

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: Back in Africa



Jorge Zornberg

Dear Members of the IGS,

We are extremely pleased to invite you to join us for the second African Regional Conference and Exhibition of the International Geosynthetic Society (IGS), GeoAfrica 2013. The event is organized by the Ghanaian Chapter of the IGS and will be held in Accra, Ghana from 18 to 20 November 2013 (geoafrica2013.com).

Ghana represents the enormous opportunity for geosynthetic technologies in Africa. With a GDP which has grown from 7B to 40B USD in less than 10 years Ghana's need for infrastructure and industrial support is significant. Due to the existence of major

projects in Mining, Transportation and the Environmental Sectors Africa presents numerous, exciting opportunities for the application of geosynthetic solutions. Ghana in particular is in the process of major oil & gas, as well as mining and infrastructure development.

Regarding the particular venue of this landmark conference, it should be noted that Accra has been selected as the number 4 "must visit" place to visit in 2013 (out of 43 locations) by the New York Times (see insert). The beauty and safety of this destination is particularly highlighted in this note. The venue of the conference will be the Accra Convention Center, which has already hosted the most important technical events in Ghana.

Because of the significant Ghanaian and African growth in infrastructure, GeoAfrica 2013 will attract top decision makers from the government and the private sector including prospective users, academics, vendors, policy makers and representatives of various national and international organizations working in the arena of the Geosynthetic industry and technology. Global and Africa-specific perspectives and experiences will be featured in the technical program.

For information on the technical contributions and submission of abstracts go to:

www.geoafrica2013.com.

Important deadlines are:

- **30 April 2013: Deadline for receipt of abstracts**
- **15 September 2013: Deadline for final receipt of papers**



View of the Accra Convention Center, the venue for GeoAfrica 2013.

GeoAfrica 2013 is chaired by Prof. S.I.K. Ampadu, Provost of the leading University in Ghana. This conference benefits from the rich experience gained by GIGSA, the IGS South African Chapter, during the organization of the highly successful GeoAfrica 2009 Conference. In fact, the Technical Committee of this truly African Conference is chaired by GIGSA's Edoardo Zannoni. The technical program of GeoAfrica 2013 will emphasize the existing and potential application of geosynthetic technologies in the African context. This implies technological and social advancement of the industry to suit the needs of Africa and bolster developments appropriate to Africa. The technical and educational programs will include:

- An intense "Geosynthetic Education" day, featuring lectures and training offered by the leading experts in the geosynthetic industry, both at the beginning and advanced levels.
- Two days of plenary and parallel technical sessions including panel discussions on a wide range of geosynthetic applications, but with special focus on the use of geosynthetics in mining and transportation applications.
- Keynote lectures by leading geosynthetic experts in the areas of geosynthetics in mining, pavements, and environmental applications.

The technical program will be complemented by a first-rate exhibit hall which, because of the particularly suitable layout of the Accra Convention Center, will be fully integrated with the technical program. We are also looking forward to the unique social events throughout the conference, including a much-anticipated "Evening of Culture." The official language of the conference will be English.

Growth of the geosynthetics in Africa has been identified as key to the continued growth of the IGS and the geosynthetics industry. We look forward to seeing you in Accra in what will be a memorable GeoAfrica 2013.

All best regards,



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

tel: +1(512) 232 3595

e-mail: zornberg@mail.utexas.edu



"Accra, the capital of Ghana, has welcomed business travelers for years. Now tourists are streaming in, a byproduct of the fact that the country has Africa's fastest-growing economy and is also one of its safest destinations... On Accra's packed beaches, you'll see everything from snake handlers to plantain peddlers. Head to the upscale neighborhood of Osu and hit the tree house-inspired terrace at Buka for fine West African food. The best Ghanaian adventures start with a giant plate of tomato-smothered tilapia and banku — a fermented yeast paste that's tastier than it sounds — washed down with local Star beer. —"

New York Times selected Accra as its #4 out of 46 "Must Visit" destinations in 2013. [Read the full article](#)

General Information for IGS Members

IGS Awards: Call for Nominations 2010 – 2013 Nominations due 31 January 2014



**Fumio
Tatsuoka**

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

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

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

Timeline and Deadlines

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

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

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

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

There are Two IGS Awards

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

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

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

Candidates

All members of IGS are eligible for IGS awards except the President of IGS and the members of the Awards Committee.

Candidates must be members of the IGS. If a group submission is made, all members of the group must be members of the IGS; if this requirement is not satisfied, the entire group will be disqualified. If a company is a candidate, this company must be a corporate member of the IGS. A company cannot be a candidate for the Young IGS Member Achievement Award.

The deadline for candidates to be members and companies to be corporate members of the IGS is 30 June 2013.

IGS members are encouraged to become candidates by providing a written submission to the IGS Secretariat in accordance with the IGS Awards Rules Document, Section Nominations. Any IGS member except the members of the Awards Committee may also make nominations. The Publications Committee, Education Committee, Corporate Members Committee and the IGS Chapters will be invited to make nominations. All candidates will be treated equally (i.e. irrespective of whether they make a personal submission or are nominated). There is no restriction in the number of awards an individual can receive. There is no time restriction between two periods of eligibility, which can correspond to two consecutive four years periods. However, awards can only be given to the same individual provided that they are attributed for two different bodies of work.

The Awards Committee will not be advised as to the name(s) of the individual/group making the submission/nomination (i.e. the method of candidature is confidential).

Nominations

Typewritten nominations of candidates should be provided in English on plain paper (not letterhead) and submitted to the IGS Secretariat. The nomination should include:

- a clear statement of the contribution of the candidate that is to be considered (e.g., if a product, provide a

clear definition of the product; if a paper(s) or book, give the full reference of the paper(s)/book; if a report, a full reference to the report; if a construction method, a clear description of the method and any references, etc.); and

- a clear statement indicating the originality, and significance of the candidate's contribution to the discipline (i.e., in the field of geosynthetics, related products and/or associated technologies).

Candidates who have been nominated will be contacted by the IGS Secretary to obtain their agreement to be a candidate; and proof of age if the nomination is for the Young IGS Members Achievement Award; and will be requested to submit six copies of award candidate presentation packages (e.g. reports, papers etc.), which will be reviewed by the Awards Committee.

All correspondence and activities 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 will comprise five regular members including its chairman (who is appointed by the officers of the IGS). The members of the committee shall be selected so as to represent a broad cross-section of the discipline. The members of the Awards Committee will be selected for their technical expertise. The IGS Secretary will attend all meetings of the Awards Committee as an observer and coordinator.

The Chair (Fumio Tatsuoka) and the vice-chair (Neil Dixon) were appointed by the Council meeting in Bangkok 12 December 2012 held in conjunction of GeoSynthetics Asia 2012. The Awards Committee will soon be formed.

Additional Information

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

Reported by

Fumio Tatsuoka, Chair of IGS Awards Committee

The IGS Young Members Committee



**Nathalie
Touze-
Foltz**

During the last IGS council meeting which took place in Bangkok on December 11th and 12th 2012, the IGS council has approved the creation of the IGS Young Members Committee. A task force was set which is in charge of the mentoring of the IGS Young Members Committee. The idea of the creation of this Young Members Committee arose after the IGS students awardees for the period 2009 - 2012 showed their interest in getting more involved in the IGS than they currently are. Consequently the founding members of this Young Members Committee are the IGS student awards winners for the 2009 - 2012 period.

This Young IGS members committee has been subdivided in three regional sub-committees for the Americas, Europe plus South Africa and Asia, to make communication easier at the regional scale and to help dealing with regional

concerns.

Each regional sub-committee is expected to come up with officers. Elections took place for Europe plus South Africa and Asia.

Irene Nyirenda (South Africa) has been elected as chair, Laura Carbone (Italy) as co-chair and Maria Crespo (Spain) as secretary for the Europe plus South Africa sub-committee.

For the Asian sub-committee, Yang Liu (Australia), Eric Kencana (Indonesia), and Lin Tang (China) were respectively elected as chair, co-chair and secretary.

One of the first objectives of those young, energetic, multi-lingual members will be to draft the aims of the IGS Young Members committee. Ideas which arose in the IGS is to channel efforts towards finalizing some technical tasks which are yet on their way thanks to the Brazilian, Portuguese and Spanish young members like the synthesis of a multi-lingual terminology document, the translation of the IGS leaflets in other languages, the support to the organization of regional conferences among other.

No doubt that the young members will get a multitude of fantastic ideas!

The IGS Young Members Committee is of course opened to all IGS members below 36 who wish to contribute to the tasks each regional sub-committee will decide to undertake.

The task force in charge of mentoring the IGS Young Members Committee is currently drafting rules for application to become a member. Each interested IGS young member shall address his/her CV plus motivation to the officers of his/her regional sub-committee which will give a decision on the relevance of the application. The task force in charge of mentoring the IGS Young Members Committee will take the final decision, in order in particular to ensure a good balance inside the committee.

We wish the Young Members Committee good luck and a long life in the IGS. Go young members!
For more info please contact either the IGS secretariat (IGSsec@geosyntheticssociety.org)

Reported by

Nathalie Touze-Foltz, IGS Council Member and Chair of IGS Young Members Operational Committee

Richard Bathurst Selected to Deliver Prestigious Giroud Lecture on Geosynthetics



**Elizabeth
Peggs**

The International Geosynthetics Society has announced its selection of Prof. Richard J. Bathurst, P.Eng., Ph.D., FEIC, FCAE, to deliver the 2014 Giroud Lecture—one of the Society's highest distinctions. Since its first awarding in 1998, the Giroud Lecture has recognized exceptional achievement and influence in the field of geosynthetics and has been delivered every four years at the opening of the International Conferences on Geosynthetics, organized by the IGS.

Dr. Bathurst is only the fifth to be bestowed this honor and will present the lecture at the opening of the 10th International Conference on Geosynthetics (10 ICG), Berlin, Germany, 21–25 September 2014.

"Dr. Bathurst's contributions to the advancement of geosynthetics have been superb, and in multiple segments of our discipline," says Dr. Jorge Zornberg, President of the International Geosynthetics Society. "They include far-reaching technical contributions for fundamental understanding of geosynthetics, key practical contributions to the engineering community at large, and unmatched contributions to the IGS."

Dr. Bathurst is Professor of Civil Engineering at the Royal Military College of Canada, where he has taught since 1980. He holds a cross-appointment with the Civil Engineering Department at Queen's University and is an Adjunct Professor of Civil Engineering at the University of Waterloo and Edith Cowan University in Australia. Dr. Bathurst has authored or co-authored more than 300 papers in refereed journals, conference proceedings and research monographs. Current research activities are focused on the use of geosynthetics in civil engineering works and in particular the use of geosynthetics in earth retaining wall systems in seismic areas and limit states design.

The Giroud Lecture is named for Dr. J.P. Giroud, who coined the terms "geotextile" and "geomembrane" in 1977 and has authored roughly 400 publications. He has developed many of the design methods and originated many of the applications used in geosynthetic engineering, including many of those pertaining to landfills, liquid impoundments, and dams. Dr. Giroud holds the status of Honorary Member of the International Geosynthetics Society, has been named a "Hero" of the Geo-Institute of ASCE, has delivered major international geotechnical lectures such as the Mercer and Terzahgi Lectures, and has been recognized by the Order of the Legion d'Honneur in France. He remains very active in the field.

Reported by

Elizabeth Peggs, IGS Secretary

Conference Reports

Geosynthetics Asia 2012 5th Asian Regional Conference on Geosynthetics Bangkok, Thailand, 13 - 15 December 2012



The 5th Asian Regional Conference on Geosynthetics (GA2012) with theme on Geosynthetics for Sustainable Adaptation to Climate Change was successfully held at Centara Grand Lardprao Hotel in Bangkok, Thailand last 13 to 15 December 2012. GA2012 was organized by IGS-Thailand Chapter, Asian Center for Soil Improvement (ACSIG) and Suranaree University of Technology (SUT) under the auspices of the International Geosynthetics

Society (IGS). Prof. Dennes T. Bergado and Prof. Suksun Horpibulsuk served as Chairman and Co-Chairman of the Organizing Committee.

The aim of GA2012 was to bring together geosynthetics researchers, consultants, owners, manufacturers, distributors, project regulators, contractors and academics in order to share their knowledge, update information, advance

technologies and discuss recent developments in the following general topics:

- 1) PVDs and Drainage
- 2) Erosion Control
- 3) Barrier and Environmental
- 4) Natural Fibers and Innovation
- 5) Reinforcement
- 6) Case Histories



Opening Ceremony of GA2012



Opening Ceremony of GA2012

(from left to right: Dr. N. Phienwej, Prof. F. Tatsuoka, Ir. M. Sadlier, Prof. D.T. Bergado, Prof. J. Zornberg, Prof. S. Horpibulsuk, Prof. X.W. Tang and Prof. H.Y. Jeon)

GA2012 has been honored and benefited to have 6 Keynote Lectures presented by Prof. Jian Chu, Ir. Chris Lawson, Prof. Takeshi Katsumi, Prof. Han Yong Jeon, Prof. Chungsik Yoo, and Prof. Jiro Kuwano and 6 Theme Lectures presented by Prof. Jin-Chun Chai, Ir. Tack Weng Yee, Prof. Abdelmalek Bouazza, Prof. K. Rajagopal, Prof. Yoshihisa Miyata and Ir. Mike Sadlier. The Keynotes and Theme Lectures covered the afore mentioned topics of the Conference. Moreover, Sessions on Country Reports and Student Papers were also organized. All abstracts and full papers have been peer-reviewed prior to their acceptance and inclusions in the proceedings. The proceedings contained 129 papers contributed by authors from 25 countries. We wish to acknowledge the assistance of the Technical Committee in reviewing and maintaining high standards on the quality of the papers as well as the hard work of the Organizing Committee. The Organizing Committee, also heartfully thanks, the Keynote, Theme and Technical Lecturers for their important contributions. There were more than 320 participants in the Conference.

A One-Day Short Course on Basic Properties and Applications of Geosynthetics was also conducted on 12 December 2012 at the Centara Grand Lardprao Hotel, Bangkok, Thailand. There were 12 Resource Persons consisting of Ir. Chris Lawson, Prof. Abdelmalek Bouazza, Ir. John Cowland, Prof. Jin-Chun Chai, Prof. Chungsik Yoo, Prof. Jiro Kuwano, Prof. K. Rajagopal, Dr. Warat Kongkitkul, Dr. Sompote Youwai, and Dr. Suttisak Soralump and Prof. Suksun Horpibulsuk. There were more than 50 participants in the Short Course.

The Conference and Short Course were officially opened by Prof. Jorge Zornberg, (IGS President).



Presentation of bouquet to Prof. J. Zornberg, (IGS President) by Prof. D.T. Bergado, (Conference Chairman)



Ribbon cutting ceremony during official opening of the International Exhibition of GA2012

The Exhibition was officially opened by Prof. Jorge Zornberg, (IGS President), Prof. Fumio Tatsuoka, (IGS Immediate Past-President), and Prof. Dennes T. Bergado, (Conference Chairman).

Reported by
Dennes Bergado, IGS Council Member and Conference Chair of Geosynthetics Asia 2012

Geosynthetics Middle East 2012

The 5th International conference GEOSYNTHETICS MIDDLE EAST 2012 in Abu Dhabi is a steady story of success. It has become the largest geosynthetic event in the Middle East with more than 300 attendees every year. This annual conference has been organized by the team of Irina Bender from SKZ, Germany in cooperation with Fabian Beermann's team from BMC Gulf, Dubai, UAE.

The conference has been opened by the German ambassador Nikolai von Schoepff. This demonstrates that geosynthetics gain more and more interest as they play an important role for Abu Dhabi's vision for sustainable and environment friendly infrastructure.

The conference has also become a blocked date in the calendar of the GSY's industry. The associated technical exhibition showed products and services from 26 exhibitors coming from Middle East, Europe and Asia.

The technical sessions were chaired by Reda Ashkar, SKZ Middle East.

Excellent presentations from international experts were followed with lively discussions in the audience. The topics presented were:

- Sustainable infrastructure projects
- Monitoring systems
- Design of soil stabilization with GGRs
- Comparison of GGRs with different orientations
- Sand filled containers
- Concrete protection lining in tunnels
- Geomembranes with integrated electronic detection
- Certification of GSYs in landfills
- New specification of HDPE geomembranes
- Floating cover solutions
- Underwater installation of PVC-P geomembranes on large dams
- New products, case studies and product evaluations

The after-conference-excursion into a 41 km long tunnel lining project in Abu Dhabi showed intelligent solutions to the interested visitors. A concrete protection liner protects the concrete of the 6.5 m diameter tunnel walls.

The next GEOSYNTHETICS MIDDLE EAST 2013 will be held again in Abu Dhabi in November 2013 where the polyolefin industry is growing where fast.

This event transfers expert knowledge to this fast developing area to find appropriate solutions adapted to the needs of GSYs in a very hot climate region.

Reported by

Helmut Zanzinger, SKZ German Plastics Center (IGS Corporate Member)



Speakers of Geosynthetics Middle East 2012



Opening of Geosynthetics Middle East by Helmut Zanzinger



Exhibitors of Geosynthetics Middle East 2012



Conference hall with 300 attendees



Site visit of tunnel project STEP in Abu Dhabi



Preparation of concrete protection liner for double wedge fusion welds



Visit of the STEP sewer tunnel project with CPL being installed

Announcements of Conferences of IGS

10th International Conference on Geosynthetics – 10ICG Berlin, Germany, 21 – 25 September 2014



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

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

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

The overlapping of lectures from both events will also attract many additional experts from the geotechnique and geosynthetics professions.

Venue

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

ESTREL offers about 50 rooms for lectures and meetings in different sizes, integrated exhibition halls (approx. 5000 m²) and a 4-star hotel (1125 rooms).

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

Language

The official language of 10ICG will be English.

Berlin

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

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

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

10ICG Conference Themes

- Green Engineering, Sustainability and Durability with Geosynthetics
- Use of Geosynthetics for Renewable Energy
- Mining, Waste Management, Contaminated Sites and Environmental Protection
- Roads, Railways and Other Transportation Applications
- Reinforcement in Walls, Slopes, Embankments and Base Courses
- Flood Control, Levee and Canals, Dams, Reservoirs and Other Hydraulic Applications
- Drainage and Filtration Properties of Geosynthetics
- Geomembrane and Geosynthetic Clay Liner Barrier Systems
- Case Histories and Innovative Uses of Geosynthetics
- Quality Control, Quality Assurance and Accreditation
- On-site Installation Technologies and Monitoring Programs
- Soil-Geosynthetic Interaction and Large-Scale Performance Testing
- Design Approaches
- Regulations and Recommendations
- Looking to the Future with New Geosynthetic Products

Call for Paper

You are invited to send in your abstracts for the conference dealing with the use of geosynthetics in the topics above since January 2013. The **deadline** for the submission is **31 July 2013**. The postponement of the abstract submission deadline is due to avoid direct overlap of the submission periods with the new established GeoAfrica 2013 conference.

Please find all necessary information in time on the conference webpage.

Exhibition

The 5000 m² technical exhibition space is directly connected to the conference rooms, being located half-way between the hotel and lecture rooms and accessed without having to leave the centre. The exhibition space will be used both by 10ICG and the Baugrundtagung event. The **reservation period for the exhibition** will be open through the webpage in **June 2013**. IGS Corporate Members will have a pre-registration due the regulations of IGS.

For more information

Please visit the website that will be updated in due time: www.10icg-berlin.com

For further information please contact:

Gerhard Bräu (Gerhard.Braeu@bv.tum.de)

Dr. Kirsten Laackmann (service@dggt.de)

Announcements of Regional Conferences of IGS

2nd African Regional Conference on Geosynthetics GeoAfrica 2013

Accra, Ghana, 18 - 20 November 2013



The 2nd African Regional Geosynthetic Congress, GEOAFRICA 2013, will take place in Accra, the Capital City of Ghana, from 18 to 20 November 2013. Ghana offers a warm and friendly people and a high degree of personal safety for this IGS - African Regional Conference.

As a new oil exporting country, infrastructural development is key on the agenda. In Ghana, and Africa in general, it is certain that geosynthetic use will rise in the coming years. It is therefore critical that we provide a technical venue to support geosynthetic education, communication and networking. As such, we invite geosynthetic manufacturers and practitioners to make an early foothold in the country.

Due to the existence of major projects in Mining, Transportation and Environmental sectors Africa presents numerous, exciting opportunities for the application of geosynthetic solutions.

Ghana in particular is busy with major oil and gas, as well as mining and infrastructure developments. GeoAfrica2013 will bring together academics, designers, manufacturers and installers from the global geosynthetics industry presenting an opportunity for exchange of views and update on geosynthetic technological developments; as well it will provide an excellent forum for business networking. Global and Africa-specific perspectives and experiences will be featured in the technical programme.

Important Dates

- Abstracts in English not exceeding 400 words should be submitted by Email to: Technical@GeoAfrica2013.com not later than **30 April 2013**
- Authors will be advised of acceptance of Abstracts by **31 May 2013**
- Deadline for submission of completed papers – **31 June 2013**
- Reviewed papers will be returned for correction (if necessary) by **30 July 2013**
- Final submission of papers by **15 September 2013**

For more Information

Lesley Ferreira, GeoAfrica 2013 - Secretariat

2nd African Regional Conference on Geosynthetics

Tel: +27 21 671 7670, Fax: +27 21 671 7670/086 692 7220, Cell: 082 494 5475

lesley@cebisaconferences.co.za

www.cebisaconferences.co.za

Announcements of Conferences under the Auspices of IGS

Coupled Phenomena in Environmental Geotechnics from theoretical and experimental research to practical applications (TC 215 CPEG2013)

Politecnico di Torino, Italy, 01 - 03 July 2013



Environmental Geotechnics currently has to deal with numerous aspects and fields, such as the characterization of polluted sites and landfill waste, the design of containment systems for subsoil pollutant control, radioactive waste disposal, geo-energy exploitation and bacteria-driven soil modification, among others.

In order to obtain reliable and effective predictions of the actual behavior and performance of all these very complex systems, theoretical and experimental research and advanced design procedures needs to take into account hydro-bio-chemo-physical and mechanical phenomena and processes at very different geometrical scales and, above all, in coupled conditions.

Over the last few decades, these requirements have stimulated substantial advancements

from the classical soil and rock mechanics background in terms of generalization, extension and refinement of theoretical modeling and experimentation capabilities.

Today, the possibility of further progresses in the scientific state of the art and the substantial advancements of practical applications in an environmentally sustainable manner are closely related to the development of a shared knowledge among the different basic and applied sciences and technologies.

The International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) contributed to these developments by an ad hoc Committee (TC 215 – Environmental Geotechnics - formerly TC 5), which was established under the ISSMGE presidency of Prof. M. Jamiolkowski (1994-1997). Since then, a number of conferences, symposia and workshops have been organized and they have attracted large audiences that have always taken part in lively, interesting and useful discussions. In particular, the main periodic International Conference of Environmental Geotechnics (TC 215 - ICEG) deserves mentioning, as it reached its 6th edition in New Delhi, India (2010).

Within this framework, the international symposium organized by ISSMGE TC 215 in Torino (Italy) in July 2013, has been planned as a unique event which will be specifically focused on the Coupled Phenomena in Environmental Geotechnics (from theoretical and experimental research to practical applications). In particular, the symposium will have the aim of discussing and sharing knowledge, skills and front edge research activities in the fields pertaining to theoretical aspects, experimental evidence and already operating, in progress and/or possible practical applications, looking not only inside the geotechnical community but also at related and complementary areas and disciplines.

The symposium will be held under the auspices of:

- the International Geosynthetics Society
- the Italian Geotechnical Association
- TC 215 of the International Society of Soil Mechanics and Geotechnical Engineering

Symposium topics

- Landfill waste characterization
- Stability and settlement analysis of landfills
- Landfill bottom and side lining systems
- Capping systems for landfills and polluted sites
- Geosynthetics in environmental geotechnics
- Characterization of polluted sites and related aquifers
- Active and passive barriers for polluted sites
- Degradation, extraction and inerting systems for the reclamation of polluted sites
- Radioactive waste disposal
- Underground energy issues
- Natural and anthropogenic bio-chemical processes within soils and rocks

Keynote lectures

- Gens, A. (Spain): Coupled modeling of barriers for radioactive waste disposal
- Hassanizadeh, M. (The Netherlands): Reactive permeable barriers to capture fumes rising up to the soil surface from groundwater plume
- Rowe, K. (Canada): Recent advances in understanding and improving the performance of lining and capping systems for landfill and mining applications

Registration and accommodation

The Early Bird registration deadline is April 30th 2013. Fees and registration form are available at <http://www.tc215-cpeg-torino.org>.

Participants can reserve a room in one of the official hotels of the symposium. Please go to the CPEG2013 website's accommodation page for booking information. Early reservations are strongly recommended.

Official language

The official language of the symposium is English.

For more information

Symposium website: <http://www.tc215-cpeg-torino.org>

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

Bologna, Italy, 14 - 16 October 2013

This symposium is held to honor the research achievement of Prof. Dov Leshchinsky. He is a world-renowned researcher and educator on reinforced soils and has been a professor of geotechnical engineering at the University of Delaware for more than 30 years.

The symposium will be held under the auspices of:

- the International Geosynthetics Society
- the Italian Geotechnical Association
- TC 101 & TC 305 of the International Society of Soil Mechanics and Geotechnical Engineering
- Department of Civil, Environmental and Materials Engineering (DICAM), University of Bologna
- Japanese research institutes (Public Works Research Institute, Railway Technical Research Institute and National Institute for Rural Engineering).

Symposium topics

- Geosynthetic-reinforced soil retaining walls
- Geosynthetic-reinforced soil slopes
- Construction of reinforced embankments over soft soil
- Geotextile tubes
- Geosynthetic-reinforced soil structures for railways and highways
- Properties of backfill soils, geosynthetics, and soil-geosynthetic interaction

Special and keynote lectures

- Leshchinsky, D. (USA): Design approaches to geosynthetic-reinforced walls and slopes
- Cazzuffi, D. (Italy): Geosynthetics engineering
- DiMaggio, J.D. (USA): Geosynthetic-reinforced soil walls and slopes: Best practices in design and construction and reality: Why they differ
- Koseki, J. (Japan) & Shibuya, S. (Japan): Mitigation of disasters by earthquakes and rains/floods by means of geosynthetic-reinforced soil retaining walls
- Nicola Moraci (Italy): Soil-geosynthetic interaction: Design parameters from experimental and theoretical analysis
- Tatsuoka, F. (Japan): Laboratory stress-strain tests for developments in geotechnical engineering research and practice (Bishop Lecture revised for Geosynthetics Engineering)

Abstracts should be submitted online with further instructions available at <http://www.civil.columbia.edu/bologna2013>

Organizing Committee

- Fumio Tatsuoka, Tokyo University of Science, Japan
- Guido Gottardi, University of Bologna, Italy
- Hoe I. Ling, Columbia University, USA
- Jie Han, University of Kansas, USA

News from the IGS Chapters and the Membership

Case Histories Championship to all the Chapters News from IGS Brazil

Launched in April 2012 by IGS Brazil, a case histories contest has attracted the interest of the whole community of Brazilian geosynthetics.

Manufacturers, researchers, designers and installers have focused on the participation rules and sent a total of 13 excellent works, which were evaluated by a panel of 10 representatives from universities and technical publications throughout the country.

Nine types of geosynthetics were used in various applications including highways, railways, ports, landfill and soil reinforcement. The winners (1st, 2nd, and 3rd place) presented their papers during the 2nd IGS Brazil Annual Meeting, and their works were published in full in the technical magazine *Foundations & Geotechnical Works*, one of the leading publications in Brazil directed to our industry. Besides that, their abstracts were also published in the IGS Brazil Bulletin.

This contest aims to reward the most innovative and challenging applications with geosynthetics, and its success

has come to the knowledge of IGS, who asked to have the rules and prerequisites translated into English, so that other IGS Chapters can implement it as well.

Reported by

Carolina Carvalho, IGS Brasil – Secretary

IGS Colombia New IGS Chapter in America

The use of geosynthetics is experiencing rapid growth in Colombia highlighting a strong potential in the country that being increasingly materialized in current and planned investments within the mining, construction, and infrastructure industries. However, recognizing the knowledge gap that still exists in crucial aspects such as best practices and implementation of available technologies, the newly founded IGS-Colombia chapter seeks to promote collaboration within the geosynthetics industry as a fundamental tool for its proper development.

The IGS-Colombia chapter, based at the University of Los Andes in Bogotá, was officially incorporated in 2013 and was conceived as an independent, impartial organization made up of university professors, researchers, students, and members of the public and private sectors. Its main purpose is to contribute to the geosynthetics industry by helping to provide a platform in which to gather, analyze, discuss, and disseminate information freely so as to push the advancement of the geosynthetics state of the art in Colombia.

This year, IGS-Colombia plans to organize its first colloquium that will, among other things, help develop a diagnosis and inventory of relevant professionals, associations, public and private entities, and research projects that will paint a better picture of the current state of the geosynthetics industry in Colombia. Through this process, doors will open to create connections with academia that should in turn act as an essential conduit for communicating information to the public regarding the proper use of geosynthetics.

IGS-Colombia would like to thank IGS International for its support and expresses its intention to constantly seek to collaborate with other chapters throughout its activities.

The members of the first Executive Committee are:

- President: Bernardo Caicedo Hormaza – Universidad de los Andes
- Vice President: Mario Ramírez Carrero - Ramírez Arenas y Cía. Ltda.
- Vice President: Santiago Giraldo Londoño – Geoplastextil
- Secretary and Correspondent to IGS: Natalia Erasso Arango– Geopolímeros S.A.S.
- Treasurer: Luz Mary Pérez Quinchía – Geopolímeros S.A.S.

Iranian Chapter of IGS A New IGS Chapter in an Ancient Country

The first application of Geosynthetics in Iran dates back to about 36 years ago utilizing geomembrane in a long canal near Isfahan City in central Iran, having been referred to as one of the records for several years (according to J.P. Giroud). But the extensive applications and production of Geosynthetics have picked up since 15 years ago across the country, while there was no organization to collaborate all the efforts in this field and to devise new incentives in development of Geosynthetics knowledge up until 2006. At this time, a core who later on formed the "Iranian Geosynthetics Engineering Society" (IRGES) gathered to plan a cooperative structure/tool for Geosynthetics industry in Iran. Finally, IRGES succeeded to register under the laws of the Islamic Republic of Iran in 2008.



The First Iran Chapter Board Members: Farzad Farshid, Kazem Fakharian, Nader Hataf, Hossein Ghiasinejad (from left)

IRGES acted as a background for organizing the first Iranian Chapter of IGS and the first contacts with IGS in this regard was made in May 2010 (after 4 previous unsuccessful attempts!). IRGES representative submitted a formal

letter of interest to the IGS president during the Guarujá conference. Subsequently, the required documents and application forms were provided including bylaws of the chapter. The chapter executive committee was elected on July 12, 2011 and the formation of the chapter was approved by IGS during the March 2012 assembly meeting. Although the administrative activities took longer than expected, finally on January 14, 2013 the formation of "Iranian chapter of IGS" (ICIGS) was officially accepted. ICIGS had already been active though since July 2011. ICIGS representative travelled to Valencia to attend the EuroGeo 5 in September 2012 and held meetings with board members of IGS to discuss the chapter activities.

ICIGS together with IRGES followed their designated schedule to expand geosynthetic knowledge and have so far organized three local training seminars in Iran. More importantly, the "1st National Geosynthetic Seminar: Application, Design and Construction" was held in Tehran on February 20, 2013. ICIGS is now planning to arrange the "1st International Geosynthetic Conference in Tehran" within the next two years. Also two volumes of "Geosynthetic Technology Seasonal Magazine" (in Persian) have been published and distributed by both IRGES and ICIGS up until now and the 3rd volume is under development and will be published in near future.

ICIGS and IRGES have more than 40 corporate members and 90 individual members and hope to act more efficiently in geosynthetic affairs in the region; thanks to large number of experts working on the topic both in the industry and academia and their enthusiasm on employing geosynthetic as state of the art solutions in construction of projects across the country.

The first elected board members of ICIGS are:

- Dr. Kazem Fakharian, President
- Dr. Nader Hataf, Vice President
- Dr. Hossein Ghiasinejad, Secretary
- Mr. Farzad Farshid, Treasurer

Reported by

Kazem Fakharian, President of Iranian Chapter of IGS (ICIGS)

New IGS Chapter: Kazakhstan Chapter of IGS (KazGS)

The first meeting of the Kazakhstan chapter of IGS (KazGS) was organized in 11 May 2011 where general aspects of the formation of a chapter were considered, votings for President and officers were carried out and the draft of the chapter bylaw were reviewed. The first President of KazGS chapter is Askar Zh. Zhussupbekov who had been elected by un-divided opinion.

KazGS chapter was finally accepted by the Council of IGS at 22 May 2012. At that time KazGS has 37 individual members and one

Members of the first meeting of KazGS



Headquarter of KazGS, Astana, Kazakhstan



chapter corporate member.

The Headquarter of KazGS is situated in Geotechnical Scientific and Research Institute in Eurasian National University of L.N. Gumilyov, Astana, Kazakhstan.

The KazGS sent responsible representative to the 5th Asian Regional Conference on Geosynthetic (Thailand), who gave a short report about KazGS and future activities of chapter at the IGS meetings.

Future activities of KazGS will be fixed on interaction with road construction companies as a conducting research of geosynthetic and attract them in KazGS as a company member.

KazGS is closely collaborating with foreign specialists from Korea, Japan and other countries, inviting them to giving lectures in Eurasian National University. KazGS would like to take part in elaboration of Kazakhstan Standards regarding geosynthetic by using information and great experience of the IGS.

The President and officers of KazGS chapter:



The President of KazGS Chapter
Askar Zh. Zhissupbekov



Vice-President of KazGS Chapter
Serik B. Yenkebayev



Treasure of KazGS Chapter
Asel S. Tulebekova



Secretary of KazGS Chapter
Rauan E. Lukpanov

*Reported by
Rauan E. Lukpanov, IGS Kazakhstan Chapter Secretary*

RemTech 2013 Remediation Technologies and Requalification of the Territory Exhibition (7th Edition) (Ferrara, 18-20 September 2013)



RemTech is the most specialized event in Italy dedicated to remediation technologies and territory requalification. Companies, public administrations, associations, institutions, professionals, universities, industries, contractors, real-estate and planning sectors: these are the worlds which RemTech refers to.

The very qualified exhibition area is accompanied by high technical and scientific level conferences, training courses for operators, authorities and decision makers, parallel events and technical meetings, pilot tests and demonstrations, foreign delegations of buyers, the SuRF Italy forum, focuses on innovative technologies field, degree, Ph.D. and special awards.

The keywords of this edition are technologies, innovation, proposals for the future of remediation, case histories, national and international buyers, public administrations, university and research.

The conference program is focused on risk analysis, pilot plants, remediation of soil, underground water, sediments, public plans for remediation, sustainability, oil distribution, excavated soil and rocks, waste, asbestos.

Moreover, four new “calls” are planned: “Call for proposal for pilot tests”, “Call for proposal from Exhibitors”, “Call for Public Administrations” and “Call for University and Research”.

Scientific and Advisory Committees, both chaired by IGS Past President Dr. Daniele Cazzuffi (CESI SpA, Milano), includes about 60 experts in the fields of remediation technologies and environmental geotechnical items.

About 30 specialised conferences and events are under preparation by Scientific and Advisory Committees.

Dr. Silvia Paparella - RemTech Expo Project Manager is responsible of all details referred to the huge exhibition (more than 3.600 visitors in 2012), in which for sure geosynthetics manufacturers, and distributors and installers will play a key-role. She could be reached at the following numbers: Ph +39 0532 909495 – 900713, www.remtechexpo.com, info@remtechexpo.com

In 2013 there will be three special sections inside RemTech, and respectively Coast Expo, Esonda and Inertia.

Coast Expo

It is the most specialized event in Italy dedicated to coastal zone management and protection.

The conference program deals with coastal safeguard and development, sediment management, coastal defense measures, monitoring, coastal emergencies, “RITMARE” Flagship Project, Marine Strategy Directive, Green Coast Award (www.coastexpo.com, info@coastexpo.com).

Esonda

It is the new specialized Focus dedicated to the issues of hydrogeological instability and hydraulic risks in times of climate change.

The conference program focuses the themes of monitoring, prevention and intervention measures against erosion and landslides, management of flood risk, use of water bodies, fluvial navigation and tourism, Flood Directive (www.esondaexpo.com, info@esondaexpo.com).

Inertia

It is the most specialized event in Italy dedicated to inert wastes, natural, recycled and manufactured aggregates.

Among the scheduled appointments, the XVII Interforum Recycling on the use of recycled and manufactured aggregates on roads, and workshops on the sustainable use of natural resources, the planning of extraction activities and the new procedures for the recovery of the excavated soils stand out (www.inertiaexpo.com, info@inertiaexpo.com).

Main distances:

By car: 5 km from A13 motorway exit Ferrara Sud

By train: 3 km from Ferrara railway station

By airplane: 45 km from "G. Marconi" Airport of Bologna; "Bus&Fly" shuttle-bus service Airport-Ferrara (www.ferrarabusandfly.it)

Reported by

Daniele Cazzuffi, Chair of RemTech Scientific and Advisory Committees and IGS Past President

GSI Fellowships for Students request for proposals



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

Page 1 – Letter of recommendation from student's department head or advisor

Page 2 – Title and detailed abstract of project

Page 3 – Student's resume

Page 4 – Documentation of completed candidacy examination

The RFPs for the 2013-2014 academic year must be submitted to both the undersigned by e-mail by June 10, 2013 and awards will be announced on, or before, July 15, 2013. Review of the proposals is by the nine-person Board of Directors of GSI.

For information on the Geosynthetic Institute and past recipients, visit us at the following website:

www.geosynthetic-institute.org/gsfellows.htm

Robert M. Koerner, PhD, PE, NAE, Emeritus Director – Geosynthetic Institute,
email Robert.koerner@coe.drexel.edu

Jamie R. Koerner, Special Projects Coordinator, email jrkoerner@verizon.net

News from the Australasian Chapter of IGS

Election of ACIGS Office Bearers

The recent ACIGS (Australasian Chapter of IGS) Annual General Meeting held 30th October 2012 at the Novotel in St Kilda VIC brought about the election process discussion, as well as the appointment of new ACIGS Office Bearers. We are pleased to announce them as being:

President: Malek Bouazza

Dr. A (Malek) Bouazza is a Professor in Civil Engineering at Monash University and Adjunct Professor at Cardiff University, U.K. He is a Fellow of the Institution of Engineers (FIEAust), and has an international reputation for research in Geosynthetics, Environmental Geotechnics and Energy Geotechnology. Prof. Bouazza was awarded the International Geosynthetics Society Award and Gold Medal for outstanding contribution to advances in the scientific and engineering developments of geosynthetics and the Telford Premium Prize from ICE, U.K. Very prominent in technical and professional society activities, he serves on a number of international technical committees including being on the editorial board of six International Journals. His skills and experience in the area of geosynthetics are well recognized in Australia and abroad, and additional to his academic commitments, Prof. Bouazza engages with industry through his role as a Geotechnical Specialist Consultant with Golder Associates Pty Ltd.

Vice President: John Scheirs

Dr. John Scheirs is a polymer Engineer with ExcelPlas Geomembrane Testing Services. He specializes in geomembrane properties, polymer selection, failure analysis and testing and evaluation of geosynthetic materials. He has extensive experience in durability and testing of many polymeric geomembranes, in addition to routine mechanical analysis, forensic investigation and weld testing of geomembranes and polymeric liners, and has worked widely with HDPE, LLDPE, fPP and PVC membranes. Previously he worked with Exxon-Mobil on the stabilization and long-term durability of HDPE polymers. Dr Scheirs is the Author of the leading textbook in the geomembrane field entitled "A Guide to Polymeric Geomembranes - A Practical Approach (Wiley Series in Polymer Science)". He is also the Author of the leading textbook in polymer analysis and failure entitled "Compositional and Failure Analysis of Polymers: A Practical Approach" (Wiley). Dr Scheirs has run ExcelPlas since 1994 and in that time has conducted thousands of tests on geomembranes, geotextiles, geonets, geogrids and geopipes for all major fabricators, installers and end users. He also publishes Geosynthetic News Australia (GNA) a monthly newsletter which covers major industry highlights and developments in the area of geomembranes, geotextiles and other geosynthetics.

Vice President: Mike Sadlier

Mike Sadlier graduated in Civil Engineering from RMIT in 1973 and has been involved for over thirty years in civil and geotechnical engineering design, construction and project management with organisations including Frankpile, Humes, Johns Perry and Leighton both in Australia and Asia. His projects have included specialised foundations and retaining structures, membrane liner systems as well as general civil engineering and building works. He has been using geotextile fabrics and synthetic membranes since the early 1970's and was engaged in the geosynthetic market and technical development with Polyfelt Geosynthetics Australia from 1983 to 1992 working with both Polyfelt geosynthetic products and Gundle synthetic membrane lining products. During this time he was a member of the Polyfelt International Technical Working Group steering applications R & D, technical servicing and geosynthetic design activity. He was responsible for Polyfelt technical services in Australia and SEAsia and was responsible for the design and construction of the first large membrane covered anaerobic lagoon at Werribee in 1992. Mike has published some thirty conference papers on geosynthetics including the last seven International Conferences. He has also provided keynote lectures and acted as session Chairman at various conferences and workshops including the more recent IGS Conferences. As a member of the Standards Australia Committee on geotextiles and geomembranes, he frequents ISO meetings on international standards; And recently retired as an elected council member of the Management Council of the International Geosynthetic Society and Chairman of the IGS Technical Committee. In 1992 he established Geosynthetic Consultants Australia, an independent specialist consultancy dealing with project management, quality management and other aspects of geosynthetic application and development. Major project works have included floating covers for water storage and anaerobic digestion with gas harvesting as well as major landfill, and other projects for mining, environmental and infrastructure works. Projects have been located around the world including Australia and New Zealand, Europe, South America, Asia and most of South East Asia.

Secretary: Amir Shahkolahi

Amir Shahkolahi has been involved in the application of geosynthetics for reinforcement, hydraulics and coastal projects as a Senior Engineer and Geosynthetic Consultant within a coastal engineering consultancy since 2005. He later became a Geosynthetic Technical Consultant and Marketing Manager responsible for technical consulting and installation supervision in reinforcement, landfill engineering and hydraulic and sealing projects and also managed marketing activities. This led him to designing, supplying and installing several geosynthetic projects including landfills, heap leaches, retaining walls, roads, tunnel sealing, water storages, evaporation ponds, tailing dams etc. Later as a Designer and Project Manager, he was involved in civil and hydraulic engineering projects. Amir has

published more than twenty three technical papers in different national and international conferences and journals including the Iran geosynthetics Journal. He has also planned and managed more than twenty national and international seminars and workshops in different geosynthetics applications throughout Iran. Amir was one of the founding members of the board of the Iran Geosynthetics Society (IrGS) and later "Secretary of the Development Board", "Secretary of the Board for Holding International Seminars" and a "Fixed Member of the Technical Board". He was selected as a Fixed Member of the Editor-In-Chief Board of the Iran Geosynthetics journal. Besides being a member of the Iran Soil Mechanics Society, Railway Society and Tunneling Society, Amir was also a fixed member of the national technical committee responsible for national geosynthetic standards, technical notes and indicative pricing guides. Amir is now a permanent resident of Australia and his engineering qualifications have been recognised by „Engineers Australia". He continued his geosynthetic activities as a member of the IGS in Australia and soon became employed as the Technical Consultant and Applications Engineer at Global Synthetics, Queensland office.

Treasurer: Peter Tzelepis

Peter graduated with a Bachelor of Engineering (Civil) from Monash University in 1993 and Master of Business (Enterprise) from The University of Melbourne in 2010. With over 15 year's specialist experience in geosynthetics, construction and project management, he is a Member of Engineers Australia which includes affiliate membership to the Australian Geomechanics Society and The Rail Technical Society of Australia. Peter is an active member of the Australian Asphalt and Pavement Association (AAPA) and The International Geosynthetics Society (IGS) Australian Chapter. Peter is the General Manager for Geofabrics Australasia and is responsible for the Australian sales operation, including the national technical team and a state of the art R&D geosynthetic laboratory.

Reported by

Australasian IGS Chapter (taken from first Newsletter December 2012)

News from the IGS Finland Chapter

IGS-FIN alias Finnish IGS Chapter organized a seminar day on geocomposite drainage layers in March 2013. During the day we learnt how to properly design the drainage layer for various applications. The invited keynote lecturer was Alan Bamforth from ABG Ltd.

The other foreign visiting lecturers were Paolo Di Pietro from Maccaferri and Carl Petersson from TenCate Geosynthetics. Finnish lecturers were Marja Mesimäki from Helsinki University talking about the green roofs from a standpoint of social development policy, and Jaana Valjus from Icopal presenting their products for green roofs and drainage. Finnish experience on drainage geocomposites was reviewed by Tomi Neva from Kaitos and Harri Sara from Viapipe. In addition, Harri Sara introduced us a new multilayer geomembrane, Pureflex, for demanding chemical loading conditions. At the end, we had the official annual meeting of IGS-FIN.

In May 2013, IGS-FIN is organizing the traditional excursion (already second time). Destinations are Naue production plants in Tönisburg and Espelkamp in Germany. Further details can be found from our website

www.geosynt.wordpress.com.

Reported by

Minna Leppänen, President of IGS-Finland



Audience at the IGS-FIN seminar on geocomposite drainage

List of IGS Chapters

Argentina

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

Australia and New Zealand

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

Belgium

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

Brazil

Brazilian Chapter (1997)
President: Eng. Lavoisier Machado
igsbrasil@igsbrasil.org.br
www.igsbrasil.org.br

Chile

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

China

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

Colombia

Colombian Chapter (2013)
President: Bernardo Caicedo Hormaza

Czech Republic

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

Finland

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

France

French Chapter (1993)
President: Mr. Jean-Pierre Magnan
francois.caque@orange.fr

Germany

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

Ghana

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

Greece

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

India

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

Indonesia

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

Iran

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

Italy

AGI-IGS, the Italian Chapter (1992)
President: Dr. Ing. Daniele Cazzuffi
agiroma@iol.it
www.assoziazionegeotecnica.it/~aqi/

Japan

Japanese Chapter (1985)
Chairman: Dr. Hiroshi Miki
miki-egri@nifty.com
wwwsoc.nii.ac.jp/jcigs/

Kazakhstan

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

Korea

KC-IGS, The Korean Chapter (1993)
President: Dr. Han-Yong Jeon
kgss-adm@kgss.or.kr
www.kgss.or.kr

Mexico

Mexican Chapter (2006)
President: Ing. Ignacio Narezo L.
contacto@igsmexico.org
www.igsmexico.org

The Netherlands

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

North America

North American Geosynthetics Society (NAGS) (Canada, USA) (1986)
President: Robert Mackey, P.E
NagsDirector05@aol.com
www.nags-igs.org

Norway

Norwegian Chapter of IGS (2008)
President: Jan Vaslestad
jan.vaslestad@vegvesen.no

Pakistan

Pakistanian Chapter of IGS (2011)
President: Tariq Ikram
mr.tariq.ikram@gmail.com

Peru

Peruvian Chapter (2001)
President: Eng. Augusto V. Alza
aalza@tdm.com.pe
www.igsperu.org

Philippines

Philippine Chapter (2007)
President: Thomas Wintermahr
thomas@maccaferri.com.ph or

paul.navarro.javier@yahoo.com

Poland

Polish Chapter (2008)
Chairman: Dr. Jacek Kawalec
sekretarz@psq-igs.pl

Portugal

Portuguese Chapter (2003)
President: Jose Luis Machado do Vale
www.spgeotecnia.pt/igs/

Romania

Romanian Chapter (1996)
President: Christina Feodorov
cristina.feodorov@iridexgroup.ro
or adiol@utcb.ro

Russia

Russian Chapter of IGS (RCIGS, 2008)
President: Prof. Andrey Ponomaryov
ofrikhter@mail.ru

Slovakia

Slovakian Chapter of IGS (2011)
President: Dr. Radovan Baslik
branislav.prelovsky@maccaferri.sk

South Africa

South African Chapter (1995)
President: Mrs. Riva Nortje
Nortje@jaws.co.za or joan-nes@englining.co.za
www.qigsa.org

Spain

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

Thailand

Thai Chapter (2002)
President: Prof Suksun Horpibulsuk
suksun@g.sut.ac.th
www.set.ait.ac.th/acsig/igs-thailand

Turkey

Turkish Chapter (2001)
President: Dr. Fazli Erol Guler
eguler@boun.edu.tr

United Kingdom

U.K. Chapter (1987)
Chairman: Peter Assinder
david@abgLtd.com
www.igs-uk.org

West Pacific Regional Chapter

West Pacific Regional Chapter (1997)
President: Dr. Liang, Yueh
michael@goldjoint.com.tw
www.cgawebsite.org.tw

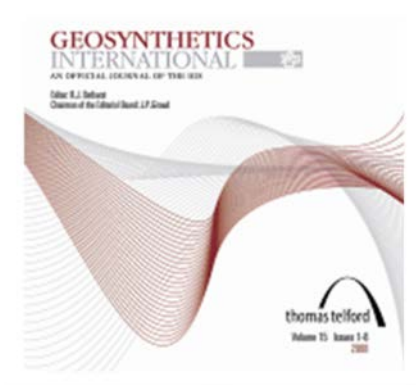
Note:

- If you find your information is incorrect please contact your chapter secretary or if you are not affiliated with a chapter contact the IGS secretary. Please also advise the IGS News editor

Official Journals of the IGS

Electronic Journals Free to IGS Members

Geosynthetics International



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

Geosynthetics International is only published electronically starting Volume 10 (2003) by ICE Publishing (Thomas Telford) and is free to IGS Members. All others, e.g., corporations, companies, and university libraries, can subscribe at a rate of £590 / US\$ 960.

Visit the Journal's web site given below for subscription information and instructions for accessing the latest issues.

Papers should be not published in full elsewhere and should be sent to:

Professor R.J. Bathurst, Editor Geosynthetics International
GeoEngineering Centre at Queen's-RMC
Civil Engineering Department
13 General Crerar, Sawyer Building, Room 2414
Royal Military College of Canada
Kingston, Ontario K7K 7B4
E-mail: bathurst-r@rmc.ca

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Content of Volume: 19, Issue: 6 (December 2012)

Best Geosynthetics International Paper for 2011, R.J. Bathurst; J.P. Giroud
Equipment pressure applied to geomembrane in composite liner system, T.D. Stark; L.F. Pazmino; C.J. McDowell; R. Phaneuf
Micro-mechanism of the interaction between sand and geogrid transverse ribs, J. Zhou; J.-F. Chen; J.-F. Xue; J.-Q. Wang
Performance of encased granular columns considering shear-induced volumetric dilation of the fill material, Y.-S. Hong
A comparison of geomembrane wrinkles for nine field cases, M.J. Chappel; R.K. Rowe; R.W.I. Brachman; W.A. Take
Modelling of ballast-geogrid interaction using the discrete-element method, J.-F. Ferrellec; G.R. McDowell
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Flow rate measurement in undamaged multicomponent geosynthetic clay liners, C. Barral; N. Touze-Foltz
Note of appreciation to paper reviewers
Modelling the geotextile tube dewatering process, T.W. Yee; C.R. Lawson

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Content of Volume: 20, Issue: 1 (February 2013)

Vertical acceleration response of horizontally excited reinforced walls, C.-C. Huang
Experimental and numerical studies of loaded strip footing resting on reinforced fly ash slope, K.S. Gill; A.K. Choudhary; J.N. Jha; S.K. Shukla
Sand-geotextile interface characterisation through monotonic and cyclic direct shear tests, C.S. Vieira; M.L. Lopes;

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Content of Volume: 20, Issue: 2 (April 2013)

Laboratory evaluation of geocell-reinforced gravel subbase over poor subgrades, B.F. Tanyu; A.H. Aydilek; A.W. Lau; T.B. Edil; C.H. Benson

Evaluation of effect of backfill particle size on installation damage reduction factors for geogrids, S.Y. Lim; J.S. McCartney

Antioxidant depletion of HDPE geomembrane with sand protection layer, R.K. Rowe; F.B. Abdelaal; R.W.I. Brachman

Performance of nonwoven geotextile-reinforced walls under wetting conditions: laboratory and field investigations, F.H.M. Portelinha; B.S. Bueno; J.G. Zornberg

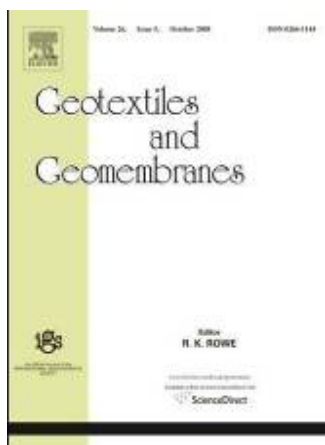
Pipe response in a geocell-reinforced trench and compaction considerations, Gh. Tavakoli Mehrjardi; S.N. Moghaddas Tafreshi; A.R. Dawson

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For editorial enquiries contact:

Dr. R. Kerry Rowe, Editor *Geotextiles and Geomembranes*
Dept. of Civil Engineering Ellis Hall, Queens University Kingston,
Ontario K7L 3N6 CANADA, Fax: 1/613 533 6934
E-mail: kerry@civil.queensu.ca

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- Effect of fiber reinforcement on triaxial shear behavior of cement treated sand, Amir Hamidi, Mahdi Hooresfand
- An analytical solution to organic contaminant diffusion through composite liners considering the effect of degradation, Haijian Xie, Zhanghua Lou, Yunmin Chen, Aimin Jin, Tony Liangtong Zhan, Xiaowu Tang
- Numerical modeling of behavior of railway ballasted structure with geocell confinement, Ben Leshchinsky, Hoe I. Ling
- Pullout resistance of bearing reinforcement embedded in coarse-grained soils, Cherdsak Suksiripattanapong, Suk-sun Horpibulsuk, Avirut Chinkulkijniwat, Jin Chun Chai
- Effect of a nonwoven geotextile on solute and colloid transport in porous media under both saturated and unsaturated conditions, E. Lamy, L. Lassabatere, B. Bechet, H. Andrieu
- Acid induced degradation of the bentonite component used in geosynthetic clay liners, Yang Liu, Will P. Gates, Abdelmalek Bouazza
- Centrifuge investigation of load transfer mechanisms in a granular mattress above a rigid inclusions network, Matthieu Blanc, Gérard Rault, Luc Thorel, Márcio Almeida

Technical Notes

- Consolidation by prefabricated vertical drains considering the time dependent well resistance, Yue-Bao Deng, Kang-He Xie, Meng-Meng Lu, Hai-Bing Tao, Gan-Bin Liu
- Effect of frequency on seismic response of reinforced soil slopes in shaking table tests, N. Srilatha, G. Madhavi Latha, C.G. Puttappa
- A comparison of wide-width tensile strength to its axi-symmetric tensile strength of hybrid needlepunched nonwoven geotextiles, Amit Rawal, M.M. Alamgir Sayeed, Harshvardhan Saraswat, Tahir Shah
- Closed-form solution for consolidation of three-layer soil with a vertical drain system, Xiaowu Tang, Ben Niu, Guan-chu Cheng, Hao Shen

Corrigendum

- Corrigendum to 'Deformation and consolidation around encased stone columns' [Geotextiles and Geomembranes Volume 29 (2011) pp. 268–276], Jorge Castro, César Sagaseta

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- A finite–discrete element framework for the 3D modeling of geogrid–soil interaction under pullout loading conditions, V.D.H. Tran, M.A. Meguid, L.E. Chouinard
- Numerical study on stability analysis of geocell reinforced slopes by considering the bending effect, Iman Mehdi-pour, Mahmoud Ghazavi, Reza Ziaie Moayed
- Confinement effect of geocells on sand samples under triaxial compression, Rong-Her Chen, Yu-Wen Huang, Feng-Chi Huang
- Influence of elastic strains during plastic deformation of encased stone columns, Jorge Castro, César Sagaseta
- Refined numerical modeling of a laterally-loaded drilled shaft in an MSE wall, Jie Huang, Jie Han, Robert L. Parsons, Matthew C. Pierson
- Geosynthetic mattress: Analytical solution and verification, Wei Guo, Jian Chu, Shuwang Yan, Wen Nie
- Behavior of sandy slopes remediated by EPS-block geof foam under seepage flow, Onur Akay, A. Tolga Özer, Gar-ey A. Fox, Steven F. Bartlett, David Arellano
- Geocomposite induced consolidation of clayey soils under stepwise loads, Jinchun Chai, Quang Nguyen Duy
- Prestressed reinforced soil by geosynthetics – Concept and experimental investigations, C. Lackner, D.T. Bergado, S. Semprich

Technical Notes

- Experimental study on water permittivity of woven polypropylene geotextile under tension, Yiping Zhang, Weichao Liu, Weiyun Shao, Yan Yang
- A monolithic layered nonwoven–woven geotextile for use with drainage geocomposites in coal combustion residual projects, Dhani Narejo, Mengjia Li, Ed Zimmel, Yin Wu
- Mechanical properties and damage analysis of jute/polypropylene hybrid nonwoven geotextiles, Amit Rawal, M.M.A. Sayeed

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Case studies – new approach for Corporate Members starts with great success

In the last issues of IGS News we published case studies submitted by IGS Corporate Members with a maximum length of a half page. For each issue about 20 corporate members were asked due to their seniority as members in IGS. This round is meanwhile finished. The experience was that it is hardly possible to show a case study within this very small place available. As we still think that case studies are the most useful information for the whole membership of IGS, we start a new round with some more room (that means 1 full page) for each case study. This should allow place for useful information as well as 1 or 2 pictures and a link to further information through the web.

All corporate members are invited to announce a case study at any time. For each issue 3 to 4 case studies are planned to be placed in. If there are more announcements we will place them on a list and will use them on a “first come, first serve” basis. A corporate member may have a second case study published if the list is finished with corporate members not been considered yet. As we know that some of our corporate members are very hard-working on such a type of publication, please be aware that the only possibility to prevent a publication series by one company is to send in your own case study!

With a distribution of more than 3000 samples/downloads of IGS News this is a good promotion of the geosynthetics technique and your company. We would be happy if this chance is used frequently.

*Reported by
Gerhard Bräu, IGS News Editor*

Shore Protection Works at Hazira, Gujarat



The Problem

A reclamation work has been planned as a part of port terminal development. Towards this, the area on the southern side of the existing land based drilling platform needed to be reclaimed to create the port back-up facility. To retain the reclamation material as well as to protect the proposed back-up yard from the severe marine and tidal environment, a peripheral shore protection system was required for a length of 2.25 Km. Further, as a part of reclamation work, slope of height 10m was to be protected against erosion by the waves.

The Solution

Considering the benefits of using geosynthetics and its wide range of applications in coastal protection works, a shore protection system using geosynthetic materials was adopted. Based on the design parameters, shore protection system with geotextile containers as core material and with stone armour layers was designed. Dredged material was used to fill the geotextile containers which acted as a barrier to prevent outgress of dredged material into the sea.

Geotextile containers were manufactured from high strength woven geotextiles and are filled with locally available dredged sand. These containers were stacked one above the other to form the required slope. Polypropylene rope gabions filled with stones were provided as launching apron to prevent scouring of the toe.

The Advantages

- Retain the back filled dredged sand during reclamation to prevent the outgress into the sea
- Temporary shore protection (2 to 3 years) till the armour layer is constructed
- Fill material - use of locally available dredged sand



Apron using PP rope gabions

Based on the design parameters, shore protection system with geotextile containers as core material and with stone armour layers was designed. Dredged material was used to



Steel frames to support geotextile containers

- Easy and speed rate of installation
- Cost effective - The cost of present system is one-fifth when compared to conventional systems. Cost saving obtained is 80%.

The Present Status

In general, the overall system was found to be in good condition. Subsequently, primary and secondary rock armours are to be placed over the core geosystem to safe guard against the harsh marine environment.



Shore protection work after construction



Arial view - before land reclamation



Arial view - After land reclamation

Project Details:

Client: Adani Hazira Port Pvt. Ltd.
Contractor: Garware – Wall Ropes Ltd
Products used: Geotextile container: 18,000 Nos
 PP rope gabion: 30,000 m³
 Woven geotextile: 2,00,000 m²
Construction Year: 2011

Further Information:

GARWARE-WALL ROPES LTD
 Tiru Kulkarni, Vice-President Marketing
 Plot No. 11, Block D-1, M.I.D.C., Chinchwad
 Maharashtra, Pune – 411019, INDIA
 Phone: 91 20 3078 0000, Fax: 91 20 3078 0350
mvoffice@garwareropes.com

Whiting Beach with ELCOROCK® Geotextile Sand Containers



Yamba is a small coastal community on the northern beaches of New South Wales and is known as ‘the jewel in the crown’ for Clarence Valley Council. In early 2012 undermining in the south east corner of Whiting beach was exposing key infrastructure including the footpath, road, storm water pipework and chamber, pressurised sewer and a car park.

Clarence Valley Council looked at a solution that could adequately protect this section while working within the restrictions of tide, fitting in well with the surrounds and providing a safe structure as it was in an area of frequent public access. Naturally ELCOROCK® was seen as an ideal solution to fit these criteria and was adopted after consultation with Geofabrics Australasia, Fisheries and Crown Land.

The design called for approximately 200 of the 0.75m³ ELCOROCK[®] geotextile sand containers laid out in a 40m long, 4.2m high structure that was integrated with a storm water pipe exit. To overcome time constraints, a separate site a short distance away was used to fill and close the containers and then placed in a tipper to be transported. A sand pad was then built at the main site to unload the prefilled containers ensuring a smooth supply for placement at the site. From here the work crew could import the required containers as and when they were required to maximise efficiency of the installation.

Geofabrics played a supporting role on this project by providing expertise from both our local branch as well as the national technical team, educating the crew on best practise and instructions on operations for filling, closing and placement of containers.



The installation of the structure was initially tricky due to geometry of the lowest point of the structure and as such had a slow start, that was further plagued by discovery of small boulders on the site that were there from a previous attempt at protection. At this low point of the site access was further reduced to only a few hours after which small waves made working on the site impractical. Once this hurdle was overcome the work team did a fantastic job of constructing the wall within the confines of the job and within the desired time frame.

The finished product shows a well-built ELCOROCK[®] revetment wall, utilising mostly 0.75m³ vandal deterrent containers, with a back facing of ELCOMAX[®] geotextile material to ensure retainment of fine material.

Project Details:

Client: Clarence Valley Council
Location: Yamba, North South Wales
Construction Year: June 2012

Further Information:

GEOFABRICS AUSTRALASIA PTY LTD
 83 - 93 Canterbury Road, Braeside
 Victoria 3195, AUSTRALIA
 Phone: 61 3 8586 9100, Fax: 61 3 8585 9160
b.swifte@geofabrics.com.au
geofabrics.com.au

Marine Structure for Shoreline Protection



The Company

TenCate[®] develops and produces materials that function to increase performance, reduce costs, and deliver measurable results by working with our customers to provide advanced solutions.

The Challenge

East Atlantic Ave. runs along Wavery Beach and Surf Beach in Ocean City. Immediately across from the beach is a neighborhood of lovely homes. The sand dunes along this stretch of beaches protect the properties from damage in storm events, but the dunes are vulnerable to erosion during major storms. To protect the dunes from erosion, the city's engineers designed a Geotube[®] marine structure along 1,767 feet of beach.

The Design

Ocean City engineers designed a pyramid structure with two 34 foot circumference Geotube[®] units on the first layer and one unit stacked on top for a final height of 12 feet. Geotube[®] patented flat ends were specified to provide a tight joint between units and maintain elevation across the entire structure. The seaward units were partially

covered with a shroud made of the same textile for additional protection from marine debris if the units are uncovered during a storm. The soft scape of the sand-colored Geotube® units blend in with the dune itself as opposed to the alternative of armor stone.



Two parallel Geotube units comprise the bottom layer of the structure. Upon completion of filling the top Geotube unit, sand was placed over the structure and sea grass was planted

The Construction

In late 2010 and early 2011, Contractor Tri-State Dredging, excavated down to design elevation building a berm on the seaward side to provide a secure work area during high tide. A scour apron and anchor tubes were placed first and anchor tubes filled with sand. Sand was imported from a barrow area further down the beach. Sand was slurried with seawater and pumped into the tubes with a sand slurry pump. When the installation was complete, the structure was covered with sand and vegetated with beach grass.

Performance

October 29th, Hurricane Sandy hit the New Jersey shore with a vengeance destroying property including homes, roads, infrastructure and beaches. The vegetated sand cover was washed out to sea along East Atlantic Ave in Ocean City, uncovering the top layer of Geotube® structures. The tubes did their job of protecting the dunes without sustaining any damage.

Project Details:

Client: City of Ocean City, NJ
Product: Marine Containment Structure
Location: Ocean City, NJ
Contractor: Tri-State Dredging, Philadelphia, PA
Construction Year: 2010 / 2011

Further Information:

Geosynthetics and Industrial Fabrics
365 S. Holland Drive
Pendergrass, GA 30567, USA
Tel.: 706-693-1728, Fax: 706-693-1847
j.mckay@tencate.com
www.tencategeosynthetics.com

Coordination Crucial For Massive Retaining Wall at TN Sam's Club



The Challenge

When plans were being made for a new Sam's Club in Hendersonville, TN, developers were presented with several challenges regarding the retaining wall on the property. First, the wall would reinforce a large area, rising 30 feet high and running nearly a half-mile. Areas behind the wall had a steep three to one slope, access roads for deliveries had to be accommodated, and because it backed up to popular walking/bike path and green area, it had to include safety railings. Plus, the upscale area warranted an attractive wall system and design.



At the top of the wall, 282 Sleeve-it rail integration units were used to stabilize the fence.



250,000 cubic yards of limestone was removed and 57 cut stone was put in its place for reinforcement behind the wall.

What's more, the contractor had to blast and remove over 250,000 cubic yards of rock, which had to be coordinated with the wall installers. The pressure was on to stick to a tight schedule because the building pad could not be started until the wall was at certain heights. Coordination was critical.

The Solution

A team which included general contractor, White Spinner of Mobile, AL, wall contractor, Retaining Walls of Tennessee of Gallatin, TN, Lee Brick and Block, Keystone Retaining Wall manufacturer, engineering design team, Terracon Consulting and Strata's engineers worked closely to plan the wall. The process involved removing 250,000 cubic yards of limestone and placing 57 cut stone in its place for reinforcement behind the wall. Strata worked closely with Terracon's engineering team to specify the appropriate geosynthetic reinforcement materials and amounts needed for the varying conditions of the site. A total of 38,000 square yards of Stratagrid SG200 and 10,800 square yards of Stratagrid SG500 were placed behind the wall to reinforce the soil and rock. The wall was faced with attractive Keystone Compac III Hewnstone to complement the upscale look of the development. At the top of the wall, fencing was reinforced with 282 Sleeve-It rail integration system units to stabilize the fence along the walking/bike path. The massive 32,323 square feet wall rose 30 feet high and stretched 2,248 linear feet.



This massive retaining wall with reinforced railings at the new Hendersonville, TN Sam's Club allows for maximum land use while keeping pedestrians safe.

Results

Sam's Club was provided with a stable, well-built wall that is an attractive feature to the shopping development and complements the upscale area and green area above it. Further, because the perimeter of the road behind the Sam's Club is adjacent to the wall, it allowed maximum use of the 19-acre site. Hikers and bikers along the path near the wall are kept safe with reinforced railings. The project was well-coordinated with the entire development team and kept to the timeline, enabling the pad to be installed on time.

For more information about Strata and other retaining walls and soil reinforcement, contact Strata at 800.680.7750 or visit www.geogrid.com

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Sorted by earliest year of continuous membership

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GSE Lining Technology, Inc.	USA	bramsey@gseworld.com	www.gseworld.com	1987
Colbond bv.	Netherlands, The	blair.rawes@colbond.com	www.colbond.com	1988
DuPont de Nemours (Luxembourg) SARL	Luxembourg	romain.diederich@lux.dupont.com	www.dupont.com	1988
Fritz Landolt AG	Switzerland	Joseph.schittly@landolt.com	www.landolt.com	1988
Geosynthetic Materials Association (GMA)	USA	amaho@ifai.com	www.ifai.com	1988
NAUE GmbH & Co. KG	Germany	kvmaubeuge@naue.com	www.naue.com	1988
TenCate Geosynthetics Europe GmbH	Austria	j.gruber@tencate.com	www.tencate.com	1988
Asahi Geotechnologies Co., Ltd.	Japan	miura.nb@om.asahi-kasei.co.jp	www.asahi-kasei.co.jp	1989
Belton Industries, Inc.	USA	gbarker@beltonindustries.com	www.beltonindustries.com	1989
Bonar Technical Fabrics N.V.	Belgium	geotextiles@bonartf.com	www.bonartf.com	1989
Fiberweb Geosynthetics (Teram LTD)	United Kingdom	plangley@fiberweb.com	www.fiberweb.com	1989
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Japan Spunbond - Toray Corp.	Japan	zz-esaki@unitika.co.jp		1989
Kajima Corporation - Kajima Technical Research Institute	Japan	yt@kajima.com	www.kajima.co.jp	1989
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Tensar International Limited	United Kingdom	ifraser@tensar.co.uk	www.tensar.co.uk	1989
Tokyu Construction Co. Ltd.	Japan	tomita.yuuichi@tokyu-cnst.co.jp	www.tokyu-cnst.co.jp	1989
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Mitsui Chemicals Industrial Products, Inc.	Japan	yoko.akana@mitsui-chem.co.jp	http://jp.mitsuichem.com	1992
DAEHAN i. m. Co., Ltd.	Korea	daehan@geosko.com	www.geosko.com	1994
Geofabrics Ltd.	United Kingdom	gdonald@geofabrics.com	www.geofabrics.com	1995
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Colas S. A.	France	gautier@campus.colas.fr	www.colas.com	1996
Geofelt GmbH	Austria	geofelt@geofelt.com		1996
Presto Products Co-Geosystems	USA	bill.handlos@prestogeo.com	www.prestogeo.com	1996
FITI Testing and Research Institute	Korea	hogankim@fiti.re.kr	www.fiti.re.kr	1997
Officine Maccaferri S.P.A.	Italy	UTP@maccaferri.com	www.maccaferri.com	1997
Solmax International, Inc.	Canada	dberube@solmax.com	www.solmax.com	1997
Association of RRR Construc-	Japan	okamoto@iqi.co.jp	www.rrr-sys.gr.jp	1998

Company Name	Country	Contact Email	Website	Year
tion System, The				
Beaulieu Technical Textiles	Belgium	p.desmet@ideal-fibresfabrics.com	www.ideal-group.com	1998
Field Lining Services of Latin America, Inc.	Panama (Republic of Panama)	flsgeo@cableonda.net	http://fieldliningservices.com	1998
Integrated Geotechnology Institute	Japan	y_tamura@igi.co.jp	www.igi.co.jp	1998
Juta a.s.	Czech Republic	vagnerm@juta.cz	www.juta.cz	1998
Maccaferri do Brasil Ltda	Brazil	maccaferri@maccaferri.com.br	www.maccaferri.com.br	1998
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High Stiffness Polyethylene Pipes Association	Japan	jouji_hinobayashi@daipla.co.jp	www.kotaikyo.jp	2005
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TeMa Technologies and Materials Srl	Italy	nicola.busatta@temacorporation.com	www.temacorporation.com	2006
Viganò Pavitex S.P.A.	Italy	m.resmini@pavitex.com	www.pavitex.com	2006
Geosinteticos Trical, C.A.	Venezuela	geosinteticos@trical.net	www.trical.net	2007
Geosynthetics Technologies Co., Ltd.	Saudi Arabia	geogrid@latifia.com		2007
Supertex, Inc.	USA	edward@supertex-inc.com	www.supertex-inc.com	2007
Texinov	France	jpducoul@texinov.fr	www.texinov.fr	2007
Alyaf Industrial Company Ltd	Saudi Arabia	info@alyaf.com	www.alyaf.com	2008
BMC Gulf Trading & Contracting LLC	United Arab Emirates	info@bmc-gulf.com	www.bmc-gulf.com	2008
Coripa S.A.	Argentina	info@coripa.com.ar	www.coripa.com.ar	2008
Fontana International GmbH	Austria	g.puehringer@fontana-international.com	www.fontana-international.com	2008
Intermas Nets S.A.	Spain	csanchez@intermas.com	www.intermas.com	2008
Kaytech Engineered Fabrics	South Africa	garth@kaytech.co.za	www.kaytech.co.za	2008
Manifattura Fontana S.p.A.	Italy	info@drefon.com	www.manifatturafontana.net	2008

Company Name	Country	Contact Email	Website	Year
Servicios de Ingenieria Geosintetica S.A. (SIGSA)	Costa Rica	geosigsa@ice.co.cr		2008
TechFab India Industries Ltd.	India	anant@techfabindia.com	www.techfabindia.com	2008
Tekpro	Russia	info@tekpro.ru	www.tekpro.ru	2008
TRI/Environmental Inc.	USA	sallen@tri-env.com	www.tri-env.com	2008
Aquaterra Consultants Ltd.	Hong-Kong, China	nigel.wightman@aquaterra.com.hk	www.aquaterra.com.hk	2009
AXTER COLETANCHE INC.	Canada	bbreul@axtercoletanche.com	www.coletanche.com	2009
Bombay Textile Research Association, The	India	btralibrary@yahoo.co.uk	www.btraindia.com	2009
EAST COAST EROSION BLANKETS	USA	diane@eastcoasterosion.com	www.eastcoasterosion.com	2009
GEOFABRICS AUSTRALASIA PTY Ltd.	Australia	b.swifte@geofabrics.com.au	www.geofabrics.com.au	2009
Geotexan	Spain	jaguilar@geotexan.com	www.geotexan.com	2009
Golden Pow Co., Ltd.	Korea	jsshim@goldenpow.com	www.goldenpow.com	2009
Sotrafa, S.A.	Spain	construccion@sotrafa.com	www.sotrafa.com	2009
Teknindo Geosistem Unggul, PT	Indonesia	info@geosistem.co.id	www.geosistem.co.id	2009
Cidelsa	Peru	carrod@cidelsa.com	www.cidelsa.com	2010
Firestone Specialty Products Company LLC	USA	oliveirapaul@firestonesp.com	www.firestonesp.com	2010
Geo-Tiptex Ltd.	Hungary	geotiptex@geotiptex.hu	www.geotiptex.hu	2010
JetSJ - Geotecnia, LDA	Portugal	apinto@jetsj.pt	www.jetsj.pt	2010
Laborcontrol	Spain	radia@laborcontrol.es	www.laborcontrol.es	2010
Maccaferri de Argentina S.A.	Argentina	info@maccaferri-arg.com.ar	www.maccaferri-arg.com.ar	2010
Maccaferri De Centroamerica	Costa Rica	sramirez@maccaferri.co.cr	www.maccaferri.co.cr	2010
Nanchang Teamgo New Materials Co.	China (People's Republic)	ncteamgo@126.com	www.ncteamgo.cn	2010
Narvin Gostar Parsian	Iran	info@ngp-co.com		2010
Polytex S.A.	Peru	ejarufe@polytex.cl	www.polytex.cl	2010
PT Tetrasa Geosinindo	Indonesia	office@geosinindo.co.id	www.geosinindo.co.id	2010
Tecnologia de Materials S. A.	Peru	contactenosperu@tdm.com.pe	www.tdm.com.pe	2010
Thrace Nonwovens & Geosynthetics	Greece	papagiannis@thraceplastics.gr	www.thraceplastics.gr	2010
Andex del Norte S.A.	Peru	jesus.cardozo@andex.com.pe	www.andex.com.pe	2011
Beijing Sinoma Bauchem Technology Co., Ltd.	China (People's Republic)	bauchem@sina.com	www.bauchem.com	2011
Celesur Sistemas de Impermeabilizacion, S.L.	Spain	calidad-medioambiente@celesur.com	www.celesur.com	2011
CINAT S.L.	Spain	cinat@cinat.net	www.cinat.net	2011
Geoplastextil SAS	Colombia	santiago.giraldo@plastextil.com.co	www.geoplastextil.com	2011
GEOPOLIMEROS SAS	Colombia	geopolimerosltda@yahoo.com	www.geopolimeros.net	2011
Granite Environmental, Inc.	USA	mwilkie@graniteenvironmental.com	www.graniteenvironmental.com	2011
Layfield Environmental Systems	Canada	erangel@layfieldgroup.com	www.layfieldgroup.com	2011
Mattex Geosynthetics	United Arab Emirates	philippe.g@mattex.com	www.mattex.com	2011
Prati Armati S.r.l.	Italy	info@pratiarmati.it	www.pratiarmati.it	2011
Siver Une 104	Spain	calidad@siverune104.com	www.siverune104.com	2011
STEKLONiT Management, LLC	Russia	e.krashenin@steklonit.com	www.steklonit.com	2011
Yixing Shenzhou Earth Working Material Co., Ltd.	China (People's Republic)	sz.geosynthetics@gmail.com	www.geogrid-cn.com	2011
AGRIPOLYANE	France	export@agripolyane.com	www.agripolyane.com	2012
ANHUI HUIFENG NEW CONSTRUCTION MATERIALS CO.,LTD	China (People's Republic)	whywin@foxmail.com	www.hfgeosynthetics.com	2012
CeTeau BV	Netherlands, The	info@ceteau.com		2012
CONCRETE CANVAS	United Kingdom	will.crawford@concretcanvas.co.uk	www.concretcanvas.co.uk	2012

Company Name	Country	Contact Email	Website	Year
DAEYOUN GEOTECH CO., LTD.	Korea	jimypark94@gmail.com	http://dygtex.en.ec21.com	2012
FABTECH	Australia	gfairhead@fabtech.com.au	www.fabtech.com.au	2012
GAST INTERNATIONAL SA PTY LTD	South Africa	kgastjr@gast.co.za	www.gast.co.za	2012
Geomas	Turkey	elifcallan@geomas.com.tr	www.geomas.com.tr	2012
Geoplas	Turkey	info@geoplas.com.tr	www.geoplas.com.tr	2012
GEOTECHNICAL SYSTEMINDO, PT	Indonesia	info@ptgsi.com	www.ptgsi.com	2012
H&R ChemPharm (UK) Ltd.	United Kingdom	Michael.Aerts@hur.com	www.hur.com	2012
Istanbul Teknik Insaat	Turkey	export@istanbulteknik.com	www.istanbulteknik.com	2012
JOFO ZHAOQING WEBFORMA CO., LTD.	China (People's Republic)	denghong@jofo.com.cn	www.jofo.com.cn	2012
MACCAFERRI (Malaysia) SDN BHD	Malaysia	mm@maccaferri-asia.com	www.maccaferri.com.my	2012
MACCAFERRI Indonesia	Indonesia	mi@maccaferri.co.id	www.maccaferri.co.id	2012
MAPEI S.P.A.	Italy	mapei@mapei.it	www.mapei.com	2012
NAUE - ASEAN Office	Malaysia	isenthil@naue.com		2012
PIETRUCHA	Poland	export@pietrucha.pl	www.pietrucha.pl	2012
PT MULTIBANGUN REKATAMA PATRIA	Indonesia	mrpatria@indo.net.id	www.multibangunpatria.com	2012
Sageos - CTT Group	Canada	eblood@gcttg.com	www.gcttg.com	2012
Shandong Hock Mining Engineering Co. Ltd	China (People's Republic)	export@sdhock.com	www.sdhock.com	2012
SKZ-German Plastics Center	Germany	h.zanzinger@skz.de	www.skz.de	2012
STRATA	USA	lstocker@geogrid.com	www.geogrid.com	2012
Taian Modern Plastic Co., Ltd	China (People's Republic)	info@tmpgeosynthetics.com	www.tamodern.com	2012
TERAGEOS	France	global@terageos.com	http://terageos.com	2012
TESSILBRENTA SRL	Italy	antonio.perissinotto@tessilbrenta.com	www.tessilbrenta.it	2012
TEXOFIB	Saudi Arabia	ctic@cticltd.com	www.texofib.com	2012
Uretek	Italy	alberto.pasquetto@uretek.it	www.uretek.it	2012
ViaCon Production LLC	Russia	kasinski@viacon-russia.ru	http://viacon-russia.ru	2012
EXEED GEOTEXTILE LLC	United Arab Emirates	tpeters@primegeotextile.ae	www.exeed.ae/en/Industry/Index.aspx?IndusID=19&CompID=65&CompMenuID=83	2013
geosynthetica.net (Minerva)	USA	elizabeth@geosynthetica.net	www.geosynthetica.net	2013
GLOBAL SYNTHETICS	Australia	info@globalsynthetics.com.au	www.globalsynthetics.com.au	2013
SOLMAX INTERNATIONAL ASIA PACIFIC SDN. BHD.	Malaysia	dtan@solmax.com		2013
SIPLAST - ICOPAL	France	frppy@icopal.com	www.siplast-international.com	2013

Notes:

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



GeoAfrica 2013

18-20 Nov 2013

Abstract submission until 30 April 2013



10th International Conference on Geosynthetics

Abstract submission until 31 July 2013

Corporate Profile – Concrete Canvas Ltd.

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



Concrete Canvas Ltd manufactures two award winning products, Concrete Canvas (CC) and Concrete Canvas Shelters (CCS). Both products are manufactured at the company's headquarters near Cardiff in South Wales, from where it exports to 40 countries around the world. Concrete Canvas material has quickly gained market acceptance in the civil engineering sector as a cost effective alternative to conventional concrete in a wide range of applications, from ditch lining to slope protection. International customers include Shell, Barrick Mining, BHP Billiton, Ove Arup, Halcrow, Carillion and the British Armed Forces.

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The Product

CC is a flexible cement impregnated fabric that hardens on hydration to form a thin, durable, water proof and fire proof concrete layer, allowing concrete to be used in a completely new way. There is no need for mixing or measuring; the concrete is premixed and cannot be over hydrated, and will set underwater and in sea water.



CC is a low mass, low carbon geotextile technology which uses up to 95% less material than conventional concrete for many applications. It is chemically resistant, has good weathering performance and will not degrade in UV, as well as having a design life of over 50 years. CC can be cut or shaped using hand-tools and requires a minimal amount of personnel and training to install. It has proven to be easier, faster, and cheaper to install than conventional methods, such as poured concrete or shotcrete and produces less waste. It is available in man-portable rolls, allowing it to be used in remote or difficult-to-access areas like deep mines, and is also available in three different thicknesses, allowing for a range of uses.

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uses.

In short, Concrete Canvas allows construction and remediation projects in the civil sector to be completed with more efficiency and flexibility and with a lower impact on the environment than traditional concrete solutions. This is appreciated by our clients who, during a time of recession and environmental scrutiny, are looking for more cost-effective, environmentally-responsible solutions to their projects.



CONCRETE CANVAS
Mr. William Crawford, Director
Unit 3, Block A22
Severn Road
Treforest, Pontypridd, CF37 5SP
UNITED KINGDOM
will.crawford@concretcanvas.co.uk
<http://www.concretcanvas.co.uk/>

Corporate Profile – Fabtech Australia

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



Established in 1986 Fabtech Australia has been delivering geomembrane projects for over 27 years. Acquired by the ASX listed Industrial Group E&A Ltd in 2007, Fabtech Australia has continued to invest in new equipment, processes and training to meet the increasingly stringent demands of geomembrane containment projects.



With a national client base of Blue Chip customers and an extensive track record in delivering complex designs and multi-layer lining systems, Fabtech Australia is positioned to deliver critical containment projects.

Fabtech Australia supports all sectors with geomembrane materials and containment requirements including energy, resources, gas, water and waste water, construction, gas containment and harvesting, and landfill systems.

Fabtech Australia’s services include:

For more information regarding Fabtech products and services, please contact us at:

Engineering

Geomembrane lining and cover system design
 Materials selection and specification
 MQA/CQA services

Phone 1300 664 776
 Inter'l +61 8 8349 2310
 Website www.fabtech.com.au
 Sales ssmith@fabtech.com.au
 Reception reception@fabtech.com.au

Direct Supply

Geomembrane materials
 Pre-fabricated geomembrane products

Construction

Material supply and construction of geomembrane containment systems
 Large capacity temporary and permanent above ground storage tanks
 Evaporation, odour and gas collection floating covers

Patented Solar Evaporation Technology

Feasibility analysis
 Design and construction

In-Service

Monitoring systems
 Inspections and life predictions
 Defect identification an repair

CAPABILITIES



- Over 25 Years of Experience ✓
- National Presence ✓
- Quality Certified ✓
- Safety Certified ✓
- Premium Global Material Suppliers ✓
- Remote Contracting Expertise ✓
- Safety Systems and Procedures ✓
- Skilled people ✓
- In-house Engineering and Design ✓
- Relationship Contractors ✓
- Member of IAGI ✓



IGS News Publisher, Editor and Chapter Correspondents

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International Geosynthetics Society

Office of the Secretariat:
The International Geosynthetics Society
1934 Commerce Lane, Suite #4
Jupiter, FL 33458
USA
TEL: +1.561.768.9489 FAX: +1.561.828.7618
Email: IGSsec@geosyntheticssociety.org

IGS News Editor

Gerhard Bräu
Technische Universität München–Zentrum Geotechnik
Baumbachstrasse 7, 81245 München, Germany
Tel: +49-89-289-27139, Fax: +49-89-289-27189
Email: g.braeu@bv.tum.de

Editorial Board

Russell Jones,
Chairman of IGS Communication Committee
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IGS Chapter Correspondents

Argentina	Verónica Rocío Moratto	rocio.moratto@uns.edu.ar
Australasia	Graham Fairhead	gfairhead@fabtech.com.au
Belgium	Frans De Meerleer	frans.texion@skynet.be
Brazil	André Estêvão Silva	tesouraria@igsbrasil.org.br
Chile	Not yet fixed	
China	Xiao-Wu Tang	tangxiaowu@zju.edu.cn
Colombia	Natalia Erasso	geosinteticos.colombia@gmail.com
Czech Republic	Pavel Mann	mann@igs.cz
Finland	Minna Leppänen	minna.leppanen@tut.fi
France	Nathalie Touze-Foltz	nathalie.touze@cemagref.fr
Germany	Gerhard Bräu	g.braeu@bv.tum.de
Ghana		
Greece	Anastasios Kollios	akollios@edafomichaniki.gr
India	A.C. Gupta	acgupta@cbip.org
Indonesia	Not yet fixed	
Iran	Hosein Ghiasinedjad	hoseingh@yahoo.com
Italy	Nicola Moraci	nicola.moraci@unirc.it
Japan	Jun Otani	junotani@kumamoto-u.ac.jp
Kazakhstan	Rauan E.Lukpanov	rauan_82@mail.ru
Korea	Myoung-Soo Won	wondain@kunsan.ac.kr
Mexico	Not yet fixed	
the Netherlands	Shaun O'Hagan	s.ohagan@planet.nl
North America	L. David Suits	Nagsdirector05@aol.com
Norway	Not yet fixed	
Pakistan	Furhan Hussain	furhan.hussain@tip.edu.pk
Peru	Not yet fixed	
Philippines	Not yet fixed	
Poland	Joanna Borkowska	Joanna@rozenblat.pl
Portugal	Castorina Silva Vieira	cvieira@fe.up.pt
Romania	Andrei Olteanu	adiol@utcb.ro / olteanu.andrei@gmail.com
Russia	Vladimir Kleveko	vlivkl@pochta.ru
Slovakia	Rado Baslik	baslik@tecgeo.sk
South Africa	Peter Davies	peter@kaytech.co.za
Spain	Pedro L. Abad	Pedro.Abad@cetco.es
Thailand	Tawatchai Tanchaisawat	tawatchai.t@gmail.com igs-thailand@ait.ac.th
Turkey	Orkun Akkol	orkunakkol@orientresearch.com
United Kingdom	Gary Fowmes	G.J.Fowmes@lboro.ac.uk
West Pacific	Michael Liu	Michael@goldjoint.com.tw

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N. Dixon (UK)
P. Legg (South Africa)
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Co-opted in 2011

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IGS Officers

President

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The University of Texas at Austin
Civil, Architectural & Environmental
Engineering Department
1 Univ. Station C1792
Rm ECJ9, 227G
Austin, Texas 78712-0280 USA
Tel: 1/512 232 3595
Fax: 1/512 471 6548
Email: zornberg@mail.utexas.edu

Vice-President

Dr. Russell Jones
Golder Associates (UK) Limited
Attenborough House,
Browns Lane Business Park,
Stanton-on-the-Wolds, Notting-
hamshire, NG12 5BL
UNITED KINGDOM
Tel: 44 115 937 1111
Fax: 44 115 937 1100
Email: rjones@golder.com

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Tokyo University of Science
Dept. of Civil Engineering
2641 Yamazaki, Noda City
Chiba Prefecture 278-8510
JAPAN
Tel: 81/47122 98190
Fax: 81 47123 9766
Email: tatsuoka@rs.noda.tus.ac.jp

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Peter Legg
Consulting Principal,
Geo-Environmental Engineers
28 8th Avenue
Northmead
Benoni, 1501
SOUTH AFRICA
Tel: 27 (0)11 425 1197
Fax: 27 (0)11 425 1197
Email: peterlegg@telkomsa.net

Secretary

Elizabeth Peggs
geosynthetica.net
1934 Commerce Lane, Suite 4
Jupiter, Florida, USA 33458
Tel +1 561 768-9487
Fax +1 561 828 7618
Email: elizabeth@geosynthetica.net

Visit the IGS Website:

www.geosyntheticssociety.org

**IGS MEMBERSHIP REQUIRES ELECTRONIC COMMUNICATION –
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The International Geosynthetics Society was formed with the following objectives:

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

WHY BECOME A MEMBER OF THE IGS?

First, to contribute to the development of our profession.

By becoming an IGS Member you can:

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

Second, to enjoy the benefits.

The following benefits are now available to all IGS Members:

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

Please check whether there is a local IGS Chapter in your country (list at page 20)!
 Otherwise please use the online form at <http://www.geosyntheticssociety.org>
 or the following

IGS Membership Application

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

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

Send this completed form to:

The International Geosynthetics Society, 1934 Commerce Lane,
 Suite #4, Jupiter, FL 33458, USA
 TEL: +1.561.768.9489 FAX: +1.561.828.7618
 Email: IGSsec@geosyntheticssociety.org

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

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

Email: _____

First Name: _____ Last Name: _____

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

Company, Division, Function (if applicable): _____

Keyword (up to 25): _____

Position/Title: _____

Address (Street or Postal Box): _____

Membership fee: Individual (US) \$ 45,
 Corporate (US) \$1000,
 Benefactor (minimum (US) \$ 200

City: _____ Province/State: _____

Postal Code: _____ Country: _____

Telephone: _____ Fax: _____

Conferences
Symposia
Workshops

Experimental Micromechanics for Geomaterials
Hong Kong, China (Hong Kong S.A.R.)
23 - 24 May 2013
E-mail: owlam@hku.hk

18th Southeast Asian Geotechnical Conference cum Inaugural AGSSEA Singapore
29 - 31 May 2013
E-mail: 18seagc@nus.edu.sg
www.18seagc.com

Second International Symposium on Geotechnical Engineering for the Preservation of Monuments and Historic Sites
Napoli, Italy
30 - 31 May 2013
E-mail: secretariat@tc301-napoli.org
www.tc301-napoli.org

5th International Symposium on Geotechnical Engineering, Disaster Prevention and Reduction, and Environmentally Sustainable Development
Incheon, South Korea
15-17 May 2013
E-mail: ecshin@incheon.ac.kr

The first international conference on Foundation and Soft Ground Engineering Challenges in MeKong Delta
Binh Duong, Vietnam
5 - 6 June 2013
E-mail: haitdmu@gmail.com
www.ictdmu.com/

Recent advances and challenges in geotechnical earthquake engineering Mini-Symposium within the framework of: 4th International Conference on Computational Dynamics & Earthquake Engineering (COMPDYN 2013)
Kos island, Greece
12 - 14 June 2013
E-mail: cvieira@fe.up.pt or it@science.tuc.gr
http://compdyn2013.org/en/static/accepted-minisymposia_en.aspx

TC215 ISSMGE - International Symposium on "Coupled Phenomena in Environmental Geotechnics (CPEG) - from theoretical and experimental research to practical applications"
1 - 3 July 2013
Torino, Italy
E-mail: guido.musso@polito.it
andrea.dominijanni@polito.it
www.tc215-cpeg-torino.org

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

Calendar of Events



Paris, France
31 August - 01 September 2013
E-mail: yujun.cui@enpc.fr
www.lepublicsystemepco.com/EN/event_s.php?IDManif=696&IDModule=21

18th International Conference for Soil Mechanics and Geotechnical Engineering
Paris, France
2 - 6 September 2013
E-mail: vgauthier@le-public-systeme.fr, vmetral@le-public-systeme.fr
www.issmge2013.org

REMTECH EXPO 2013
Remediation Technologies and Requalification of the Territory Exhibition - 7th Edition
Ferrara, Italy
18 - 20 September 2013
E-mail: info@remtechexpo.com
www.remtechexpo.com

International Symposium on Design and Practice of Geosynthetic-Reinforced Soil Structures
Bologna, Italy
14 - 16 October 2013
E-mail: ling@civil.columbia.edu
<http://www.civil.columbia.edu/bologna2013>

International Conference Geotechnics in Belarus: Science and Practice
Minsk, Belarus
23 - 25 October 2013
E-mail: geotechnika2013@gmail.com, belgeotech@tut.by

Geosintec Iberia 1
Seville, Spain
5 - 6 November 2013
www.geosinteciberia.com

The 19th NZGS Symposium "Hanging by a Thread – Lifelines, Infrastructure and Natural Disasters"
Queenstown, New Zealand
20 - 23 November 2013
E-mail: secretary@nzgs.org
www.nzgs13.co.nz/

10th International Symposium of Structures, Geotechnics and Construction Materials
Santa Clara, Villa Clara, Cuba
26 - 29 November 2013
E-mail: ana@uclv.edu.cu, quevedo@uclv.edu.cu
www.uclv.edu.cu

GEOTEC HANOI 2013 "Geotechnics for Sustainable Development"

Short Courses
Expositions
Trade Shows

Hanoi, Vietnam
28 - 29 November 2013
E-mail: secretariat@geotechn2013.vn
www.geotechn2013.vn

The 2nd African Regional Conference on Geosynthetics GeoAfrica2013
Accra, Ghana
18 - 20 November 2013
E-mail: skampadu.coe@knust.edu.gh

8th International Conference on Physical Modelling in Geotechnics 2014 (ICPMG)
Perth, Western Australia, Australia
14 - 17 January 2014
E-mail: icpmg2014@arinex.com.au
<http://icpmg2014.com.au/>

8th European Conference on Numerical Methods in Geotechnical Engineering (NUMGE14)
Delft, Netherlands, The
18 - 20 June 2014
E-mail: info@numge2014.org
www.numge2014.org

TC204 ISSMGE International Symposium on "Geotechnical Aspects of Underground Construction in Soft Ground" - IS-Seoul 2014
Seoul, Korea
25 - 27 August 2014
E-mail: csyoo@skku.edu

10th International Conference on Geosynthetics
Berlin, Germany
21 - 25 September 2014
E-mail: g.braeu@bv.tum.de
www.10icg-berlin.com

33rd Baugrundtagung with Exhibition „Geotechnik“
Berlin, Germany
23 - 26 September 2014
www.dggt.de

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

IGS Conference

Conference organized under the auspices of the IGS

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