

Activity of Member

Africa

14th African Regional Conference on Soil Mechanics and Geotechnical Engineering Yaoundé November 26th-25th

The 14th ARC on SMGE was held at Palace of congress in Yaoundé (Cameroon). This event was attended by about three hundred (300) Cameroonian participants; eighty (80) African representative and twenty two (22) overseas participants.

The attendees are originated from twenty five (25) African countries and five (5) non African countries.

How to find out solutions for problems posed when dealing with projects of construction on soils of Africa? This was the main question for which African geotechnical engineers tried to answer.

Replying to such a question in Africa it is worth noticed, first, a big variety of soils is encountered: laterites, soft clays, swelling soils are just few examples of soils. Second, the variety of projects is not the main point in Africa, rather, geological conditions, on one hand, as natural slopes, cavities, etc and climatic facts, on the other hand, as dryness areas, torrential rains are serious factors which influence significantly the behaviour of projects.

Five keynote lectures were presented by Professors:

- J.P. Magnan (France) on "The influence of geotechnical engineering on construction works".
- B. Indraratna (Australia) on "Vacuum consolidation of soft clay via vertical drains and associated design charts".
- G.E. Ekodeck (Cameroon) on "Geology and geotechnique for management of hazards, natural risks and disasters.
- A.T. Visser (South Africa) on "Low volume roads".
- A.G. Coelho (Portugal) on "The added value of geology in site investigation".

During eight oral sessions , after presented and discussed case histories it came out the encountered geotechnical problems are mainly due either to insufficient or to bad designed soil investigations. For affected projects occasioned reparation and rehabilitation are certainly with high cost. For this reason, it is compulsory to enhance the competence of African geotechnical engineers by attracting more engineers and geologists in well valorised profession by actors from civil engineering, management of natural risks and environment fields. With better background, much matured African geotechnical engineers will endeavour, politically and technically, for rentable construction projects. It results the benefit of economical impact for involved countries with emphasis on environmental aspect more and more required.

Further, due to hard economical situation faced by some African countries, African geotechnical engineers have to set up technical solutions in concordance with local conditions. That was the case in Kenya of unpaved road, in difficult accessible site with rainy climate, built by carrying out a simple construction technique by using available local materials. The 14th ARC was the occasion to organize several educative sessions aimed at interesting themes, as geotextiles and deep foundations in which a large number of engineers and technicians from the industry participated. Also two African geotechnical engineers exposed two recently published books. All these facts show the motivation to promote the development of geotechnical engineering both in Africa and worldwide.

As first recommendation, more scientific and technical meetings should be held in the African region by geotechnical engineers in view of a better implication in pointing out and solving geotechnical challenges. African geotechnical engineers will collaborate much better within a new created regional technical committee with theme "Problematic soils of Africa". Due to its location in the centre of Africa and its two language speaking (English and French) Cameroon will host, first, this technical committee. Nevertheless, all competent African geotechnical engineers, having good motivation, are welcomed to animate this new vehicle of development.

During the meeting, held on November 25th 2007, of ISSMGE African membership societies

It was voted the venue 15th edition of ARC on SMGE at Maputo (Mozambique) 2011.

See you in Maputo, and Good Bye.



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Geotechnical Engineering in Africa - An Overview

Since 1997, the African region was represented in ISSMGE by ten member societies. Recently, in May 2007, Mozambique became the eleventh African society (Congratulations). From 2003 to 2007 total African members in ISSMGE remain under 5% of total number of adherents worldwide. Per country (or society) the number of members in ISSMGE is mostly constant. However countries like Tunisia and Egypt endeavoured to increase their subscription.

The crucial problems faced by African Geotechnical Societies can be classified as follows:

1. Membership in ISSMGE is not strong. Only eleven (11) societies, among 54 independent countries, are official ISSMGE members.
2. Because of different reasons, only seven countries (e.g. societies) are active in ISSMGE. Unpaid (in arrear) fees make, by law, a society inactive. Therefore, the effectiveness of membership, both in Africa and worldwide, is too low (by 10%).
3. Communication between all African members is not good. Then, collaborative actions are missed.
4. African geotechnical engineers are not attending frequently the international events (conferences, lectures).

African geotechnical engineers need some actions to overcome such uncomfortable situation. As first action, membership in ISSMGE should be increased despite inconveniences encountered by very active but non official society like Algeria. Also, African membership should be encouraged since a minimum membership of thirty was stated recently in ISSMGE by law. Such results will be attained when African societies will launch more and more activities within the region. As a matter of fact, in the period 2005-2007 the number of national or international (seminars, courses, touring lectures, Young geotechnical engineering conferences) events, held essentially in (or by) Algeria, CTGA, Nigeria, South Africa and Tunisia, is remarkable. For the period 2007-2009 other actions will certainly enhance the potential of geotechnical engineering in Africa. For instance, the recent creation of the first African regional technical committee (ARTC) in which African specialists will undertake common concerns as related to construction on problematic soils of Africa. Such a RTC will be hosted officially by an African ISSMGE member for the period (2009-2013). Further, more collaborative actions might be projected after identification of potential centres for education, training and research activities in African countries. Setting up a data base of these centres will be helpful for African geotechnical engineers.

A look on the evolution of African Regional Conference (ARC) on SMGE will highlight how African geotechnical engineers (GE) are moving. Indeed, analysing statistics through 1999 to 2007 over three ARC, the following status comes out.

1. The number of papers in ARC published exclusively by African GE, without collaborative overseas authors, is slightly increasing. In average it represents the two third of total number of papers.
2. Papers published (in ARC proceedings) by African societies is, in average, 83% of total number of papers. Thirteen African societies (or countries) often participate in this achievement. Algeria, Egypt, Côte d'Ivoire, Morocco, Senegal, South Africa and Tunisia are permanently participating and attending the ARC.

For the period 2008-2009 several events on geotechnical engineering are scheduled to be held in African countries. The biggest and likely latest one is the venue in Egypt (Alexandria) of 17th ICSMGE preceded by the ICYGE. These facts witness that Africa is, slowly but surely, going forward for the emancipation of geotechnical engineering culture. That is a way for development in Africa.

Reported by Professor Mounir Bouassida, Vice President of ISSMGE for Africa (2005-2009)