



Dear IGS Colleague,

As a member of the IGS you will soon be receiving an invitation to vote in the important 2010 IGS Election. I would like to encourage you to take the time to vote and I hope that you will cast your vote for me, Prof. Jorge Zornberg, **for IGS President**. Please allow me to explain my vision for continuing to improve on our society as well as my qualifications for the position. Before I continue with my vision, I would like to ask that you vote regardless of your choices! In this election there are 23 outstanding candidates for IGS Council. So much of the work carried out by the IGS is done by these council members - no one person can take credit for the great accomplishments of the IGS. It is critical to the growth of our society that you vote for candidates who you believe will continue to represent your geographic interests, candidates who will work diligently and whose technical qualifications will continue to take the IGS on a positive trajectory. In the case of the ballot for President, the elected candidate will serve 8 years, 4 as President and 4 as Immediate Past-President.

My vision of the IGS, as your candidate for President, will be to capitalize on the existing success of our society while **improving communications**. During its 25 years, the IGS has grown significantly and has enjoyed much success thanks to the efforts of its chapters, individual and corporate members. As elaborated in the attached Vision Statement, I believe that a focused effort on communications will lead to a major expansion of the benefits derived from our Society's wealth of knowledge. I have identified three specific areas in which I believe improved communications will strengthen the IGS. They include heightened and/or improved communication: with our members at large, among members interested in specific technical issues, and with our sister international societies. Through this dedicated effort, I strongly believe that we will be able to not only add significant value to the IGS membership but also to expand the knowledge and use of geosynthetics worldwide.

My qualifications and involvement with geosynthetics include a **diverse** background. I would like to emphasize that I have worked towards the advancement of geosynthetics both as a practicing design engineer and as a university professor and researcher. Consequently, my experience includes both the commercial and academic perspectives of the IGS membership. As indicated in the attached Biography, my contributions on geosynthetics have been recognized by a number of accolades, including two of the most distinguished IGS Awards. I would also like to emphasize that I have lived, studied, practiced and taught internationally. I fluently speak 3 languages and have resided in multiple countries across the Americas. While my diversity in this regard does not represent the entire IGS membership, I believe it does provide me good insight and respect for the cultural diversity of our membership.

My contributions to the IGS have also been characterized by their **diversity**. I have worked to serve our Society at the Chapter, Regional and Council levels, serving as: IGS Vice-President, IGS Council member, NAGS Board member, chairman of the *GeoAmericas 2008* Conference, editorial board member of our journals, and chair of many IGS committees. **I believe that this experience provides me an understanding of the challenges and rewards at each IGS level and helps me appreciate the work done by the IGS at its various levels.** Specifically, I believe that these multiple experiences improve my ability to lead our society in a manner which will complement and support individuals, chapters, corporate members, technical initiatives, and our council.

I hope that you share my vision for the IGS. If this is the case, **please cast your electronic vote for Jorge Zornberg for IGS President.**

Sincerely,

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Candidate for IGS President 2010-2014

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Summary Biography & Vision

(Note: This is the Summary provided in IGSNews, November 2009, and in the IGS Electronic Ballot)

Prof. Jorge Zornberg is a Geotechnical Engineering faculty at the University of Texas at Austin. He is the current Vice-President of the IGS and Board member of NAGS. Prof. Zornberg earned his BS in Argentina, his MS in Brazil and his Ph.D. at the University of California at Berkeley (USA). Before joining the University of Texas he was a Project Engineer at Geosyntec Consultants.

He is a registered Professional Engineer with over 20 years experience in both research and practice in geosynthetics engineering. Prof. Zornberg has authored over 250 publications. In recognition of his contributions, he has received a number of awards, including the Young IGS Member Award, the IGS Award, the ASCE Collingwood Prize and the prestigious Presidential Early Career Award for Scientists and Engineers, which is “the highest honor bestowed by the US Government on outstanding scientists and engineers beginning their independent careers.”

During his tenure as Council member and Vice-President of the IGS, Prof. Zornberg has strengthened the communication channels between the IGS and the IGS Chapters, has led the creation of several IGS chapters (e.g. Mexico, Chile, Argentina), has chaired the North American Activities Committee and the 9ICG International Promotions Committee, and has chaired the First Pan-American Geosynthetics Conference (GeoAmericas 2008) held in Cancún, Mexico. During this conference, as with the rest of his IGS initiatives, Prof. Zornberg brought together the many segments of the geosynthetics industry (individual and corporate members, academics and practitioners).

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



My Vision of the IGS for the 2010 – 2014 Period

I would like to start by saying that I believe that the IGS is in excellent position in terms of stature, technical programs and finances. This is certainly the product of the significant number of high-quality hours dedicated to the IGS by our Past-Presidents, Council members, Chapter Officers as well as many other active members that the IGS has been fortunate to have as leaders. This excellent position is reflected in a particularly high number of activities which, as indicated by the *Summary Report of 2008 IGS Chapter Activities (IGSNews June 2009)*, includes a total of 18 technical conferences and 27 workshops conducted in only one year. Yet, there are always opportunities for improvement, and the IGS is no exception. As with the stock market, a good past performance is not a guarantee of future success. Consequently, in order to remain successful, the new generation of geosynthetic leaders needs to be both creative and bold in today's world of rapidly evolving technologies while still holding firmly to those philosophies of the past that have led to the high stature of the IGS.

How can we achieve the goal of better serving each one of our valuable IGS members? I believe that I can synthesize the many ideas which I would be excited to implement as IGS President into a **single**, comprehensive goal: **Improved communications**. I have received this request numerous times, from a broad range of IGS members, on a wide range of topics including but not limited to: benefits, chapter assistance, technical resources and event production. It is clear that translating this broad goal into tangible, measurable tasks is not simple. I do firmly believe, however, that significant progress toward this goal can be made with the implementation of well thought-out strategies. Specifically, we can begin to achieve this goal by focusing on **three** important **areas for improvement**: (1) first and foremost, to improve the IGS interaction with each one of *our own members* (both individual and corporate), (2) to enhance and provide continuity to communications among members interested in specific *technical issues*, and (3) to improve the collaboration with our *sister international societies*. I would like to now elaborate on how I believe we can implement strategies to achieve improved communications in each one of these areas:

1. Communication with our own members:

An individual IGS Member wondering what his/her member benefits actually are, a Chapter Board Member wondering how to communicate and be recognized by important chapter activities, a Corporate Member wondering how to capitalize on its IGS membership to venture into new markets, a conference organizer wondering how to learn from the experience of previous conferences, a journal user wondering how to access a paper in one of our top-rated official IGS journals...

...these are some of the scenarios which have often been presented during my tenure as IGS Vice-President. Each one of these important questions by IGS members has multiple good answers and solutions. This is because the IGS has a myriad of **existing** tools and experiences that can help individual members, chapters, corporate members and conference organizers. However, we can improve by implementing more efficient ways to deliver these tools or to communicate experiences to our members, particularly through an effective interface with our chapters. This could also help increasing the number of IGS individual members, including places like Africa where the IGS would benefit from increased presence. The good news is that technology is on our side (if used wisely, of course). Web sites, databases, webinars, discussion groups, on-line membership... these are just some of the tools that can add to the (very important) traditional tools we have been using so far. If these tools are properly implemented, you as an IGS member should not need to be technically savvy in order

to realize their benefits. Instead, it is the duty of the IGS leadership to make accessible the tools and the benefits that have been developed for IGS Members.

2. Communication among members interested in specific technical issues:

A reinforced soil wall designer interested in the use of marginal backfills, a geomembrane installer facing unusual site conditions, a geosynthetic manufacturer interested in identifying new applications for a new product, a pavement engineer seeking reduction of the base thickness by using geosynthetics ...

...these are only few of the many issues raised for discussion by IGS members in our conferences, presentations, short courses and technical journals. The continuity of ad hoc technical groups formed to address these and many other issues has often been compromised by distance and time constraints. The IGS can help foster these technical interest groups under the form of **IGS Technical Committees**. I believe that the implementation of these groups is overdue as they may prove valuable, for example, to facilitate technical exchanges between academe and our corporate membership. Similar to the way that IGS members currently affiliate into geographically organized chapters, I envision that they can also affiliate into topically organized Technical Committees. The need for technical groups has been recently identified by the IGS council, and now is the time to implement them. These Technical Committees can gain synergism by interacting with conference organizers to lead technical sessions at upcoming conferences, with designers to produce technical documents, with academics to offer short courses, and with the inquisitive minds of young professionals to stimulate the use of geosynthetics among the new generation of engineers.

3. Communication with the engineering community at large (outreach):

A dam engineer still skeptical about using geotextiles as filter materials, an environmental regulator unsure of the durability of geomembranes, a transportation professional interested in specifying a geotextile for a trench drain, a mining engineer seeking new concepts in tailings stabilization...

...It is clear that we should not expect that every potential user of geosynthetics will become an expert on geosynthetics engineering or a member of the IGS. However, **everyone within the engineering community** deserves to know that geosynthetics exist and that geosynthetics can provide suitable technical solutions to many of their civil, geotechnical, environmental, water resource, mining, materials, structural, erosion control, regulatory, transportation, maintenance, construction, military, sustainability, renewable energy, global warming, and ecological problems. It is our mission to ensure that these practitioners are aware of the technically superior, innovative, and cost-effective solutions that geosynthetics can offer. Experts in the various fields of engineering that come in contact with geosynthetics engineering have international societies of their own. Consequently, the opportunity exists for the IGS to foster relationships, agreements, and liaisons with sister societies whose members can benefit from the sound geosynthetic information. If I become IGS President, I would add significant emphasis to current initiatives aimed at collaborating with our sister societies. Such initiatives can beneficially impact the operations of our corporate members, the significance of our technical conferences, and the contribution of geosynthetics to society at large.

While these three strategic tasks are challenging, I am confident that, if elected president, I can make major progress towards the goal of **improved communications** during the 4 year-term that will begin with the IGS General Assembly to be held in Guarujá, Brazil, on 27 May 2010. Please have confidence in my ability to not only identify, but to champion and successfully address IGS Member needs, as shown by my track record. For example, a well-recognized need has been to integrate geosynthetics manufacturers, contractors, designers, and academics. Another well-recognized need has been to advance the use of geosynthetics in Latin America, a region with historically limited IGS presence. Both of these needs were addressed in one of my first initiatives as IGS council member and Vice-President. Specifically, I led the effort aimed at hosting the very first IGS Regional

Pan-American Regional Conference on Geosynthetics, and ultimately served as Chair of the highly successful *GeoAmericas 2008* Conference, which was held in Cancún, Mexico. This regional initiative was complemented with initiatives towards developing new chapters in collaboration with energetic geosynthetic leaders in Latin America. This resulting in the formation of new IGS chapters that ended up doubling the number of chapters in the Americas in only a few years. In addition, and after identifying opportunities for better communications between the IGS and our IGS Chapters, I have also carried out new initiatives for better communication and reporting from and to our IGS chapters, with excellent results. Accordingly, I am confident that we can achieve the important goal of improved communication with our members, within technical groups, and with the engineering community at large.

Through dedicated effort as outlined in this vision statement, I am confident that that we will not only add significant value to all types of IGS memberships but will also expand the good use of geosynthetics worldwide. Please contact me (phone, email, Skype) if you have any questions or comments. I would very much like to hear from you. I hope that you share my vision of the IGS and the benefits that my election will bring to the IGS. If this is the case, ***please cast your electronic vote for Jorge Zornberg for IGS President.***

A handwritten signature in black ink, appearing to read 'Jorge Zornberg', with a long horizontal stroke extending to the right.

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Dr. Zornberg, P.E., is the Fluor Centennial Associate Professor at the U. of Texas at Austin. He has over 20 years experience both in research and practice in geosynthetics, geotechnical and geoenvironmental engineering. He earned his B.S. from the National U. of Cordoba (Argentina), his M.S. from the Pontifical Catholic U. of Rio de Janeiro (Brazil), and his Ph.D. (1994) from the U. of California at Berkeley.

As part of his professional consulting experience, Prof. Zornberg participated in the analysis and design of major reinforced soil structures and waste containment facilities. He was involved in projects such as the development of design methods for reinforced geosynthetic covers, development of design methods for geosynthetic drainage layers, evaluation of wind uplift of exposed geomembranes, unsaturated flow modeling of evapotranspirative cover systems, analysis of deformability (finite elements) and of stability (static and seismic) landfills, assessment of structures subjected to differential settlements, assessment of release of contaminants due to landfill vertical expansions, and the design of geosynthetic-reinforced bridge abutments. He has participated as expert witness in forensic investigations involving the collapse of earth retaining structures and failure of geosynthetic liners. Prof. Zornberg has been involved in the evaluation of the closure of high-profile hazardous waste facilities, including the first evapotranspirative cover approved by the USEPA and the first triple-lined landfill in a US Superfund site.

As part of his academic experience, now at the U. of Texas at Austin, and previously at the U. of Colorado at Boulder, Prof. Zornberg has conducted research in soil reinforcement, geosynthetics, waste containment facilities, unsaturated soils, and numerical and physical (centrifuge) modeling of geotechnical and geoenvironmental systems. His research has been sponsored by agencies such as the National Science Foundation, the Federal Highway Administration, the Environmental Protection Agency, the Texas Dept. of Transportation, the US Dept. of Education, the Geosynthetic Institute, the Colorado Dept. of Transportation, the California Dept. of Transportation, international development agencies, and geosynthetic manufacturers. Prof. Zornberg's research in the area of soil reinforcement includes the evaluation of strain distribution within reinforced soil structures, the behavior of fiber reinforced soil, the design of reinforced soil structures for bridge abutments, the creep response of geosynthetic reinforcements, the use of reinforcement in pavement design, and the use of geosynthetics to reinforce poorly draining fills. Prof. Zornberg's research in the area of environmental geotechnics includes the hydraulic design of geosynthetic drainage layers, the shear strength of geosynthetic clay liners, the analysis of exposed geomembrane covers, the hydraulic characterization of unsaturated soils, the performance of evapotranspirative covers, the benign reuse of recycled waste, and the hydraulics of unsaturated geosynthetics.

In recognition to his contributions, Prof. Zornberg was awarded the *Presidential Early Career Award for Scientists and Engineers (PECASE)* from the president of the United States (2002). This Presidential Award is "the highest honor bestowed by the United States Government on outstanding scientists and engineers beginning their independent careers." He also received the **2004 IGS Award from the International Geosynthetics Society (IGS, 2004)**, the *Award of Excellence* from the North American Geosynthetics Society (NAGS, 2003), the *Research Development Award* from the Civil Engineering Dept. at the U. of Colorado (2003), the *CAREER Award* from the National Science Foundation (NSF, 2001), the *Young Researcher Award* from the Civil Engineering Dept. at the U. of Colorado (2001), the *Collingwood Prize* from the American Society of Civil Engineers (ASCE, 2000), the *Junior Faculty Development Award* from the U. of Colorado (1999), and the **Young IGS Member Award from the International Geosynthetics Society (IGS, 1996)**. He has authored over 250 technical publications in topics related to geosynthetics, soil reinforcement, transportation infrastructure, waste containment, and centrifuge modeling. Prof. Zornberg is the editor of several *ASCE Geotechnical Special Publications* and the author of several book

chapters. He has been awarded 3 patents. Prof. Zornberg is chair of the International Activities Council (IAC) of the Geo-Institute of ASCE. In recognition to his contributions, he has been invited to deliver keynote lectures in numerous **geosynthetic events** around the world, including the USA, Mexico, Brazil, Peru, South Korea, Japan, and South Africa.

Prof. Zornberg's contributions to the IGS have been **diverse** as they have included contributions at the chapter, committee, organization of technical events, editorial board of IGS journals, council, and officer levels. He currently serves as Vice-President of the IGS, Board member of the North American Geosynthetics Society (NAGS), Chair of the International Promotions Committee of the 9th *International Conference on Geosynthetics* (9ICG), Chair of the North American Activities Committee of the IGS, and Vice-Chair of the Strategy Committee of the IGS. His efforts as council member and IGS Vice-president have been instrumental in many of the recent IGS initiatives. He has been a key contributor in efforts such as the formation of new IGS Chapters (Mexico, Chile, Argentina), the development of new initiatives for reporting between IGS Chapters and the IGS, the development of an on-line IGS membership program, and the consolidation of historical data from all IGS directories into the IGS membership database. Prof. Zornberg is member of the Editorial Board of the two Official Journals of the IGS: *Geosynthetics International* and *Geotextiles and Geomembranes*. Prof. Zornberg has organized many technical sessions in a number of IGS conferences. In addition, he has been heavily involved in the overall organization of several conferences offered under the auspices of the IGS. This includes his contribution as member of the Steering Committee of the *GeoDenver 2000* Congress held in Denver, USA; General Secretary of the *GeoFrontiers 2005* Conference held in Austin, USA; and Chair of the *First Pan-American Geosynthetics Conference and Exhibition (GeoAmericas 2008)* held in Cancún, Mexico.