

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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General Information for IGS Members

Announcement of Candidates for: IGS Council, President & Vice President – 2018 to 2022 Term

The IGS, in accordance with its bylaws, will hold elections in 2018. IGS Members will have the opportunity to elect eight Council Members, a President and Vice President. Each of the elected members will serve a four-year term, effective 22 September 2018.

The IGS encourages any IGS Member who is interested in furthering the IGS Mission to consider standing for one of the Council positions. *It is a requirement for all Council Members to attend IGS Meetings during their tenure as a Council Member.* In a typical year, the IGS Council meets once for a two-day period preceding a geosynthetics event. It is the responsibility of the IGS Council member to travel to these meetings and participate in the plenary and committee meetings. The IGS council attempts to host the meetings in equal distribution around the world and based on the most suitable location in any given year.

The IGS Council Members whose term of office expires in 2018 are:

- Dr. Kazem Fakharian, Iran (co-opted mid-term to complete the term of elected Eric Blond, Canada Resigned 2016)
- 2. Ian Fraser, United Kingdom
- 3. Chiwan Wayne Hsieh, Taiwan

- 4. Karpurapu Rajagopal, India
- 5. Takeshi Katsumi, Japan
- 6. Peter Legg, South Africa (Treasurer)
- 7. Pietro Rimoldi, Italy
- 8. Nathalie Touze-Foltz, France

The IGS bylaws stipulate that a Council Member may only be elected to two consecutive terms; hence, Karpurapu Rajagopal, Peter Legg, Nathalie Touze-Foltz are not eligible for re-election. Each of the other incumbents are eligible to stand for re-election.

Election Schedule

Under the bylaws of the IGS, only IGS Members are eligible for election to the Council. Candidates are required to travel to and attend the IGS Council meetings, which are typically held once per year. Members who are not prepared to meet this requirement should not to run for a council position. Meetings of the IGS Council are generally held in conjunction with international and regional IGS conferences.

Voting: 15 April to 15 June 2018

Voting instructions will be sent to each eligible Individual IGS Member and each designated representative from the IGS Corporate Membership via email. Each member may vote once. Please make sure you have submitted an accurate email contact to the IGS. All voting will be done electronically.

Announcement of Successful Candidates: 1 July 2018

IGS Members will be made aware of the successful candidates via email and website on 1 July 2018

First Meeting of the New IGS Council: at 11ICG held in Seoul, Korea September 2018

The current IGS council will meet on the 15th of September immediately preceding the conference. The IGS General Assembly will be held on 19th of September. The first meeting for each of the successful candidates will be held immediately following the conference on 21 September 2018.

If you have any questions or would like any further information on the election process, please contact the IGS Secretary, Elizabeth Peggs (Elizabeth@geosynthetica.net), SKYPE: elizabeth.peggs, TEL +1.561.768.9487.

Candidate for the IGS President

Term 2018 to 2022



Chungsik Yoo

Dr. Chungsik Yoo is a Professor of Civil and Environmental Engineering at Sungkyunkwan University in Korea. He is the current IGS Vice-President and the President of the Korean Geosynthetics Society. Prof. Yoo received his MEng and Ph.D. from the Pennsylvania State University (USA) in 1987 and 1993, respectively. He briefly worked as a Geotechnical Engineer at Mueser Rutledge Consulting Engineers in USA in 1993 and subsequently became a faculty member at Sungkyunkwan University in 1994. Prof. Yoo has authored over 100 technical papers on geosynthetic reinforced soil structures based on laboratory testing, numerical modeling, and field testing. In recognition of his contribution to both research and practice, Prof. Yoo received a number of awards including the *IGS Award* in 2010, bestowed by the IGS on outstanding engineers in geosynthetics

fields.

Prof. Yoo has been a core member of Korean as well as international geosynthetics community for nearly 20 years by providing services in research, education, and practice in geosynthetics engineering. He successfully organized the 3rd Asian Regional Conference on Geosynthetics (GeoAsia 2004) in 2004 which was held in Seoul, Korea and will be hosting the 11th International Geosynthetics Conference (11ICG) to be held in Korea in 2018. Prof. Yoo is also serving as an Editorial Board Member for the IGS official journals, Geotextiles and Geomembranes as well as Geosynthetics International and other journals such as Tunnelling and Underground Space Technology, Computers and Geotechnics, and Soils and Foundations. During his tenure as IGS Vice-President and Chair of Education Committee, Prof. Yoo has coordinated a number of the EtE programs, one of the IGS initiatives, and led other committee projects such as revision of technical leaflets and IGS Specification Guide, translation of glossary, and creation of database on geosynthetics related Ph.D Theses, among others.

If elected as IGS President, Prof. Yoo will work diligently to provide services to members, both individual and corporate, by improving communications, and to lead the society to become one of the leading geo-engineering societies by proactively promoting the use of geosynthetics in geo-engineering fields.

Candidate for the IGS Vice-President Term 2018 to 2022



Nathalie Touze-Foltz

Dr Nathalie Touze-Foltz is currently heading the Antony and Nogent-sur-Vernisson regional centers of Irstea, a public research institute in France in which she previously performed research on geosynthetics during 22 years with particular emphasis on environmental applications. She received her diploma in hydraulic engineering in 1995 from Ecole Nationale du Genie de l'Eau et de l'Environnement de Strasbourg and her PhD in 2001 from Ecole des Mines de Paris. She has authored/ co-authored about 200 papers mainly based on the research work she performed on the quantification of transfers through lining systems.

She was convenor of WG4 (hydraulics) in ISO TC 221 and CEN TC 189 from 2010 to 2017.

She is currently the president of CFG, the French chapter of International Geosynthetics Society (IGS) and a current IGS council member for 8 years. She has made contributions to the IGS technical committee on barrier systems and the mentorship of the IGS young members committee.

She has been selected by the IGS council to give the Giroud lecture during the 11th International Geosynthetics Conference (11ICG) to be held in Seoul, Korea in 2018.

She made a significant contribution to the 10th International Geosynthetics Conference in Berlin, organizing the first IGS young members contest. She also supported the Moroccan chapter in the organization of the Geoafrica 2017 conference.

If elected as the vice-president, she will keep her very active role in the IGS, especially with young members. She will work at promoting the IGS based on the good knowledge of the society and geosynthetics gained along the past 24 years of career in this field.

Candidates for the IGS Council Term 2018 to 2022



Dimiter Alexiew My name is Dimiter Alexiew. I have been active in the field of geosynthetics for more than 25 years, and I have done it all the time not only by my head but also by my heart. It has been and still is not only a profession, but a passion as well. I earned my Dipl.-Ing. in Civil Engineering at the Technical University for Civil Engineering (TUCE), Sofia, in 1978. Then I worked as researcher, design engineer and consultant for geotechnics at the Institute of the Bulgarian Ministry for Construction, being simultaneously honorary assistant professor for geotechnics at TUCE. I got my Doctor in Civil engineering & Geotechnics from TUCE in 1990. After working as design engineer and consultant at the Bavarian LGA Geotechnical Institute in Nuremberg, Germany, I was until 2017 Head of Engineering and Technical Director of Huesker Synthetic, Germany. Recently I founded my own independent Consultancy for Geosynthetics & Geotechnics.

My activities over the years include: design, consultancy and supervision for projects in the fields of earth works and foundations, transportation, landfills, brown field sites, land reclamation, sludge lagoons etc., many of them pioneering; development of design procedures, novel geosynthetics and testing devices; several inventions and patents; coauthoring of codes and standards; published about 230 technical publications, and have held more than 100 lectures and reports.

I am invited lecturer at the University in Siegen, Germany, and member of several German and International Societies and Committees.

Now I would like to contribute to the global propagation and growth of geosynthetic technologies in a way more using all my knowledge, experience, contacts and engineering and communication skills for the benefit of IGS and the engineering community.



Sam Allen Sam Allen began his career in the geoenvironmental and polymeric materials testing fields and has broadened the scope of his involvement in materials engineering to include geosynthetics technology with specialization in laboratory testing operations. Mr. Allen currently serves as the Vice President/Director of TRI Environmental, Inc. (TRI), an independent third party geosynthetics / geotechnical testing and research company with operating service centers in the United States, Brazil, China, Australia and India. TRI's test centers provide services that include routine conformance / verification testing services, leak location and related field services, manufacturing auditing, forensic investigations as well as sponsored geosynthetic R&D supported by government and industry. Mr. Allen has dedi-

cated much of his career to the standardization of geosynthetic measurements serving as the Chairman of ASTM International Committee D35 on geosynthetics and also the Convener of Working Group 5 on durability within ISO TC221 on geosynthetics. He also currently serves on the Technical Advisory Board of Geotechnical Fabrics Report, a geosynthetics industry trade journal. In addition, he serves on the Board of Directors of the Geosynthetics Institute in Folsom, Pennsylvania, USA. The International Geosynthetics Society occupies a special place in Mr. Allen's career. He has contributed to the IGS as a member of the IGS North America, the IGS, an elected member to the IGS Council and as a co-opted member of the IGS Council. During his time on IGS Council, Mr. Allen has served as the Education Chair where he worked with Boyd Ramsey to promote and establish protocols for the IGS's Educate the Educators Program, a unique Program dedicated to the promotion of the inclusion of geosynthetic related curriculum in undergraduate education. Mr. Allen also worked with Dr. Neil Dixon to develop and produce the IGS movie, Geosynthetics in Sustainable Development, an effort designed to deliver the geosynthetic benefit message to international government officials and policy makers. More recently, Mr. Allen has served as Chairman of the Communications Committee where he worked with others to remodel the IGS website, establish the IGS Speakers Bureau to assist in indentifying experts for geosynthetic lecture outreach, and initiated the "Two for a Few" series to provide quick technical interviews highlighting geosynthetic research and beneficial applications. Mr. Allen is running for IGS Council to continue to contribute on a global scale to the growth of the geosynthetics industry with focus on and promotion of high quality materials, design and installation.



Jacques Côté

Jacques Côté, president Solmax: In 1978, as a young engineering graduate, I started my career in the geotextiles industry. My entrepreneurial spirit and passion motivated me to found Materiaux Techniques Cote in 1981; a company specialized in the distribution and installation of geosynthetic products. Over the years, this company has evolved from distributor, to installer and finally into what is called Solmax / GSE, a geosynthetics manufacturer. As of today, Solmax / GSE is considered the world leader in the manufacturing of geosynthetics, with a footprint covering the world.

Over the past 40 years, I had the privilege to travel around the world and meet wonderful people interested in good usage of geosynthetics. This industry has given me a lot and I now believe that it is time for me to give back, hence I would like to present my candidacy for the position of IGS Council member. As council member, my objective would be to put in place a Foundation. This Foundation

will permit engineers from all around the world to participate in events where they can exchange and improve their knowledge to ensure proper usage of geosynthetics. My ultimate goal is to contribute to a brighter future for our industry and all the members of its community.



Oliver Detert

Oliver Detert has over 13 years' experience in the field of geosynthetics and is engaged with geosynthetics even longer. The first contact with geosynthetics occurred at the chair of Prof. Ziegler at the RWTH Aachen in Germany, where he wrote his Diplomthesis on the topic of the interaction behaviour of geogrid and soil by means of the discrete particle method. After his studies he started his professional career in the engineering department at HUESKER Synthetic GmbH, Germany in the year 2005. Since 2014 he is in charge of the engineering department. In the year 2009 he started an external dissertation at the Chair of Prof. Schanz at the Ruhr-University Bochum, Germany, which he finished in 2016. In his research he analysed a self-regulating interactive membrane foundation system for embankments on very soft soils. With this research a design approach for a new geosynthetic system respectively appli-

cation was developed. He is actively promoting the knowledge and the application of geosynthetics on international conferences or lectures at different universities in Germany. He is active in working groups, like the AK 5.2 of the DGGT in Germany, which is responsible for the EBGEO. Furthermore he is member of the DIN NA 106-01-11 AA, CEN/TC 189 and ISO/TC 221, IGS/TC 218 and IGS TC-S.

"With over 13 years of experience in the design and application of geosynthetic structures, I would like to support the international geosynthetic society in our mission to improve and enlarge the knowledge of the extensive possibilities and benefits of geosynthetic applications and technologies throughout the world." (Oliver Detert)



Kristof Fabian

I am **Kristof Fabian**. Having obtained my PhD in 1989 at the University of Queensland, Australia, based on my research in the use of geosynthetic materials in soil reinforcement. I have produced several papers in my field of research published at several locations and forums (see my attached resume). Also, I have completed a number of environmental remediation, mine construction, expansion and closure projects using geosynthetic materials. In particular, I have designed the upstream expansion of double lined tailings pond – complicated thing to change downstream double liners to upstream expansion. Beyond the use of geosynthetics, I have expanded my experience into

the overall, strategic approach of geoenvironmental projects, and recently, I published a book, "Implementation Based Design" in both paper and eBook formats at Amazon expounding on my ideas of design and project execution.

I believe that I bring a broad based engineering approach for geoenvironmental projects, which almost always extensively use geosynthetic materials. I would like to promote the concept of understanding of project objectives, opportunities and constraints and how the use of geosynthetic materials can make project execution more effective and more beneficial to the environment. The use of geosynthetic liners, drainage layers, filters, reinforcement together with other soil improvement technologies like stabilization should increase the overall technology repertoire for geotechnical engineers in the large earthwork, mining, environmental remediation as well as in infrastructure business. I think our profession has a lot of knowledge and a lot to share.

I wish to promote myself as a Council member of the IGS to promote the use of geosynthetics for geoenvironmental applications, the use of Implementation Based Design and even more so to educate younger colleagues, who will carry on the profession.



lan Fraser

lan Fraser is a geotechnical engineer with over 30 years of international experience in consultancy, specialist contracting and geosynthetics solution provision. In the past four years of active service on the IGS Council he has taken on the roles of Secretary of both the Corporate Committee and Hydraulics TC, is active on the Reinforcement TC and is Chairing the working group on the revision of the IGS Handbook. In addition he has supported the IGS with many years of service on the IGS UK Chapter committee as former Chairman, Secretary and Treasurer. He was also a key member of the organizing committee and Treasurer for the very successful EuroGeo4 conference in Edinburgh. He has experience with several global market leaders in geosynthetics and roles include: Managing Director - Tencate Geosynthetics UK Ltd, Vice President Global Technology - Tensar Cor-

poration and Business Director for Geosynthetics - Fiberweb and is currently Technical Director with TCS Geotechnics - a specialist geosynthetic distributor. Ian also serves on BSI Committee B/553 - Geotextiles & Geomembranes, the Comite European de Normalisation (CEN) TC189 - Geotextiles & geotextile related products and ISO TC221 -Geosynthetics. With his extensive industrial experience, lan is ideally placed to represent the views of geosynthetic practitioners including designers, manufacturers, contractors and regulators. He is a stalwart supporter of the role played by the IGS Corporate Members and would like to continue working within the Council to ensure that the full value of Corporate Members' contribution is recognised. Ian strongly believes that geosynthetics are massively underutilized and will continue to strive to promote their economic and sustainable benefits to drive increased appropriate application worldwide.



contribute to IGS internationally.

Werner Hack

Werner Hack. I am responding to this call and hereby state my intent to apply for the council to serve between 2018 and 2022 in the position of council member.

I have been a council member of the Geosynthetics Interest Group of South Africa (GIGSA) as well as one of the first council members of the Durban Branch of GIGSA since 2017. I have a keen interest in promoting the use and understanding of geosynthetics in all applications of engineering so that the importance of geosynthetics can be understood and appreciated.

Since joining GIGSA, my knowledge in the use and application of geosynthetics has continually improved and I would like to ensure that I am able to keep contributing to GIGSA locally and

As a young and impressionable engineer, my election as a member of the IGS Council will ensure that I will be at the cutting edge of geosynthetic applications which will allow me to further my own knowledge of geosynthetic applications globally and promote this knowledge throughout Africa.



Jie Han

Jie Han is the Glenn L. Parker Professor in the Civil Engineering Department at the University of Kansas, USA. He received his Ph.D. degree in Civil Engineering from Georgia Tech in 1997. Dr. Han has conducted extensive research on geogrid, geocell, and geotextile for stabilization of roads and foundations and for reinforcement of walls, slopes, and embankments. His research on geosynthetics has been sponsored by US governmental agencies and the geosynthetic industry in the world. Dr. Han has published more than 300 technical papers, mostly on geosynthetic-related topics. His design methods have been included in reference manuals and used by the geosynthetic industry in the world. He has been a frequent speaker for keynote/invited lectures and short courses on geosynthetics

around the world. He was the technical co-chair for the 2011 ASCE/IFAI GeoFrontiers Conference focused on geosynthetics. Dr. Han is the chair of the ASCE Geo-Institute Soil Improvement Committee. He serves as an associate editor for the ASCE Journal of Geotechnical and Geoenvironmental Engineering and the ASCE Journal of Materials in Civil Engineering and as an editorial board member for Geosynthetics International. Dr. Han has received numerous awards including the 2014 International Geosynthetics Society (IGS) Award and the 2017 ASCE Martin S. Kapp Foundation Engineering Award. Dr. Han was elected to the ASCE Fellow in 2014. His interest in serving as a council member for the IGS is to promote education and research of geosynthetics for broader and more sustainable applications.



Chiwan Wayne Hsieh

Chiwan Wayne Hsieh is a distinguished Professor in the Department of Civil Engineering of National Pingtung University of Science and Technology (NPUST), Taiwan. He graduated in the Department of Hydraulic Engineering from the Feng-Chia University, Taiwan in 1980. He obtained a Ph.D. in the Department of Civil and Environment Engineering at the Penn State University, USA in 1991. From 1989 to 1992 he worked for Gannett Fleming Inc, Pennsylvania, USA, specialising in geotechnical design and construction of Highway projects. He has served as the council member for Chinese Taipei Chapter, IGS for near twelve years. Chiwan Hsieh is a Fellow of ASCE and CICHE, Council Member of the International Geosynthetics Society (2014-2018) and member of several interna-

tional technical societies. He is the director of GSI-Taiwan as a member of Geosynthetic Institute (USA) since August 1999. He was elected as the International Board member of GSI on March 2009 & 2011.

Professor Hsieh's research interests focus primarily on engineering behaviour and applications of geosynthetics and construction materials. His research has resulted in authoring/ co-authoring of more than 200 publications. He has been a keynote speaker at many conferences and symposia. In addition, he has established the Geosynthetic Laboratory at NPUST which is accredited by GAI and TAF for near 70 test methods. He has organized annual GSI-Taiwan (2006-2009) conference and 1st. GSI-Asia (2010) conference to promote the use of geosynthetic in the Asian region. He will be the chair of organizing committee for the 7th. Asian Regional Conference of IGS hosting by the Chinese Taipei Chapter of IGS on 2021. He would like to take a more active role in the IGS and to promote the geosynthetics in various parts of the world.



Takeshi Katsumi

Takeshi Katsumi is Professor at the Graduate School of Global Environmental Studies (GSGES), Kyoto University, Japan. He served as Assistant to the Executive Vice-President of Kyoto University for two years from 2012 October, and is currently Vice Dean of GSGES. He graduated from the Department of Civil Engineering, Kyoto University, and obtained his doctoral degree from the same university in 1997. He has research interests in a variety of topics of environmental geotechnics, including waste landfills, remediation of contaminated sites, and reuse of by-products in geotechnical applications. He has received several awards including the "JSPS PRIZE" by the Japan Society for the Promotion of Science,

which is annually awarded to ~25 Japanese researchers under 45 years of age from all fields of the humanities, social sciences, and natural sciences. He has been a member of ISSMGE Technical Committee No.215 on Environmental Geotechnics for more than 15 years, and has been the International Secretary of the Japanese Geotechnical Society (JGS) since 2014. He has delivered keynote lectures at several international conferences such as 14th ISSMGE Asian Regional Conference (Hong Kong 2011), 5th Asian Regional Conference on Geosynthetics (Bangkok 2012), and ISSMGE's 7th International Congress on Environmental Geotechnics (Melbourne 2014). He has been involved in several projects regarding the recovery works from the 2011 East Japan earthquake and tsunami, and has been a contributing member to the Central Environment Council of Japan for the last two years.



Jacek Kawalec

Jacek Kawalec - born on 1st June 1971. Jacek is as chartered geotechnical expert with 24 years of experience, member of IGS Council in term 2014-2018, past president of Polish Chapter of IGS (for two terms 2012-2014 and 2014-2016), Chairman of new IGS Technical Committee - Stabilization, President of Silesian Branch of Polish Committee of Geotechnics, member of ISSMFE, involved in over 700 projects, expert opinions, researches, tests and designs.

His scientific degrees MSc. in Civil Engineering (1994) as well as PhD in Geotechnics (2000) both received from Silesian University of Technology, Poland.

Jacek is an author or co-author of over 80 papers on geotechnics and geosynthetics published journals or presented at conferences, he occupies seat at the scientific board of Journal "Magazyn Autostrady". Active in Standardization

bodies: ISO TC221 WG6 Design with Geosynthetics and CEN TC 189 Geosynthetics. From very beginning of engineering practice active developer of new geosynthetic applications.

In year 2014 as President of Polish Chapter he initiated and organized "Educate the Educator" course in Poland with participants from Poland, Czech Republic and Slovakia. It was second "EtE" event of IGS and until now the only one which took place in Central & Eastern Europe. He is now member of Organizing Committee for forthcoming in 2020 European Regional Conference EUROGEO-7 in Warsaw, Poland where his activities are focused on leading the Scientific Committee of the Conference.

Researcher Carrier: In years 1994-2016 Assistant and Professor Assistant at Silesian University of Technology (SUoT), promoter of over 30 Master thesis in geotechnics and geosynthetics, from 2017 part-time Senior Lecturer at Department of Geotechnics and Roads at SUoT.

Current position in industry: Director of Technology for Eastern Hemisphere at Tensar International.



Preston Kendall

Preston Kendall. I am standing for the post of IGS Council Member for the 2018 - 2022 term. With a background in Civil Engineering from Georgia Institute of Technology and Physics from The University of the South I have been active in the Geosynthetics industry for the last 6 years working in the technical head-quarters for Geofabrics Australasia in Gold Coast, Australia. In this role, while providing national technical support for locally manufactured Geosynthetics, I have worked to develop new testing methods to assess performance of various Geosynthetics in their installed environments as well as software tools to support the appropriate use of geosynthetics.

As an IGS member since 2013, I have been an active committee member in the Technical Committee on Filtration with the position of secretary. I was a finalist in the 2014 Young Members Session of the 10ICG in Berlin. Since this time, I have served as the Asia regional representative of the Young Members Committee as well as the Young Members Committee Treasurer. In this role, the Young Member team advanced the translation of the IGS glossary of terms to include Mandarin Chinese, developed an interview segment of the IGS news, organized the 11ICG Young Member Session, and developed a social media platform to promote young member involvement in IGS. As a council member, I am particularly interested in creating more avenues to spread the collective knowledge of the IGS members to future practitioners (i.e. students) as well as active practitioners including engineers, installers, and manufacturers.



Flavio Montez

Flávio Montez. My engagement with Geosynthetics started still as a student, when I wrote my graduation thesis on hydraulic properties of geotextiles, mentored by Professor Delma Vidal, at Aeronautical Institute of Technology (ITA), in Brazil. This was in 1986. After that, I have dedicated my entire professional life to the development and promotion of Geosynthetics, always working in the Industry. Since 1998, I am the Managing Director of HUESKER South America.

My involvement with IGS started in 1990, when I became an individual member and attended the 4th International Conference on Geotextiles and Related Products, in The Hage (NL). Since then, I have been present in all International Conferences, up to Berlin, 2014.

In Brazil, I was part of the group, led by Professor Ennio Palmeira (University of Brasilia), which was engaged in founding the Brazilian Chapter of IGS, in 1997. At that time, this group had already organized Conferences, Seminars and Courses on Geosynthetics in Brazil and South America. After IGS Brasil foundation, more Conferences were organized, including the 9th International Conference on Geosynthetics, led by Prof. Mauricio Ehrlich, from Federal University of Rio de Janeiro.

I have a strong belief that this close contact between Industry and Academy is very beneficial for the growth of Geosynthetics. And IGS is the learning Society which promotes this interaction.

Finally, I would like to say that I am very motivated to serve IGS as a Council Member for one more term.



Pietro Rimoldi

Pietro Rimoldi got a degree in Civil Engineering from the Technical University of Milano, Italy, in 1984. In 1986 he started to work in the Geosynthetics sector, and since then he has been involved in the development of new products and in many field and laboratory test projects related to geosynthetics and their applications. He has designed several important projects around the world, for soil reinforcement and stabilization, landfills, hydraulic applications and erosion control. He has contributed to the development of new testing apparatus and new testing procedures. He is the author of more than 250 national and international publications related to geosynthetics, and he has written design manuals for reinforced slopes and walls, for road and railway base stabilization, for geosynthetic drainage systems and for erosion control. He is Certified Professional Soil Erosion and Sedi-

ment Control Specialist (CPESC) in USA and Chartered Professional Engineer in Italy. He is an active member of IGS, ISSMGE TC218 "Reinforced Soil Structures", ASCE Geo-Institute, and of the technical committees CEN TC 189 on Geosynthetics (where he is the Convener of the PG "Durability of Metallic Geosynthetics"), ISO TC 221 on Geosynthetics (where he is the Project Leader of WG6 TG4 "Design for drainage"), CEN TC 288 - Execution of special geotechnical works, CEN TC250 / SC7 / TG6 on design of Geosynthetic reinforced structures within the structural Eurocodes, CEN TC 217 "Sport surfaces". He was elected by the third time Member of the International Council of the IGS, in September 2014, and he is presently the Chair of IGS Technical Committee on Hydraulic Applications (TC-H). He is Council Member of the Italian Chapter of IGS (AGI-IGS), he has been Council Member of the Italian Geotechnical Association (AGI), and Member of the Board of Directors of the Geosynthetics Institute (GSI) in USA. He is presently working as Civil Engineering Consultant, based in Milano (Italy).



Amir Shahkolahi

Amir Shahkolahi has got his bachelor's degree in Civil Engineering and his Master's degree in Environmental Engineering. He has been involved in geosynthetic industry over the last 15 years as a designer, project manager and researcher, with about 9 years of experience in Iran in different positions including technical consultant of NAUE's local partner, followed by about 6 years of experience in Australia since 2012.

Amir has been a member of the technical and organising committee for more than 60 national and international conferences and has presented/published more than 20 technical papers during last 15 years.

These conferences and papers include wide range of geosynthetic applications such as landfill liners, geogrid reinforcement (roads, railways, reinforced slopes

and retaining walls), Basal reinforcement, tunnel membranes, QA/QC, erosion control, oil and gas, hydraulic application and coastal protection.

Amir has been the member of technical committee for preparing geosynthetic technical specifications and guidelines regarding geogrid reinforcement and landfill liners. He has been involved in voluntary activities since 1999 at local and international societies such as Australian Chapter of the International Geosynthetics Society (ACIGS), Iranian geosynthetic society, Iranian Chapter of the International Geosynthetics Society (IsIGS), QLD landfill committee (Australia), Waste Management Association Australia (WMAA), etc. In 2009, Amir was awarded 1st place for the "Engineer of the Year in Research, Education and Development" Award by Iranian Civil Engineering Organisation (ICEO)/Engineers Iran. In 2015, he was awarded 3rd place for the "ISWA Publication" Award by the International Solid Waste Association (ISWA).

Amir is now with Global Synthetics, QLD (Australia), as the Technical Manager. He is also the secretary of the Australasian Chapter of the International Geosynthetics Society, and is involved in several research projects in Australia and overseas as the industry supervisor.



Askar Zhussupbekov

Askar Zhussupbekov. When he was an Invited Professor of Columbia University, New York, USA from January, 2011 to May, 2012 he further extended scientific and educational activities of Kazakhstan Geosynthetics Society. He was an Expert of United Nations on Global Energy and Environment Strategy, New York, USA (2012-2013) and invited lecturer at UN Conference «RIO+20» on «Sustainable Development to All» was held in June, 2012 in Rio de Janeiro.

Prof. Zhussupbekov always supports a young geotechnical generation and he will continue activities moreover give opportunities which provided professional growth of geotechnical engineers from different countries (as an example, Prof. Askar Zhussupbekov provided financial support of travel expenses for young participants of 8AYGEC (2016, Astana, Kazakhstan) from USA, Belarus, Saudi Ara-

bia, Uzbekistan, Kyrgyzstan, Russia, Pakistan, Korea, Syria and other countries).

Prof. Zhussupbekov in collaboration with Prof. Eun Shul Shin, Prof. Jong-Sub Lee (Korean Geotechnical Society, Republic of Korea) and Prof. Der-Wen Chang (Chinese Taipei Geotechnical Society, Taiwan) organize the Summer school for young geotechnical engineers, including 60 Master Students of L.N. Gumilyov Eurasian National University (Kazakhstan), in Incheon National University, Korea University and Tamkang University every year from 2016.

Prof. Zhussupbekov as Head of Civil Engineering Department has found the Kazakhstani school of geotechnical researchers and civil engineers. As such, he made efforts to establish a special program of invited foreign professors and develop technological infrastructures of L.N. Gumilyov Eurasian National University.

Prof. Zhussupbekov has plan to attract new individual members in the nearest future as well as honorary members and company members. Future activity 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 would like to take part in elaboration of Kazakhstan Standard regarding geosynthetic by using information and great experience of IGS.

Prof. Zhussupbekov will provide an ideal academic platform for researchers and engineers to exchange and share their experiences for developing emerging technologies and directions in geosynthetics.



Mahadeva Venkataraman

M. Venkataraman is currently the Guest Professor in Civil Engineering, Indian Institute of Technology (IIT) Gandhinagar, Gujarat State, India. He is the member of IGS for nearly 15 years. He has worked with Indian geosynthetic manufacturing companies in various capacities for 33 years and in the geotechnical industry for 47 years. He did his B. Tech in Civil Engineering from Indian Institute of Technology (IIT) Madras in 1969 and M. Tech in Geotechnical engineering in 1971 from the same institute. He has designed and executed many projects, in most of the geosynthetic related applications. He has also developed indigenous products & systems for rockfall protection, reinforced soil walls and river & coastal applications. He is instrumental in initiating and popularising the use of Geotextile

Tubes for Coastal Protection in India. He has published more than 50 papers in different journals and conferences.

M. Venkataraman has long association with Indian Chapter of International Geosynthetics Society as a member of its Governing Board, and as Vice President during 2012-2017. Currently, he is the President of the Indian Chapter. He has travelled widely all over the world to attend different conferences and industry related assignments.



Chao Xu

Chao Xu is a Professor of Civil Engineering of Tongji University, Shanghai, China and is a co-opted member of IGS Council. He is currently the Chairman of IGS Chinese Chapter and the Vice President of China Technology Association of Geosynthetics, a local geosynthetic organization in China. During the past four years, he had actively attended the IGS council meetings and contributed in various committees of IGS. He prepared and organized the first Educate the Educator Program in Asia, in August 2016 with the guide of IGS education committee and support of IGS members. As one of organizers, he hosted the International Workshop on Geosynthetic-Reinforced and Pile-Supported Embankments in

Shanghai, China under the auspices of IGS Chinese Chapter. He has been closely working with IGS Secretariat and several TCs of IGS, bridging IGS and Chinese geosynthetic community. Dr. Xu has been a member of IGS for more than 10 years. His course on Geosynthetics and Reinforced Soil structures are popular elective course for students at Tongji University. He has presided over 4 national fund projects on Geosynthetic reinforcements and guided tens of research students on the topics of soil reinforcement, ground improvement, natural geosynthetics, Geosynthetic Reinforced Soil abutments, etc. Apart from the academic works, he also provides consultancy services to geosynthetic industry.

Dr. Kerry Rowe to Present the 2018/19 Mercer Lecture



Kerry Rowe

The 2018/19 Mercer Lecturer will be Dr Kerry Rowe from Queen's University, Kingston, Ontario, who will discuss the use of geosynthetics in construction on soft soils.

Dr Rowe, who holds the Canada Research Chair in Geotechnical and Geoenvironmental Engineering at Queen's University, is a past president of the International Geosynthetics Society, a Fellow of the Royal Society and a world-renowned expert in geosynthetics and geonvironmental engineering.

He has given some of geotechnics' most prestigious lectures, including the Rankine Lecture in 2005, the Casa-

grande lecture in 2011 and the Karl Terzaghi Lecture in 2017. In 2018, Rowe was appointed Officer of the Order of Canada, the country's highest civilian honour.

"We are delighted Kerry has agreed to be the next Mercer Lecturer," said Tensar's Vice President Global Applications Technology Tim Oliver, who represents the lecture's sponsor, Tensar, on the Mercer Lecture advisory committee.

"Kerry has built an unrivalled global reputation for his work in both research and engineering practice in a wide range of disciplines, including geosynthetics. He is therefore an ideal person to deliver the Mercer Lecture, which aims to promote co-operation and information exchange between the geotechnical engineering profession and the geosynthetics industry," Oliver said.

"The Mercer lecture series aims to reach out beyond the world of geosynthetics and engage with geotechnical engineers at large —some of whom may not yet be fully familiar with the potential for geosynthetics in their area of interest."

The biennial Mercer Lecture was established in 1992 in memory of the inventor of geogrids, Dr Brian Mercer, who was an advocate of innovation, research and development.

Endorsed by the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) and the IGS, the lecture tour gives individuals who have made a significant technical contribution to the advancement of geosynthetics the opportunity to present their work at three major conferences in three continents.

The Mercer Lecturer is chosen by an advisory committee of representatives from IGS, ISSMGE and Tensar. Chaired by Professor Jorge Zornberg (the 2015/16 Mercer Lecturer), the members are Jose Luis Machado from Portugal, Professor Junichi Koseki from Japan, Professor Ennio Palmeira from Brazil and Tim Oliver from Tensar.

Reported by Tensar International

Technical Committees IGS-TC

The **International Geosynthetics Society** will host two high-level, two-day geotechnical engineering workshops 4 – 7 June 2018 in Munich, Germany. These events, with their international speakers, attendees, and engineering issues, will provide the most advanced IGS Technical Committee-led workshops to date.

INTERACTIVE FORMAT: AUDIENCE PRESENTATIONS/DISCUSSION

Each workshop will be divided into major topics and will focus on very recent technical developments and emerging technical issues. This format means that presenters will not prepare written contributions to be compiled in proceedings; instead they will share presentation slides with attendees. Time may be allocated in each section for attendees to share short statements (single-slide presentations) from the floor. An emphasis is placed on discussion. This interactivity will help propel conversation among colleagues, enhance the topical depth of the gathering, and ensure that region-specific concerns can be addressed. The format will make the overall workshops' knowledge more ready to implement and foster stronger connections for attendees. Attendees interested in contributing to the open forum portion should consult the workshop details for applicable deadlines for supplying a slide (optional) and informing a session's moderator or a workshop organizer of your interest in contributing.

1st GeoReinforcement Workshop Munich, Germany, 4 – 5 June 2018



The International Geosynthetics Society Technical Committee on Reinforcement (TC-R) will welcome civil and geotechnical engineering professionals from around the world to the 1st GeoReinforcement Workshop 4 – 5 June 2018 in Munich, Germany. This unique gathering combines high-level presentations from leading practitioners in the field with

significant audience discussion time, enabling participants to share project experience, exchange technical concerns and solutions, and network with colleagues who influence diverse applications such as MSE walls, steep slopes, veneer stability, embankments, bridge abutments, and more.

The two-day GeoReinforcement Workshop is co-located with the **GeoBarrier Workshop**, which takes place 6-7 **June 2018**. Note: Each workshop requires a separate registration fee. Both can be paid for at the same time via the online registration page.

GEOREINFORCEMENT WORKSHOP PROGRAM

4 June 2018

Facings of Walls and Steep Slopes

Chair: lan Fraser (United Kingdom), ianfraser@tcs-geotechnics.co.uk

- Richard Bathurst (RMC-Queen's University) Reinforcement loads and facing connection capacity in reinforced soil walls: Measured vs Predicted
- Lars Vollmert (BBG Bauberatung Geokunststoffe) Stress conditions and connection requirements of reinforced soil block walls including the German EBGEO perspective
- Mike Dobie (Tensar International) Incorporation of connection strength in design of reinforced soil block walls including seismic considerations
- Philippe Delmas (Conservatoire National des Arts et Métiers) Flexible reinforced soil structure facings and associated design considerations
- Yassine Bennani Braouli (Terre Armee) Facing and connection considerations for concrete panel wall systems
- Coffee Break
- Audience presentations and discussion

Use of Recycled and Amended Marginal Backfills in MSE and Reinforced Embankments/Slopes

Chair: John Sankey (USA), jsankey@reinforcedearth.com

- John Sankey (Terre Armee) Overview of Reinforced Structure Design, Applications and Uses with Recycled and Amended Backfill
- (Yuli) ChaidoDoulala Rigby (Tensar) Use of Polymeric Geogrids in Structures with Non-Standard Reinforced Fills
- Robert Lozano (The Reinforced Earth Company) Treated Marginal Soils in MSE Structures
- Oliver Detert (Huesker) Construction and Long Term Experiences with Marginal Fill in GRS Walls
- Castorina Silva Viera (University of Porto) Use of Mixed Construction & Demolition Recycled Materials in

Geosynthetic Reinforced Structures

- Coffee Break
- Audience presentations and discussion

5 June 2018

Design of Load-carrying MSE Bridge Abutments

Chair: Jorge Zornberg (USA), zornberg@mail.utexas.edu

- Jorge G. Zornberg (The University of Texas at Austin) Growing worldwide emphasis on load-carrying MSE bridge abutments
- John Lostumbo (TenCate Geosynthetics) Design of load-carrying geosynthetic reinforced soil abutments following US guidelines
- Dimiter Alexiew (Consultant Geosynthetics & Geotechnics) Design of load-carrying MSE abutments following some of the European codes
- Andre Ferreira da Silva (Huesker) Experience on load-carrying MSE abutments in South America
- Masayuki Koda (Railway Technical Research Institute) and Antoine Duttine (Integrated Geotechnology Institute) Design of load-carrying MSE abutments following Japanese guidelines
- Nicolas Freitag (Terre Armee) MSE bridge abutments: Only one part of a bridge system examples with steel and geosynthetic reinforcement
- Coffee Break
- Audience presentations and discussion

Reinforced Veneer Stability

Chair: Pietro Rimoldi (Italy), pietro.rimoldi@gmail.com

- George Koerner (Geosynthetic Institute) General approach to veneer stability, testing and monitoring
- Jorge G. Zornberg (The University of Texas at Austin) Selection of design alternatives for water and seismic
 actions on reinforced veneer stability
- Jay McKelvey (Earth Engineering Inc.) Effects of equipment on veneer stability
- Pietro Rimoldi (Consultant) Semi-probabilistic approach to veneer stability according to EuroCodes
- Felix Jacobs (IGB IngenieurgesellschaftmbH) EBGEO approach to veneer stability
- Coffee Break
- · Audience presentations and discussion

Workshop Chair:

Gerhard Bräu (Technical University Munich)

Workshop Location:

Munich Workstyle, Landwehrstraße 61, 80336 München, Germany (400m from Munich's central train station)

Reservations for the IGS allotment can only be made by **Phone: +49 (0) 89 51 41 90**, or by **Email:** <u>info@atrium-hotel.de</u>. Mention "**IGS**" when booking

REGISTER ONLINE:

https://igs.wufoo.com/forms/q10dk31u19dx00v/

Reported by Gerhard Bräu, TC-R Chairman

1st GeoBarrier Workshop

Munich, Germany, 6 - 7 June 2018



The International Geosynthetics Society Technical Committee on Barrier Systems (TC-B) will welcome civil and geotechnical engineering professionals from around the world to the 1st GeoBarrier Workshop 6 – 7 June 2018 in Munich, Germany. This unique gathering combines high-level presentations from leading practitioners in the field with significant audience discussion time, enabling participants to share project experience, exchange technical concerns and solutions, and net-

work with colleagues who influence diverse infrastructure sectors such as mining, coal ash, waste management, environmental protection, oil and gas, and more.

The two-day GeoBarrier Workshop is co-located with the GeoReinforcement Workshop, which takes place 4 - 5 June 2018. Note: Each workshop requires a separate registration fee. Both can be paid for at the same time via the online registration page.

GEOBARRIER WORKSHOP PROGRAM

6 June 2018

Geomembrane Durability

Chair: George Koerner (USA)

- Andreas Woehlecke (BAM) Agency perspectives on geomembrane durability, service life and end of life
- Helmut Zanzinger (SKZ) Autoclave exposure to accelerate incubation for Arrhenius modeling
- Sam Allen (TRI) Exposed Multi-component (layered) geomembrane durability
- Kerry Rowe (Queen's University) Antioxidant depletion: Is higher HP-OIT the answer?
- Coffee break
- 90-minute discussion

Geomembrane Protection

Chair: Richard Brachman (Canada)

- Kerry Rowe (Queen's U) Why we need to limit long-term strains
- George Koerner Preventing puncture: A US Approach
- Uli Sehrbrock: Limiting strain The German Approach
- Richard Brachman (Queen's U) Why allowable strain depends on how its measured and calculated
- Coffee break
- 90-minute discussion

7 June 2018

GCL Hydration and Controlling Factors

Chair: Malek Bouazza (Australia)

- Malek Bouazza Myths and facts about GCL hydration: what you need to know
- Kerry Rowe How well do GCLs hydrate and self-heal: factors and effects
- Craig Benson Hydration, Swelling, and Hydraulic Conductivity of Bentonite-Polymer Composite GCLs for Aggressive Leachates
- Gemmina Di Emidio Wet and dry ageing of modified bentonites for GCLs under aggressive conditions
- Coffee break
- 90-minute discussion

Standard Protocols for Construction/Installation Quality Assurance and Quality Control

Chair: Boyd Ramsey (USA) and Kerry Rowe (Canada)

- Boyd Ramsey Statistical likelihood of leakage with various levels of CQA and inspection surveys
- Sam Allen Historical leakage rates with various levels of CQA and inspection survey(s): the benefits of advanced preparation
- Piet Meyer Case histories of successful and unsuccessful inspection surveys and digital CQC data management
- Kerry Rowe Field observation and implications for leakage
- Coffee break
- 90-minute discussion

Workshop Chair:

Kent von Maubeuge (NAUE GmbH & Co.KG)

Workshop Location:

Munich Workstyle, Landwehrstraße 61, 80336 München, Germany (400m from Munich's central train station)

Reservations for the IGS allotment can only be made by **Phone: +49 (0) 89 51 41 90**, or by **Email:** info@atrium-hotel.de. Mention "**IGS**" when booking

REGISTER ONLINE:

https://igs.wufoo.com/forms/q10dk31u19dx00v/

Reported by

Kent von Maubeuge, TC-B Chairman

IGS Young Members

Down to Earth - An Interview with Dr. Laura Carbone



Laura Carbone In this edition of the feature, the Young Members Committee interviewed the new president of the Young Members Committee. Dr. Carbone shares her formative experiences of the geosynthetic industry and her hopes for her time as president of the Young Members Committee.

Name / Institution: Dr. Laura Carbone, HUESKER GmbH, Germany

Specialist Field: Specialist Field: slope stability, landfill design and engineering with geosynthetics

Can you summarise your experience of working with geosynthetics?

I was first introduced to geosynthetics during a course on environmental geotechnics and soil improvement methods with Prof. Nicola Moraci at the University Mediterranea of Reggio Calabria in Italy. During this time, I developed a special interest

for their use in landfill barriers on slopes and hence I decided to further study it during my Ph.D. Thanks to an international agreement for the joint supervision of the thesis, I was able to conduct my research on the interaction of geosynthetics on slopes in Italy with Prof. Nicola Moraci and in France with Prof. Jean-Pierre Gourc. During this time, I studied the friction mobilization between geosynthetics, which led me to carry out a lot of laboratory tests, some of which were with a very innovative test device at the University of Padua with Prof. Paolo Carrubba. I also had the opportunity to learn different research approaches in different countries, getting to know the IGS world and many engineers, researchers and professionals from the industry. The world of geosynthetics is attractive as it comes with infinite possibilities of innovation, design challenges and sustainable solutions, and this led my decision to continue to this field of work at the engineering department of Huesker Synthetic in Germany.

What do you hope to achieve as president of the Young Members Committee?

The Young Member Committee is something I really care about and deeply believe in. Giving the young generation of engineers the opportunity to be more actively involved in the IGS tasks, to have a platform to share and exchange experiences and being more easily connected to each other is very important.

Since 2012, the year in which the committee was founded, together with Irene Inan, we carried out different activities for the young members and set up a structure enabling us to better organize our initiatives in the world. Looking at the results we have achieved throughout the years, I consider myself very satisfied but certainly, a lot still needs to be done. Many initiatives are being carried out together with the members of the International Board. During my presidency, I aim to motivate new young members to join the committee and encourage the pro-active participation of the young members locally within Chapters. I would also like to create a strong platform where young researchers and professionals can share information and provide young members with more exposure in order to open up more opportunities.

How can more young people be encouraged into the industry?

I truly believe that early theoretical education combined with practical experience is fundamental to making the best start into the industry. Thus, studying geosynthetic materials and solutions during the university courses is, in my opinion, ideal to get an idea of the wide range of possibilities that they offer.

For young graduated engineers, technical trainings and seminars are also good opportunities to learn and continually increase awareness and their knowledge about geosynthetics.

What hobbies and interests do you have outside of work?

On a weekly basis, I do capoeira which is a mix of martial arts and dance. Other than that, I enjoy playing the piano and I like travelling.

Are you a fan of music? If so, do you have favourite artists?

I love music! I listen to a very wide range of music but particularly soul and funk music as well as Italian singer-songwriters as De André, Lucio Dalla and Niccoló Fabi.

Young Member Photo Competition

The Young Member Committee of the IGS is holding its first ever photo competition in 2018. This contest intends to promote young members of the International Geosynthetics Society. The competition seeks the best photos of geosynthetic materials or technologies taken by young members (under 36 years of age on 31st December 2018). Submissions will be accepted on the IGS website until June 2018, with the winner being awarded before the 11th ICG. Follow the Young Members Committee's social media accounts for the launch details.

Recognising Wikipedia Contributions

The Young Members committee are to encourage and recognise the contributions of young IGS members on geosynthetic-related Wikipedia pages. If you make changes to any page, you can let the committee aware by recording your Wikipedia user name on the below form:

https://docs.google.com/forms/d/e/1FAlpQLSdbqawwwAFYelWleZoKxuZXSEZLGudkOpdqa6ejgo5l T-zqA/view-form

It is set up so that you may choose to remain an anonymous, referred only by your username. Significant contributions may be recognised in future editions of the IGS Newsletter.

Updates from the Young IGS Committee

You can stay in touch with news and events from the IGS Young Members committee by checking out the webpage www.geosyntheticssociety.org/committees/young-members-committee/ and their social media accounts:

LinkedIn: www.LinkedIn.com/company/IGS-YMC. Facebook: www.Facebook.com/YoungIGS/.

Reported by

lan Scotland, Communications officer of the Young Members Committee.

Announcement of the International Conference of IGS

11th ICG International Conference on Geosynthetics

Geosynthetics: Innovative Solutions for Sustainable Development Seoul, Korea, 16 – 21 September 2018



On behalf of the Organizing Committee, it is my great honor and pleasure to invite you to the 11th International Conference on Geosynthetics (11ICG), which will be held in Seoul, Korea from September 16 to 21, 2018.

The Korean Geosynthetics Society (KGSS) will have the privilege of hosting 11ICG in Korea, and plans to go to great lengths to ensure the conference surpasses all expectations. The 11ICG will provide all participants a firm platform for a meaningful academic, professional, social and cultural experience. The theme of the 11ICG is "Geosynthetics: Innovative Solutions for Sustainable Development," and will cover diverse disciplines of geosynthetics from fundamentals to applications.

With the vision of making a multidisciplinary conference for the geosynthetics industry and engineers, we plan to offer special events as well as a very dynamic and stimulating array of scientific and practical engineering programs. At 11ICG, academia and industry will gather in force to not only show their best, but to share valuable ideas and develop new friendships.

11ICG will provide a comprehensive overview of the most recent developments in the field of geosynthetics, the latest technologies and applications, and a unique and extensive technical exhibition. With fascinating ancient traditions and ultramodern lifestyle, the city of Seoul will surely be the center of many unforgettable moments.

We look forward to welcoming you in Seoul, Korea! Sincerely yours,

Prof. Chungsik Yoo

Change to you

Chair, Organizing Committee of 11ICG

Vice President, International Geosynthetics Society

President, Korean Geosynthetics Society

Important Date

• June15,2018 Pre-Registration Deadline

Theme and Topics

- Geosynthetics: Innovative Solutions for Sustainable Development
- Geosynthetic Barriers
- Geosynthetics in Filtration, Drainage and Erosion Control
- Reinforced Walls and Slopes
- Ground Improvement using Geosynthetics
- Roads, Railways and other Transportation Applications
- Soil-Geosynthetic Interaction
- Hydraulic Applications
- Innovative Uses and New Developments
- Case Histories
- Durability and Long Term Performance
- Physical and Numerical Analysis
- Geosynthetic Properties and Testing
- Quality Control and Quality Assurance
- Design Approaches and other Applications

Program at-a-Glance (Tentative)

Date		Sep 16 (Sun)		Sep 17 (Mon)		Sep 18 (Tue)		Sep 19 (Wed)	5	Sep 20 (Thu)	Sep 21 (Fri)						
9:00		. .		Opening													
9:30		Short Course		6: 11 1		Keynote Lecture 2/3		Keynote Lecture 4/5		Keynote Lecture 6/7							
10:00		Course		Giroud Lecture								Lecture o//					
10:30		Break		Exhibition Opening	(06:71	Break	(02:21	Break	Registration & Exhibition (09:00~15:30)	Break							
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11:30	<u>Q</u>	Course	71~0		60)	Parallel Sessions	60)	Parallel Sessions	ifi	Parallel Sessions							
12:00	Registration (09:00~17:30)		Registration & Exhibition (09:00~17:30)	Keynote Lecture 1	ssion	Sessions	ssion	Sessions	Shib	Sessions							
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16:00		Short Course											-	O	A	Closing	
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17:30		Prestigious Lecture		Break		Prook		Break									
18:00	-	r resugious Lecture		Dieak	Break												
18:30	-																
19:00				Happy Hour		Special Event		Conference Dinner		IGS Council Dinner							
19:00	-	Welcome Reception								Diffici							
20:00	-																
20:00																	

Invited Speakers

Giroud Lecture



Global Crisis: A Geosynthetics Solution
Dr. Nathalie Touze-Foltz
(Antony Regional Center, National Research Institute of Science and Technology for Environment and Agriculture (IRSTEA), France)

Prestigious Lecture



Geosynthetic-Reinforcement Technology in Railway Applications– from Walls to Bridges

Prof. Fumio Tatsuoka
(Tokyo University of Science, Japan
Past President, International Geosynthetics Society)

Keynote Lecture



Geosynthetic Liners: Conceptions and Misconceptions *Prof. R. Kerry Rowe*(GeoEngineering Centre at Queen's-RMC, Queen's University, Kingston, ON, Canada)



Reinforcement with Geosynthetics – How They Work in Soil

Prof. Martin Ziegler

(Geotechnical Engineering and Institute of Foundation Engineering,

Soil Mechanics, Rock Mechanics and Waterways Construction, RWTH Aachen University, Germany)



Geosynthetics in Roadways: Advances with Significant Impact in Sustainable Development

Prof. Jorge G. Zornberg (The University of Texas at Austin, USA)



Global Challenges, Geosynthetic Solutions and Counting Carbon *Prof. Neil Dixon*(School of Civil and Building Engineering Loughborough University, UK)



Geosynthetics for Natural Disaster Prevention and Mitigation-Japanese Challenge *Prof. Jiro Kuwano* (Saitama University, Japan)

Registration

All participants are required to register through the online registration system and advised to register in advance to receive the registration discount.

Online Registration:

www.11icg-seoul.org

• Pre-Registration Deadline: June 15, 2018

Sponsorship/Exhibition

Please go to 11ICG website (http://www.11icg-seoul.org) and download the application form and fill out the form and then e-mail it to the 11ICG secretariat (secretariat@11icg-seoul.org).

Conference Venue

Coex

Korea World Trade Center, 513, Yeongdong-daero, Gangnam-gu, Seoul 06164, Korea

Phone: + 82-2-6000-0114 Website: www.coex.co.kr

Tour Program

Additionally there will be arranged some special Half-/Full-Day Tours as well as Pre/Post-Conference Tours and Special Evening Programs by a third-party travel agency as optional programs.For more information visit http://www.11icg-seoul.org/

Announcements of Conferences under the Auspices of IGS

5th International Conference on Geofoam Blocks in Construction Applications (EPS'18) Kyrenia, Northern Cyprus, 09 – 11 May 2018

Geofoam researchers, consultants, molders, contractors and practitioners from all around the world will be meeting in Kyrenia to discuss the recent developments and future trends of the expanded polystyrene (EPS)-block geofoam technology and its construction applications. EPS'18 will continue to contribute to the development of the geofoam applications after successful Oslo (1985), Tokyo (1996), Salt Lake City (2001) and Oslo (2011) conferences.

The conference program will be a combination of technical papers and group discussions regarding the use, new development and implementation of geofoam technology. The conference theme will cover but not limited to the present use of geofoam, design specifications, applications, new concepts, material properties, modeling and special topics of geofoam blocks in construction applications.

For more information please visit

http://geofoam2018.org

GeoMEast 2018 International Congress and Exhibition Cairo, Egypt, 24 – 28 November 2018

On behalf of the Organizing Committee, we are pleased to invite you to attend the GeoMEast 2018 International Congress and Exhibition to be held in Cairo, Egypt from November 24 to 28, 2018. It will be the largest Middle East's Geotechnical, Structural, Geosynthetics and Construction Congress in 2018. The GeoMEast 2018 is managed by SSIGE and cosponsored by many professional organizations including TRB, ASCE, ICE, CSCE, ISSMGE, IGS, GMA of IFAI, DFI, IAEG, ARMA, ASTM, IABSE, ACI, ISHMII, ICC and other international organizations.

Recent rapid construction in Egypt and the Middle East has provided great opportunities for bridge, pavement, geotechnical, geological, tunnel and all engineers to use their knowledge and talents to solve many challenging problems involving highways, bridge structures, pavements, materials, ground improvements, slopes, excavations, dams, canals and tunnels with innovative solutions and cutting-edge technologies.

GeoMEast 2018 will provide a showcase for recent developments and advancements in design, construction, and safety Inspections of transportation Infrastructures and offer a forum to discuss and debate future directions for the 21st century. Conference topics cover a broad array of contemporary issues for professionals involved in bridge,

pavement, Geomechanics, geo-environmental, geotechnical, geosciences, geophysics, tunnel, water structures, rail-way and emerging techniques for safety inspections. You will have the opportunity to meet colleagues from all over the world for technical, scientific, and commercial discussions.

The proceedings of GeoMEast 2018 will be published in some Edited Books in SUCI Book Series by Springer-DE, which will be indexed in EI and submitted for inclusion in ISI "Thomson Reuters". In addition, some journal special issues will be published in some prestigious journals from selected best papers of the conference, however, authors need to expand and include materials that are at least 50:75% different than the accepted papers in the proceedings. GeoMEast 2018 will provide some awards; such as: best paper awards, best presenter awards, best student pre-

senter awards, industrial project, and others.

The program will include Podium Presentations, Poster Presentations, Keynote, Honors and Official Lectures, 5 Workshops, 3 Courses, Awards, Technical Meetings, and Technical and Social Tours.

Simultaneous translation may be provided during the conference in Arabic, English, French, German, Russian and any other required languages.

Important Dates:

Full paper deadline is approaching, 15 April 2018; full paper submission is now open via: <u>Submission's Instructions</u> Early Birds Fee ends by March 31!

For more Information:

Contact us via: info@geomeast2018.org And visit our website: geomeast2018.org

Reported by

Dr. Eng. Hany Farouk Shehata; CEO, SSIGE, Organizing committee, General Secretariat

Geosynthetics Conference Houston TX, USA, 10 -13 February 2019

Calling all **Civil, Environmental & Geotechnical Engineers & Academics**: Hundreds of geotechnical professionals come together to write, peer review, publish and present the latest research and case studies. This is your opportunity to be part of one of the industry's most respected events, Geosynthetics 2019.

This conference will be supported by IFAI and IGS North America and under auspices of IGS

For more Information visit the website: geosyntheticsconference.com

News from the IGS Chapters and the Membership

Technical Day – Geosynthetics Applications and Solutions in Roads

Marne-la-Vallee, France, 15 March 2018

Organised by the French chapter of IGS every two years, a technical day about geosynthetics applications and solutions (in roads this year) took place in Marne-la-Vallee (near Paris) in 2018 March 15th. This technical day wel-

comed more than fifty attendees who are experts, engineers, researchers and technicians, mainly from France.

During this technical day, experts highlighted a state of an art of the use of geosynthetics in roads and highways projects. More specifically, engineers presented some practical cases as the use of geosynthetics to prevent cracks raising from substructure in the roadway, the use of reinforcing geosynthetics in airport runway and highway, the use of geomembranes in various underground structures, the use of geosynthetics solutions for drainage and reinforcing applications. Lastly, a comparison between traditional solutions using granular materials and geosynthetics, in terms of environmental footprint, underlined a major benefit of geosynthetics for sustainable development. The presentations, in French, are available for free do



Guillaume Stoltz, Assistant General Secretary of French Chapter of IGS



Short Course and Workshop by Prof. Dov Leshchinsky Napoli (Italy), 15 March 2018

A Short Course and a Workshop were delivered by Dov Leshchinsky (Emeritus Professor at University of Delaware, USA) in Napoli, on 15th March 2018. Both the initiatives were aimed to gather professionals and scholars of the various fields of Geotechnical Engineering interested in geosynthetics and related applications. Particularly, the Course was devoted to young participants (younger than 36 years).

The Course and the Workshop were organised by Stefano Aversa (University of Naples Parthenope), Sabatino Cuomo (University of Salerno), Sergio Gobbi (Engineers' Association of Naples), under the auspices of the Italian Geotechnical Society (AGI) and of the Italian Chapter of IGS (AGI-IGS), with the logistic support of Sabrina Moretti (University of Naples Parthenope) and Lorenzo Frigo (Geosintex srl).

Dov Leshchinsky is a worldwide well-known expert in the field of geosynthetics, with more than 40 years of experience in Geotechnical Engineering, computer programming and numerical methods, more than 30 years of teaching at University, and over 100 refereed papers, many with results of numerical analysis leading towards advances in design methods.

The 3 hours lasting Short Course titled "Geosynthetic Reinforced Soil Walls and Slopes: Theory and Application" provided an overview of modern soil reinforcing technology with an emphasis on geosynthetics. The key topics were the various available reinforcing materials, the facing components, and construction techniques. The methodologies to calculate the strength and layout of reinforcement in walls and slopes were also presented for potential various limit state failures of a reinforced structure. Attention was also given to the prediction of long-term performance of structures. More than 40 attendants were present, the most coming from Italy but also from other European Countries.

The 3 hours Workshop was delivered into two parts. During the Part 1 titled "Limit State Design Framework for Geosynthetic Reinforced Soil Structures" Prof. Leshchinsky proposed a new design method based on limit equilibrium analysis and Factor of Safety (FS) Map tool. As main novelty, it was shown that the proposed design method allows attaining attain a prescribed constant FS at any location in the reinforced soil mass, providing complete information for both slip surface, reinforcement loading and connection load. The Part 2 "Lessons Learned from Failed MSE Walls" of the Workshop focused on five case histories of failed MSE walls, spanning from metallic and geosynthetic reinforcements, with the facing made of steel mesh, small concrete units, or large reinforced concrete panels, and with different, simple or more complex geometry. It is shown the likely reasons for the failures were design error and/or poor construction. Not surprisingly, it was also shown that the cost of repair was far more expensive than the savings due to skimped construction. All of these topics were discussed at the end of the Workshop moving from experience to theory and vice versa focusing on the main factors playing a role in short- and long-term behaviour of real reinforced structures in both cases of well-designed or dramatically failed structures. Out of more than 90 participants, more than 70 were professional engineers with the others being PhD students.





Memories of Short Course and Workshop by Dov Leshchinsky in Napoli (Italy)

Reported by Stefano Aversa (University of Naples Parthenope and IGS member) and Sabatino Cuomo (University of Salerno and AGI-IGS Board member)

7th ICEGE (International Conference on Earthquake Geotechnical Engineering)

Roma, Italy, 17 - 20 June 2019

After the increasingly successful conferences held in Tokyo (1995), Lisbon (1999), Berkeley (2004), Thessaloniki (2007), Santiago (2011), and Christchurch (2015), the Italian Geotechnical Society (AGI) on appointment by the ISSMGE Technical Committee 203 ('Earthquake Geotechnical Engineering and associated problems') is delighted to announce that the city of Roma will host the 7th ICEGE (International Conference on Earthquake Geotechnical Engineering) in June 2019.

As in the previous editions, the conference topics will address through general and parallel sessions the most recent developments in earthquake geotechnical engineering, stimulating fruitful technical and scientific interaction with the fields of seismology, geophysics, geology, structural and infrastructural engineering.

Among the various topics, there is also this one: **Ground improvement, reinforced soil structures and geosynthetics**, of particular interest for IGS members.

The 'eternal city' of Roma is one of the most attractive and symbolic venues in the world, thanks to its impressive cultural heritage, the pleasant weather, its extraordinary social life, not to mention the taste of the Italian food.

Transportation to and through Roma is very effective thanks to two International Airports, high-speed railways and underground city trains.

Roma can count on a variety of accommodation facilities to host the conference delegates, from Luxury hotels to B&Bs.

Pre- and/or post-conference events are also planned, including technical visits to sites affected by historical to most recent earthquakes.

Call for abstracts:

The Organizing Committee of the 7th ICEGE invites all interested geotechnical professionals and academics to submit abstracts for the conference.

All abstracts will be reviewed by the Scientific Committee and, if accepted, the author/s will be asked to submit a full paper which will be assigned to the appropriate session based on the author's application and program requirements.

Abstracts submission deadline: 7 May 2018.

We invite authors to submit abstracts in time, this will help to conclude the review process in due time, thus avoiding delays of the whole editorial process.

Abstracts must be written in English

All abstracts must be submitted only via the online submission system.

Authors must fill out all abstract details and authors' information following the online abstract submission procedure. Each abstract must include the paper title, authors' names, affiliations and e-mail addresses. Submitting authors will be asked to select at least two **topics among the list proposed for the conference**.

It is advised to prepare an 'offline draft' to help the online submission by copying and pasting the required fields (title, authors, affiliations, emails, reference conference topics, text).

The maximum number of words for the text is **400**. Title, authors, affiliations, emails and topics will not be counted in the 400 word limit. Figures and tables are not permitted. References are not necessary.

Acknowledgment of submission will be sent to the e-mail address provided by the submitting author. Please make sure that a confirmation e-mail is received after making the submission. If this e-mail confirmation is not received, it means we have not received the abstract.

It is the responsibility of the authors to ensure the accuracy of the abstract.

At least one author of each accepted paper must register to the conference. A paper fee of 100,00 Euros must be paid for any additional paper submitted by the same author. Any additional co-authored paper can be submitted by another registered co-author or, as an alternative, a paper fee of 100,00 Euros must be paid for each additional co-authored paper. Accepted papers will be included in the digital conference proceedings, provided the registration fee, or paper fee is paid.

USB Card Proceedings will be published by CRC Press / Balkema, Taylor & Francis Group. Since we are aware of the importance, for academics and authors, of the indexing of their works, the **Editor will send the Proceedings to the indexing services (Scopus, El and Compendex)**.

Organizer:

AGI (Italian Geotechnical Society) and TC 203 of ISSMGE

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Reported by

Nicola Moraci, AGI President and IGS member, and Francesco Silvestri. Chairman of the 7th ICEGE

XVI Croce Lecture Delivered by Kerry Rowe Roma, Italy, 13 December 2017

The Italian Geotechnical Society (Associazione Geotecnica Italiana - AGI) organized the annual Conference on the 13th of December 2017 at the "Auditorium Antonianum" in Roma: the lecture is dedicated to the memory of the late Professor Arrigo Croce, who was the first professor of Soil Mechanics and Geotechnical Engineering in Italy, President of the AGI, vice-President for Europe of the ISSMFE and co-founder of the Technical Committee devoted to the Geotechnical Aspects of Preservation of Historic Sites.

The Croce lecture 2017 was delivered by Kerry Rowe, Queen's University – Canada and Past President of IGS, with the title: "Environmental Geotechnics: Looking Back, Looking Forward".

The conference was opened with the greetings from Nicola Moraci, President of the Italian Geotechnical Society AGI, and the Croce lecturer was introduced by Daniele Cazzuffi, President of AGI-IGS, the Italian Chapter of IGS, who highlighted the important contributions of Prof. Rowe in the area of environmental geotechnics and engineering with geosynthetics.

The outstanding lecture provided an excellent state-of-art on lessons learned from the past and provided future perspectives in different topics of the environmental geotechnics, for example the contaminant migration in compacted clay liners, the behavior of the leachate collection systems, the geomembranes long term performance both in contaminated sites and also in landfill applications and the interaction between harsh climate and composite liners.

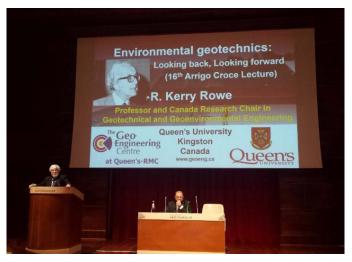
All of these topics were discussed from the theory to practice and vice versa, which provided a better understanding of the phenomena and the relevant factors which influence it.

More than 200 geotechnical professionals from different sectors including universities, public institutions, enterprises and contractors came from different parts of the world to gather together for this special event.

Nicola Moraci closed the session with the announcement of the new Croce Lecturer for the following year, which will be Augusto Desideri, from the "Sapienza" Roma University.

The annual conference closed with a light buffet where all the participants could spend a nice time together and have the chance to exchange traditional greetings for the coming New Year.

The written versions of the Croce lectures from the past lecturers can be downloaded from the website of AGI (http://www.associazionegeotecnica.it/rig/croce_lecture)







From left to right: Paolo Croce, Nicola Moraci, Kerry Rowe, Mario Manassero and Daniele Cazzuffi



From left to right: Kerry Rowe, Nicola Moraci and Daniele Cazzuffi

Reported by

Laura Carbone, Chair of IGS Young Member Committee, and Giuseppe Cardile Secretary of the AGI-IGS

Geotextile Session at the Middle East & North Africa Symposium

Dubai, 6 - 7 February 2018



On 6 & 7 February 2018 EDANA, the leading global association serving the nonwovens and related industries, welcomed over 200 delegates from more than 100 companies to Dubai for the fourth edition of the region's premier conference for the nonwovens industry.

The symposium and exhibition featured expert analysis on market outlook, product innovation, demographic trends and sustainability initiatives over the two-day event, with dedicated sessions on geotextiles, raw material trends and nonwovens applications in different sectors.



Opening Session

The significant potential for global development of the geotextiles market was highlighted and confirmed by the level of interest in the companies attending. Presentations covered a wide range of topics related to nonwoven geotextiles including market developments, raw materials, innovations in nonwoven bonding technologies and the application of geosynthetics in construction, road infrastructure, coastlines, environmental protection, ground stabilization, improving the durability of concrete and roofing.

Among different sessions, there was a well-attended afternoon session on geotextiles in the Middle East, moderated by Daniele Cazzuffi, IGS Past President, CESI SpA (Italy), who also presented the

Keynote Lecture:

Geotextiles in the geosynthetics world: reinforcement, filtration and mechanical protection functions and applications. The featured presentations were the following:

- The use of geosystems in coastline protection, by Edwin Zengerink- Tencate (the Netherlands)
- Ground stabilization with geogrids and geotextiles:the Rabab Harweel integrated project case study by Puthiya Veettil Jayakrishnan– Maccaferri Middle East (United Arab Emirates
- Nonwovens Controlled Permeability Formwork liners improve lifetime of the Sheikh Jaber Al-Ahmad causeway in Kuwait by Michael Moeller – Fibertex (Denmark)
- Use of nonwoven geotextiles for the protection of geomembranes in basement construction and roofing: different case histories in UAE by Arcangelo Mariano Edilfloor (Italy).

Feedback from participants throughout the event emphasised satisfaction with the support provided to the industry and the many opportunities to meet with peers. EDANA General Manager, Pierre Wiertz, was very satisfied with a hosting another successful event in a key region for geotextiles and nonwovens in general "In addition to providing

another successful platform for business development in the region, EDANA concurrently held its first ever board meeting outside of Europe here in Dubai, a testament to our reach and commitment to cater to the needs of our members and their markets".





Keynote Lecture given by Daniele Cazzuffi

Geotextiles Sessions Speakers and EDANA Organisers

Further information on the symposium, including the detailed programme and the complete updated participation list, is available on the following link:

https://www.edana.org/education-events/conferences-and-symposia/event-detail/mena-symposium-2018/

Reported by

Seán Kerrigan, Communications & Media Relations Executive, EDANA, Brussels

16th Geotechnical Portuguese Conference Azores Islands, Portugal, 27 – 30 May 2018 Special Session on Geosynthetics

The 16th Geotechnical Portuguese Conference will be held in the Azores Islands, in the city of Ponta Delgada, from 27 to 30 May 2018 and is being organized by the Regional Laboratory for Civil Engineering (LREC) of the Azores, in cooperation with the Portuguese Geotechnical Society. The conference venue is the campus of the University of the Azores. Azores consists of nine islands of volcanic origin located in the middle of North Atlantic and characterized by natural landscapes of volcanic craters and lakes.

This conference is the main event of the Portuguese Geotechnical Society, which is held biennially, integrating the areas of engineering geology, soil and rock mechanics. The main topic of the conference is "Geotechnics, Natural and Geotechnical Risks and Sustainability". This conference edition is organized in conjunction with the 6th Geotechnical Portuguese-Spanish Workshop under the theme of "Geotechnical Works in Volcanic Terrains".

The Portuguese Chapter of the International Geosynthetics Society will organize a special session on geosynthetics integrating the program of the conference.

For more information: https://sites.google.com/civil-event.pt/16cng

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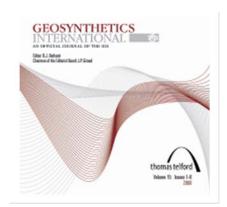
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Development of geomembrane strains in waste containment facility liners with waste settlement

Yan Yu, R. Kerry Rowe

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Zhen Zhang, Guan-Bao Ye, Yan Xu

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Nonwoven geotextiles from nettle and poly(lactic acid) fibers for slope stabilization using bioengineering approach

Navdeep Kumar, Dipayan Das

Pilot tests on vacuum preloading method combined with short and long PVDs

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Corporate Membership

Case Studies – Use the Chance!

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 (up to 1 page with pictures). Usually if there are more announcements we will place them on a list and will use them on a "first come, first serve" basis. For this issue we have no "Profiles" therefore we expand the case studies section. 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

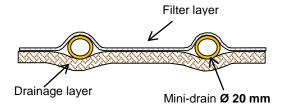
Use of drainage geocomposites for dewatering application in phosphates concentrator pounds – Khourigba, Morocco



DRAINTUBE's Function:

Drainage and filtration of the sludge of the pond in order to

- Increase water removal from sludge,
- Limit the water consumption,
- Limit the covered area of storage pond,
- Limit the impact of water fluctuations on slopes by avoiding soil erosion.



Project history:

OCP (Chérifien Phospates Office) is an operator of phosphate mines in

Khourigba. The enrichment of phosphates in the MEA laundromat



leads each day to the production of 24,000 m³ of washing and flotation sludge. This sludge contains between 70 and 80% of water, 80 to 85% of this water is recovered from the decanters and the remainder is evacuated as thickened sludge to ponds. OCP wanted to cover the traditional pond with a solution to increase the water removal from sludge and preserving the slopes of ponds from the soil erosion. This request also comes within the framework of the COP 22 which took place in Morocco in 2016.

AFITEX, with its strong experience on the drainage system, the DRAIN-TUBE geocomposite, chemically inert and that a filtration layer to collect a clean water at the end of the collector pipes with a suspended particulate matter <1% required for a reuse of this water in the phosphate extraction.

Product's description:

The Draintube 450 FT1 D20 is an association of 2 needle-punched geotextiles (one filter and one drainage layer) with a mini-drain network. The filter layer is designed to ensure a filtration without clogging by the sludge.

Manufacturing method:

Components are bonded by needle-punching. This process is hydraulic friendly and do not damage the filtration layer characteristic. Product can be peeled in order to separate the filter layer so as to make easier the product over lap, ensuring filtration layer continuity.

Project management and contractor: OCP - Morroco

Area: 6 300 sqm Date: 2015





Further information

For more information about ACE Geosynthetics, visit www.afitex.com or contact afitex.com or con

Stabilisation of R28 Krugersdorp Route



After assessing several different products to solve a stabilisation and drainage problem on the R28, a provincial route connecting Krugersdorp and Vereeniging in Gauteng, Calliper Consulting Engineers determined that Kaytech's Rock-Grid PC would provide the optimum solution.

With rehabilitation underway along this Westonaria section of the R28, it was discovered that a low point of the road traversing a stream would require robust reinforcement and drainage to prevent recurrence of base layer failure and potholes caused by groundwater pressure. Besides RockGrid PC, specified for reinforcement, Kaytech's world renowned bidim geotextile was specified as a filter for the subsoil drains.



1. base prep



3. 2 x full rolls out on base



2. first roll going out



4. 3rd roll coming out

RockGrid PC is the first composite, reinforcing geotextile to be manufactured in South Africa. The combination of a nonwoven layer in conjunction with high tenacity, bi-axially orientated, multi-filament polyester yarns, guarantees its unique characteristics; the nonwoven geotextile component offers optimum hydraulic characteristics and high resistance to installation stresses, while its high tensile modulus provides excellent reinforcement characteristics and minimum deformation. RockGrid PC provides sufficient drainage capacity to drastically reduce flowpaths in the reinforced soil and, compared to polyethylene grids, polypropylene grids or woven fabrics, it demonstrates an extremely low creep tendency.

Chavani Construction was awarded the contract for the project which culminated in the installation of 8 000 m2 of RockGrid PC 50/50, as reinforcement between the in-situ sub-grade and the new pavement layers as well as 1 760 m2 of bidim A2 as filter for the subsoil drains, over the low lying section of road.

Manufactured from 100% recycled polyester, bidim is a continuous filament, nonwoven, needlepunched geotextile used worldwide in a variety of applications. The needlepunching process imparts several advantages including appreciable thickness, high porosity and a high drainage capacity in both the transverse and normal to the plane.

As a reinforced separation layer RockGrid PC 50/50 was simply installed directly over the saturated sub-grade, thereby preventing contamination of the selected materials above and providing improved bearing capacity. Experience has shown less fill material is required when using RockGrid PC 50/50 as a reinforced separation layer.

In addition to RockGrid PC and bidim, 804 metres of Kaytech's robust FloPipe 110 mm were installed in the roadside subsoil drain which was designed to collect and direct groundwater flow into the nearby stream. Manufactured from

the highest quality HDPE available, FloPipe is optimally slotted for maximum infiltration with minimal blockage. The twin-wall sandwich design provides strength and flexibility while the smooth inner wall ensures high flow velocity and the corrugated outer wall is able to withstand substantial confining pressure.

Although the final result of this project could not be assessed due to the remainder of the R28 being under construction, Kaytech can confidently assure the Gauteng Department of Roads and Transport that the combination of these high performance products will provide superior subgrade stabilisation and roadside drainage.

Further information

For more information on Kaytech products and systems, visit www.kaytech.co.za

Thessaloniki Metropolitan Railway (Greece)



Objective

Thessaloniki Metro is considered as the most extensive transport project in Northern Greece underway and is expected to be completed in three construction phases. At the moment, Phase 1 and Phase 2 of the project are in progress. Phase 1 involves the construction of the base underground line. The Line consists of two independent single-track tunnels, which form a network with an overall length of 9.6km. Along its length, 13 modern center platform stations will serve the 18 fully automatic driverless metro trains which are expected to carry 18000 passengers per hour in each direction. The 7.7km section constructed by means of two Tunnel Boring Machines has already been completed. The remaining section of the base line will be constructed by applying the Cut and Cover method. Completion of Phase 1 is expected by the end of 2020.

The Challange

An integrated system consisting of HDPE geomembranes (1.5mm and 2.0mm thick) was qualified for waterproofing (i) the bottom and the lateral concrete walls of the stations and (ii) the shell of the tunnels. Needle-punched nonwoven geotextiles weighing 500gr/m² and 800gr/m² were specified as cushions for protecting the geomembranes.

At the formation level (under the concrete floor of the stations), a 140gr/m² needle-punched nonwoven geotextile was specified to separate the existing soil at the bottom of the excavation from the drainage layer consisting of a typical 30cm thick base course gravel. Over the aggregates, the installation of the waterproofing system and the construction of each station was planned to follow.

The Solution

Following the specifications of the design for cushioning materials, Thrace Nonwovens & Geosynthetics provided needle-punched nonwoven geotextiles weighing 500gr/m² and 800gr/m² namely P500NW and P800NW, respectively. The geotextiles were used to protect both sides of the geomembranes from damage due to contact with either the coarse particles of the drainage layer or the protrusions on the rough concrete/shotcrete surfaces. A 140gr/m² needle-punched nonwoven geotextile, under the trade description S12NW, was provided to act as a separator. The specific geotextile had the appropriate hydraulic characteristics to serve efficiently as filter for the aggregate layer, as well.

After works resumed in March of 2016, more than 150.000 sqm of THRACE NG nonwoven geotextiles have been installed all along the base underground line.



Figure 1: View during construction



Figure 2: Geomembrane placement on top of the cushion geotextile



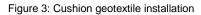




Figure 4: Spreading of the aggregates upon the geosynthetic separator

Further information

For more information on Kaytech products and systems, visit www.thracegroup.com

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TECHFAB INDIA INDUSTRIES LTD.	India	anant@techfabindia.com	www.techfabindia.com
TECNOLOGIA DE MATERIALS S. A.	Peru	contactenosperu@tdm.com.pe	www.tdm.com.pe
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The International Geosynthetics Society



OBJECTIVES OF THE IGS

The International Geosynthetics Society was formed with the following objectives:

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

WHY BECOME A MEMBER OF THE IGS?

First, to contribute to the development of our profession.

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 24)!

Join online at http://www.geosyntheticssociety.org

Corporate Profile – AFITEX International

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.



AFITEX INTERNATIONAL, Down to earth intelligence

AFITEX INTERNATIONAL, a company specialising in ground drainage, earth-retaining and lining systems; designs and markets innovative solutions for construction, urban transports, road infrastructures, hydraulic works, waste storage facilities and mining industries.

AFITEX INTERNATIONAL carries out the design, manufacture and marketing of synthetic materials mainly intended for the construction and infrastructure markets – transforming textile raw materials into geocomposite drainage products. These products, such as **SOMTUBE®**, **ALVEODRAIN®** or **DRAINTUBE®**, are adapted in view of a variety of applications for the following sectors:



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Calendar of Events

Event	Location	Date	E-Mail, Website
IGS UK Symposium - Use of Geosynthetics in Rail: Towards 2025	York, UK	18 Apr 2018	http://www.igs-uk.org www.linkedIn.com/IGSUK
5 th International Conference on Geofoam Blocks in Construction Applications (EPS'18)	Kyrenia, North- ern Cyprus	09 – 11 May 2018	secretariat@geofoam2018.org http://www.geofoam2018.org/en/
IGS TC Soil Reinforcement Workshop "Hot Topics in Geosynthetics Soil Reinforcement"	Munich, Germany	04 – 05 Jun 2018	www.geosyntheticssociety.org/ IGSSec@geosyntheticssociety.org
IGS TC Barriers Workshop "Hot Topics in Geosynthetics Barrier Systems"	Munich, Germany	06 – 07 Jun 2018	www.geosyntheticssociety.org/ IGSSec@geosyntheticssociety.org
Urban Planning Below The Ground Level: Architecture And Geotechnics XVI Danube-European Conference on Ge-	Saint Peters- burg, Russia Skopje, Mace-	06 - 08 Jun e 2018 7 - 9 Jun 2018	georeconstruction@gmail.com http://tc207ssi.org mag@gf.ukim.edu.mk
otechnical Engineering: Geotechnical Hazards and Risks: Experiences and Practices 4th International Symposium on Cone Penetra-	donia Delft, The Neth-	21 - 22 Jun 2018	http://www.decge2018.mk info@cpt18.org
tion Testing (CPT 18)	erlands		http://www.cpt18.org/
9 th European Conference on Numerical Methods in Geotechnical Engineering	Porto, Portugal	25 - 27 Jun 2018	numge2018@fe.up.pt scardoso@fe.up.pt http://www.numge2018.pt/
Educate the Educator	Pretoria, South Africa	02 -03 Jul 2018	info@selahproductions.co.za
Geosynthetic Conference for Young Professionals	Pretoria, South Africa	05 -06 Jul 2018	info@selahproductions.co.za
Geotechnical Construction of Civil Engineering & Transport Structures of the Asian-Pacific Region	Yuzhno-Sakha- linsk, Russia	04- 07 Jul 2018	geotexsimpozium2018@bk.ru http://www.dvgups.ru/im- ages/main/files/Obyvleniy/11-01- 2017/Infor- mation%20about%20the%20Sym- posium%20in%20English.pdf
9 th International Conference on Physical Modelling in Geotechnics	London, UK	17 - 20 Jul 2018	a.mcnamara@city.ac.uk; ICPMG2018@city.ac.uk http://www.ICPMG2018.London
5 th GeoChina International Conference-Civil In- frastructures Confronting Severe Weathers and Climate Changes: From Failure to Sus- tainability	Hangzhou - China	23 - 25 Jul 2018	GEOCHINA.ADM@GMAIL.COM http://geochina2018.geoconf.org/
The 7 th International Conference on Unsaturated Soils (UNSAT2018)	Hong Kong, China	03 - 05 Aug 2018	unsat2018@ust.hk http://www.unsat2018.org
China – Europe Conference on Geotechnical Engineering	Vienna, Austria	13 - 16 Aug 2018	geotech@boku.ac.at https://china-euro-geo.com/
69 th IEC Meeting & International Conference	Saskatoon, Canada	12 -17 Aug 2018	http://www.icid2018.org icid@icid.org
26 th European Young Geotechnical Engineers Conference	Graz, Austria	11 - 14 Sep 2018	franz.tschuchnigg@tugraz.at http://soil.tugraz.at/eygec2018
7th Annual World Congress of Advanced Materials-2018 (W.C.A.M)	Xiamen, China	13 – 15 Sep 2018	elsa@wcam-con.com http://www.bitcon- gress.com/wcam2018/default.asp
11 th International Conference on Geosynthetics (11ICG)	Seoul South Korea	16 - 20 Sep 2018	secretariat@11icgseoul.org
International Symposium on Energy Geotechnics	Lausanne, Switzerland	26 - 28 Sep 2018	seg2018@epfl.ch http://seq2018.epfl.ch/
35 th Baugrundtagung (German Geotechnical Conference)	Stuttgart, Germany	26 - 28 Sep 2018	http://www.baugrundtagung.com/
International Scientific-Technical Conference "Geotechnics of Belarus: Science and Practice"	Minsk, Republic of Belarus	23 - 26 Oct 2018	tamaraul@mail.ru geotechnika2018@gmail.com http://geotech.by
4ème Colloque International Sols Non Saturés & Construction Durable UNSAT Oran 2018	Oran, Algeria	30 - 31 Oct 2018	unsatoran2018@gmail.com http://www.unsat-dz.org/index.php
GeoMEast 2018 International Congress and Exhibition	Cairo, Egypt	24 - 28 Nov 2018	hanyfarouk808@gmail.com http://www.geomeast2018.org/
Second JTC1 Workshop on Triggering and Propagation of Rapid Flow-Like Landslides	Hong Kong	03 - 05 Dec 2018	ceclarence@ust.hk

Event	Location	Date	E-Mail, Website
7 ICEGE 2019 - International Conference on	Rome, Italy	17 - 20 Jun 2019	agi@associazionegeotecnica.it
Earthquake Geotechnical Engineering			
ISDCG 2019 – 7 th International Symposium on	Glasgow, UK	26 – 28 Jun	
Deformation Characteristics of Geomaterials		2019	
ECSMGE 2019 – XVII European Conference	Reykjavik,	01 - 06 Sep	has@road.is
on Soil Mechanics and Geotechnical Engineer-	Iceland	2019	http://www.ecsmge-2019.com
ing			
XVII African Regional Conference on Soil Me-	Cape Town,	07 - 10 Oct 2019	denis.kalumba@uct.ac.za
chanics and Geotechnical Engineering	South Africa		
XVI Asian Regional Conference on Soil Me-	Taipei, China	21 - 25 Oct 2019	secretariat@16arc.org
chanics and Geotechnical Engineering			http://www.16arc.org
XVI Panamerican Conference on Soil Mechan-	Cancun, Quin-	18 - 22 Nov	support@panamerican2019mex-
ics and Geotechnical Engineering	tana Roo,	2019	ico.com
	Mexico		http://panamerican2019mexico.com
Nordic Geotechnical Meeting	Helsinki, Finland	27 - 29 May	leena.korkiala-tanttu@aalto.fi
		2020	
6th International Conference on Geotechnical	Budapest,	07 – 11 Sep	huszak@mail.bme.hu
and Geophysical Site Characterization	Hungary	2020	info@isc6-budapest.com
			http://www.isc6-budapest.com
EuroGeo 7	Warsaw,	06 – 09 Sep	eurogeo7inpoland@gmail.com
	Poland	2020	http://www.eurogeo7.org/

Note:

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

IGS Conference	Conference organized under the auspices of the IGS	Conference under the auspices or with the support of an IGS Chapter
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