

# IGS NEWS

NEWSLETTER OF THE INTERNATIONAL GEOTEXTILE SOCIETY

VOLUME 3 NO 2

NOVEMBER 1987

## ***Newest IGS Chapter Formed: The United Kingdom Chapter***

A meeting held at the British Institution of Civil Engineers on 29 September, 1987 marked the inauguration of the UK section of the International Geotextile Society. The UK Section has been formed within the administrative structure of the British Geotechnical Society (BGS), to cater to the requirements of the UK members of the IGS.

At the meeting members were introduced to the UK chapter committee which includes Peter Rankilor (Manstock Geotechnical Consultancy Services) chairman; Richard Jewell (University of Oxford) deputy chairman; Peter Jones (ICI Fibres) treasurer; James Paul (Netlon Limited) general secretary; Colin Degerlund (Civil Engineering) publicity secretary; Robert Warwick (Don & Low) activities secretary; and Tom Sangster (Rhone Poulenc UK Limited) membership secretary (see photo).

Peter Rankilor, founding chairman of the new chapter, outlined his hopes for the next two years and expressed his confidence in the strong position of the UK in geotextile design, manufacture, research and utilization. He outlined the various activities the committee is to enter into on behalf of its members, emphasizing that the committee was set to work on securing practical benefits for its subscribing members. Rankilor continued that the Section would work for the promotion of the UK national industry as a whole and he looked forward to two years of vigorous activity and growth culminating in a national effort to present the best of the British geotextile industry at the 1990 International Geotextile Conference.

Following the Chairman's opening address Dr. J.P. Giroud, President of the IGS, provided members with an insight into the rapid development of geotextiles in the last two decades and outlined the impact these materials had made on civil engineering projects worldwide.

Professor Alan McGown, deputy chairman of the British Geotechnical Society, and instrumental in negotiating the incorporation of the UK chapter of IGS into the administrative structure of the BGS, presented a paper illustrating the role played in the development of geotextiles by UK manufacturers, research establishments and forward-looking consulting practices which, he added, 'have consistently led the field in many aspects of geotextile design and application.'

For further information please contact:

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Parsonage  
MANCHESTER M3 2FB. United Kingdom  
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U.K. Chapter Committee at the Inaugural Meeting

## *Society Activity*

### *IGS Council Meets in The Hague*

The Council of IGS met for the second time this year on 26-27 September and 16 of the 19 members were present.

1. The Council acknowledged the resignation of Mr. Cor Van den Berg (formerly at Nicolon - Netherlands) who has accepted another position in the group.
2. The Council welcomed the imminent publication of the 1987 directory of IGS. It also discussed the growth of the present membership; whilst individual membership grew by about 30 per cent over the last year, much more is still to be done. In particular, the Council would like to see a growth in corporate membership, especially in the field of geomembranes as well as an increase in individual membership in specific countries or sectors (such as public authorities).
3. The Council asked the By-Laws Committee (chairman E. Leflaive) to consider the possibility of including in the IGS by-laws, or by any other practical way, a membership category for eligible **students** at a reduced fee (with limited rights).
4. The Council agreed on the procedure for the coming election of half of the IGS Council. The by-laws provide for renewal of half of the IGS Council every two years with Council members being elected for a four-year term of office.

The present Council members are coming to the end of their term of office: Prof. M. Fukuoka (Japan), Dr. J.P. Giroud (USA, president of IGS until 1990), Dr. P. Jarrett (Canada), Mr. E. Leflaive (France), B. Myles (UK) and Prof. K. Van Harten (Netherlands, vice-president of IGS until 1990). Mr. C. Van den Berg (Netherlands) has resigned.

A call for candidates has been issued (see separate article). Nominations should be forwarded to the Secretariat by 15 December, 1987.

5. The Council discussed the use of the terms geotextiles, geomembranes and similar words. The Council agreed that generic terms should not be misused and certainly should not be treated as the exclusive property of one or more individual companies. The IGS will take it as a responsibility to make sure that these generic terms are used correctly and without any impediment anywhere in the world. This is of direct interest to companies in the field as well as being essential from a scientific point of view.
6. Due to the fact that the increase in the income of IGS has been less than expected, the officers presented drastic proposals to cut expenses; they suggested that in the coming years, the IGS should concentrate on only a few activities and do these well. Consequently, they recommended increasing the funds available for the IGS Newsletter while keeping some money available for promotion and for a testing standards inventory. Funding of all other projects would be suspended for the time being.

This was agreed upon by the Council after a long debate. Officers would have the responsibility to implement pro-

jects for the Newsletter: some editorial help will be hired with the view of making the IGS newsletter a focus for News from the various sectors and countries.

7. The preparation of the Vth International Conference on Geotextiles, planned for 1994 was discussed. Consideration was given to how and when the call should be made for eventual candidate countries to host this Conference.

After a lively debate, it was decided to call for proposals from **OUTSIDE EUROPE**, since the two previous Conferences (in 1986 and in 1990) would have taken place in Europe.

8. The Council heard reports from the chairmen of various IGS committees:

- *terminology*

Mr. Perfetti outlined the difficulties faced in the ISO workgroup. He would try to activate progress through IGS.

- *awards*

Prof. Schaerer distributed a proposal; this would be studied and possibly amended for the next Council meeting.

- *standards*

Prof. Rigo agreed to take up the task left by Mr. Van den Berg. This would include updating the inventory by the end of 1988 and extending it to geomembranes etc. in time for the IVth international Conference.

- *publications*

In addition to the discussion of the Newsletter, relations between the IGS and other magazines or publishing groups were discussed by Dr. Giroud and Prof. Van Harten.

- *promotion*

Mr. S. Warner presented a draft promotion brochure in English, which was accepted by the Council.

- *conferences*

Mr. Sembenelli made proposals as to the policy which should be adopted regarding Conferences for which IGS is asked to give its support. Due to work pressure he unfortunately also had to announce his resignation from the chair of that committee. This was accepted with much regret. He agreed to cooperate with Dr. Giroud in the selection process of the host country for the Vth International Conference.

- *by-laws*

Mr. Leflaive asked opinions from Council members about possible modifications of the IGS by-laws. These should be presented at the 1990 General Assembly and voted upon.

He was asked by the Council to update and clarify the by-laws and simplify procedures wherever this obviously is needed.

Other topics might imply shifts in the philosophy and structure of IGS: e.g. chapters and their role; membership of the Council and election of its members etc. Mr. Leflaive was authorized to explore such avenues without the Council expressing prior views on such matters.



- *education*

Prof. Jarrett has handed in his resignation as chairman of this committee.

- *research*

Profs. Floss and Arman would develop their ideas for the next Council meeting.

9. The IGS Council members met the organizing committee for the IVth International Conference. The various measures already taken were discussed. The officers also had the opportunity of visiting the Congress and Exhibition Centre and were impressed by the suitability of the halls and the efficiency of the organizers in charge.
10. The Council gave the IGS support for a Conference to be organized in Liege in March 1989.  
  
It also gave its support to a German-speaking Conference to be organized next autumn (1988) in Hamburg, "K Geo 88".
11. The Council unanimously endorsed the creation of a UK chapter with the proviso that a number of outstanding issues concerning eligibility be settled before the Council meets again. Eligibility for membership of the IGS must be evaluated by the IGS. The Council decided to adopt a more cautious line in future before supporting or agreeing to the creation of new chapters.

12. The North American Geosynthetic Society (NAGS) presented a proposal which involves including the IGS membership fee in the registration fee at some conferences. The NAGS also proposed that payments to the IGS should be decreased if collected by the chapter. The decrease would be related to the number of members in a given country (or chapter).

This proposal met serious objections from within the IGS Council. These objections were primarily based on the argument that the General Assembly in 1986 had already fixed membership dues until 1990 and that these dues could not be changed until the next General Assembly. Additional objections were raised concerning the concept of automatic membership. This concept was rejected.

13. A revised IGS budget for 1987 and a pro-forma budget for 1988 were adopted taking into account the lower income compared to forecasts and other decisions as to the activities of IGS. A deficit was accepted for the coming year although some Council members objected. The majority felt that it was reasonable to use part of the IGS reserves to increase IGS activities. By meeting its objectives, the Society would be best able to attract new members, thereby increasing its income.

## ***Call for Candidates for the IGS Council***

The by-laws of IGS prescribe that half of the Council be elected every two years.

An election, by postal ballot, will therefore be held in March 1988 in order to elect members to the IGS Council for a four-year term, starting in May 1988.

The seven members of the IGS Council whose term of office expires in April 1988 are:

Prof. Masami Fukuoka (Japan)  
Dr. Jean-Pierre Giroud (USA)  
Dr. Peter Jarrett (Canada)  
Mr. Etienne Leflaive (France)  
Mr. Bernard Myles (UK)  
Prof. Koos Van Harten (Netherlands)  
Mr. Cor Van den Berg (Netherlands) who has resigned.

Prof. M. Fukuoka, Dr. J-P Giroud, Mr. E. Leflaive and Prof. K. Van Harten have indicated that they would be running for re-election.

There are **SEVEN** Council members to be elected.

To be eligible, an individual should be a member of IGS. If elected, candidates are expected to be able to travel and attend the IGS Council meetings.

A letter has been sent to all IGS members inviting them to put their name forward for election to the IGS Council. Signed letters of application together with a biographical note (not exceeding 12 lines) are to have reached the Secretariat of the IGS not later than 15 December 1987.

Nominations will be acknowledged by the Secretariat and elections will be held by postal ballot in March 1988.

Should you need some further information, please contact the secretary, Mr. G. Massenaux in Brussels or the President of the IGS, Dr. J-P Giroud. Both their addresses can be found in the 1987 IGS Directory and in the IGS News.

## ***5th International Conference on Geotextiles and Geomembranes, 1994***

The IGS invites organizations, societies and groups interested in organizing and hosting the Vth International Conference on Geotextiles and Geomembranes to submit their proposals to the Secretary, Mr. Guy Massenaux, c/o Edana, 51 Avenue des Cerisiers, 1040 Brussels, Belgium. At its last

meeting, the IGS Council decided to initially exclude all European countries from consideration. The IGS Secretariat will provide interested parties with a package containing general conditions and instructions to prospective organizers/hosts.

## ***Japanese Chapter***

An International Symposium on Geotextiles was held in Kyoto on July 19, 1987. Keynote speakers at the conference included Professors Fukuoka, Broms and Yamanouchi as well as Dr. Kutara. A total of seven papers were presented and a poster session was held. In total, there were approximately 130 participants from 21 countries. Proceedings of the

Symposium (160 pages) are available from the Japanese chapter of the IGS.

Approximately 70 people attended a lecture on "Geotextiles in France" presented by Dr. E. Leflaive in Tokyo on July 28, 1987.

*(Reported by Prof. M. Fukuoka)*

# NATO Advanced Research Workshop

## "Application of Polymeric Reinforcement in Soil Retaining Structures"

by  
P.M. Jarrett

From June 8th to the 12th, 37 industrial, governmental and university researchers and engineers representing 13 different countries attended an intensive "research workshop" held under NATO Sponsorship at the Royal Military College of Canada in Kingston. The workshop was held primarily to discuss the state-of-the-art of the design and construction of geosynthetically reinforced vertical retaining walls and to establish the research needs of this rapidly developing method of construction.

The initial focus on the topic was created by a comprehensive introductory paper by François Schlosser of France and by studying the results of a "prediction exercise". For the prediction exercise, two instrumented 3 m high geogrid reinforced walls were constructed and subjected to surcharges of up to 50 kPa in the laboratory at the Royal Military College. The two walls represented typical working designs and were identical except that one was built with incremental facing panels and one with full height facing panels. A number of workshop participants predicted, in advance, such aspects of the test behaviour as the strains in the reinforcement, the displacements of, and the forces exerted on the facing panels and the earth pressures across the base

of the reinforced section. The results of the tests were presented to an expectant, and in some cases apprehensive, audience by Richard Bathurst of Canada. The discussion and rationalization involved in comparing these results to the various predictions was orchestrated by Bob Koerner of the USA. As a gross generalization, the predicted strains, forces and movements from the limit state analyses employed by most predictors were considerably larger than the measured values. The primary lesson learned was that we must not, in focussing attention on the "new" geosynthetic materials, lose sight of the difficulty in analyzing the contribution of the soil to the overall behaviour.

After this initial phase of the workshop there were four separate sessions to consider individual aspects of the problem. The sessions had leaders who presented state-of-the-art papers and generated discussions on the following topics:

*"Review of Instrumented Case Histories"* -  
Barry Christopher (USA), Philippe Delmas (France), Jost Studer (Switzerland).

*"Materials Evaluation and Recommendations"*



Row 1: H. Miki, J. Smith-Meyer, P. Delage, M. deGroot; Row 2: J. Scott, R. Berg, K. Andrawes, B. Christopher, G. Richardson, R. Bonaparte; Row 3: G. Raymond, S. Hermann, P. Jarrett, D. Bush, G. Werner; Row 4: J. Laffeur, R. Floss, J. Studer, R. Jewell, J. Perfetti; Row 5: E. Leflaive, R. Bathurst, C. Jones, F. Schlosser, Ph. Delmas, M. Sotton, S. Christoulas; Row 6: R. Koerner, R. Gopal, K. Rowe, R. Murray, A. Rollin, A. McGown, P. Rimoldi, J-P. Gourc, D. Cazzuffi

NATO-ARW, "Application of Polymeric Reinforcement in Soil Retaining Structures"

June 1987, Royal Military College of Canada, Kingston



*for Materials Testing*'' - Etienne Leflaive (France), Alan McGown (Scotland).

*''Variations in Analytical Techniques and Design Methods''* - Rudy Bonaparte (USA), Jean-Pierre Gourc (France), Richard Jewell (England), Kerry Rowe (Canada), Dick Murray (England).

*''Construction Methods, Economics and Specifications''* - Colin Jones (England), Alan McGown (Scotland).

The final session to develop a research needs statement was led by Kamal Andrawes (Scotland).

It is obviously impossible to summarize a week of directed, intense scientific discussion in a few words. Some of the major points were: (1) most presently used design methods are very conservative which leads to the necessity of developing a better understanding of the composite behaviour of the soil-geosynthetic system; (2) the practical need to pay very strict attention to construction methods, especially the attachment of the reinforcement to the facing units and the compaction of fill near the front of walls; (3) the further definition and proof of long term chemical and biological durability so that specifying authorities will permit the use of lower quality backfills with geosynthetic reinforcement. This latter aspect may well represent the greatest economic advantage that geosynthetic reinforcement has to offer.

The full proceedings of the workshop including the results of the prediction exercise, the papers presented and the summaries of certain of the discussions are to be published as a book in the NATO Advanced Study Institute Series by Martinus Nijhoff of Dordrecht, The Netherlands. Publication is expected in early 1988.

One other aspect of the NATO Scientific Affairs Division workshops is the desire by the sponsors to encourage ongoing international cooperation and interchange between scientists and engineers by providing a social ambiance in which mutual understanding can develop. It must be said that with this group there was little difficulty in promoting the socialization. Daniele Cazzuffi (Italy) organized a soccer game which was won by the "best team", although who this team represented nobody could decide. A banquet was held which included a unique event when a bottle of "Scotch" acquired by Alan McGown (Scotland) was presented, much against his better judgement, to an Englishman, Colin Jones, for his prowess in the prediction exercise. An afternoon was set aside for relaxation with a boat trip around the "Thousand Islands" in the St. Lawrence River; fortunately this was the one day when it didn't rain. In the evening, participants were able to visit the Historic Buildings and Plazas of Kingston which, although a small city, has many quite unique points of interest.

The workshop was organized by a committee chaired by Peter Jarrett and including Bob Koerner, Etienne Leflaive, Kamal Andrawes and Alan McGown.

## ***International Standardization***

***by  
E. Leflaive***

The International Standardization Organization Subcommittee 21 on "Geotextiles" met in Paris from 10 to 13 March 1987. This was its second meeting of the subcommittee, the first having been held in Manchester (U.K.) in June 1985.

A total of 26 countries and 7 international organizations are represented on the subcommittee. The Paris meeting was attended by 33 delegates and was held in the AFNOR headquarters in Paris.

The main decisions made during the meeting dealt with the activities of the 4 working groups established in 1985 and with the inclusion of new items in the programme of the subcommittee.

### **Working Group 1 - Terminology** (convener M. Perfetti)

A number of definitions had been prepared, including the definition of the term "geotextile". The work had involved much correspondence over a period of a year and a half. The wording of the definition started as something quite short but developed into a much more detailed and elaborate version involving a one line definition with two comments. Unfortunately, most delegations present (including a number of them who had representatives in the working group) did not approve this definition during the final vote and hence it will not be proposed through a mail ballot to the member countries and organizations of the subcommittee.

This situation indicates to some extent a lack of organization, or a lack of knowledge of the mechanisms of I.S.O., from a number of delegations. It more deeply reflects a certain hesitation from a number of users or producers about the essence of the concept of geotextile, which either has not yet been mastered or has been confused with the introduction of new types of materials; in this respect, remarks during the plenary sessions on the relative positions of geotextiles and geomembranes indicated some unclear views and misunderstandings.

If there are still misunderstandings, work must continue through the working group; in order to reinforce the group, a letter has been sent to all members of Subcommittee 21 by the secretariat to ask to confirm members of the Terminology group or to nominate new members. As far as connections with IGS are concerned (this question was raised during the discussion on terminology), this is taken care of by individuals who belong to both organizations, but an official link between IGS and I.S.O. is not established at present.

### **Working Group 2 - Identification and Sampling** (convener M. Mortensen)

Working draft proposals have been presented on:

- determination of mass per unit area
- sampling and preparation of test specimens
- determination of thickness at specified pressures.

After discussion, it was decided to adopt as draft proposals the documents on mass per unit area and on sampling and preparation of specimens. Thus, these texts will be circulated to members for mail ballot.

The working group will establish within 3 months a modified proposal on thickness which will then be submitted to the registration procedure for a draft proposal.

For identification, the group is planning to work on a list of minimum but sufficient requirements for identification and to propose a standard data sheet giving an extensive characterization of the product.

### **Working Group 3 - Mechanical Properties** (convener J.M. Rigo)

This group has been initially concerned with the uniaxial tensile test and tear test. For the tensile test, it is intended to propose a wide-width tensile test with three options for sample size: 200 mm x 100 mm, 500 mm x 100 mm and adapted size for grids or other materials having a periodic structure. There are no conclusions yet on the rate of testing.

The group intends to examine all aspects of tear including, tear initiation, tear propagation and residual strength.

Two new items have been added by the Subcommittee to the programme of Working Group 3:

- testing of the effectiveness of geotextile junctions (seams), and
- coefficient of friction between geotextile and soil (this question is being studied in liaison with I.S.O. Technical

Committee 182 on geotechnical testing).

### **Working Group 4 - Hydraulic Characteristics** (convener M. Myles)

On water flow (permeability), an inter-laboratory trial will be held during the year 1987 to compare results obtained from different testing equipment.

On pore size, it is intended to prepare a standard where different methods will be included (dry sieving and two wet sieving methods).

New work has been assigned to Working Group 4:

- breakthrough pressure will be included as a subsection of water flow,
- transmissivity work will start after the water flow inter-laboratory trial.

### **Working Group 5 - Durability**

A fifth working group has been established to study the question of durability.

The delegation of the U.S.A. has been asked to make a proposal to the secretariat for the convener of this Working Group.

### **Future Meetings**

The next meeting is scheduled in the U.S.A. in 1988. The following meeting will be in the Netherlands in 1990 (to coincide with the fourth international conference).

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## **Officers of the IGS**

Dr. Jean-Pierre Giroud (President)  
GeoServices Inc.  
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Suite 204  
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Prof. Ir. Koos van Harten (Vice-President)  
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The Netherlands

Mr. Peter E. Stevenson (Treasurer)  
James River Corporation  
545 North Pleasantburg Drive  
Greenville, SC 29607  
U.S.A.

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## **Research Activity**

To provide a medium for improving coordination and possible cooperation in research, it is planned to include a section on research activity in each issue of the IGS Newsletter. Researchers and Institutions are hereby requested to send the editor a short description of current and future research activities related to geosynthetics for inclusion in this report. We would also like to publish a list of theses (M.S. or Ph.D.) which have been written on geosynthetics. Former students and/or their supervisors are invited to send details of these theses to the editor on a continuing basis.

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## **Editorial Request**

### **Please send good black and white photos!**

The value of a newsletter lies not only in the basic articles but in the presentation of useful and up-to-date information. We ask all members to provide information that they feel will be of interest to other members. Such information would include:

Technical News  
Calls for Papers  
Announcements of Conferences and Short Courses  
Lists of Recent Publications and Proceedings  
Items for the Calendar of Events  
**Interesting Glossy Black and White Photographs**  
**Unique Uses of Geotextiles or Geomembranes**  
Cartoons  
Letters of Opinions, etc.

Please do not hesitate to provide information because you feel everybody must know of it already. If we hear of something two or three times that does not hurt us. What hurts us is if all three of the people think that someone else will tell us and then we never find out!

The editorial deadline for the next edition of the newsletter is 26 February, 1988 but you do not have to wait until then, avoid the rush, act now and send your information to:

Prof. R. Kerry Rowe  
Editor, IGS Newsletter  
Geotechnical Research Centre  
The University of Western Ontario  
LONDON, ONTARIO N6A 5B9  
CANADA, TELEX 064-7134, FAX (519) 661-3292



# Calendar of Events

## Polypropylene & Polyolefins in Textiles

Atlanta, GA, USA  
17-18 March, 1988  
Contact: R.G. Mansfield  
65 Little Brook Road  
Wilton, CT 06897 USA

## TRI 58th Annual Conference

Charlotte, North Carolina, USA  
12-13 April, 1988  
Contact: Textile Research Institute  
P.O. Box 625  
Princeton, New Jersey 08542, USA

## Mechanical Aspects of Soil Reinforcement

Grenoble, France  
19-22 April, 1988  
Contact: Dr. J-P Gourc  
I.R.I.G.M.  
Universite de Grenoble I  
B.P. 68  
38402 Sainte-Martin D'Herès Cedex  
France

## ASCE Specialty Conference:

### Geosynthetics for Soil Improvement

Nashville, Tennessee, U.S.A.  
9-11 May, 1988  
Contact: Prof. R. Holtz  
School of Civil Engineering  
Grissom Hall  
Purdue University  
West Lafayette, IN 47909, U.S.A.

## 2nd International Conference on Case Histories in Geotechnical Engineering

St. Louis, Missouri, U.S.A.  
1-5 June, 1988  
Contact: Prof. S. Prakash  
Dept. of Civil Engineering  
University of Missouri-Rolla  
Rolla, MO 65401-0249, U.S.A.

## Hydraulic Fill Structures '88

Fort Collins, Colorado, U.S.A.  
14-17 August, 1988  
Contact: J.L. Montera  
Dept. of Civil Engineering  
Colorado State University  
Fort Collins, CO 80523, U.S.A.

## BNCOLD: Reservoirs '88

Manchester, U.K.  
15-17 September, 1988  
Contact: N. Tyler  
The Institution of Civil Engineers  
Great George St.  
London, SW1P 3AA, U.K.

## Kongress Kunststoffe in der Geotechnik (K-Geo 88)

Hamburg, Germany  
29-30 September 1988  
Contact: Prof. Dr. R. Floss  
Lehrstuhl und Prüfstelle für Grundbau  
Bodenmechanik und Felsmechanik der TU  
München, Baumbachstrasse 7  
8000 Munich 60, Germany

## 41st Canadian Geotechnical Conference

Waterloo, Ontario, Canada  
5-7 October, 1988  
Contact: Dr. J-M. Konrad  
Dept. of Earth Sciences  
University of Waterloo  
Waterloo, Ontario N2L 3G1 Canada

## International Geotechnical Symposium on the Theory and Practice of Earth Reinforcement

Kyushu, Japan  
5-7 October, 1988  
Contact: Prof. N. Miura  
Dept. of Civil Engineering  
Saga University  
Saga 840, Japan

## First Indian Geotextiles Conference

Bombay, India  
8-9 December, 1988  
Contact: Dr. J.N. Mandal  
Organising Secretary  
FIGC-88  
Civil Engineering Department  
IIT, Powai, Bombay - 400 076, India

## Geosynthetics '89

San Diego, CA, USA  
20-24 February 1989  
Contact: Judy Dean  
Secretary General  
IFAI  
345 Cedar St., Suite 450  
St. Paul, MN 55101 USA

## Twelfth International Conference on Soil Mechanics and Foundation Engineering

Rio de Janeiro, Brazil  
13-18 August, 1989  
Contact: Prof. Costa Nunes  
12th ICSMFE  
Caixa Postal 1559  
20000 Rio de Janeiro, RJ, Brazil

## Fourth International Conference on Geotextiles, Geomembranes, and Related Products

The Hague, The Netherlands  
27 May-1 June, 1990  
Contact: Prof. K. van Harten  
University of Technology, Delft  
2 Mekelweg  
P.O. Box 5036  
2600 GA Delft, The Netherlands

*Note: Highlighted items are organized under the auspices of or with the support of the IGS.*

# List of Corporate Members of the IGS

AMOCO FABRICS AND FIBRES - U.S.A.  
ASAHI CHEMICAL INDUSTRY CO. LTD. - JAPAN  
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CHEMIE-LINZ - AUSTRIA  
DON AND LOW PLC - UNITED KINGDOM  
DU PONT DE NEMOURS INT. S.A. - SWITZERLAND  
ENKA INDUSTRIAL SYSTEMS - THE NETHERLANDS  
FIBERTEX APS - DENMARK  
FRITZ LANDOLT AG - SWITZERLAND  
HOECHST CELANESE CORPORATION - U.S.A.  
HUESKER SYNTHETIC GMBH AND CO. - GERMANY  
INDUSTRIAL FABRICS ASSOCIATION INTERNATIONAL (IFAI) - U.S.A.

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JAPAN SPUNBOND - JAPAN  
KAJIMA CORPORATION - JAPAN  
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KUMAGAI GUMI CO. LTD. - JAPAN  
NAUE FASERTECHNIK GMBH - GERMANY  
NICOLON B.V. - THE NETHERLANDS  
OKASAN KOGYO CO. LTD. - JAPAN  
RHONE-POULENC FIBRES - FRANCE  
SANDY HILL CORPORATION - U.S.A.  
TOKYU CONSTRUCTION CO. LTD. - JAPAN  
N.V. UCO - BELGIUM

## OBJECTIVES OF IGS (\*)



The International Geotextile Society was formed with the following objectives:

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

### WHY BECOME A MEMBER OF THE IGS?

**First, to contribute to the development of our profession**

Becoming a member of the International Geotextile Society:

- helps support the aims of the IGS, especially the development of geotextiles, geomembranes, and related products
- contributes to the advancement of the art and science of geotextiles, geomembranes, and related products, as well as their applications
- provides a forum for designers, manufacturers, and users, where new ideas can be exchanged and contacts improved.

**Second, to enjoy benefits**

The following benefits are available now to all IGS members:

- A directory of members, the IGS DIRECTORY, published every year, with addresses, telephone, telex, and telecopy numbers
- Newsletter, IGS NEWS, published three times a year
- Reduced purchase price on all documents published by the IGS
- Reduced registration fee and preferential treatment at all conferences organized under the auspices of the IGS
- Reduced subscription fee for the journal "Geotextiles and Geomembranes"
- A central system for ordering selected publications
- Possibility of being granted an IGS award.

### MEMBERSHIP APPLICATION

Membership of the Society is open to Individuals or Corporations "...engaged in, or associated with, the research, development, teaching, design, manufacture or use of geotextiles, geomembranes and related products or systems and their applications, or otherwise interested in such matters".

The annual fee for membership is (US) \$30 for Individual Members and (US) \$1000 for Corporate Members. Individuals or corporations who voluntarily contribute a minimum of (US) \$200 annually to the Society, in excess of their membership dues, will be mentioned in the IGS Directory in a separate list as benefactors.

*If you are in North, Central, or South America, send this completed form to:*

Mr. P.E. Stevenson, Treasurer  
c/o James River Corporation  
Nonwovens Division  
545 North Pleasantburg Drive  
Greenville, SC, USA 29607  
Telephone: (803) 240-2600  
Telex: 9102401933 Telefax: (803) 240-2695

*If you are in the rest of the world send this completed form to:*

Mr. Guy Massenaux, Secretary  
c/o EDANA  
51, Ave des Cerisiers  
1040 Brussels  
BELGIUM  
Telephone: (32.2) 734.9310  
Telex: 26634 Telefax: (32.2) 733.3518

In this area, write your address as you wish it to appear in the next IGS Directory (your professional address is recommended, but your personal address is acceptable provided the telephone, telex, and telefax numbers are also your personal numbers).

*If the address below is your personal address please check this box*

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

First Name: \_\_\_\_\_ LAST NAME \_\_\_\_\_

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

Address (Street or Postal Box) \_\_\_\_\_

City \_\_\_\_\_ Province/State \_\_\_\_\_

Postal Code \_\_\_\_\_ Country \_\_\_\_\_

Telephone \_\_\_\_\_ Telex \_\_\_\_\_ Fax \_\_\_\_\_

In this area, write a short description of your activities as you wish it to appear under your address in the next IGS Directory (e.g., "Consulting Engineer", or "Salesperson for XYZ Geotextile Company"). If the name of your company already appears in the above address, you need not repeat it in this area.

Eligibility (i.e., connection with geotextiles, geomembranes, or related products): \_\_\_\_\_

• Membership fee – Individual (US) \$ 30.00   
Corporate (US) \$1000.00

• Benefactor's contribution (at least (US) \$200): \_\_\_\_\_

Mode of payment –  A check is enclosed  The applicant hereby agrees to pay the above total amount upon receipt of an invoice

SIGNATURE ..... DATE .....

\* A copy of the byelaws is available upon request.