

INTERNATIONAL SOCIETY FOR SOIL MECHANICS AND GEOTECHNICAL ENGINEERING



This paper was downloaded from the Online Library of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE). The library is available here:

<https://www.issmge.org/publications/online-library>

This is an open-access database that archives thousands of papers published under the Auspices of the ISSMGE and maintained by the Innovation and Development Committee of ISSMGE.

TC5 - Environmental Geotechnics: activities in the period 2005–2009

TC5 - Géotechnique de l'environnement: activités durant la période 2005-2009

M. Manassero & E. Fratolocchi
TC5 Chairman & TC5 Secretary

ABSTRACT

This report gives details of the TC5 terms of reference, members and activities over the past 4 years, including information regarding conferences, symposia or workshops planned for the future. The report gives also details of the new chapters of the TC5 special publication, arising directly out of the work of TC5 during the last years. The publication deals with the main themes related to environmental geotechnics: waste disposal by landfills, remediation of contaminated soils and underwater geo-environmental issues.

RÉSUMÉ

Ce rapport présente les buts, les membres, et les activités du TC5 pendant les 4 dernières années, comprenant les conférences, symposia et workshops planifiées dans le futur. Le rapport décrit aussi les nouveaux chapitres de la publication spéciale résultant de l'activités du TC5 durant la période 2005-2009. La publication traite les sujets principaux de la géotechnique de l'environnement: les décharges de déchets, l'assainissement des sols pollués et les problèmes geo-environnementaux en milieu aquatique.

1 TERMS OF REFERENCE

The TC5 terms of reference were reviewed and updated during the TC5 meetings organised at the 5th International Conference on Environmental Geotechnics, V ICEG (Cardiff, 2006) and at the 8th International Conference on Geosynthetics (Yokohama, 2006). The new terms of reference are as follows:

1. To promote co-operation and diffuse the knowledge in the area of Environmental Geotechnics.
2. To promote advancements in research activities, professional applications and standardization in the field of Environmental Geotechnics.
3. To cooperate and contribute to the organisation of congresses, conferences and symposia specifically devoted to the Environmental Geotechnics or other venues incorporating relevant part of it.
4. To establish co-operation and exchange of knowledge with national, international, public and private institutions for increasing visibility and promoting the Environmental Geotechnics skills and experiences.
5. To promote Environmental Geotechnics skills in order to get involvement in preparation & updating of laws & regulations by government agencies and public institutions.
6. To contribute to the advancement of new technologies for alternative energy sources, pollutant control and disposals.
7. To promote sustainable Environmental Geo-technology applications, and to share knowledge between countries.

2 MEMBERSHIP

The list of the TC5 members has been updated and integrated over the period 2006-2009, according to the new directives of ISSMGE (no more than two members each country).

Table 1 shows the name, position and country of the current 50 TC5 members. They come from 32 countries of all the continents, both from the academic and professional worlds.

The core-members were selected among the members, with the main aim to organise workshops and seminars on topics of

interest from the scientific and technical point of view, to participate as panellists or discussion leaders at conferences and to collaborate as reviewers for conference papers.

3 ORGANISATION OF EVENTS

TC5 has been involved in the organization of specialised conferences and workshops as follows:

- V International Congress on Environmental Geotechnics, V ICEG, Cardiff (UK), June 26-30, 2006.
- XXI Torino Geotechnical Conference, XXI CGT, Torino (Italy), November 2007.
- Touring Lecture, Lagos (Nigeria), January 2008.
- Geo-Environmental Engineering Workshop, GEE, Kyoto (Japan), June 2008.
- International Symposium on Geoenvironmental Engineering, ISGE 2009, Zhejiang University, Hangzhou (China), September 8-12, 2009.
- Workshop on "Geotechnical philosophy behind regulations", 17th ICSMGE, Alexandria (Egypt), October 4, 2009.
- VI International Congress on Environmental Geotechnics, VI ICEG, New Delhi (India), November 8-12, 2010.

In particular, for the VI ICEG, TC5 has been contributing to the scientific program, to select lecturers, panellists, paper reviewers, etc. The theme of the congress is: "Environmental geotechnics for Sustainable Development". All the TC5 core-members, the chairman and secretary are reviewers of the papers for the VI ICEG. The technical themes and provisional programme of the VI ICEG are available on www.6iceg.org

TC5 has also contributed to the following events by planning sessions related to Environmental Geotechnics:

- 8th ICG International Conference on Geosynthetics (Yokohama, Japan, September 18-22, 2006)
- International Workshop on "Hydro-Physico mechanics of Landfills" (Grenoble, France, May 22-24, 2007).
- 18th European Young Geotechnical Engineers' Conference (Ancona, Italy, June 17-20, 2007)

- 14th African Regional Conference (Yaoundé, Cameroon, November 26-30, 2007)
- 1st Pan-American Geosynthetics Conference & Exhibition (Cancun, Mexico, March 3-5, 2008)
- Geo-Congress '08, Annual Congress of the Geo-Institute of ASCE (New Orleans, USA, March 9-12, 2008)
- 4th European Geosynthetics Conference, Euro-Geo4 (Edinburgh, UK, September 7-10, 2008)
- 17th ICSMGE (Alexandria, Egypt, October 5-9, 2009)

3.1 TC5 Meetings

The planning, updating and checking of TC5 activities were periodically done by meetings often organised on the occasion of special international events, in order to encourage participation of the members:

- Core-members meeting - Cardiff, June 25, 2006 (V ICEG)
- Plenary meeting - Cardiff, June 27, 2006 (V ICEG)
- Plenary meeting - Yokohama, Sept. 21, 2006 (VIII ICG)
- Plenary meeting - Madrid, Sept. 27, 2007 (XIV ECSMGE)

Table 1. TC5 membership

<i>Position</i>	<i>Name</i>	<i>Country</i>
Chairman	Manassero M.	Italy
Secretary	Fratolocchi E.	Italy
Core Member	Almeida M.	Brazil
Core Member	Bouazza A.	Australia
Core Member	Gens A.	Spain
Core Member	Gourc J.P.	France
Core Member	Jefferis S.A.	United Kingdom
Core Member	Katsumi T.	Japan
Core Member	Shackelford C.D.	USA
Core Member	Van Impe P.O.	Belgium
Member	Badv K.	Iran
Member	Batali L.	Romania
Member	Baykal	Turkey
Member	Bekenov	Kazakhstan
Member	Breedveld G.D.	Norway
Member	Chen Y.	China
Member	Clark R.G.	United Kingdom
Member	Coumoulos D.	Greece
Member	Cowland J. A.	Hong Kong
Member	Datta M.	India
Member	Heerten G.	Germany
Member	Hu L.	China
Member	Kamon M.	Japan
Member	Katzenbach R.	Germany
Member	Komine H.	Japan
Member	Kovacevic Zelic B.	Croatia
Member	Leal Lemos	Portugal
Member	Leppanen M.	Finland
Member	Muceku	Albania
Member	Ofrikhter V.	Russia
Member	Olinic E.	Romania
Member	Pantazidou M.	Greece
Member	Park J.	Korea
Member	Pasqualini E.	Italy
Member	Pavlik G.N.	Russia
Member	Roque A.J.	Portugal
Member	Rowe R.K.	Canada
Member	Smith D.	Australia
Member	Sopeña L.	Spain
Member	Srivastava R.K.	India
Member	Szabo I.	Hungary
Member	Teme S.C.	Nigeria
Member	Torn	Estonia
Member	Trofymchuk O.	Ukraine
Member	Van Impe W.	Belgium
Member	Van Meurs G.	Netherlands
Member	Wolski W.	Poland
Member	Yanful E.	Canada
Member	Yeol Lee K.	Korea
Member	Yeung A.T.	Hong Kong

4 COOPERATION WITH INTERNATIONAL ORGANISATIONS

A cooperation with the International Geosynthetics Society is in progress since several years; in particular, TC5 was involved in organizing the technical session W-2 “Liners on Slopes” (TC5 Special Session) at the last International Conference on Geosynthetics (Yokohama, 2006) as well as IGS was involved in the organisation of the technical sessions on “Testing & Materials” and “Remediation” at the V ICEG (Cardiff, 2006). The collaboration is still in progress to organise the next VI ICEG (New Delhi, 2010).

5 TC5 REPORT

One of the main and most demanding activities of the TC5 in the last years was to prepare a TC5 report devoted to Environmental Geotechnics. The report is a scientific and technical state of the art addressed to practitioners and researchers in the field of Environmental Geotechnics. The report deals with the main themes related to Environmental Geotechnics: waste disposal by landfills, remediation of contaminated soils, underwater geo-environmental issues. The role and functions of all the fundamental components for safe disposal of polluting materials or remediation of polluted lands are illustrated for the purpose of proper design, control and management.

The book initially consisted of the following six chapters:

1. Design basics and performance criteria
2. Managing contaminated sites
3. Traditional and innovative barriers technologies and materials
4. Underwater geo-environmental issues
5. Landfill design within seismic areas
6. Research and education

It was presented and distributed at the V ICEG (Cardiff - June, 2006). During the last period it has been updated and integrated with two further chapters:

7. “Nuclear waste”
8. “Regulations and technical guidelines” (in progress).

The former is focused on further developing geotechnical knowledge and involvement in the field of the nuclear waste storage; the latter is focused on collecting, analyzing and summarizing the state of the art of the official regulations, technical recommendations and guidelines available worldwide.

6 FUTURE ACTIVITIES

The following main activities are planned for the near future:

- Finalisation of the chapter on “Recommendations and Technical Guidelines”.
- Periodical publication of the TC5 report (CD version), after updating of each chapter.
- Cooperation in organising the 9th International Conference on Geosynthetics (Guarujá, Brazil, May 23-27, 2010).
- Organisation of the 6th International Congress on Environmental Geotechnics, VI ICEG (New Delhi, India, November 8-12, 2010).