeed born as AGS (the American Geosynthetics Society). However, during the Geosynthetics '87 Conference in New Orleans, AGS was approached by a group of enthusiastic Canadians who wished to not only join AGS but to also to hold a seat in the chapter's board and to change the chapter's name to the "North" American Geosynthetics Society. The proposal was enthusiastically accepted at the 1987 General Assembly. Since then, "NAGS" has led numerous successful initiatives that have contributed significantly to the growth of the geosynthetics industry. A highlight of NAGS efforts has been its series of highly successful conferences, including those in New Orleans (1987), San Diego (1989),

Atlanta (1991), Vancouver (1993), Nashville (1995), Long Beach (1997), Boston (1999), Portland (2001), Winnipeg (2003), Austin (2005), Las Vegas (2005), Washington DC (2007), and Salt Lake City (2009). The Proceedings of some of these conferences are shown in the lower and central-left portions of **Figure 1**. These conferences have been and continue to be a vibrant forum to discuss the most relevant breakthroughs in geosynthetics engineering, with an impressive number of attending practitioners, manufacturers and researchers. For example, and as noted by Richard Bathurst (1993), the NAGS-organized Geosynthetics '93 Conference in Vancouver attracted 1418 registrants and 99 exhibiting companies, becoming the largest Geosynthetics conference by that time (the largest conference was probably the 1998 International Conference in Atlanta, also organized by NAGS, see next). The geosynthetics industry is fortunate to have had NAGS officers with unmatched credentials, as this has provided the credibility needed to convey the merits and validity of new technologies (i.e. geosynthetics) to the average (skeptical) engineer. The list of NAGS presidents can be referred to as nothing less than impressive! Starting with Joe Fuet, then Bob Koerner, Bob Holtz, Jay Beech, Barry Christopher, Richard Bathurst, John Paulson, Karen Henry, David Suits, Grace Hsuan, and currently Dave Elton. We are pleased to announce the next NAGS event, *GeoFrontiers 2011*, which will take place in Dallas, Texas (13-16 March 2011) and promises to be one of those geosynthetics events that you simply cannot miss.

The decision to create **IGS Brasil** () originated in 1995 during a conversation between the future IGS Brasil President, Ennio Palmeira, and the then IGS Vice-President, Richard Bathurst, during the *Second Brazilian Conference on Geosynthetics (Geossintéticos '95)*. As noted by Ennio Palmeira (2004), the possibility of a Latin-American IGS chapter had been considered for some time, and (in retrospect) consideration of this possibility ended


up delaying the development of IGS chapters in Latin America. However, a decision was made to abandon the concept of a potential Latin-American chapter, so IGS Brasil was formed in 1997. This was a fantastic decision, as proven not only by the many achievements of an energetic IGS Brasil chapter, but also by the subsequent proliferation of IGS Chapters in Latin America. And what a contribution has the IGS Brasil made! To begin with, their very successful series of “Geossintéticos” Conferences have attracted well over 300 participants on a regular basis. This series of conferences includes those held in Brasilia (1992), Sao Paulo (1995), Rio de Janeiro (1999), Porto Alegre (2003), and Recife (2007). The Proceedings are shown in the upper-right corner of **Figure 1**. These successful Brazilian geosynthetic conferences have been organized back-to-back with the Brazilian Geoenvironmental conference, which proved valuable to both conference attendees and geosynthetic manufacturers exhibiting at the conference. In addition to these successful conferences, numerous short courses and workshops are organized on a regular basis by IGS Brasil. For example, itinerary short courses are now being planned for multiple offerings in different corners of the large Brazilian territory. The Boards of IGS Brasil were led by their presidents Ennio Palmeira, Delma Vidal, Benedito Bueno, and currently by Mauricio Ehrlich, all of them world-recognized contributors to the geosynthetics discipline. The next “Geossintéticos” conference is already being planned for 2011 in Belo Horizonte. Yet, before this (certainly successful) next national conference, the IGS Brazil is up to the very important challenge of hosting our very next IGS International Conference (please keep reading).


IGS Perú () was founded next in 2001 and constitutes the first chapter of the IGS in Spanish-speaking Latin America. As indicated by German Vivar (2009), the concept of a Peruvian IGS chapter was triggered in 1998 from discussions held during the 6ICG in Atlanta. German Vivar became the first President of IGS Perú and was followed by Pier Giacchetti and current President Miguel de la Torre, all of

them true leaders of the advance of geosynthetics in Latin America. IGS Perú organized the First Peruvian Conference on Geosynthetics in Lima (2004), which was a major success and attracted over 300 attendees. The Proceedings are shown in the upper-left corner of **Figure 1**. What is truly impressive about the activities of IGS Perú is their series of impeccably organized (and free) geosynthetic short courses that have been offered to the Peruvian engineering community. To begin with, and in coordination with Dr. Koerner from the Geosynthetics Institute, IGS Perú took on the major task of translating into Spanish the seminal book *Designing with Geosynthetics*. What is striking in this effort, though, is that IGS Perú scheduled their ongoing translation effort so that, after completing each book chapter, a short course was organized for the release and presentation in Spanish of the newly translated document! Thousands of Peruvian engineers did benefit from these courses, which were offered by geosynthetic experts from across the Americas. As a consequence, Perú is now among the Latin American countries with an engineering community well versed on the good use of geosynthetics. Please take note of the next Peruvian Geosynthetics Conference, which will be held in Lima on 28-30 October 2010, and includes the participation of IGS Past President J.P. Giroud. In addition to being another landmark national geosynthetics event, this conference will be an important step towards the subsequent challenge of IGS Perú: *GeoAmericas 2012* (see below).

IGS Mexico () was founded as part of the recent IGS initiative aimed at broadening the presence of the IGS in the Americas. The enthusiasm for a Mexican Chapter developed after a meeting held during the *GeoFrontiers 2005* Conference (co-organized by NAGS and held in Austin, Texas). The result of this and subsequent meetings was the formation of IGS Mexico in 2006. Their timing was exciting as it transpired during the heat of the organization of *GeoAmericas 2008*, which was held in Mexico. After its creation,

IGS Mexico provided key support to the ongoing organization of *GeoAmericas 2008* by working to increase local participation, and by providing much of the local and logistical support. Both the founding President, Marco Sanchez, and the second and current president, Giovanni Bellei, have focused on leading a wide range of initiatives designed to educate the local governments on the long range, economic and environmental benefits of geosynthetics to Mexican government agencies (note that the Mexican government is the main potential user of geosynthetics in this nation). These initiatives include co-organizing the very *First Mexican Conference on Geosynthetics*, which will take place in Mexico City in March 2010.

IGS Chile () was also founded in 2006 as part of recent effort to enhance the IGS presence in the continent. Mauricio Ossa, the founder and current president of IGS Chile has played a key role in the direction and activities of the Chilean chapter. IGS Chile was also a significant contributor to the organization of *GeoAmericas 2008*. The technical activities of IGS Chile have focused mainly on the organization of short courses. More specifically, an important emphasis has been on the use of geosynthetics in the mining industry, an area in which Chile has developed significant experience, with impressive mining projects that have incorporated innovative use of geosynthetics.

IGS Argentina () is the latest chapter to join the IGS family. Founded in 2009, IGS Argentina is now in the process of establishing itself as a non-profit organization in Argentina. In addition, they are planning their strategy for continued growth. Argentina is a country with major natural resources and, consequently, has major potential for the use of geosynthetics. IGS Argentina has placed their immediate priority on educating the engineering community regarding the specific benefits and the proper use of geosynthetics. Accordingly, they are currently planning a series of short courses at different levels of proficiency regarding the design and use of geosynthetics.

In spite of the successful national



Figure 1 Proceedings of some of the geosynthetics conferences organized by IGS Chapters in the Americas.


events mentioned above, it is only recently that the Americas have initiated a series of Regional Conferences. This follows on the lead of the IGS European and Asian re-

gions, which had already held highly successful regional conferences in the past. Specifically, **GeoAmericas 2008** (the **First Pan-American Geosynthetics**

Conference and Exhibition, was held in Cancún, México, 2-5 March 2008 (see Proceedings in the central-right portion of **Figure 1**).

I had the privilege of chairing *GeoAmericas 2008* and working with the most outstanding group of individuals who constituted our organizing committee. This included Richard Bathurst and Ennio Palmeira, who led the technical program, Elizabeth Peggs, who led the very effective communication initiatives, and Daniele Cazzuffi who provided continued help and direction. The conference steering committee included a geographically diverse group of members from across the Americas (from cold Argentina to colder Canada, making tropical Cancún a nice choice). This committee was indeed a true think tank, as it came up with numerous pioneering initiatives for the conference organization. These included: (a) Multinational participation, as no single IGS Chapter hosted the conference; instead, all IGS chapters in the Americas hosted and shared technical and financial duties; (b) Issuing a call for proposals to organize the technical program; this led to a strong commitment by those geosynthetic experts who organized the 44 technical sessions of the conference; (c) Emphasis on educational programs, which included 8 short courses with multi-lingual offerings; (d) Implementation of training lectures, a new modality of technical activities that involved stand-alone, multi-lingual lectures offered in parallel with technical sessions; (e) Strong collaboration with sister organizations; and (f) Journal sessions with presentations of papers judged to be the best geosynthetics papers in our two official IGS journals (*Geosynthetics International* and *Geotextiles and Geomembranes*) and other highly rated journals. With almost 1,000 attendees, 8 concurrent technical activities throughout the entire conference, a unique educational program, a well-integrated exhibit hall and multiple social opportunities in the most beautiful seaside setting, *GeoAmericas 2008* constitutes an important milestone in the history of successful geosynthetic conferences. The next Pan-American destination is Lima, Perú. Indeed, IGS Perú has taken the leadership for the organization of **GeoAmericas**

2012, the *Second Pan-American Geosynthetics Conference and Exhibition* that will take place in Lima, the portal to the admirable relics of the Incan civilization, in May 2012.

The Americas have also invited and hosted the rest of the world in some of the most relevant international geosynthetics venues. This includes two of our IGS International Conferences. Specifically, the *Second International Conference on "Geotextiles"* (note that the conference was not on "Geosynthetics" at the time) was held in Las Vegas, USA, in 1982. As noted in the article by J.P. Giroud (1993), the organization of this international conference prompted the discussion about the formation of an international society on geosynthetics. The most prominent geosynthetics pioneers gathered in Las Vegas and the IGS was eventually founded in 1983. Following this very good start for IGS international activities in the Americas was the *Sixth International Conference on "Geosynthetics"* (note the change in the conference name), which took place in Atlanta, USA, in 1998. As reported by Dave Elton (1998), this conference was a major success, as it was attended by over 1900 participants and its exhibit hall gathered 126 exhibitors. This is possibly the largest conference held so far in the history of geosynthetics. It was characterized by a remarkable technical program that included a number of provocative workshops and panel sessions. While the two IGS international conferences held so far in the New World took place in the USA, we are now heading to Brazil for the very First IGS International Conference to be ever held in the southern hemisphere (the southernmost IGS International Conference so far took place in Singapore, one degree north of the equator). The **Ninth International Conference on Geosynthetics**, "9ICG" () will be held on 23-27 May 2010 in the beautiful touristic city of Guarujá, which is

located some 90 km from Sao Paulo, the largest city in Brazil (www.9icg-brazil2010.info). Continuing with the excellence in technical contributions that has characterized the previous IGS International Conferences, the 9ICG will provide a unique opportunity to share experiences, knowledge, advances, and opportunities related to geosynthetics and affiliated technologies. The technical program of the 9ICG involves a wide range of technical activities. This includes a series of exceptional keynote lectures such as the "Giroud Lecture" to be delivered by Prof. Brandl on "Geosynthetics for the Mitigation of Natural Disasters," technical sessions such as the "Meeting the Industry" program in which geosynthetic representatives will have the opportunity to present the merits of their new technologies, and training lectures that will provide learning opportunities to both novice and experts on geosynthetics. The Americas look forward to seeing you in Guarujá for the 9ICG!

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*Reported by
Jorge Zornberg, IGS Vice President*

IGS Council Meeting, 1 September 2009 Cape Town, South Africa



**Peter E.
Stevenson**

The IGS Council met on the occasion of GeoAfrica 2009 in Cape Town, South Africa on September 1, 2009. Present were President F. Tatsuoka, Vice President J. Zornberg, Past President D. Cazzuffi, Treasurer J. Cowland, Secretary P. Stevenson, members Sam Allen, Dennes Bergado, Malek Bouazza, Gerhard Bräu, Neil Dixon, Pierpaolo Fantini, Jose Ferreyros, Nicolas Freitag, Han-Yong Jeon, Russell Jones, Jiro Kuwano, Peter Legg, Michele Maugeri, Jun Otani, Ennio Palmeira, Elizabeth Peggs, Victor Pimentel, Mike Sadlier, Martin Zeigler, Rosemary Stevenson, Manager Secretariat. No proxies were received. No apologies were received. Absent Y. Chen.

The minutes from Edinburgh council meeting were approved. The minutes from Madrid officers' meeting was reported. Under Matters Arising, President Tatsuoka introduced the subject of the succession of the officer positions in 2010, including the Secretariat. Based on different opinions presented in the meeting, it was decided to organize a call for proposals to insure an orderly transfer of the responsibilities and operation of the Secretariat in the event a decision is taken to relocate the Secretariat. A committee was appointed consisting of S. Allen, G. Bräu and N. Dixon. A complaint was voiced that the meeting agenda was too complicated. The Secretary will endeavor to create a more streamlined document with emphasis on ease to use.

The **Secretary** reported that five companies are recognized in 2009 as having twenty years of continu-

ous corporate membership, three recognition awards were presented in Cape Town: the recipients were Reinforced Earth, Tensar International and Tensar International Corporation. The remaining Recognition Awards will be presented separately to Belton Industries and Kuraray Corporation. Council Service Recognition presentations will be made to Masashi Kamon and Eun-Chul Shin at the 8th ICG in Guarujá. Past council member Bernard Myles is ill and Council Service Recognition for Mr. Myles will be made in private. The Mercer lecture will be presented by Junichi Koseki, Japan. It is agreed that the three events will be New Delhi in November 2010, GeoFrontiers 2011 in Dallas, Texas in March 2011 and finally in Maputo – Mozambique in June 2011 during the ISSMGE African Conference.

The Society membership, as of August 20, 2009 was 1759 individuals (1538 in chapters), 126 corporate members, 156 students and 2 benefactors. In 2009 there are 8 new Corporate Members.

John Cowland, **Treasurer**, reported on the 2008 finances, the 2009 year to date records and proposed a budget for 2010 which was approved.

The **African Activities** committee, fresh from the success of GeoAfrica 2009 will seek to organize a GeoAfrica 2013 preferably in Northern Africa. The **Asian Activities** committee reported on the planned 2012 GeoSynthetics Asia in December in Bangkok as well as activities planned to support the Chapters in China, India and the Philippines. Chapter organizing activities will continue in Vietnam. The **European Activities** committee presented a brief report on EuroGeo5 in Valencia Spain in 2012. Chapter development activity is focused on Austria, Bulgaria, Croatia, Slovakia, Slovenia and Switzerland. The **North and South**

American Activity committees held a joint meeting focused on GeoAmericas 2012 in Lima, Peru, and support for chapters, especially in South America. The **Awards** committee will meet in February in Florida concerning the IGS Awards to be presented in Guarujá, Brazil at the 9th International Conference on Geosynthetics in May 2010. The **Communication** committee reviewed ongoing work on the revision and upgrade of the IGS web pages. A new feature will be the collection of case histories to be published in the IGS News and subsequently archived on the web page. The Communication Committee will prepare a DVD for distribution by the Secretariat to the membership containing the entire file of IGS News issues, the new Symbols document, the Specification Guide, the IGS Leaflets, The Mercer lectures and statements of membership benefits and applications. The **Corporate** committee reported on the success of several on line meetings and introduced how the IGS, and the committees, could utilize this unique tool. The committee is developing a new corporate member benefit which will create an opportunity for companies to recognize their employees and affiliates with benefits of membership in the IGS. The **Education** committee continues the translation of the leaflets into various languages and is exploring webinar education. The **Liaison** committee along with the **Strategy** committee is developing a liaison program with various societies. **Strategy** is also encouraging the development of web pages focused on contractors and other end users. The **Technical** committee is preparing a proposal to establish working groups to focus on various issues such as soil reinforcement, filtration and other key topics.

Future conferences include GeoAmericas 2012 in Lima, GeoSynthetics Asia 2012 in Bangkok and EuroGeo 5 (2012) in Valencia.

Nearer in term are events with IGS Auspices including GCL 2010 in Würzburg, Germany, GeoFlorida 2010 in Florida, USA, and Earth Re-vention 2010 in Colorado, USA. Activity is in full swing for the 9th ICG in Guarujá, Brazil with registration

open for attendees and exhibitors. In addition to the full conference activities the 9th ICG will see IGS Awards presented, an IGS Corporate reception, the IGS General Assembly, the announcement of the venue for the 10th ICG in 2014,

publication of the IGS election results and many additional activities.

*Reported by
Pete Stevenson, IGS Secretary*

IGS News Readership Questionnaire New: Online submission is available!



Gerhard Bräu

The International Geosynthetic Society is undertaking an evaluation of the IGS newsletter, with a view to

improving its quality and usefulness.

Therefore an email with the questionnaire was sent by the IGS Secretariat approaching all members for participation. The questionnaire is added to this issue of IGS News at page 47 and can also be downloaded at the web page of IGS www.geosyntheticssociety.org

To make it more comfortable for you to answer the very few questions you can also follow the link <http://129.187.171.55/igsnews/>

where you will find an easy to use, clickable sheet with online submission!

We hope a fruitful response will assist us to be able to bring new ideas to IGS News for the benefit of our membership.

*Reported by
Gerhard Bräu, IGS News Editor*

Membership renewal via IGS webpage

The IGS announces a new feature on the IGS website: the ability to join or renew membership online. The direct link is <http://www.geosyntheticssociety.org/application.htm>.

This new benefit makes it easy for a new member to join or for a member to renew. The page connects or introduces the member to the chapters and facilitates rapid access to various membership

benefits like the official Journals. Check it out!

*Reported by
Pete Stevenson, IGS Secretary*

Geosynthetics in Action – The 1st IGS Photo Contest



Elizabeth Peggs

In April of 2010 the IGS will launch its redesigned web site; the web site development task group has invested an extraordinary amount of effort to develop a site which will serve the IGS Membership while simultaneously providing excellent exposure of geosynthetics technology to the world. One significant aspect of the web site remodel will be the addition of photographs throughout the site. The photo-

graphs will be placed in various spots as well as in a dedicated photo gallery.

In order to create an excellent collection of photos showcasing outstanding work by IGS Members we have created the **IGS Photo Contest**. Winning photographs will clearly demonstrate geosynthetic materials and technology in action. The photos may illustrate any phase of implementation including but not limited to: design, construction and completed projects. The contest will be held annually and winning photos will be prominently displayed on the IGS Web site with full credit to the photographers. As well there *may* be additional opportunities throughout the year for the display of *winning* photos at various IGS events and possibly in

other IGS materials. These opportunities *may* include power point backgrounds, IGS Booth presentations etc.

Rules and Guidelines of the Photo Contest:

Photos should clearly display a geosynthetic material/technology in use. The contestant must be an active IGS Member. Each IGS Member is eligible to submit up to 5 photographs to the contest. Photos shall be judged on the following criteria: The photos should be sharp and well focused, they should provide a clear understanding of what geosynthetic technology or event is being demonstrated. "Before and After" photos are welcome. Photos should be aesthetically pleasing. A title and description will be required on the submission form. The file size

should not exceed 4 MB per picture, file format must be *.jpg*.

Final selection of First, Second, Third and Honorable Mention photographs will be made by an independent committee based on the photo's ability to meet the criteria outlined above. It is the goal of the IGS Council to involve the member-

ship in the voting process in subsequent IGS Photo Contests.

For more information or to submit photos please go to:

<http://www.geosyntheticssociety.org/PhotoContest.aspx>

2010 IGS Photo Contest submissions must be received no later than 1 February 2010.

If you have questions or need assistance please contact:

Elizabeth@geosynthetica.net

Reported by

Elizabeth Peggs, IGS Council Member

IGS Specification Guide



Mike Sadlier

The Specification is a comprehensive tool that instructs the reader on the issues that need to be addressed in a geosynthetic specification and also presents a logical order for the organization of a geosynthetic specification. It discusses key technical and commercial points for specifications both generally and in specific areas and provides extensive appendices of sample specifications.

Some of the topics covered include:

- Separation
- Filtration
- Reinforcement with Geotextiles and Geogrids
- Protection for Geomembranes and Asphalt Overlays
- Drainage.
- Barriers using Geomembranes and GCLs
- Geomats, Geoblankets, Geocells and other Erosion Control Products

The document has 94 pages in total and the latest edition was compiled in 2006 by members of the IGS who are practicing engineers and it is based on their

broad experience. It is offered to the IGS membership to provide guidance and models for practising engineers to use when considering the preparation of their own geosynthetic specifications.

It is provided free of charge to the IGS membership in the members only area as a locked pdf[®] file in order to encourage independent thought about particular projects and discourage cursory cut and paste operations.

Reported by

Mike Sadlier, IGS Council Member and Chair of the IGS Technical Committee

Recommended Descriptions of Geosynthetics Functions, Geosynthetics Terminology, Mathematical and Graphical Symbols

This is the fifth edition of the IGS mathematical and graphical symbols document which now includes a complete and substantial glossary of geosynthetic terminology.

Since publication of the fourth edition in August 2000 a number of evolutionary changes have been made to reflect the further development and refinement of geosynthetics terminology. There are a number of terms related to growth areas of geosynthetics where the Technical Committee omitted terms where they felt that the technology and related terminology was still developing and not yet settled. There is therefore scope for continuing review and development of the document.

The document follows the practise of

listing basic geosynthetics functions separately and then not using those functions as terms within the glossary. These functions are:

- Barrier
- Containment
- Drainage (also known as transmission):
- Filtration
- Protection
- Reinforcement
- Separation
- Surficial erosion control
- Frictional Interlayer

The glossary of terminology covers everything from Abnormal to Yarn (we do not yet have term starting with Z) and everything in between. There are additional mathematical symbols and units as well as rec-

ommend graphical symbols for use in drawings.

The document comprises some 31 pages and it was prepared by the IGS Technical Committee. The IGS Technical Committee has a broad membership that reflects the diverse nature of the IGS in terms of both background and geography. The IGS Technical Committee is confident that this edition reflects consistent and common terminology and symbol usage around the world.

It is available free of charge on the IGS Website to members and non-members alike.

Reported by

Mike Sadlier, IGS Council Member and Chair of the IGS Technical Committee

IGS Awards: Lots of Nominations 2006 – 2009



**Daniele
Cazzuffi**

IGS Awards will be granted in 2010 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.

The Awards recognize the achievements completed and / or the validity of which has been demonstrated during a four-year period preceding the year of the Award (i.e., 2006 through 2009 inclusive).

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

Timeline and Deadlines

Nominations were received by the IGS Secretary.

The deadline for receipt of award candidate presentation packages is **31 December 2009**.

Presentations will be forwarded by the Secretariat to the Award Committee by 15 January 2010, and the Committee will meet on 20 February 2010 to finalize their decisions, draft citations and report.

Awards will be presented in Guarujá,

Brazil, 23 - 27 May 2010 at 9ICG.

The Two Types of IGS Awards

- **The Young IGS Member Award**
This Award is for IGS Members who are less than 36 years of age on 31 December 2009.
- **The IGS Award**
A maximum of five IGS Awards will be granted. Each award will consist of a specially commissioned medal and a diploma.

Candidates

Each entry is restricted to a maximum of four persons, at least one of whom, must be an IGS Member. All IGS Members are eligible with the exception of the IGS President and Members of the Awards Committee. In the case of a group submission to the Young IGS Member Award, all members of the group must satisfy the age requirement. Any individual or group that is a candidate for the Young IGS Member Award is automatically considered for both award categories (unless requested otherwise by the candidate). However, a candidate may only receive one award for the 2006 to 2009 period.

Nominations

For the Young IGS Member Awards, four nominations were received before the deadline.

For the IGS Awards, nine nominations were received before the deadline.

All nominated candidates were contacted by the IGS Secretary

and asked to agree to stand for an award and will be required to submit materials as directed by the Awards Committee. All correspondence and activity related to nominations and award entries will be carried out in the strictest confidence by the IGS Secretary and the Awards Committee.

IGS Awards Committee

The Awards Committee was formed in September 2008 at the IGS Council meeting, which was held in conjunction with the *EuroGeo 4* conference in Edinburgh.

The Awards Committee comprises five IGS Members; one of whom serves as Chair. The Committee is appointed by the Council.

The Members are selected so as to represent a broad cross section of geosynthetic-related technologies and experience.

The IGS Secretary will attend all meetings of the Awards Committee as an observer and coordinator.

Additional Information

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

*Reported by
Daniele Cazzuffi, Chair of IGS
Awards Committee*

Announcing the Candidates for the IGS President, Vice President and IGS Council Term 2010 to 2014

The call for candidates for the IGS President, Vice President, and Council appeared in the July 2009 issues of *IGS News* and the result is overwhelming: 2 candidates for president, 1 for vice-president and 23 candidates for the IGS Council. There have never been so many interested persons for these posi-

tions in the history of IGS!

The 2010 IGS Election will be an electronic ballot again. **Three ballots, one each for the election of President, Vice President, and eight Council Members, will be posted electronically on 31 January 2010 with balloting to close on 31 March 2010.** Results

will be announced at the General Assembly, in Guarujá, Brazil, during the 9ICG (May 2010).

The election of the IGS President, Vice President, and the eight new Council Members, and the appointment of the Immediate Past-President, will be for a four-year period (2010 to 2014).

IGS President and Vice President

There are two candidates for IGS President, Pete Stevenson and Jorge Zornberg, and one candidate for IGS Vice President, Russell Jones.

According to the IGS bylaws, Fumio Tatsuoka will become an IGS Officer in his capacity as Immediate IGS Past-President following the General Assembly, in Guarujá, Brazil. The Secretary and Treasurer (the other two IGS officers) will be elected by the new IGS Council at a meeting of the Council, after the General Assembly.

IGS Council Members

A total of 23 candidates have declared their intention to run for one of the eight available IGS Council positions. Five of these candidates are standing for re-election:

- Sam Allen (USA)

- John Cowland (Hong Kong China)
- Neil Dixon (United Kingdom)
- Jun Otani (Japan)
- Elizabeth Peggs (USA)

The remaining 18 candidates standing for election are as follows:

- Pedro Abad (Spain)
- Eric Blond (Canada)
- Morne Breytenbach (Germany)
- Massimo Ciarla (USA)
- Zhiliang Dong (China)
- Jose Ferreyros (Peru)
- Erol Guler (Turkey)
- Chiwan Wayne Hsieh (Taiwan)
- Peter Legg (South Africa)
- Maria Lurdes Lopes (Portugal)
- J.N. Mandal (India)
- Kent von Maubeuge (Germany)
- Nicola Moraci (Italy)
- K. Rajagopal (India)

- Xiao-Wu Tang (China)
- Nathalie Touze-Foltz (France)
- Delma Vidal (Brazil)
- Chungsik Yoo (Korea)

Biographies of the candidates follow. IGS Members are asked to carefully read the biographical information and consider the merits of the individual candidates with respect to geographical location and background. It is important that the IGS Council be comprised of motivated individuals who reflect the geographical breadth of the Society and the wide range of disciplines and experience associated with the Society.

Note:
Eligible members will receive an email from the IGS Secretary directing them to the electronic ballot.

Candidates for the IGS President Term 2010 to 2014



Peter Edward Stevenson

I, Peter Edward Stevenson have served the IGS since 1984, first as Treasurer until 1994 and later as Secretary until 2010. If elected President of the IGS I will work with the council and the membership to first, continue the many excellent programs and benefits of membership already in place. Second, I will work to develop the liaison program introduced by Past President Cazzuffi seeking IGS representation in ISO, CEN, ASTM and other standards authorities. A parallel liaison effort already underway and which I will support strongly is that to form relationships with other organizations. For example the organization FedIGS (Federation of the International Geo-Engineering Societies) has recently formed liaising the founding societies ISSMGE, ISRM and IAEG and has invited IGS to participate, other important organi-

zations include ICOLD, IECA, IMMM, ISWA, ITA, IWA, IWWG, and TRB to which several council members have volunteered to be the key IGS representative. A second main objective of these liaisons is to establish links to the societies that will benefit our corporate and individual members. A third aspect of liaison is that of ambassadorships from the IGS officers to the chapters and prospective chapters to insure the benefits of IGS are fully understood and available to the membership. I believe the success of these liaison efforts will result in growth of the membership of the IGS, both within existing chapters and in the founding of new chapters. I will seek to foster the emerging technical working group concept wherein IGS members cooperate to organize activities and events that facilitate technical advancement in key parts of the discipline such as reinforcement, filtration, drainage and erosion control and containment. I will strive to assist the education committee efforts to add to the application leaflet program through additional materials and through translation into additional languages. Finally I

will rely on both my business experience and my long term championship of the corporate membership to insure the IGS remains dedicated to the interests and needs of the corporate membership.



Jorge Zornberg

Prof. Jorge Zornberg is a Geotechnical Engineering faculty at the University of Texas at Austin. He is the current Vice-President of the IGS and Board member of NAGS. Dr. Zornberg earned his BS in Argentina, his MS in Brazil and his Ph.D. from the University of California at Berkeley (USA). Before joining the University of Texas he was a Project Engineer at Geosyntec Consultants. He is a registered Professional Engineer with over 20 years experience in both research and practice in geosynthetic engineering. Dr. Zornberg has authored over 230 publications. In recognition of his

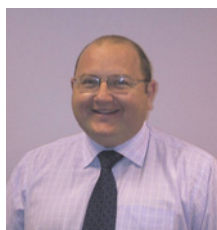
contributions, he received a number of awards, including the *Young IGS Member Award*, the *IGS Award*, the *ASCE Collingwood Prize* and the prestigious *Presidential Early Career Award for Scientists and Engineers*, which is "the highest honor bestowed by the US Government on outstanding scientists and engineers beginning their independent careers."

During his tenure as Council member and Vice-President of the IGS, Dr. Zornberg has strengthened the communication channels between

the IGS and the IGS Chapters, has led the creation of several IGS chapters (e.g. Mexico, Chile, Argentina), has chaired the North American Activities Committee and the 9ICG International Promotions Committee, and has chaired the *First Pan-American Geosynthetics Conference (GeoAmericas 2008)* held in Cancún, Mexico. During this conference, as with the rest of his IGS initiatives, Dr. Zornberg brought together the many segments of the geosynthetics industry (individual and corporate mem-

bers, academics and practitioners). If elected President, Dr. Zornberg plans to continue to strengthen such integration as well as the communications between the IGS and our members. In addition, his goal as president will be to expand the horizons of the IGS and of the geosynthetics industry at large through strong outreach initiatives, effective geosynthetics education, and innovative use of information technology.

Candidate for the IGS Vice-President Term 2010 to 2014



Russell Jones

Dr Russell Jones is a Principal with international ground engineering consultants Golder Associates, based in Nottingham in the UK. He is a chartered civil engineer and has over 20 years experience in research, design, specification and assessment of geosynthetics. Russell was a member of the UK Chapter Committee between 1997 and 2008, having served in many roles including Treasurer and Chairman.

He was an active member of both the organising committee and technical committee for EuroGeo4 in Edinburgh in September 2008, and has been involved with the organisation of three national geosynthetic symposia and many evening technical meetings. He is currently a council member of the IGS.

Dr Jones has contributed to many IGS conferences and to both official IGS journals by authoring and reviewing technical papers. He has authored over 50 technical publications on geosynthetics and served on BSI Technical Committee B/553 on Geosynthetics for over 10 years. He regularly lectures to stu-

dents on various courses at several UK universities on the environmental applications of geosynthetics. Russell believes that the strength of the Society is in the rich mix of academia and industry. The learned society and the industrial forum roles of IGS need to be kept in balance; both are equally important. If elected as Vice President, Russell would strive to enhance both of these vital aspects of the Society through fostering active collaboration.

Candidates for the IGS Council Term 2010 to 2014



Pedro Abad

Mr. Abad is a Civil Engineer graduated in the Universidad Politécnica de Madrid (Spain), with over 20 years of practical experience, of which the last 15 years have been in the geosynthetics industry.

He has worked in companies such as Polyfelt / Ten Cate, Linteco and

now work as General Manager of Cetco Iberia.

He was representing Spain in several CE committees, helping in preparation of the CE marking and normalization.

During his practical experience he has participate directly or indirectly in over 80% of the landfills constructed in Spain and Portugal, as well as in many other geosynthetic jobsites in fields involving design, supplying materials and making installation.

During the last 3 years he has been the Secretary and Treasurer of the IGS Spanish Chapter.

The Spanish Chapter is organizing the next Eurogeo Conference (Eurogeo 5) to be held in the city of Valencia (Spain).

The main reason to apply to the Council position is to strengthen the relations between our chapter and IGS international, which will certainly help to have a very successful Eurogeo.



Sam Allen

Mr. Allen is the Vice President of TRI/Environmental, Inc. (TRI) Geosynthetics Services, an international, independent third party geosynthetics testing and research facility supported by government and industry clients. TRI provides routine geosynthetics conformance testing services as well as specialized durability and in-application performance investigations. Mr. Allen is an experienced professional with a background in chemical and materials engineering, with specialization in the field of polymer testing and geosynthetics. He began his career in the geotechnical and construction materials testing field and has broadened the scope of his involvement in environmental engineering to include geosynthetics technology with specialization in laboratory testing operations.

Presently he serves as the Chairman of the American Society for Testing and Materials (ASTM) Committee D35 on Geosynthetic Materials. Mr. Allen also serves as the Convenor of ISO TC221, Working Group 5 on Geosynthetic Durability. He serves on the Technical Advisory Board of Geosynthetics Magazine, a geosynthetics industry trade journal. In addition, he is on the Board of Directors of the Geosynthetics Institute in Philadelphia, Pennsylvania and the North American Geosynthetics Society.

Mr. Allen is also currently serving the IGS Council particularly in the Technical, Communication and Education Committees.



Eric Blond

Eric Blond, eng. M.Sc.A., is a Canadian Civil Engineer, who studied geotechnical and geosynthetics engineering in France at 'INSA de

Lyon' and in Canada at 'Ecole Polytechnique de Montréal'. He is Vice-President of the CTT Group, in charge of SAGEOS, the Canadian Laboratory specialized in geosynthetics and building products. Mr Blond is involved in various committee, focus groups and professional organizations connected to geosynthetics in Quebec, in Canada and around the world. In particular, he serves as an officer in ASTM D35, is member of ISO TC221, as well as of the CGSB committee on Geosynthetics in Canada. He has been President of the Geosynthetics Division of the Canadian Geotechnical Society between 2005 and 2007. He is also involved in local professional organizations related to roadways and environmental engineering to promote the value of geosynthetics. If nominated on the IGS council, he will strongly support initiatives that would focus on the development of collaborations with other end-user organizations related to geosynthetics such as geotechnical, road, environmental, landscaping and others.



Morne Breytenbach

Morne and his family recently emigrated from Johannesburg, South Africa to Hamburg, Germany. He did so to take up employment with GSE Lining Technology GmbH, where he is responsible for sales and marketing on the African continent. Since 2002 Morne has been intimately involved with geotextiles, geosynthetic clay liners, geomembranes and the installation thereof in Africa and has significant experience on how to approach the African geosynthetics designers and applicators. As was seen at the IGS-GeoAfrica2009 conference recently held in Cape Town, South Africa, the largest potential growth area for the IGS is most certainly on African soil. Morne is uniquely positioned to take the IGS and everything it has to offer to the African market. It is of paramount importance that the potential local African geosynthetics community is up to date with what is available

throughout the world and more importantly they need to be made aware that there is a well established and properly developed forum from where they are able to draw. It would give Morne immense pleasure to be part of the IGS council, to enable him to make Africa a part of the International Geosynthetics Society.



Massimo Ciarla

Mr. Massimo Ciarla has been employed with the Maccaferri International Group since 1978. He is presently the President of Maccaferri Inc., the Maccaferri American Company operating in the fields of soil erosion control, soil retaining structures and coastal protection works.

Mr. Ciarla holds a Master degree in Civil and Hydraulic Engineering earned from the Department of Engineering at the University of Rome (Italy) in 1975. Since then he has worked in several countries like Bolivia, Saudi Arabia, United Kingdom, Canada, Italy, Russia, Mexico and United States of America with different positions and responsibilities in the fields of highway design, soil erosion and sediment control, and in the company's strategic marketing division.

Mr. Ciarla has been a member of the Professional Engineering Association of Rome since 1978. He is a member of the American Society of Civil Engineers, a member of the International Erosion Control Association, which he served as a President in 1989-90, and a Council Member of Geosynthetic Material Association.



John Cowland

John Cowland is an independent geotechnical and geosynthetics engineering consultant, based in Hong

Kong, China. He has provided advice to numerous government and private sector clients throughout the Asia Pacific region on geotechnical, environmental and geosynthetic projects; including solid waste landfills, tunnels, mines, dams, slopes, coastal reclamations, soft ground, liquid storage and disposal of contaminated soil. He has advised on the use of geosynthetics in all these areas, often in an innovative manner, since 1986.

John is currently the IGS Treasurer and the Chairman of the Strategy Committee. He has been active in the Asian Activities Committee, where he helped to establish a Chapter in the Philippines, helped to re-establish a Chapter in Indonesia and helped with the effort to try to establish a Chapter in Vietnam. He is looking forward to continuing to contribute to the development of our society.



Neil Dixon

Prof. Neil Dixon is a Professor of Geotechnical Engineering at Loughborough University, UK, and is currently an IGS Council Member (2006 - 2010). He has attended all the IGS Council meetings held in the period of his office, contributing to Committee and Council activities. He is currently the Chairman of the European Activities Committee and Vice-chairman of the Technical Committee. He has 25 years experience of design and research involving geosynthetics, with particular emphasis on environmental applications, and a proven track record of actively promoting geosynthetics through education, research and involvement in the IGS. He is currently Chairman of the IGS UK Chapter, and have been a member of the UK Chapter Committee since 2001. He was Chair of the Technical Committee for the highly successful EuroGeo 4 conference. His activities include being on the Editorial Boards of the IGS Journals Geotextiles and Geomembranes, and Geosynthetics International. He seeks the opportunity to continue his support of the IGS by

contributing his organisational skills, drive and commitment to working for Individual and Corporate Members.



Zhiliang Dong

Prof. Dong Zhiliang is the Executive Director and General Manager of Engineering Technology Research Co., Ltd. of CCCC Fourth Harbor Engineering Co., Ltd. He obtained his master's degree in Coastal Engineering Science and doctor's degree in Economic Technology and Management Science from Hohai University. He is a part-time professor of Chongqing Jiaotong University and three other Chinese universities. His major awards include the Young Science and Technology Pacesetter of Guangdong Province (1997), the Guangdong Provincial May 1st Labor Day Medal (1998), the Management Innovation Award of Guangdong Province (2004), and the Enterprise Management Achievement Award from International Quality System Certification Board (2006).

His research interests are the theory and application of Earth Reinforcement utilizing Vacuum Surcharge Preloading Technology and the engineering applications of earthwork synthetic materials.

He has published more than 70 papers in academic journals. He is the Member of China Water Transportation Construction Association and an Editorial Board Member for several journals.



Jose Ferreyros

Jose D. Ferreyros is a Professional Engineer and graduated with a B.Sc. in Civil Engineering from the Pontificia Universidad Católica del

Perú, with post-graduate courses in Soil Mechanics (at the same university) and Roadway Construction from Za Puteve Institut in Belgrade. Mr. Ferreyros has more than 13 years experience in the design, sales, service, and installation of all the types of geosynthetics in mining (e.g., leaching pads, mine washing tanks, dams, waterways, reservoirs) and road construction projects. He is a founding member of the IGS Perú Chapter and has been the Perú Chapter President of the Geomembranes Committee. Mr. Ferreyros was also President of the Organizing Committee for the first National Geosynthetics Congress in Perú. He is a co opted member of the IGS Council since 2006 and actually is the Vice Chair of the IGS South American Activities Committee. He would like to represent South America on the IGS Council with the objective of increasing the dissemination of geosynthetics knowledge and assisting in the development of IGS Chapters in the majority of countries in South America.



Erol Guler

Prof. Erol Guler has been the chairman of the Civil Engineering Department of Bogazici University, Istanbul, Turkey since 2004. Prof. Güler acted as the Director of Environmental Sciences Institute of Bogazici University between 1996 and 1999. He was a visiting Fulbright Professor at University of Maryland between 1989 and 1991. Prof. Guler is also currently the Vice Chairman of the Bogazici University Foundation. Prof. Guler is the leading geosynthetic scientist in Turkey, having been an IGS member since 1989 and involved in geosynthetics research since 1984. He founded the IGS Turkish Chapter in 2001 and served as its president until 2005. He organized the first two national geosynthetic conferences in 2004 and 2006. Also, he worked in the organizing committee of the 2008 conference and is currently in the organizing committee of the 2010 conference. Prof. Guler is a member

of the ISO Technical committee 221 on geosynthetics as a representative of Turkish Standards Institute since 2002. Prof. Guler was an international member of the USA TRB Committee on Geosynthetics between 1996 and 2006. In addition to his research work, Prof. Guler has extensive practical experience, including design work for numerous projects where geosynthetics were used as reinforcement or liners. If elected to the IGS Council, Prof. Guler will work to improve the dissemination of knowledge and promote an increased use of geosynthetics in the Middle East, Caucasia and Central Asia.



**Chiwan
Wayne Hsieh**

Dr. Chiwan Wayne Hsieh is a Professor in the Department of Civil Engineering of National Pingtung University of Science and Technology (NPUST). Currently, he also serves as the Dean of the Research and Development Office at NPUST. He holds a BS in Hydraulic Engineering (Feng Chia University, 1980), and M. Eng and Ph.D. (Penn State University, 1985 and 1991, respectively) in Civil Engineering. He has served as the council member for West Pacific Chapter of IGS for nearly eight years. He is the director of GSI-Taiwan as a member of Geosynthetic Institute (USA) since August 1999. He was elected as the International Board member of GSI on March 2009.

Professor Hsieh's research interests focus primarily on engineering behaviour and applications of geosynthetics and pipeline materials. His research has resulted in authoring/co-authoring of more than 200 publications, and delivering more than 100 presentations at international conferences and professional meetings on these topics. In addition, he has established the Geosynthetic Laboratory at NPUST which is accredited by GAI and TAF for near 100 test methods. He has organized annual GSI-Taiwan conference since 2006 to promote the use of geosynthetic in the Asian region. He

is an AFS70 committee member of the TRB, USA. He would like to take a more active role in the IGS and to promote the geosynthetics in various parts of the world.



Peter Legg

Peter Legg is a professional civil engineer in South Africa with his own geo-environmental engineering consultancy. He has over 30 years of experience in all aspects of civil and geotechnical engineering associated with waste management, mineral processing plants and pollution control systems. He has worked throughout South Africa and in many other African countries including Zimbabwe, Swaziland, Namibia, Ghana, Angola, Mozambique, Botswana and the Congo. From 2002 to 2006, he served as president of GIGSA, the South African Chapter of the IGS, and he is currently still an active member of GIGSA as past president. In 2006, Peter was co-opted onto the IGS Council to represent Africa, and is currently responsible for the IGS African Activities Committee. Most recently he was conference chairman for GeoAfrica 2009 held in Cape Town in September. Having successfully organised this first African Regional Conference on Geosynthetics, Peter intends to now focus on actively engaging with geotechnical societies elsewhere in Africa, with the aim of establishing further IGS Chapters in Africa.



**Maria Lurdes
Lopes**

Prof. Maria Lurdes Lopes is a Full Professor in Construction Materials of the Department of Civil Engineering of the University of Porto. She received her Diploma in Civil Engineering, in 1977, from the University of Porto, her MSc in Soil

Mechanics, in 1986, from the New University of Lisbon and her PhD in Civil Engineering, in 1992, from the University Porto. She introduced the Geosynthetics Education in the Civil Engineering graduation of the University of Porto in 1992. She has been conducting research on geosynthetics since 1992 and developed the Laboratory of Geosynthetics of the University of Porto. Prof. Maria Lopes has authored/co-authored more than 190 papers and serves on several national and international committees. She was Vice-President of the Portuguese Chapter of IGS (2002-2008) and IGS Council member (2000 – 2004). Currently, she is President of the Portuguese Chapter of IGS and representative of Portugal on the IGS European Activities Committee. She is member of Standard Portuguese Committee on Geosynthetics and representative of Portugal on CEN/TC189. If elected to the Council, she would like to take an active role on Geosynthetics Education and to promote the correct use of geosynthetics.



J.N.Mandal

Dr. J.N. Mandal is professor of Civil Engineering Department at Indian Institute of Technology Bombay, India. He has published more than 250 papers in various reputed International/national journals/conferences. He is the founder of International Geosynthetics Society Chapter for India.

He has developed the Geosynthetics testing Laboratory and offered two courses on geosynthetics for undergraduate and post graduate students since 1984. He has guided several students for their Ph.D degree. He served as the Editorial Board Member of International Journal of Geotextiles and Geomembranes and Editor of Indian Geotechnical Journal. He is the member of Indo-French Technical Association, Indian Road Congress and Fellow of the Institution of Engineers. He is the chief consultant and technical advisor for various projects

mainly related with geosynthetics, geoenvironment and geotechnique in and outside the country. He chaired many International conferences. He received many awards for his outstanding works on geosynthetics.



Kent von Maubeuge

Kent von Maubeuge was born in New York in 1957, lived in New York and Yokohama, before he moved to Germany. He studied civil engineering and obtained 1985 his Master of Science. Since then, he has worked with two major geosynthetic manufacturers and has been involved in research and development of all geosynthetics. For more than 20 years, he has been an active member of various associations, such as DIN, CEN and ISO. He is also a member of ASTM International and is especially involved in standards for GCLs and is vice-chairman of ASTM Committee D35.04 GCLs. Along with the committee chairman, he chaired both ASTM workshops on GCLs. Currently, Kent von Maubeuge is the convenor for the Working Group WG6 (Geosynthetic Barriers) for CEN Technical Committee TC 189. He also serves on the Board of Directors for the Geosynthetic Institute, Folsom, USA. Kent has published and presented many international papers on geosynthetics and has contributed to numerous conferences throughout the world. For a German geosynthetics manufacturer (NAUE) he is Director of Product Marketing/Management and is also involved in international concerns. As an IGS Council member, Kent von Maubeuge will continue the internationally-minded work of previous council members. Kent is interested in the continuation of traditional IGS activities while helping to develop new activities which will aid in the expansion of knowledge and technological development of geosynthetics worldwide.



Nicola Moraci

Nicola Moraci is Associate Professor of Geotechnical Engineering at the Mediterranean University of Reggio Calabria (Italy). He obtained M.Sc. (1988) and Ph.D. (1992) degrees in Geotechnical Engineering at the University of Padova, Italy and actually is Director of the Ph.D. Program in Geotechnical Engineering and of the Master on Environmental Engineering of the Mediterranean University of Reggio Calabria. He got the IGS Award 2008 for researchers on the pullout behaviour of geosynthetics. He was the co-author with IGS Past President Daniele Cazzuffi of the keynote lecture on geotextile filters presented at the Geosynthetics Asia 2008 in Shanghai. Prof. Moraci has authored and co-authored more than 100 publications and serves on a number of national and international technical committees. His main research interests include soil reinforcement, geotextile filters, environmental geotechnics and slope stability. Since 2003, he is in the Board of AGI-IGS, the Italian Chapter of IGS, as General Secretary. Moreover, since 2004, he is the IGS News correspondent from Italy. Finally, he was among the coordinators of several Short Courses on Geosynthetics organized for Italian professional engineers and geologists, e.g. in Reggio Calabria in 2005 and in Venice in 2008.



Jun Otani

Jun Otani, Professor of Soil Mechanics and Geotechnical Engineering at Kumamoto University, Japan, is standing for the position of the IGS Council Members for the term 2010 – 2014. He obtained his Ph.D. in Civil Engineering from the University of Houston, U.S.A. in 1990. He received Best Research Achievement Award in 2007 and Geo-Environmental

Award in 2008 from Japan Geotechnical Society (JGS). His research interests include geosynthetic reinforced structures and foundation engineering such as pile foundations.

Since 2006, he has been an IGS Council Member as a representative from Japan Chapter of IGS. He worked for the Education Committee and he gave his lecture for the short course at Yokohama Conference in 2006 and he will be a lecturer for short course again at next 9th ICG in Brazil. He was the chairperson for the 5th IS Kyushu in 2007 and also the Secretary of TC9 (Technical Committee No.9) under ISSMGE whose topic was Earth Reinforcement for two terms (1997 – 2005). He is the editorial board member of Geosynthetics International, and Geotextiles and Geomembranes.



Elizabeth Peggs

Elizabeth Peggs is the Director of *Geosynthetica*, the publisher of *geosynthetica.net* and a provider of information technology services with an emphasis on geosynthetics. Elizabeth is the past secretary of ASTM D35 Committee on Geosynthetics and participates with a broad variety of international conferences and organizations in the interest of promoting geosynthetic technologies and services. She has been an IGS Council Member since 2005. During this period, she has served as: the Communication Chair for *GeoAmericas 2008*, IGS Corporate Committee Chair, IGS Communications Committee Secretary and a member of the International Promotions Committee of the 9th ICG. Elizabeth takes enormous pride in the recent achievements of the IGS and looks forward to continuing her contribution to the growth of the Society.

Specifically, Elizabeth is focused on helping the IGS develop functional communication tools so that the wealth of valuable information generated by the IGS Chapters, journals, conferences and technical pub-

lications reaches deeper into the ever-expanding user base. Some of the projects on which Elizabeth hopes to continue working with her Council colleagues and fellow Society members include: re-designing the IGS Web site, broadening relations with other organizations, increasing communication with the IGS Membership to improve the benefits and value delivered to both Individual and Corporate members, and expanding the use of the IGS' educational and informational efforts through technology.



Karpurapu Rajagopal

Dr. Rajagopal is currently Professor and Head of the Department of Civil Engineering at Indian Institute of Technology Madras (IIT Madras), India. He is a member of IGS for more than 20 years. He worked as a Research Associate at the Royal Military College of Canada (RMC) for seven years during 1986-1993 during which time he was initiated into geosynthetics. He has been a faculty member at IIT Madras since 1993. He is an active researcher and consultant in the areas of geosynthetics and reinforced soil structures in India. He has guided nine (9) Ph.D. students and nine (9) Master of Science candidates at IIT Madras. He has provided consultancy services to practically all the geosynthetic related companies in India on different problems including landfills, reinforced soil retaining walls and slopes, road bases and in situ soil stabilisation using soil nailing. He has published more than 100 papers in different journals and conferences. He is currently an Editorial Board Member of the journal *Geotextiles and Geomembranes*. He has travelled widely all over the world to attend different conferences.



Xiao-Wu Tang

Prof. Xiao-Wu Tang is the Deputy-Director of Institute of Geotechnical Engineering of Zhejiang University, MOE Key Laboratory of Soft Soils and Geoenvironmental Engineering. He also served as the Deputy-Dean of Chu Kochen Honors College, Zhejiang University. Prof. Tang is very active in professional activities including having been the General Secretary of Chinese Chapter of International Geosynthetics Society (CCIGS), Vice-Chairman of CCIGS and Chinese Technical Association on Geosynthetics (CTAG), a Council Member of International Association of Lowland Technology (IALT).

Prof. Xiao-Wu Tang received his Ph.D from Saga University, Japan, in 1998, for work on consolidation of multi-layered ground with vertical drains, and became a faculty to this University before he come back Zhejiang University in 2002. Prof. Tang has extensive research and consulting experience in the geotechnical and geoenvironmental engineering field. His expertise spans from ground improvement, waste management and containment, landfill, reinforcement by geosynthetics, and et al.

Prof. Xiao-Wu Tang has served as the General Secretary for "The 4th Asian Regional Conference on Geosynthetics (Geosynthetics Asia 2008)" under the auspices of IGS, and the General Secretary for "The International Symposium on Geoenvironmental Engineering (ISGE 2009)" under the auspices of ISSMGE TC5. Prof. Tang is one of editor-in-chiefs of the proceedings of the above two international conferences which were published by both Springer Press and Zhejiang Univeristy Press. He was elected as the vice chairman for "the First National Conference on Geoenvironmental Engineering and Geosynthetics" and "the Second National Symposium on Unsaturated Soils". Prof. Tang is the vice editor-in-chief of "Journal of Geosynthetics Technique" (in Chi-

nese) which has 6 issues per year. As the General Secretary of CCIGS, he translated the IGS Educational Leaflet Flyer and other materials crafted by the Education Committee of IGS in Chinese.



Nathalie Touze-Foltz

Dr Nathalie Touze-Foltz is a researcher in Cemagref Antony, a public research institute in France. She received her diploma in hydraulic engineering in 1995 from Ecole Nationale du Genie de l'Eau et de l'Environnement de Strasbourg (France) and her PhD in 2001 from Ecole des Mines de Paris. She finally defended her Habilitation based on the research work she performed on the quantification of transfers through lining systems in 2007. Dr. Touze-Foltz has been conducting research on geosynthetics for the past 15 years, with particular emphasis on environmental applications. She has authored/ co-authored about 70 papers and serves on a number of national technical committees especially as regards the use of geosynthetic clay liners in landfills and tunnel applications, equivalence issues and puncture protection of geomembranes. She is currently a member of the council of the French Chapter of IGS. She is also very active in ISO TC 221 and CEN TC 189. She is an Editorial Board Member of *Geotextiles & Geomembranes*. If elected to the Council, she will take an active role in the IGS in the diffusion of knowledge and recommendations in the field of geosynthetics.



Delma Vidal

Delma Vidal is Professor and Head of the Geotechnical Department at the Instituto Tecnológico de Aeronáutica (ITA), a federal gov-

ernment institution dedicated to provide high level education and research in Brazil. She received her PhD in 1985 from the University Joseph Fourier, Grenoble (France). Since 1986, Dr. Vidal has conducted research on geosynthetics and soil behavior, working with civil and environmental engineering applications. She has published over one hundred papers. Regarding the growth and consolidation of geosynthetics in South America, she has been directly involved with geosynthetics education and standards development. She was the first president of the Brazilian Geosynthetic Technical Standards Committee (1992-2002), which has produced the Brazilian national standards on geosynthetics. She is a founding member of the Brazilian IGS Chapter, and served as the Chapter president during the period 1999-2003. In recognition to her effort, she received the IGS Achievement Award in 2008. She is currently serving as Secretariat General of the upcoming 9th ICG, to be held in Brazil in 2010. Her nomi-

nation is supported by the Brazilian IGS Chapter. If elected to the Council, she intends to work hard to consolidate geosynthetics education and research in the developing countries by providing the necessary tools for a continued spread of geosynthetics applications.



Chungsik Yoo

Prof. Chungsik Yoo is a Professor of Civil and Environmental Engineering at Sungkyunkwan University in Korea. He obtained his Ph.D. in Civil Engineering from the Pennsylvania State University in 1993. He worked as a Geotechnical Engineer at Mueser Rutledge Consulting Engineers in USA and

subsequently became a faculty member at Sungkyunkwan University in 1994. He has co-authored over 40 technical papers on geosynthetic-reinforced soil retaining structures based on laboratory testing, numerical modeling, and field testing. Prof. Chungsik Yoo has been working as a core member of geosynthetics community in Korea for more than 16 years by providing services for IGS Korean Chapter, Korean Geosynthetic Society, and also geosynthetics industry. Prof. Chungsik Yoo successfully organized the 3rd Asian Regional Conference on Geosynthetics (GeoAsia 2004) in 2004 which was held in Seoul, Korea. He is currently the Secretary of IGS Korean Chapter and an Executive Council member of Korean Geosynthetic Society. He is also serving as an Editorial Board Member for the IGS official journal, Geotextiles and Geomembranes. If elected to the council, he will take an active role in IGS to provide services to all of IGS membership and world's geosynthetics community.

Conference Reports

GeoAfrica 2009 2 - 5 September 2009, Cape Town, South Africa



The first African Regional Conference on Geosynthetics, GeoAfrica 2009, was held at the Cape Sun Hotel in Cape Town from 2 to 5 September 2009, and was organized by GIGSA, the South African Chapter of IGS. After months of planning for such an event, it is difficult to know how to report on GeoAfrica 2009. The most important point is that the conference was undoubtedly a technical, social and financial success, much to the relief of the organizers. It was also a great opportunity to catch up with old friends and indus-

try legends, as well as to meet a new generation of up-and-coming professionals in the geosynthetics industry.

The conference covered four broad themes in geosynthetics applications: barriers, erosion protection and separation, soil reinforcement, and filtration and drainage. There were three excellent keynote addresses by Kerry Rowe, Kelvin Legge and Jorge Zornberg; three highly informative special lectures by Sam Allen, Richard Bathurst, and Malek Bouazza; and 65 technical papers were presented, which were generally of a high standard. The exhibition hall was lively too, with 31 stands, many taken by international vendors. In total, 177 delegates attended, with good international representation.



Some presenters at GeoAfrica 2009, including the IGS Past President Daniele Cazzuffi, originator of the concept of the GeoAfrica conferences

GeoAfrica 2009 was a world-class conference, and allowed a vast body of information to be assimilated by delegates in a matter of days. There was informed debate on currently contentious issues, such as the testing and appropriate use of GCLs. Of particular benefit were presentations of state-of-the-art practice, such as in Kerry Rowe's keynote address on the long-term performance of leachate collection systems and ge-

omembrane liners for MSW landfills, Richard Bathurst's special lecture on recent developments in reinforced soil wall testing, analysis and design, and Sam Allen's special lecture on laboratory testing for geosynthetic durability and reinforcement design. Kelvin Legge's keynote presentation on Geosynthetics for Africa highlighted the extensive and varied use of geosynthetics on the African continent. This was supplemented by Malek Bouazza's interesting paper on case histories of geosynthetic applications in North Africa, while Jorge Zornberg's keynote explored the potential for the use of geosynthetic capillary barriers in alternative landfill capping systems.

An award for the paper considered to have made the best contribution at the conference was made to Nathalie Touze-Foltz, for her paper on the effects of premature hydration on the hydraulic performance of geosynthetic clay liners.

On day two of the conference GIGSA made six honorary life membership awards, as well as awards for development in technology, construction, and the president's award. The IGS also used the opportunity to make 20 year corporate membership awards to Tensar International UK, Tensar International Corporation USA, and The Reinforced Earth Company International.



Kelvin Legge (left) and Clifford Gundle at the opening of the exhibition

The conference social events included a welcome function with entertaining talks by two of the 'grand old men' of geosynthetics in South Africa, Glen Lawson and Clifford Gundle.

The conference dinner on the Friday evening had a Cape Malay theme, and the entertainment was memorable, particularly the dancing of Loke and his lovely wife with the Cape Malay choir.



Participants at the conference dinner

The trip to Spier wine estate was also a highlight, with many delegates interacting with cheetahs, tasting home grown South African wines, and enjoying a sumptuous meal at Moyo African restaurant. Other social activities around the conference included an anchor sponsor evening at a German brewery at the Victoria & Alfred Waterfront, where some of the ladies enjoyed being served drinks by Clifford Gundle himself! The IGS Council members also ventured to try African cuisine at a traditional restaurant in Cape Town. I am sure that Russell Jones' introduction to a "smiley" (sheep's head) will remain with him for many years to come!



Russel Jones with his "smiley"

GeoAfrica 2009 would not have been a success without our sponsors Aquatan, CETCO and GSE (anchor sponsors); Golder Associates, Huitex Geosynthetics, Jones & Wagener, PD Naidoo & Associates and Geosynthetica.net (chain sponsors) and Gast, BKS, Enviro-Fill, EnviroServ, Geotextiles Africa, KV3 Engineers, SRK Consulting and Steffanuti Stocks (link sponsors). Kaytech sponsored the proceedings and provided the hall monitors, Gast sponsored the conference folders, and Nampak Recycling sponsored the refuse bins. Thank you for making GeoAfrica 2009 possible, particularly in a tough economic climate.



Peter Legg, Chair of Organizing Committee, Peter Davies, Chair of Scientific Committee, Garth James, President of GIGSA

As with any large event of this nature, there are many people to thank. The members of the organizing committee, as well as the past and present GIGSA committees, all deserve thanks. A few deserve special mention: Peter Davies for organizing the technical aspects of the conference, from reviewing abstracts and papers, liaising with the scientific committee and paper authors and developing the proceedings, to coping with a number of last-minute paper retractions; Kelvin Legge for doing an excellent job of attracting sponsorship during tough economic times; and Mike Wittmann for managing the finances and providing a wise sounding board when tempers flared. Lesley Ferreira of Cebisa Conferences was the conference organizer, and went above and beyond the call of duty for GeoAfrica 2009. She and her team ensured the smooth-running of the conference itself, and her experience proved its worth over and over again.



Lesley Ferreira, head of organizing team, Peter Legg, chairman of GeoAfrica 2010

I need to thank the IGS council and the executive officers in particular who encouraged and advised us throughout the planning and preparation leading up to the conference.

Lastly, I would like to thank all the international delegates who travelled great distances to participate in GeoAfrica 2009. We were honoured by your presence and we thoroughly

enjoyed showing off our beautiful country and its people to you.

I look forward to seeing you all at the next GeoAfrica conference in 2013, probably in North Africa!

Reported by

*Peter Legg, IGS Council Member
and Conference Chairman of
GeoAfrica 2009*

Sardinia 2009

Twelfth International Waste Management and Landfill Symposium

5 - 9 October 2009, S. Margherita di Pula, Cagliari, Italy



The twelfth edition of the Sardinia Symposium, organised by the IWWG (International Waste Working Group, www.iwwg.eu) with the auspices of IGS, was held in Forte Village, Santa Margherita di Pula, Italy from October 5th to 9th.

The event was attended by more than 800 participants (researchers, technicians, administrators and operators) from 65 different nations and saw the presentation of 580 scientific papers in 128 general, specialized and workshop sessions.

New concepts and findings were presented, ranging from waste minimisation and “zero waste” strategies and new support tools for waste management decision-makers, to environmental cost analysis and comparison of greenhouse gas emissions provided by several types of treatment plants.

Specialised sessions and workshops provided for extensive discussion on the optimisation of existing technologies and development of new ideas, placing particular emphasis on controversial issues such as thermo-valorization (incineration, pyrolysis, gasification), and the production and use of CDR, including monitoring, environmental impact and health effects of emissions.

The role of landfills, the ultimate destination in any waste management strategy, was widely debated, focusing particularly on their current role as “carbon sink” and the tech-

niques applied to guarantee environmental availability. Several specialised sessions, during which innovative international projects were presented, were devoted to the recovery and reclamation of abandoned sites and the environmental requalification of landfill sites. As usual, the geosynthetics engineering items played an important role in several sessions.

Moreover, Daniele Cazzuffi, in his capacity of IGS Immediate Past President, was invited to give a speech at the Opening Session.

Thermal treatment and energy from waste

A particularly intense debate arose during sessions focusing on the thermal treatment of waste and possible effects on the health of the population. Massimo Federico, environmental oncologist at the University of Modena, illustrated the findings of a study performed from 1991 to 2005 on the resident population of Modena aimed at evaluating the incidence of cancer in a population residing in the vicinity of a thermo-valorization plant for municipal waste. To assess the risk of exposure, three belts at an increasing distance from the plant, up to a maximum of 5 km, were identified; place of residence was taken as an indicator of exposure, variations in incidence rate were analysed using specific spatial and spatial-temporal statistical models. Data analysis performed on all types of tumour revealed no evidence of increased cancer risk in populations residing in the vicinity of the Modena thermo-valorization plant.

Landfill disposal

Jan Gronow (Imperial College, London) underlined how UK regulations oblige all technical options to comply with criteria established by the 1999 European Landfill Directive

(reduction of greenhouse gases from landfills, reduction of biodegradable organic substance for landfilling) and emphasize the need to reduce potential methane emissions from landfills by means of aerobic biological treatment of residual wastes. As observed previously, despite the increment of separate collection, residual wastes deposited in containers for dry non-recyclable wastes still contain a significant percentage of putrescible organic substance, mainly represented by food in its original wrapping. Therefore, a landfill should be considered an integral part of the waste management system, being constructed and managed in compliance with innovative technologies for environmental protection, likewise being taken into account for the production of bioenergy.

Even though current landfills may provide adequate guarantees during the period of active management, this is not necessarily true for plants in the long-term. Indeed, the European Directive implemented by numerous national laws, dictates the need for financial guarantees to cover the entire post-closure stage of landfill activity for a period of no less than 30 years. The latter implies that emission monitoring and control activities subsequent to landfill closure is guaranteed for a period of 30 years, following which it is not clear who will be responsible for the latter and where funds will be obtained. In previous editions of the Sardinia Symposium it has been demonstrated how the barriers emplaced are capable of containing leachate over a limited period of time: the natural phenomena of material ageing lead to a loss of efficacy with possible uncontrolled emissions after a certain period that invariably does not exceed the 30-year post-closure stage. This is where the NIMOT (Not In My Of-

Time) Syndrome arises, apparently persuading legislators to leave the problem to their successors. To this regard, activities undertaken by the IWWG Task group on Sustainable Landfilling has been particularly productive. The Task Group is attempting to define optimal management techniques, reference parameters and limit values to be applied in final landfill quality, in order to achieve a landfill capable of providing guarantees in the long-term and facilitating the controlled onset of a so-called “functional stability” over a reasonable time-frame.

Environmental communication and public involvement are moreover of the utmost importance, particularly in avoiding unmotivated resistance to landfills, including the NIMBY (Not In My BackYard) Syndrome, that subsequently evolves into the BANANA (Build Absolutely Nothing Anywhere Near Anybody) Syndrome, implying the absolute refusal of any type of technical installation resulting in the inevitable uncontrolled dumping of wastes.

Awards

Four awards were assigned during the Symposium and were delivered to recipients in occasion of the Gala Dinner. The winners were as follows:

- “Kriton Curi Award” for the best paper on waste management in developing countries: “Separation and composting plant in small cit-

ies of Zona da Mata, Minas Gerais, Brazil”, by A.A.P. Tinôco, I.C.D. Azevedo, R. Azevedo and E.A.G. Marques, Federal University of Viçosa, Brazil

- “Giovanni Bozzini Award” for the best Italian paper: “The influence of the Bolzano waste incineration plant and domestic heating on air quality in the province of Bolzano”, by G. Angelucci, K. Bedin, W. Tirlir and M. Donegà, Waste Management Department of the Province of Bolzano & Eco-Research, Bolzano, Italy
- “Alberto Rozzi Award” for the best poster: “Low cost and simple technology type leachate treatment system for developing countries”, by T. Fukushige, A. Tanaka and Y. Matsufuji, Fukuoka University, Japan

The recipient of the sixth 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 given to Rainer Stegmann: from 1982 – 1990 Rainer Stegmann was Professor at the Institute of Environmental Protection and from 1991 to 2008 Head of the Institute of Waste Management at the Technical University of Hamburg, Germany.

Social events

Symposium participants were able to enjoy a detailed social programme throughout the five days of the conference: from the Karaoke evening in the Forte Village disco to the traditional folk music and dances during the Sardinian Dinner in the “Su Talleri” restaurant, and the Gala Dinner that closed the Symposium. The traditional football match was extremely popular this year, with several teams taking part in a mini-tournament. An opportunity to play sports and have fun even in the highly scientific context of the Sardinia Symposium!

The next edition of the Sardinia Symposium has been scheduled for October 3rd – 7th 2011, once again in the traditional venue of Forte Village Resort.

To obtain the proceedings of the Sardinia Symposium (one volume of 1200 pages containing the extended abstracts and one CD-Rom containing all the papers), please contact Eurowaste at:

eurowaste@tin.it

*Reported by
Daniele Cazzuffi, IGS Immediate Past President, and Roberto Raga, University of Padua*



Invited speakers at the Sardinia 2009 Opening Session (from the left): Rainer Stegmann (Hamburg and Singapore Universities), Giancarlo Longhi (CONAI Executive Director), Raffaello Cossu (Padua University and IWWG President), Susan Thornloe (EPA United States) and Daniele Cazzuffi (IGS Immediate Past President)



Fully packed room for the Sardinia 2009 Opening Session with more than 800 participants

Jubilee Symposium on Polymer Geogrid Reinforcement

8 September 2009, London, UK



A call for industry and universities to drive forward key opportunities for research into polymer geogrid applications has been made following a successful symposium to mark 25 years of technological advancement in the field.

More than 150 people attended the Jubilee Symposium on Polymer Geogrid Reinforcement in London which identified important new directions for further development in geogrid reinforcement technology and innovation to achieve more cost-effective and environmentally responsible soil structures and road engineering. The following themes were covered on the day:

- The Birth and Coming of Age of Geogrids
Professor R.M Koerner, Geosynthetic Institute
- Geogrids in Unpaved Roads and Hardstandings
Dr. J.P. Giroud, JP Giroud Inc
- Geogrids in Permanent Roads and Railways
Professor S.F Brown, University of Nottingham
- Geogrids in Walls and Steep Slopes
Professor A. McGown, University of Strathclyde
- Identifying the Direction of Future Research

Professor C.J.F.P Jones, University of Newcastle

Chris Jenner, Chief Engineer for Tensar International and a keynote speaker said: "The overall conclusion was that that polymer geogrid reinforcement can be successfully used for an even wider range of soil structures than at present. To do that, further research is required into the fundamental interaction mechanisms between soil and grid.

"We identified several opportunities where better understanding will lead to further advances in soil structures and pavement engineering and improved breadth and depth of application for polymer geogrids."

A key speaker was John Armit, Chairman of the ESPRC, who emphasised the opportunities for funding further joint research and stated: "In the early 1980s, the EPSRC and Tensar International co-funded the collaborative research programme in Polymer Geogrid Development, bringing together universities and industry in the area for the first time.

We continue to support and encourage partnerships between academia and the construction industry which produce world class research with potential to transform practice and have real economic impact."

The Symposium welcomed leading academics in geotechnics and Prof. J B Burland from Imperial College London gave the opening address. There was also active involvement from more than 20 engineering students with current research interest

in geogrid engineering.

The legacy of success of the Geogrid Symposium is being continued on a dedicated website, www.jubilee-symposium.co.uk, and proceedings and webcasts can also be viewed there; it will also be a source of background knowledge for the industry as a whole.

The Symposium was held at the Institute of Civil Engineers in Tuesday 8 September and sponsored by key organizations contributing to the field:

- Association of Geotechnical and Geoenvironmental Specialists
- Tensar International
- The Ground Forum
- The Royal Academy of Engineering
- Engineering Group of the Geological Society
- Engineering and Physical Sciences Research Council
- The British Geotechnical Association
- UK Chapter of the International Geosynthetics Society

For further information visit

www.jubilee-symposium.co.uk

(Please note that you can view there also the full speeches recorded during the symposium!) or email:

info@jubilee-symposium.co.uk

Reported by

Neil Dixon, Chairman of IGS-UK

International Symposium on Geoenvironmental Engineering (ISGE 2009)

8 - 10 September 2009, Hangzhou, China

The International Symposium on Geoenvironmental Engineering (ISGE 2009) was successfully held in Zhejiang University, Hangzhou, China, from 8th to 10th September, 2009. ISGE 2009 was organized by MOE Key Laboratory of Soft Soils and Geoenvironmental Engineering in Zhejiang University, CISMGE and

CCIGS, under the auspices of ISS-MGE TC5, sponsored by K.C.Wong Education Foundation, and National Natural Science Foundation of China, as well as Zhejiang University Zeng Guo-Xi Lecture Fund.

More than 200 academic researchers, practical engineers and administration officers from 21 countries

and regions attended this symposium. The proceeding of this symposium entitled with "Advances in Environmental Geotechnics" (943 pages) was published by Springer and Zhejiang University Press. The proceeding encloses 2 Zeng Guo-Xi Lectures, 26 Invited Lectures and 97 papers. Technical exchanges

were carried out on 8 topics associated with "Reclamation of the Past and Toward a Sustainable Geoenvironment". The topics covered include:

- Basic and advanced theories for modeling of geoenvironmental phenomena
- Testing and monitoring for geoenvironmental engineering
- Municipal solid wastes and landfill engineering
- Sludge and dredged soils, geotechnical reuse of industrial wastes
- Contaminated land and remediation technology
- Applications of geosynthetics in geoenvironmental engineering
- Geoenvironmental risk assessment, management and sustainability
- Ecological techniques and case histories.

We are privileged to have Prof.

Pedro Seco e Pinto (President ISSMGE) and Prof. R. Kerry Rowe (Fellow of the Royal Society of Canada, Rankine Lecturer, and Past President of IGS) as the 2009 Zeng Guo-Xi Lecturers. Two lectures on "Static and seismic analysis of solid waste landfills" and "Systems engineering the design and operations of municipal solid waste landfills to minimize contamination of groundwater" were given by Prof. Pedro Seco e Pinto and Prof. R. Kerry Rowe respectively on September 10, 2009.

24 invited lectures and 60 oral presentations were given by Prof. D.G. Fredlund, Prof. H.R.Thomas, Prof. Takeshi Katsumi, Prof. M. R. Madhav, Prof. Xiu-Run GE, Prof. Bruno BussiÈRE, Prof. Yun-Min Chen , Prof. Tony L.T. Zhan, Prof. Ren-Peng Chen, Ms. Yi-Xin Dong, Dr. Wolf-Ulrich Henken-Mellis, Prof.S. Glendinning, Dr.Li-Ming HU, Dr. Stephan A. Jefferis,

Prof. Song-Yu LIU, Prof. D. J. Richards, Dr. Gregory N. Richardson, Prof. Jian-Yong Shi, Dr. Jiro Take-mur, Prof. Xiao-Wu Tang, Dr. Albert T. Yeung, Prof. Wei-Min Ye, Prof. Wei Zhu, Dr. Chung-Tien Chin and others.

All delegates visited Hangzhou Tianziling MSW Sanitary Landfill, which is the 1st. one in China that was constructed and operated according to the national standard "Standard for Pollution Control on the Landfill Site of Municipal Solid Waste" (GB 16889-1997), and it is also the 1st. landfill that has successfully installed the biogas engines for combined heat and electricity production in China.

*Reported by
Xiao-Wu Tang, IGS News Correspondent for IGS-China*



Participants of the International Symposium on Geoenvironmental Engineering (ISGE 2009) in Hangzhou, China

3rd Remediation Technologies Expo, RemTech 2009 23 - 25 September 2009, Ferrara, Italy



From Wednesday 23 to Friday 25 September 2009, the third edition of **RemTech Expo** – Remediation Technologies Exhibition and Conferences, took place in Ferrara, Italy, with the auspices of various leading societies, including the IGS Italian Chapter (AGI-IGS). RemTech Expo is an unique event en-

tirely dedicated to remediation techniques and to territory requalification, the ideal place for meetings between operators, manufacturers, contractors, institutions and academics, in order to build together workable solutions for the environment.



Ceremony of the first RemTech Awards, assigned to the six best thesis discussed in Italian Universities and related to reclamation technologies items. In the first row, Nicola Zanardi (President of Ferrara Exhibition Conference Centre), Luca Bonomo, Daniele Cazzuffi and Giuseppe Rossi (the three members of the RemTech Awards Committee selection).

More than 2.500 visitors attended the event (+30% vs. 2008). At the end of the Opening Conference chaired by Daniele Cazzuffi, coordinator of the RemTech Scientific Committee and IGS Immediate Past President, the ceremony of the first RemTech Degree Awards took place. The Awards were assigned to the six best thesis discussed in Italian Universities and related to reclamation technologies items.

Renewed exhibition area was characterized by over 110 booths, coming from the sectors of: characterization, analysis, remediation, monitoring, demolitions, general contractors, dredging, geosynthetics, asbestos, requalification, insurances, services, design companies and environmental communication firms.



Organisation and Scientific Committee staff of RemTech 2009 in Ferrara



Opening Session of the RemTech 2009 International Symposium on Contaminated Soils and Sediments.

From the right Daniele Cazzuffi (CESI Milano, Italy), Jos Brils (Deltares, Utrecht, the Netherlands), Luca Bonomo (Politecnico Milano, Italy) and Kevin Gardner (New Hampshire University, Durham, USA)

At least 12 booths were related to geosynthetics manufacturers, distributors and applicators.

Into the area reserved to Foreign Delegations – Czech Republic, Slovakia, Romania and Hungary – exhibitors met delegates from Ministries in bilateral meetings: the project was realized thanks to the support of the Emilia Romagna region.

The focus of RemTech was not only represented by the exhibition, but also by the official

conferences, both national and international, coordinated by the Scientific Committee. Ten different national conferences were organized, regarding in particular laws, characterization, remediation technologies, barrier systems, environmental risk, dredging, demolitions, management and requalification of territory, while the International Symposium was mainly dedicated to contaminated soils and sediments.

The Proceedings of the International Symposium on Contaminated Soils and Sediments (CD-Rom containing 42 papers in English for a total of 336 pages) are available by contacting info@deaedizioni.it

Moreover, about thirty Technical Meetings were organized directly by the exhibitors, all with a huge number of participants.

Special Events, as Workshops and Round Tables, were also organised by the leading societies and by Ferrara Fiere Congressi during the three days of RemTech.

For the next edition of RemTech, that will take place in September 2010, new sectors will be included, on the basis of the suggestions from all interested parties.

See you at RemTech 2010 in Ferrara!

*Reported by
Daniele Cazzuffi, IGS Immediate
Past President, and Coordinator of
RemTech Scientific Committee*

17th International Conference on Soil Mechanics and Geotechnical Engineering (17ICSMGE)

5 - 9 October 2009, Alexandria, Egypt

The International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) held the 17th International Conference (17ICSMGE) from 5 to 9 October 2009 in Alexandria, Egypt. This is a quadrennial event, which ranks among the premier events in the field of geotechnical engineering. The event was held at the spectacular Bibliotheca Alexandrina on the coast of the Mediterranean Sea. A technical exhibition was held in parallel to the conference to provide companies in the field of geotechnical engineering an opportunity to present their products. The "Academia and Practice of Geotechnical Engineering" was selected as the main theme of the 17th ICSMGE. This was in recognition that the geotechnical challenges that the world faces is expected to be addressed by closer collaboration among those who study, research, and practice geotechnical engineering.

The main conference was preceded by the 4th International Young Geotechnical Engineering Conference (4IYGEC), in which two or three young engineers from each member society were invited to debate advances in their areas of expertise. Each young engineer contributed with a paper to this separate conference, and they were tasked with writing a White Paper on the perceived needs in our profession. This was presented in plenary session during the main conference.

The technical program included five State-of-the-Art Reports, presented in plenary sessions, which covered the main areas of geotechnical engineering, namely: a) Material Behavior and Testing, b) Analysis and Design, c) Prediction, Monitoring and Evaluation of Performance, d) Construction Process, and e) Management, Training and Education. The IGS was well represented in the series of State-of-the-Art reports, as IGS Vice-President Jorge G. Zornberg (pictured in **Figure 1**) coauthored the first State-of-the-Art report, which includes a significant portion dedicated to "Behavior and Testing of Soil-Geosynthetic Inter-

faces." This State-of-the-Art report is available at

<http://geosyntheticssociety.org/reports/Alexandria2009.htm> (please note that the file size is 14MB).

In addition, the technical program included a series of three parallel technical sessions, which also included discussion sessions. In particular, one of the technical and discussion sessions involved Geosynthetics. A general report was presented for the papers in this session, and approximately 10 of the papers were selected for presentations. The rest of the papers were presented in the poster sessions. All papers are included in the conference proceedings. Technical visits were organized during the last day of the conference to the Alexandria Port, Giza Pyramids and Aswan Dam.

The Award Ceremony was held on 08 November, the last day of the technical program. We are pleased to report that one of the three Young Member Award recipients was Dr. Nakajima, S. from Japan (pictured in **Figure 2**) for his paper entitled by "Effects of shaking histories and material properties on seismic performance of geogrid-reinforced retaining walls and gravity type retaining walls". This recognition provides good evidence of the significant impact that geosynthetics engineering is having on the overall geotechnical engineering field. It should be noted that Dr. Nakajima's advisor, Prof. Koseki (also pictured in **Figure 2**), is the upcoming Mercer lecturer. Dr. Nakajima's award-winning paper is available at

<http://geosyntheticssociety.org/reports/Alexandria2009.htm>.

The ISSMGE conference organizers provided the IGS a space where a large banner was permanently displayed regarding the upcoming 9ICG in Guarujá, Brazil. In addition, brochures about the 9ICG were distributed throughout the conference. Finally, IGS Brasil President Mauricio Ehrlich was allowed to address the audience during a plenary session where he

invited the participants to attend the 9th International Geosynthetics Conference in Brazil next year.

The ISSMGE council met immediately before the conference, on October 4, at the venue of the 17th ICSMGE. Following a consolidated tradition already started on the initiative of the then IGS President Daniele Cazzuffi with the ISSMGE Council meetings in Prague (2003) and Osaka (2005), IGS President Fumio Tatsuoka was invited to attend the meeting in order to contribute in the following issues of relevance to the IGS, which were discussed by the ISSMGE council:

- Outgoing ISSMGE President Dr. Pinto illustrated the collaborations with the IGS during his term by reporting on the following: "Related with co-operation with IGS Joint Sessions were organized in Ljubljana on the occasion of Danube Conference in May 2006 and also for the 8ICG in Yokohama in September 2006. In addition, Mercer Lecture (by Prof. Palmeira, E. M.) took place in 2007 on the occasion of the Pan American Conference in Isla de Margarita in July 2007 and 14th Asian Regional Conference on SMGE in Kolkata in December 2007. Mercer Lectures (by Prof. Koseki, J.) are also programmed for the 6th ICEGE Conference in New Delhi in November 2010 and 15th African Regional Conference on SMGE in Maputo in June 2011."
- The contents were presented of a letter from Prof. Pinto to Prof. Tatsuoka, dated 27 June 2008, which included the outcome of important discussions regarding financial implications of ISSMGE auspices for future IGS conferences. Specifically, the following decision was reported to the council: "the IGS can use the ISSMGE logo without paying fee to the ISSMGE and should state in publicity that the conferences are organized in association with the ISSMGE".

- The Federation of International Geo-engineering Societies (FedIGS) now comprises the ISSMGE, the ISRM and the IAEG. A number of issues regarding the organization, administration and activities of the FedIGS were discussed during the meeting. The possibility of the IGS joining FedIGS has been considered and will continue to be considered in the near future. Specifically, this evaluation involves assessing if joining the FedIGS will bring tangible additional benefits for the IGS members.

An important decision taken during the ISSMGE council meeting was the election of Professor Jean-Louis Briaud (also pictured in **Figure 1**),

from Texas A&M University in the USA, as next ISSMGE President. Unlike the IGS, which elects its officers by direct vote of each member, the ISSMGE works much like the United Nations with one country one vote; 74 countries were present for the vote. The result of the vote was 56 to 18 and gave Briaud a strong mandate to lead the society for the next 4 years. Professor Briaud took office on Friday October 9th and will lead ISSMGE until the next International Conference which will be in Paris, France in 2013. In his acceptance speech, Briaud indicated that he looks forward to help many countries and many people from all sorts of background come together to exchange ideas and knowledge in a friendly atmosphere. Prof. Bri-

aud has enjoyed a very good relationship with members of the IGS Council and indicated that he expects a strong collaboration not only between the IGS and ISSMGE but also between their Technical Committees and IGS' upcoming Technical Working Groups.

*Reported by
Fumio Tatsuoka, IGS President and
Jorge Zornberg, IGS Vice President*



Figure 1: from left to right: Jean-Louis Briaud (ISSMGE), Bob Holtz (G-I), Christopher Bareither (G-I), David Saftner (G-I), Jennifer Nicks (G-I), Jorge Zornberg (IGS), Carol Bowers (G-I).



Figure 2: from left to right: Dr. Nakajima (Japan), Junichi Koseki (Japan).

Hightex Conference

7 - 8 October 2009, Montréal, Quebec, Canada



The 9th edition of Expo Hightex 2009 took place on 7 and 8 October 2009 in Montreal. Every year, this event gathers experts and the general public around cutting-edge textile technologies and promising business prospects. For almost a decade now, it has been a key reference in Canada for actors in sec-

tors such as aerospace, medical applications and personal protection, and other value-added markets, such as geosynthetics and building envelope materials.

World-class experts provided original, detailed and accessible seminars. JP Giroud covered geosynthetics from both technical and commercial perspectives, explaining attendees why geosynthetics is such a unique market and how it shall be apprehended by textile companies. Following his presentation, other local and international

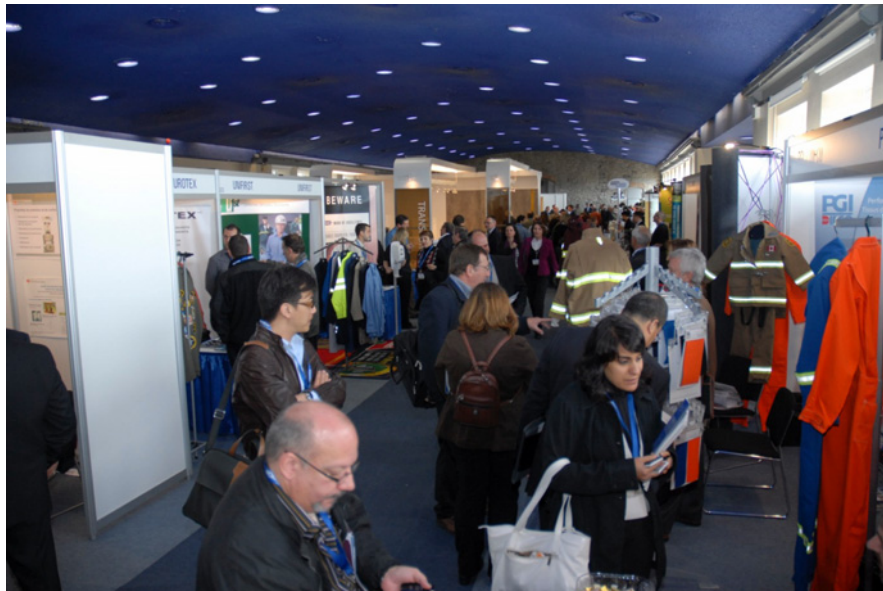
experts from the private and public sectors addressed topics such as approval and regulations governing geosynthetic products, and the commercial opportunities the latter offer.

For example, Pierre Pomerleau, CEO and President of Pomerleau Inc (one of Canada's leading construction companies) outlined the present and future of involvement of textiles in his area of expertise. Robert Biguet (ASQUAL) presented the French geotextile certification process, which was discussed in

the light of its impact on the wealth of the French geotextile market. Marcus Jablonka (Cosella Dörken Products) demonstrated how growing environmental concerns and stringent regulations can create new opportunities for the textile industry and favour creation of added value products.

In the afternoon, the specialized training session 'Geotex' focused on the application of geotextiles in roadway construction. It involved a second presentation by Giroud on this particular topic, as well as a discussion by Rollin on the durability of geotextiles. Finally, Blond (SAGEOS / CTT Group) introduced the various geotextile certifications, listings and markings available for roadway designers in North America and Europe, followed by Chouinard (BNQ) who discussed specifically the certification of geotextiles recently enforced in Quebec.

The three other segments developed within Expo Hightex 2009 were focusing on other growing sectors of the textile industry: transportation, including aerospace with the Canadian Space Agency, Protective clothing and workwear, as well as medical applications.



Exhibition of Expo Hightex in Montréal, Canada

The 'Buytex' segment of the conference was also a tremendous opportunity for new technologies to be introduced directly to the representatives of major buyers from various industries, in order to favour business development and technology transfer. Altogether, 800 delegates walked the exhibition and attended the conferences, a great success given the current economic environment!

Expo Hightex will return again to Montreal in Autumn 2010. For more information about future and past editions, including detailed programmes, please visit <http://www.expohightex.com> or call the CTT Group at 1-877-288-8378.

*Reported by
Eric Blond, SAGEOS / CTT Group*

Announcements of Conferences of IGS

9th International Conference on Geosynthetics – 9ICG Guarujá, Brazil, 23 - 27 May 2010



The 9th ICG Brazil – 2010 will provide an opportunity to learn about and discuss highly technical and scientific geosynthetics issues and their solutions. A primary objective of the conference is to present the most recent developments, improvements and new technologies from the international geosynthetics community.

IGS Brasil - Brazilian Association of Geosynthetics and ABMS - Brazilian Association of Soil Mechanics and Geotechnical Engineering will organ-

ize the Conference, under the auspices of the IGS, in association with the ISSMGE - International Society for Soil Mechanics and Geotechnical Engineering and with the support of the ABINT - Brazilian Association of Nonwoven and Technical Textiles.

Technical Program

More than 350 papers were received and will be presented in 7 parallel sessions and displayed in 3 poster sessions, covering the following themes:

- Cases Histories
- Design approaches and numerical solutions
- Drainage and Filtration
- Geosynthetics in Agriculture and

Aquaculture

- Geosynthetics in Dynamic Applications
- Geosynthetics in Environmental Applications
- Geosynthetics in Hydraulic Applications
- Geosynthetics in Mining Applications
- Geosynthetics in Road and Railway Applications
- Long-Term Performance and Durability
- New Geosynthetic Products
- Properties of Geosynthetics
- Reinforced Earthworks and access roads
- Reinforced walls and slopes
- Soil-Geosynthetic interaction

In addition, Special Lectures, 7 Training Lectures, 4 Short Courses and 4 Meeting the Industry will also be held.

The actual program is available at: www.9icgbrazil2010.info/ingles/programme.asp

Exhibition

More than 50% of the booths are already sold for the commercial exhibition that will be held over 4 days during the conference, where associations and companies will display their products, services and technical solutions.

Detailed information is available at the conference website:

www.9icgbrazil2010.info/ingles/exhibition.asp

Venue

The scenery chosen for hosting the event is Guarujá, a beautiful coastal city, 86 km from the city of São Paulo. The natural beauty of its beaches and islands, perfect places for unforgettable tours, drives one of the Country's best-known leisure destinations.

The city of Guarujá has a large hotel chain, with several hotels located at the Enseada and Pernambuco beaches. This region will have a free shuttle service between the hotels and the event.

The Conference participants who choose not to stay at the hotel of the event, the SOFITEL JEQUITIMAR HOTEL, will easily find different accommodation options. The hotels listed on the website and those close to the shuttle stops will be interconnected with the Airport.

Detailed information is available at the conference website:

www.9icgbrazil2010.info/ingles/accommodation.asp

Registration

Registration with 20% discount is available until November 22nd 2009.

Registration can only be completed through the conference website or at the office desk during the days of the event.

Detailed information is available at the conference website:

www.9icgbrazil2010.info/ingles/registration.asp

or by e-mail: secretariat@9icgbrazil2010.info.br

Language

English is the official language of the conference.

Important Deadlines

Normal prices registration:
23 November, 2009

Final papers due:
14 December, 2009

Conference Secretariat

9ICG - Brazil 2010

Av. Brigadeiro Faria Lima, 1478 sala 314, São Paulo, SP, 01451-001, Brazil.

Tel.: + 55 11 3032 3399

Fax: + 55 11 3819 6311

E-mail: info@9icgbrazil2010.info
website: www.9icgbrazil2010.info

Announcements of Conferences under the Auspices of IGS

International Symposium on Geotechnical Engineering, Ground Improvement and Geosynthetics for Sustainable Mitigation and Adaptation to Climate Change including Global Warming 3 - 4 December 2009, Bangkok, Thailand

During the recent past, the intensity of torrential rainfall and its subsequent destructive influence on human community has become severe and unpredictable due to climate change including global warming. Major water related hazards in the soil slopes with weak geological conditions are sediment related hazards or debris flows that initiate from rain-triggered landslide, massive slope failure or soil erosion or simply remobilization of deposited materials on high-gradient rainfall run-off channel beds. The effect of climate change including global warming, however, is not only limited in causing landslide disasters

with an increased frequency but also in increasing the frequency of occurrence of a variety of natural disasters, for example flooding because of rising sea level. These, densely populated and low-lying areas where adaptive capacity is insufficient, and which are already under threat owing to tropical storms, land subsidence, river bank and coastal erosion, are at an increased risk. Moreover, recent news items has identified that insurance companies blaming bad weather slashing down their profit forecasts by millions of dollars. Consequently, the insurance companies have been forced to raise

the insurance premium to recoup their losses. Recent technological advancements in general and those particularly in the areas of Geotechnical Engineering, Ground Improvement together with Geosynthetic Engineering have been contributing greatly in undertaking scientific and systematic methodologies for assessing the risk associated with natural hazards of all kinds as well as the associated sustainable mitigation and adaptation strategies. In the interest of sharing the advancements in the state-of-the-art, and as a follow up to the previous International Symposium on Geotechnical Engineering, Ground Improvement

and Geosynthetics for Human Security and Environmental Preservation held in December 2007, an International Symposium on Geotechnical Engineering, Ground Improvement and Geosynthetics for Sustainable Mitigation and Adaptation to Climate Change including Global Warming is jointly organized from 3 to 4 December 2009 to be held in Bangkok, Thailand by

- Southeast Asian Geotechnical Society (SEAGS),
- International Geosynthetics Society Thailand (IGS – Thailand) and
- Asian Center for Soil Improvement and Geosynthetics (ACSIG)
- under the auspices of International Geosynthetics Society (IGS)

The conference themes will be

- Geosynthetics for Climate Change due to Global Warming
- Geosynthetics for Coastal and Riverbank Erosions
- Geosynthetics for Sustainable Infrastructures including Limited Life

Geosynthetics

- Geosynthetics for Human Security
- Geosynthetics for Water Conservation
- Geosynthetic for Food and Agriculture
- Landslides and Debris Flows due to Rainfall during Storms and Typhoons
- Mechanics of Rain-Triggered Landslides and Debris Flows
- Early Warning System for Landslides and Debris Flows
- Risk Assessment of Rain-Triggered Landslides and Debris Flows
- Case Studies of Coastal Erosion and Mitigation
- Case Histories of Riverbank Erosion and Mitigation

Technology Visit and Exhibition

A comprehensive technical exhibition for ground improvement and geosynthetics as applied to disaster control, mitigation and rehabili-

tation will be organized at the venue of the Symposium which is to be announced in due course. For booking, please contact the Conference Secretariat.

Language

English is the official language of the conference

For more Information

Prof. Dennes T Bergado, Director / ACSIG

E-mail: bergado@ait.ac.th

Mr. Sonny Montablo, Manager / ACSIG

Phone: +66-2-524-5523

E-mail: acsig@ait.ac.th

www.set.ait.ac.th/acsig/conference

Reported by

Dennes T Bergado, President of IGS Thai Chapter and IGS Council Member

GeoFlorida 2010

20 - 24 February 2010, West Palm Beach, Florida, USA

GeoFlorida 2010 is the annual geocongress of the Geo-Institute of ASCE. It will be held in West Palm Beach, Florida, USA from 20 till 24 February 2010, under the auspices of the IGS. A broad perspective on new developments in geotechnical engineering analysis, modeling and design will be presented.

Technical Topics

- Constitutive Modeling of Soil and Rock
- Site Assessment and Characterization
- Computational Modeling
- Stability Analysis
- Geoenvironmental Engineering,

- Mitigation of Geohazards
- earthquake engineering
- LRFD methods
- Alternative Contracting for Geotechnical Projects
- Case histories

GeoFlorida 2010 will provide practitioners, consultants, researchers, educators, and students with opportunities to share new knowledge and to learn about innovative advances and emerging technologies that are at the leading edge of current geotechnical analysis, modelling and design.

GeoFlorida 2010 will offer technical sessions, plenary lectures,

panel discussions, short courses, workshops and the annual student competition. The conference will also include an extensive Exhibit Hall and post-conference field trips.

Important Dates

Early Bird Registration:
Deadline 5th February 2010.

For more Information:

Email: fox.407@osu.edu

Website:

<http://content.asce.org/conferences/geoflorida2010/index.html>

3rd International Symposium on Geosynthetic Clay Liners

15 - 16 September 2010, Würzburg, Germany

GBR-C 2k10

The 3rd International Symposium on Geosynthetic Clay Liners will be held at the Fortress Marienberg in

Würzburg, Germany from 15 till 16 September 2010.

The Symposium will include oral and poster presentations on the topics mentioned below. Abstract and papers for that presentations

are invited.

GBR-C 2k10 will be organised by SKZ and will be held under the auspices of the IGS. The Scientific Committee is formed by Robert M. Koerner, P.E. (USA), Nathalie Touze-

Foltz (France), Helmut Zanzinger (Germany)

Symposium Themes

The Symposium will deal with the following topics:

- Application / case studies
 - Landfills
 - Canals
 - Reservoirs / Dams

- Transportation Infrastructure
- Durability / Lifetime
- Laboratory testing
- Performance
 - Cation exchange
 - Desiccation
 - Experience from excavation
- Regulations / Approvals

Language

English is the official language of the conference

For more Information

E-mail: gbr-c2k10@skz.de

News from the IGS Chapters and the Membership

New IGS Chapter in Argentina



After removing some obstacles, and with relentless effort and dedication of those who have joined us, the formation of the IGS Argentinean Chapter was finally achieved. It was formed in July 2009, although the idea of shaping it dates to 2008. In fact the idea of setting up an Argentinean Chapter of the IGS goes back to the GeoAmericas 2008 -1st Pan-Am Geosynthetics Conference – Cancun in Mexico in March 2008. The first meeting in the Argentinean chapter was held in Buenos Aires August 2009 and proposed members of the board were confirmed as follows:

- President:



Prof. Sergio A. Reyes

- Vice-President:



Prof. Alejo Sfriso

- Treasurer:



Architect Alberto Dal Farra

- Secretary:



Eng. Marcos R. Darqui

- IGS News correspondent:



Eng. Verónica Rocío Moratto

Many of the professionals that make up our chapter are either lecturers at National Universities or practicing engineers that together will help engineering students to incorporate fundamental concepts of engineering uses of geosynthetics in the geotechnical and environmental fields that are not regularly taught in Argentina.

In 2009 and 2010 we are planning to organize courses and seminars, in an attempt to spread knowledge and innovative solutions in fields like impermeabilization, slope stabilization, mechanically reinforced walls, coastal earthfill and protection, etc.

The chapter is also promoting participation of Argentinean attendants to the 9 ICG International Conferences on Geosynthetics Guarujá, Brazil on 23 - 27 May, 2010.

*Reported by
Verónica Rocío Moratto, IGS News Correspondent*

Three Presentations of the Terzaghi Lecture by J.P. Giroud London - Paris - Montréal

London, UK

9 September 2009

Dr JP Giroud presented the 9th IGS UK Chapter Invitational Lecture on Wednesday 9th September 2009. Dr Giroud, a former professor of geotechnical engineering, is a consulting engineer. Dr. Giroud is chairman of the editorial board of *Geosynthetics International* and past president of the International Geosynthetics Society (the IGS). This prestigious lecture was given in the historical Thomas Telford Lecture Theatre at The Institution of Civil Engineers, London, and was held in association with the British Geotechnical Association.

The 2008 Terzaghi Lecture: *Criteria*

for geotextile and granular filters was first presented at the Geo-Congress of the American Society of Civil Engineers (ASCE). The lecture presented in London was an updated and expanded version of the original lecture. The lecture presented a summary of more than 30 years of work on geotextile and granular filters by Dr Giroud. A rational approach to the development of filter criteria was presented in a lively manner using animated slides to an audience comprised of around 100 geotechnical specialists, dam engineers and members of IGS. In particular, Dr Giroud demonstrated that, while two criteria are needed for granular filters, four criteria are needed for geotextile filters. He also demonstrated

that, while the traditional permeability criterion for granular filters is adequate, the retention criterion for granular filters could and should be improved by adapting some of the features of the retention criterion for geotextile filters. The application of the filter criteria was illustrated and discussed step by step using the case history of the design, construction and performance monitoring of a geotextile filter in a dam constructed in 1970 and still in service. A short but lively question and answer session followed the lecture.

*Reported by
Neil Dixon, IGS Council Member
and Chairman of IGS-UK Chapter*

Paris, France

10 September 2009

On the 10th of September 2009, in Paris, Dr. Jean-Pierre Giroud presented the French version of his Terzaghi Lecture, invited jointly by the CFG (Comité Français des Géosynthétiques), which is the French Chapter of the IGS, and the CFMS (Comité Français de Mécanique des Sols et de Géotechnique), which is the French Society of the ISSMGE (International Society for Soil Mechanics and Geotechnical Engineering). It was the first time a French version of this prestigious lecture was presented.

The "Terzaghi Lecture" is the highest distinction that is attributed every year to a geotechnical engineer in the United States. In 2008, Jean-Pierre Giroud presented the Terzaghi Lecture titled "Criteria for geotextile and granular filters" during the annual congress of the American Society of Civil Engineers (ASCE).

In his own style, with numerous illustrations, Dr. Giroud presented a rational approach to filter criteria. He showed that traditional criteria for granular filters are not sufficient for geotextile filters. He also showed that criteria for granular filters can

benefit from developments made for geotextile filters. He concluded that "what started as technology transfer from geotechnical engineering to geosynthetics engineering resulted in technology transfer from geosynthetics engineering to geotechnical engineering".

The lecture was attended by about 100 engineers and scientists from CFMS, CFG (French Chapter of IGS) and CGB (French Committee

of Large Dams). Also, it must be pointed out that Ing. Daniele Cazzuffi, Immediate Past-President of the IGS, came to Paris to attend the conference on behalf of the IGS Council.

The lecture was very successful, and was followed by a live discussion with the audience, in particular on the use of geotextile filters in dams. The lecture and the reception that followed until late in the evening



from left to right : Daniel Loudière (CFMS), Daniel Fayoux (CFG), Daniele Cazzuffi (IGS), Jean-Pierre Giroud, François Schlosser (CFMS), Nathalie Touze-Foltz (CFG), Jean-Pierre Gourc (CFG), Roger Franck (CFMS)



View of the attendees after the Terzaghi Lecture during the reception offered by CFG and CFMS

were a good opportunity to reinforce the links between the geotechnical and geosynthetic communities. Considering the importance of the subject, the CFMS will post the lecture on its website.

*Reported by
Nathalie Touze-Foltz, IGS News
Correspondent for IGS-French
Chapter and the Secretariat of the
CFMS*

Montréal, Canada 8 October 2009

On October 8, as part of its activities planned for the 2009 - 2010 season, the Western section of Quebec for the Canadian Geotechnical Society (CGS) was honoured to receive as a guest lecturer Dr Jean-Pierre Giroud. Dr. Giroud is the recipient of the 2008 prestigious "Terzaghi Lecture" award for his lecture entitled "Criteria for Geotextile and Granular Filters".

More than 70 people were present from the geotechnical circle of Montreal to attend the lecture, for its second presentation in French language, just one month after its presentation in Paris. The presentation was held in the main offices of Hydro-Quebec, in Montreal. Participants to Dr. Giroud lecture included representatives from major consulting engineering firms, the municipal sphere and part-government owned societies as well as representatives from the region's major universities.

A very animated discussion followed the presentation, focusing on the relevance of opening size measurement techniques, their significances and limitations, and on the practical implications of filtration design on products specification and viability of structures. In fact, the great success of this event represents quite well the interest of local practitioners, researchers, universities and geosynthetic laboratories for the geotextile filtration research and related applications. This lecture was indeed felt by many as being 'in memoria' of the Geofilters conference, held in this city in 1996!

Special thanks shall be addressed to the CTT Group and SAGEOS, organizers of the Hightex conference held on this particular day, who made the presence of Dr Giroud in Montreal possible (see article on Hightex conference in this issue of the IGS news). The Western section of Montreal for the Canadian Geotechnical Society also wishes to thank Mr Giroud for



JP Giroud presenting the "Terzaghi Lecture" in Montréal

his presentation as well as all the participants who attended.

*Reported by
Jocelyn Lavoie (City of Montreal /
CGS, Western Quebec Section) and
Eric Blond (CTT Group / SAGEOS)*

Second Year of Geosynthetic Institute (GSI) Fellowships

The GSI Fellowship program funds graduate students performing research on geosynthetic topics for up to three years of continuous activity. The first year awards are for \$10,000 and the second and third are for \$5,000 each. The criteria are as follows:

1. Students must have passed their candidacy examinations leading toward a doctoral degree. (The reason being that these students are likely to enter academia in a role of teaching and/or research).
2. Students must be doing research on a geosynthetic topic or area which in some way promotes proper use of the materials or system being investigated. (The reason being that such students who do eventually enter academia are likely to continue researching geosynthetics and will hopefully teach courses in, or involving, geosynthetics at their future university).
3. The candidate student must be recommended by his/her advisor or department head. (The reason being that the project will automatically co-opt the advisor and give visibility to geosynthetics within the department).
4. The solicitation for proposals is worldwide in its scope thereby attracting the greatest possible

number of applications. (The reason being that the current membership of GSI is approximately 40% international, i.e., non-U.S.).

This past Spring the announcement for request-for-proposals (RFP's) was sent to about twenty magazines, periodicals, newsletters, and internet sites. The deadline was July 15, 2009 and fifteen were received with about half being from the United States and other half being international. Ultimately, the following three renewal and four new proposals were accepted. (For additional information on the projects go to the GSI Website at www.geosynthetic-institute.org and click on the link "GSI Fellows").

There will be a solicitation for new RFP's due on July 15, 2010 and an additional four or five students will

be selected. This will continue on an annual basis. Thus, from the third year of the program onward, GSI will be supporting ten to fifteen students per year. They will be known as "GSI Fellows" and research that is generated by them will be identified as "being supported in whole or part by the GSI Fellowship program". Hopefully, you will be hearing many great achievements by these students and their respective research activities as we go forward.

Obviously, we at GSI, its Board of Directors, its Members, and Associate Members are delighted to provide this opportunity and are proud to do so. In this regard, do contact any of the current Board of Directors or the undersigned for comments, suggestions, or opinions regarding the fellowship program or its particulars.

- Tony Eith (Chairman) of Waste Management, Inc.
- Boyd Ramsey of GSE Lining Technology, Inc.
- Sam Allen of TRI Environmental, Inc.
- David Jaros of U.S. Army Corps of Engineers
- Paul Oliveira of Firestone Specialty Products, Inc.
- Kent von Maubeuge of NAUE GmbH & Co.
- Dick Stulgis of Geocomp, Inc.
- Gary Kolbasuk of Raven Industries, Inc.
- Wayne Hsieh of NPUST and GSI-Taiwan

*Reported by
George R. Koerner & Robert M. Koerner, IGS members*

Class 1 – Academic Year 2009-'10 (Continued funding for 2nd year)

| Student | Advisor | University | Topic |
|------------------|---------------------|---------------|---|
| Michael McGuire | George Filz | Virginia Tech | Geosynthetic reinforced pile supported embankments |
| Connie Wong | Grace Hsuan | Drexel Univ. | Durability specification development for HDPE transmission and drainage pipes |
| Axel Ruiken | Martin Ziegler | RWTH Aachen | Geogrid behavior used in walls and slopes |
| Eleni Kapogianni | Michael Sakellairou | U. of Athens | GS reinforcement of soil slopes under seismic conditions |

Class 2 – Academic Year 2009-'10 (New funding this year)

| Student | Advisor | University | Topic |
|------------------|---------------------|----------------|--|
| Anil Bhandari | Jie Han | U. of Kansas | Geogrids in pavements under dynamic loading |
| Brent Robinson | Mo Gabr | N. C. State | GT/GG behavior in lime stabilized subgrade soils |
| Ioanna Tzavara | Yiannis Tsompanakis | U. of Crete | Seismic design for GS reinforced walls |
| Majid Khabbazian | Victor Kaliakin | U. of Delaware | GS Reinforced stone columns and embankment stabilization |

Cessation of South East Asian Chapter

The IGS Council, at its meeting held in Cape Town on 1 September 2009, decided that the existence of the South East Asia Chapter has come to a successful conclusion. This is a natural progression for a Chapter that was set up to promote the IGS in the South East Asian region, and which has guided the birth of individual Chapters in Indonesia, the Philippines, Thailand and the West Pacific. It is expected that further IGS Chapters will be formed in South East Asian countries in the near future and the Council believes

that there is no longer a need for a regional Chapter.

The South East Asian Chapter has been very successful over the years. In particular, Professors Chew, Kurunaratne, Tang and Wong worked extremely hard to give us the memorable 5th International Conference on Geosynthetics in Singapore in 1994. We thank the Chapter for contributing significantly to the IGS.

Individual Members in South East Asian region who do not yet have a Chapter in their country are very

welcome in the IGS. The individual membership of those persons in Singapore, Malaysia, Hong Kong, Macau and Brunei is unaffected and no action is necessary for those memberships to continue. We hope these members will continue to be active members of the IGS.

*Reported by
Fumio Tatsuoka, IGS President*

5th Czech Seminar on Geosynthetics 27 - 28 January 2010, Prague and Brno, Czech Republic

The 5th Czech Seminar on Geosynthetics will be held at the Kulturní centrum NOVODVORSKA in Prague on 27 January 2010 and at the Czech Technical University in Brno on 28 January 2010.

The event is being organized by the Czech Chapter of IGS. The seminar is addressed to project designers, investors, contractors, installers of geosynthetics, consultants, environmental and civil engineers, academics. Within the scope of the Lifelong Learning of Czech Chamber Members of Chartered Engineers and Technicians in Construction (ČKAIT), a visitor gains 1 point.

The Seminar operates with the theme “**Significant applications of geosynthetics / implemented structures in the Czech Republic and Slovakia**”. Keynote lectures will take attendees through interesting projects from the early stage of a project preparation, designing, up to the stage of realization. Lectures were structured to cover most of geosynthetics such as geomembrane, geocomposite clay liner, geogrid, geotextile, etc. and all geosynthetics functions. A presentation block will be suitably amended by a lecture focusing on legislation in respect of using geosynthetics.

In addition, a technical exhibition will be held during the seminar with companies presenting the latest geosynthetic products and technologies.

Official language of the Seminar is Czech.

For more information or registration contact Mr. Pavel Mann mann@igs.cz

*Reported by:
Pavel Mann, IGS-Czech Republic
Chapter correspondent*

Golf Day photo finish at Patshull Park UK Chapter's Corporate Sponsors Golf day 2009

Eight teams entered the UK Chapter's Corporate Sponsors Golf day this year. Two from Tensar Int, two from Golder Associates and one each from Geosynthetics Ltd, Huesker, TenCate and Asphalt Reinforcement Services. Team scoring was very close with results ranging from 82 points up to 108. There were four teams within 3 points of each other at the top - a photo finish! Geosynthetics Ltd and Tensar's second team both had 108 points but Tensar had 67 on the back nine against Geosynthetics' 59 so the Tensar team of Craig Roberts, John Evans, Neil Darbyshire and Jonathan Cook were the victors (shown in the photograph). Asphalt Reinforcement Services came in third with 107 points.

Alistair Giffen of the Huesker team won the longest drive and Charles Heather of Golders Team 1 was Nearest the Pin. The best individual stableford score was posted by Chris Foxton of Geosynthetics who won on another count back with a score of 35 - some consolation for

losing the team competition by the same route!

The UK Chapter look forward to welcoming all again next year and would encourage some of the other corporate sponsors to join us.



The golf day's winning team from Tensar Int. - John Evans, Craig Roberts, Neil Darbyshire and Jonathan Cook

*Reported by:
Peter Langley, IGS News Correspondent for IGS-UK Chapter*

List of IGS Chapters including the year of foundation and their Chairpersons

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Argentinean Chapter (2009)
President: Prof. Sergio Reyes,
sreyes@reyesasoc.com.ar

Australia and New Zealand

Australasian Chapter (2002)
President: Mr. Mike Sadlier
sadlier@attglobal.net

Belgium

Belgian Chapter (2001),
Chairman: Frans De Meerleer,
frans.texion@skynet.be
www.belgian-geosynthetics.be

Brazil

Brazilian Chapter (1997)
President: Prof. Mauricio Ehrlich
igsbrasil@igsbrasil.org.br
www.igsbrasil.org.br

Chile

Chilean Chapter (2006),
President: Mr. Mauricio Ossa,
mossa@igs-chile.org
<http://igs-chile.org/index.html>

China

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

Czech Republic

Czech Chapter (2003)
Chairman: Mr. Petr Hubik
igs@igs.cz
www.igs.cz

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French Chapter (1993)
President: Mr. Jean-Pierre Magnan
Francois.caquel@equipement.gouv.fr

Germany

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

Greece

HGS, Greek Chapter (2005)
President: Mr. Dimitrios K. Atmatzidis
dac@upatras.gr

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Indian Chapter (1988)
President: Dr. G.V. Rao
cbip@cbip.org
www.cbip.org

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ina_igs@binus.ac.id

Italy

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agiroma@iol.it
www.associazionegeotecnica.it/~agi/

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Japanese Chapter (1985)
Chairman: Dr. Hiroshi Miki
secret@icigs.or.jp
www.soc.nii.ac.jp/icigs/

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KC-IGS, The Korean Chapter (1993)
President: Dr. Sam-Deok Cho
yusung@chonbuk.ac.kr
www.kgss.or.kr

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Mexican Chapter (2006)
President: Giovanni Bellei
Giovanni.bellei@maccaferri.com.mx

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Netherlands Chapter (1992)
President: Dr. Ir. A. H. de Bondt
mail@ngo.nl
www.ngo.nl

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North American Geosynthetics Society (NAGS) (Canada, USA) (1986)
President: Dr. David Elton
NagsDirector@aol.com
www.nags-igs.org

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Chairman: Arnstein Watn
Arnstein.watn@sintef.no

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gerencia@geoserviceing.com
www.igsperu.org

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pnjavier@hotmail.com
www.igsphilippines.com

Poland

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Chairman: Prof. Adam Bolt
abolt@pg.gda.pl

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Portuguese Chapter (2003)
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Lcosta@fe.up.pt

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Romanian Chapter (1996)
President: Dr. Valentin Feodorov
mserbulea@gmail.com

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ofrikhter@permonline.ru

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South African Chapter (1995)
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geotexp@iafrica.com
www.gigsa.org

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Spanish Chapter (1999)
President: Mr. Angel Leiro
pabad@cetco.es
www.igs-espana.com

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Thai Chapter (2002)
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bergado@ait.ac.th
www.set.ait.ac.th/acsig/igs-thailand

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Turkish Chapter (2001)
President: Dr. Orkun Akkol
orkunakkol@orientresearch.com

United Kingdom

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Chairman: Neil Dixon
n.dixon@lboro.ac.uk
www.igs-uk.org

West Pacific Regional Chapter

West Pacific Regional Chapter (1997)
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ttateh@cycu.edu.tw

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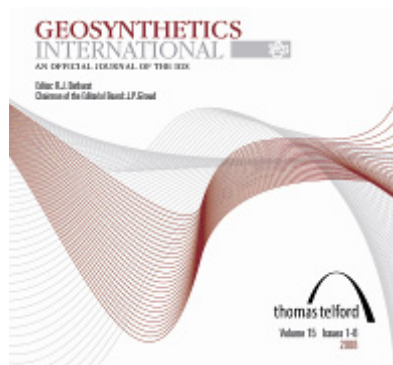
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<http://www.icevirtuallibrary.com/content/issue/qein/16/4>

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Ground vibration isolation with geo-foam barriers: Centrifuge modelling, Pages 423-434, C. Murillo, L. Thorel, B. Caicedo

Interface shear strength of geosynthetics: Evaluation and analysis of inclined plane tests, Pages 435-446, Heraldo Nunes Pitanga, Jean-Pierre Gourc, Orencio Monje Vilar

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Pages 506-512, G. Basu, A.N. Roy, S.K. Bhattacharyya, S.K. Ghosh

Discussion of Sharma, R., Chen, Q., Abu-Farsakh, M., and Yoon, S. (2009) "Analytical modeling of geogrid reinforced soil foundation" *Geotextiles and Geomembranes*, vol. 27, pp. 63-72, Pages 513-515, Ching-Chuan Huang

Reply to the discussions by Huang, C.C. on "Analytical modeling of geogrid reinforced soil foundation" [*Geotextiles and Geomembranes* 27(2), 2009, pp. 63-72], Pages 516-518, Radhey Sharma, Qiming Chen, Murad Abu-Farsakh, Sungmin Yoon

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Geotextiles and Geomembranes: Best papers in 2008

The high flow of excellent papers being submitted to *Geotextiles and Geomembrane* continues and G&G was aging the highest impact journal in the Geological Engineering category with an impact factor of 3.701 (*Journal Citation Reports, published by Thomson Reuters, 2008).

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 Volume 26, 2008. 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 winning papers was decided based on a vote of the Editorial Board members.

Following a rigorous review of the papers I am pleased to announce that two papers that tied for the Best Paper for 2008 were:

- [A study on biological clogging of nonwoven geotextiles under leachate flow](#)
by Ennio M. Palmeira, Aline F.N. Remigio, Maria L.G. Ramos, Ricardo S. Bernardes, *Geotextiles and Geomembranes*, **26**(3): 205-219.
- [Geomembrane strains from coarse gravel and wrinkles in a GM/GCL composite liner](#)
by R.W.I. Brachman, S. Gudina, *Geotextiles and Geomembranes*, **26**(6): 488-49.

Three papers were selected for Honourable Mention

- [Long-term barrier performance of modified bentonite materials against sodium and calcium permeant solutions](#)

by Takeshi Katsumi, Hiroyuki Ishimori, Masanobu Onikata, Ryoichi Fukagawa *Geotextiles and Geomembranes*, **26**(1): 14-30.

- [Analytical modelling of gas leakage rate through a geosynthetic clay liner-geomembrane composite liner due to a circular defect in the geomembrane](#)
by Abdelmalek Bouazza, Thaveesak Vangpaisal, Hossam Abuel-Naga, Jayantha Kodikara, *Geotextiles and Geomembranes*, **26**(2): 122-129.
- [Design of geosynthetic-reinforced platforms spanning localized sinkholes](#)
by Laurent Briançon, Pascal Villard, *Geotextiles and Geomembranes*, **26**(5): 416-428.

as runners-up and hence being judged to be amongst the best papers published in *Geotextiles and Geomembranes* in 2008. Congratulations to all of the authors for their very significant contribution to the geosynthetics discipline.

Reported by

R. Kerry Rowe, Editor of *Geotextiles and Geomembranes*

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Symposia
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Calendar of Events



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E-mail: bergado@ait.ac.th
www.set.ait.ac.th/acsig/conference

Bautex 2010 - Bauen mit Geotextilien (Building with Geotextiles), 9th Sächsisches Bautextilien - Symposium (Saxonian Buildingtextile - Symposium) Chemnitz, Germany
28 January 2010
E-mail: matthias.maegel@stfi.de
www.stfi.de

5th Czech Seminar on Geosynthetics Prague and Brno, Czech Republic
27 - 28 January 2010
E-mail: mann@igs.cz

GeoFlorida 2010
Advances in Analysis, Modeling & Design
West Palm Beach, Florida, USA
20 - 24 February 2010
E-mail: fox.407@osu.edu
<http://content.asce.org/conferences/geoflorida2010/index.html>

CPT'10, 2nd International Symposium on CPT
Huntington Beach, California, United States
9 - 11 May 2010
E-mail: probertson@greggdrilling.com
www.cpt10.com

17th Southeast Asian Geotechnical Conference
Taipei Int'l Convention Center (TICC), Taipei, Taiwan
10 - 13 May 2010
E-mail: dwchang@mail.tku.edu.tw
www.17seagc.tw/welcome.htm

9th International Conference on Geosynthetics
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<http://www.9icg-brazil2010.info>

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www.ntnu.no/numge2010

DECGE - 14th Danube-European Conference on Geotechnical Engineering
University of Technology, Bratislava, Slovakia
2 - 4 June 2010
E-mail: decge2010@guarant.cz
www.decge2010.sk

International Geotechnical Conference "Geotechnical Challenges in Megacities" Moscow, Russia
7 - 10 June 2010
E-mail: info@geomos2010.ru
www.GeoMos2010.ru

7th International Conference on Physical Modelling in Geotechnics
Zurich, Switzerland
28 June - 1 July 2010
E-mail: info@icpmg2010.ch
www.icpmg2010.ch

3rd International Symposium on Geosynthetic Clay Liners Würzburg, Germany
15 -16 September 2010
E-mail: gbr-c2k10@skz.de

4th Remediation Technologies Expo RemTech 2010
Ferrara, Italy
21 - 23 September 2010
Email: info@remtechexpo.com
www.remtechexpo.com

International Symposium on Geomechanics and Geotechnics: From Micro to Macro
Tongji University, Shanghai, China
10 - 12 October 2010
E-mail: mingjing.jiang@tongji.edu.cn
www.geotec.tongji.edu.cn/is-shanghai2010/

6th International Congress on Environmental Geotechnics
New Delhi, India
8 - 12 November 2010
E-mail: 6icegdelhi@gmail.com
www.6iceg.org

Geo-Frontiers 2011
Dallas, Texas, USA
13 - 16 March 2011
E-mail: bjconnett@ifai.com

Index 11
Geneva, Switzerland
12 -15 April 2011
E-mail: index11@geneva-palexpo.ch
www.index11.org

XIV Asian Regional Conference Soil Mechanics and Geotechnical Engineering
Hong Kong, China
23 - 28 May 2011

XV African Regional Conference on Soil Mechanics and Geotechnical Engineering
Maputo, Mozambique
13 - 16 June 2011

Fifth International Symposium on Deformation Characteristics of Geomaterials (IS-Seoul 2011)
Seoul, Korea
31 August - 3 September 2011
E-mail: dkim@kaist.ac.kr

XV European Conference on Soil Mechanics and Geotechnical Engineering
Athens, Greece
13 - 19 September 2011

XIV Panamerican Conference on Soil Mechanics and Geotechnical Engineering (October) & V PanAmerican Conference on Learning and Teaching of Geotechnical Engineering, & 64th Canadian Geotechnical Conference
Toronto, Ontario, Canada
2 - 6 October 2011

EUROGEO5 - 5th European Geosynthetics Conference
Valencia, Spain
16 -19 September 2012
E-mail: info@eurogeo5.org
http://www.eurogeo5.org/index_i.html

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[Hui Kwang Corporation](#)

(Taiwan, R.O.C.)

[Punzonados Sabadell, S.A.](#)

(Spain)

[TMA, S.L.](#)

(Spain)

2001

[ABG Limited](#)

(United Kingdom)

[Engepol Geossintéticos Ltda](#)

(Brazil)

2002

[Alpe Adria Textil](#)

(Italy)

[Edilfloor SpA](#)

(Italy)

[F.L.I. Environmental](#)

(Ireland)

[Laviosa Chimica Mineraria](#)

(Italy)

[Shenzhen Sheng Yi Environmental Co., Ltd.](#)

(China (P.R.))

[Terre Armeé International](#)

(France)

2003

[Ace Geosynthetics](#)

(Taiwan, R.O.C.)

[Ashimori Industry Co., Ltd.](#)

(Japan)

[OJSC "494 UNR"](#)

(Russia)

[Permathene, Ltd.](#)

(New Zealand)

[PRS Mediterranean, Ltd.](#)

(Israel)

[Samyang Corporation](#)

(Korea)

[Tensor Geosynthetics \(China\) Ltd.](#)

(China (P.R.))

2004

[Gidrokor Construction Company Ltd.](#)

(Russia)

[GreenVision, S.p.A.](#)

(Italy)

[GSE Lining Technology GmbH](#)

(Germany)

[Linear Composites Limited.](#)

(United Kingdom)

[NewGrids Limited.](#)

(United Kingdom)

2005

[Copro](#)

(Belgium)

[Dinagrid Geosynthetics S.L.](#)

(Spain)

[High Stiffness Polyethylene Pipes Association](#)

(Japan)

[Seven States Enterprise Co., Ltd.](#)

(Taiwan R.O.C.)

[Tokyo Ink Co., Ltd.](#)

(Japan)

2006

[Beijing Gaoneng Lining Engineering Co., Ltd.](#)

(China (P.R.))

[Checkmate Geosynthetics](#)

(Canada)

[Euroizol Geosynthetics](#)

(Ukraine)

[Garware-Wall Ropes, Ltd.](#)

(India)

[Geoliners de Mexico SA de CV](#)

(Mexico)

[Geosolutions Serviços em Geossintéticos Ltda.](#)

(Brazil)

[geosynthetic.net](#)

(USA)

[GSE Lining Technology Chile S.A.](#)

(Chile)

[I-CORP INTERNATIONAL](#)

(USA)

[MiraCell CCS Sdn Bhd](#)

(Malaysia)

[TeMa Technologies and Materials Srl](#)

(Italy)

[Viganò Pavitex S.P.A.](#)

(Italy)

2007

[Geosintéticos Trical, C.A.](#)

(Venezuela)

[Geosynthetics Technologies Co., Ltd.](#)

(Saudi Arabia)

[Geotech L.L.C.](#)

(United Arab Emirates)

[Supertex, Inc.](#)

(USA)

[Texinov](#)

(France)

2008

[Alyaf Industrial Company Ltd](#)

(Saudi Arabia)

[Aqua Terra](#)

(Republic of Panama)

[BMC Gulf Trading & Contracting LLC](#)

(United Arab Emirates)

[Chidak Baspar](#)

(Iran)

[Coripa S.A.](#)

(Argentina)

[CTH Geosynterer AS](#)

(Norway)

[Fontana International GMBH](#)

(Austria)

[Geosintéticos Origo SA C.V.](#)

(Mexico)

[Intermas Nets S.A.](#)

(Spain)

[Isbir Sentetik Dokuma Sanayi A.S.](#)

(Turkey)

[Kaytech Engineered Fabrics](#)

(South Africa)

[Manifattura Fontana S.p.A.](#)

(Italy)

[Mekamore Co., Ltd](#)

(Korea)

[Ramalho Comercial Ltda](#)

(Brazil)

[Servicios de Ingeniería Geosintética S.A. \(SIGSA\)](#)

(Costa Rica)

[Sohams Foundation Engineering Pvt. Ltd](#)

(India)

[TechFab India Industries Ltd.](#)

(India)

[Tekpro](#)

(Russia)

[TRI/Environmental Inc.](#)

(USA)

2009

[AXTER IBERICA SISTEMAS TECNICOS, S.L.](#)

(Spain)

[Don & Low Ltd.](#)

(United Kingdom)

[EAST COAST EROSION BLANKETS](#)

(USA)

[GEOFABRICS AUSTRALASIAN PTY Ltd.](#)

(Australia)

[Geotexan](#)

(Spain)

[Golden Pow](#)

(Korea)

[National Coir Research & Management Institute \(NCRMI\)](#)

(India)

[Saenal Techtex](#)

(Korea)

[Sotrafa, S.A.](#)

(Spain)

[Teknindo Geosistem Unggul, PT](#)

(Indonesia)

Notes:

- A click to the name of the corporate member leads to the corresponding entry at the IGS website. The corporate members are encouraged to check their entry there!

- Date is earliest year of continuous membership

Corporate Members Reception in Cape Town



Elizabeth Peggs, Chair of the IGS Corporate Members Committee, Fumio Tatsuoka, IGS President

In Cape Town, it was a pleasure for the IGS Council to once again host a special reception for the IGS Corporate membership. This event has become a tradition having been first held at the 6th ICG in Atlanta in 1998 and then continuing in Nice at the 7th ICG. More recently, the receptions have been held both at the ICG, as in Yokohama, and at the Regional conferences in Cancun, Shanghai

and Edinburgh with the most recent event being Cape Town. Each corporate member is invited to nominate one or two representatives of the company to attend the reception where conversations may occur with representatives from other corporate members, officers of the IGS, organizers of the conference and other invited dignitaries.



IGS Corporate Members and IGS Council Members side by side with sharks and other wild creatures living in the Two Oceans

In Cape Town, the Two Oceans Aquarium, which is presented in

the several photographs, offered an excellent forum for a warm social atmosphere where ideas, information, knowledge, and occasionally critiques, were exchanged. This important tradition will continue with the next opportunities to meet in a social atmosphere in Guarujá at the 9th International Conference on Geosynthetics in May 2010 as well as at receptions planned for the regional conferences in Valencia, Lima and Bangkok in 2012. The corporate membership is encouraged to make sure the Secretary of the IGS is fully informed on your communication coordinates; especially email and also any other channels, to insure the corporate members have every opportunity to attend and enjoy these gala opportunities.

*Reported by
Peter Stevenson, IGS Secretary*

Celebrating 20 Years of Corporate Membership Recognition Ceremony at GeoAfrica 2009

On the occasion of the 25th anniversary of the IGS in 2008 the IGS inaugurated a program to recognize companies with a 20 year history of corporate membership. During 2008 at the three regional IGS Conferences in Cancun, Shanghai and Edinburgh, 17 companies were recognized as having attained their 20th anniversary.

In 2009 five additional companies have reached this milestone,

[Belton Industries, Inc. - USA](#)

[Kuraray Co., Ltd. - Japan](#)

[Reinforced Earth Company, The - USA](#)

[Tensar International - United Kingdom](#)

[Tensar International Corporation - USA](#)

The IGS delivered the token of appreciation directly to the corporate headquarters of Belton Industries and Kuraray Co. as they were not able to participate the recognition ceremony during the IGS event "GeoAfrica 2009" in September 2009 in Cape Town, South Africa, as was the case for other three Corporate Members.



from left to right:
Ian Fraser - accepting for The Tensar Corporation (USA), Zikmund Rakowski - accepting for Tensar International Limited (UK), Nicolas Freitag - accepting for The Reinforced Earth Company (USA)

*Reported by
Pete Stevenson, IGS Secretary*

Corporate Members present Case Studies

The IGS Council approved a new initiative in Cape Town which provides the corporate membership the opportunity to present interesting case studies of geosynthetics applications in site works to the IGS and the general public audiences. Conceived as a powerful way to present the story of geosynthetics to a broad audience, the concept is to present a series of half page synopses, or abstracts, of case studies with each case study presented under the company logo and linked to the company web pages for further information and complete detail. The reader who finds a case history inviting can follow up immediately to harvest a full understanding with details and with a connection to the firm.

The editor of the IGS News will invite the corporate membership to present case histories with the most senior members having first priority followed by more recent member companies. For each issue the editor will issue 15 to 20 invitations to submit case histories. Up to 8 case histories will be published in each issue, which means that the entire membership will have the opportunity to tell a story every four years if not sooner. Of course, if a company misses a publication deadline, the editor will make every effort to include the tardy submission in one of the next issues.

Once published, the case history will live on in two forms. First, as the IGS website archives the IGS News, a reader who peruses the

archived issues will have the opportunity to pursue interesting case histories through the identification of and link to the corporate member. Further, the IGS is developing a new and more powerful web site that will include the opportunity for the half page abstract to be expanded to as much as two pages which will also feature links to the corporate member who authored the case history.

Corporate members are encouraged to create case histories that communicate with the broadest user audience, from the small contractor to the landscaper to the sophisticated designer.

Marshlands used for building greenhouse A case study about creating chances

COLBOND

Marshlands are renowned for their very poor load-bearing qualities. When trying to find ways to make these sites economically viable, the traditional solution is soil improvement or piling. These types of improvement often turn out to be too costly, so the wetlands remain unused. For many years, this applied to the former marshlands of Hemmingstedt, situated in the north of Germany. But the challenge has finally been overcome and right now the Hemmingstedt landscape is being transformed into a landscape carrying a 12 ha greenhouse complex. A reliable and cost-effective solution was developed by Dutch geosynthetics specialist Colbond, with the creation of a floating foundation that depends on high quality bi-axial geogrids to deliver the vital soil stabilization.

The solution comprised Enkagrid® MAX and the aramid reinforced geocomposite Enkagrid® TRC, combined with layers of sand or gravel up to 42 cm thick and a Bontec® non woven geotextile to prevent soil mingling. It has converted soft soil, with an unconsolidated undrained shear strength (c_u) of 12 kN/m², into a stable platform for a large greenhouse complex complete with access roads for heavy goods vehicles.

Interesting? Read the full story on www.colbond-geosynthetics.com – click on Downloads / case studies / soil stabilization to find out more.



Corporate Profile - East Coast Erosion Blankets, LLC

IGS Corporate Members are encouraged to publish a Corporate Profile in IGS News. A maximum of three profiles can be published in each issue of 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.



EASTCOAST

erosion blankets

East Coast Erosion Blankets is a manufacturing company headquartered in Pennsylvania, United States. It was established in 2002 and currently has multiple facilities in the United States that are located close to ports to help with exporting. The company produces erosion and sediment control products for temporary and permanent applications. ECEB is dedicated to meeting or exceeding the customer's expectations through excellent customer service and quality products. The East Coast Erosion Blanket product line is available worldwide through the company's distribution network.

Recognizing the need for products that are friendly to the environment and wildlife, East Coast Erosion Blankets has introduced the Eco Select™ line. The biodegradable products include several types of erosion blankets and sediment devices, and can be used in green engineering or environmentally sensitive areas. Made with all-natural raw materials, the products are engineered to control and reduce the damage caused by wind and water erosion. In addition, the products in the Eco Select™ group can contribute to LEED™ certification



ECEB has a technical support team available to assist with questions and a free online software program called EC Designer to aid with project designs. Products range from temporary erosion control blankets made with straw, excelsior wood, or coconut to several varieties of permanent turf reinforcement mats. The products undergo testing through the current industry ASTM standards. ECEB has had tremendous success with its erosion blankets and in partnership with geotextile suppliers. The company's products complement the geotextiles in helping to re-establish vegetation for project completion.

More information is available at Booth #4 at the 9th International Conference on Geosynthetics (9ICG) in Brazil, 23-27 May 2010.

East Coast Erosion Blankets, LLC
443 Bricker Road
Bernville, PA 19506, USA
+1-610-488-8496 main office
+1-610-488-8494 fax
www.eastcoasterosion.com



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N. Freitag (France)
M. Maugeri (Italy)
J. Otani (Japan)
E. Palmeira (Brazil)
E. Peggs (USA)

Co-opted in 2006

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J. Ferreyros (Peru)
P. Legg (South Africa)
P. Stevenson (USA)

Co-opted in 2008

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www.geosyntheticssociety.org

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

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Email: g.braeu@bv.tum.de

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Pete Stevenson, IGS Secretary
Fumio Tatsuoka, IGS President

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IGS News is published three times per year. Material for publication should be submitted to the Editor by 31 January, 31 May, and 30 September, for possible publication in the March, July, and November issues, respectively.

Hints for easy usage of this document

To allow easy and most effective use of this IGS News we tried to incorporate as many links to further information on the internet as possible. This means that moving around with the mouse pointer in the PDF-file allows direct linkage to web-pages of the conferences, documents of IGS, journals, email addresses, IGS Corporate Members

pages and many other things.

Furtheron you can click on the page numbers at the "Content" on the front page to jump directly to the article.

Another useful tool is the "bookmark" function within your PDF-Reader. This functionality shows you on the left part of your screen

the content with the headlines of the articles and on the right part the article itself.

If you have any further ideas to improve the usage of IGS News – please let us know!



International Geosynthetic Society

IGS News Readership Questionnaire

IGS News Readership Questionnaire

The International Geosynthetic Society is undertaking an evaluation of the IGS newsletter, with a view to improving its quality and usefulness. We would appreciate it if you could complete this questionnaire and return it to us, at the address printed below.

Thank you very much.

What best describes your organization?

- | | |
|--|--|
| <input type="checkbox"/> Manufacturer | <input type="checkbox"/> University |
| <input type="checkbox"/> Distributor | <input type="checkbox"/> Student |
| <input type="checkbox"/> Engineering/Design | <input type="checkbox"/> Other type of organization (please specify): |
| <input type="checkbox"/> Installation/Construction | |
| <input type="checkbox"/> Government Service | <input type="checkbox"/> Media |
| | <input type="checkbox"/> Association or Trade Organization |
| <input type="checkbox"/> Testing | <input type="checkbox"/> Individual (Not attached to any organization) |
| <input type="checkbox"/> Research | |
| <input type="checkbox"/> Consulting | |

How would you rank your satisfaction with the IGS News?

| | Very High | High | Average | Low | Very low |
|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Presentation/format | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Readability | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Timeliness of information | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Overall usefulness for your work | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Usefulness of: | | | | | |
| Conference Announcements | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Conference Reports | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| News from Chapters | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| IGS Journals Summaries | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Calendar of Events | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Corporate Membership | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Overall quality | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Do you typically:

- | | |
|--|---|
| <input type="checkbox"/> Read the entire IGS News | <input type="checkbox"/> Read very little of the IGS News |
| <input type="checkbox"/> Read most of the IGS News | <input type="checkbox"/> Disregard the IGS News |

What do you find most useful and/or appealing about the IGS News?

What do you find the least useful and/or appealing about the IGS News?

Suggestions for additional topics of interest for future issues (optional):

Name (optional):

E-mail (optional):

Please return this form by email, mail or fax to:

The IGS Secretariat

IGSsec@geosyntheticssociety.org ~ TEL: | 864-855-0504 FAX: | 864-859-1698

The International Geosynthetics Society

OBJECTIVES OF THE IGS



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. Second, to enjoy the benefits.

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.

The following benefits are now available to all IGS Members:

- the IGS Membership Directory, published yearly;
- the newsletter, IGS News, published three times per year;
- free electronic issues of Geosynthetics International and Geotextiles & Geomembranes;
- a CD containing the 19 IGS Mini Lecture Series;
- a DVD containing the three IGS Videos;
- 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 35)! otherwise please use the online form at <http://www.geosyntheticssociety.org/application.htm> or the following

IGS Membership Application

Membership of the International Geosynthetics Society (IGS) 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 individuals and US\$1000 for Corporate Members. Individuals of, or not of, corporations who voluntarily contribute a minimum of US\$200 annually to the IGS, in excess of their membership dues, will be mentioned in the IGS Directory in a separate list as benefactors.

Write your address below as you wish it to appear in the next *IGS Directory*

Title (circle one): Mr. Ms. Dr. Prof. Other _____ Position _____

First name: _____

Last name: _____

Company name: _____

Address: _____

City: _____ Province/State: _____

Postal code: _____ Country: _____

Telephone: _____

Fax: _____

E-mail: _____

Membership fee schedule: Individual US\$45.00 Corporate US\$1,000.00 Benefactor's contribution (at least US\$200.00)

Send this completed form to:

IGS Secretariat

P.O. Box 347

Easley, SC 29641-0347

USA

Telephone: 1/864 855 0504

Fax: 1/864 859 1698

E-mail: igssec@aol.com

Eligibility (i.e., your connection to geotextiles, geomembranes, related products, and associated technologies):

Mode of payment:

Check enclosed drawn on a US bank

Credit card (circle one): Mastercard Visa American Express

Account number: _____

Expiration date: _____

Name on card: _____

Authorized signature: _____

Date: _____