

## NEWS ON RECENT CONFERENCES

### THE INTERNATIONAL SEMINAR ON CONSTRUCTION ON WEAK ROCKS

Dr. Hussein Elarabi - Secretary of SSSMGE  
Eng. Mohamed A. Bagi Mahmoud Taha - Member of SSSMGE

The Sudanese Society for Soil Mechanics and Geotechnical Engineering (SSSMGE) was established in Sudan in 1986 to promote cooperation among engineers and scientists for the advancement of knowledge in the field of soil mechanics and its practical applications.

Sudan has experienced considerable development during the last two decades and several large civil engineering projects have been executed in the country. The projects included dams on the River Nile and its tributaries, thousands of kilometers of highways, bridges across the Niles and industrial projects including oil exploration and export facilities. All these projects required intensive geotechnical investigations, material searches and evaluation and consultancy in the related fields. Local experts were involved in most of these projects and a great deal of experience was gained from these projects. It is interesting to mention



that most of the challenges regarding compliance with scheduled construction time, performance and cost were related to the geotechnics of the mentioned projects. Many of these projects were founded on weak rocks (sandstone, mudstone and calcareous deposits). The challenges of design and construction on these formations is known and realized worldwide.

The idea of organizing this seminar was initiated during the 17th ICSMGE2009 in Alexandria by Prof Pedro Pinto. Then, the idea was given the utmost attention by the Geotechnical Department of Building and Road Research Institute, University of Khartoum and the members of SSSMGE for the sake of resurrecting the SSSMGE and spotlights the importance of the society in solving the major geotechnical problems in Sudan among which is the construction on weak rocks. This seminar is intended to improve our understanding on this topic.

The International Seminar on Construction on Weak Rocks took place at the Presidential Hall in the Friendship Hall that is located in the city of Khartoum from July 29th to July 1st. This event was organized under the auspices of the Soil Mechanics and Geotechnical Engineering (SSSMGE) in conjunction with ISSMGE in which Prof. Pedro S. Pinto played major roles. It was intended to resurrect the Sudanese Society and to spotlight the importance of the society in solving the major geotechnical problems in Sudan. This seminar attracted 184 participants. The event was organized and advised by the following committees:

#### The ORGANIZING COMMITTEE

Chairman: Dr. El Fatih M. Ali, President of SSSMGE, General Manager of Engineering Service and Design, Khartoum, Sudan

Secretary: Dr. Hussein Elarabi, Secretary of SSSMGE, Head of Geotechnical Engineering Department, BRRI, University of Khartoum, Sudan.

Members: Dr. Ahmed M. Elsharief, Dr. Mohamed A. Osman, Dr. Abdel Kareem M. Zein, Eng. Omer Gurham, Eng. Adil Abdalla, Eng. Rasha Abu Elgasim, Eng. Bashir Osman, Eng. Moh. ElBaiyhagi Elgizoli

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### The ADVISORY COUNCIL

Prof. J.L. Briaud ,ISSMGE President  
Prof. Pedro S. Pinto, ISSMGE Past President  
Prof Samuel Ejezie, ISSMGE Vice President for Africa  
Prof. Fatma Baligh ISSMGE forthcoming Vice President for Africa

The opening ceremony commenced with recitation of few verses from Holy Quran. Afterwards, a speech was given by President Jean. L. Briaud, followed by Prof. Pedro S. Pinto (ISSMGE Immediate Past President) and Prof. Samuel Ejezie (ISSMGE Vice President for Asia). Then a welcoming speech was given by the President of the Sudanese Society, Dr. Eng. Elfatih Mohamed Ali. Also, a speech was given by the representative of the Governor of State of Khartoum - Minister of Physical Planning and Infrastructure Eng., Alrasheed Osman Fageery. Later, his Excellency the Vice - President of Sudan Dr. Eng. Elhaj Adam Yousif gave his speech, in which he mentioned the vital role of soil mechanics and geotechnical engineering in the construction industry. At the end, a speech was given by Prof. Askar Zhussupbekov and his Excellency the Vice - President of Sudan Dr. Eng. Elhaj Adam Yousif exchanged gifts with the foreign experts and posed with them for group photo.

The invited lectures were delivered as what follows;

1. Prof. Jean-Louis Briaud (President of ISSMGE) "Unsaturated soil behavior for the practicing engineer" and "Shrink - swell soils and the design of foundation for light building"
2. Prof. Pedro S. Pinto (Past President of ISSMGE) "Railway old station building: enlargement and underpinning" and "Lessons learned from two landslide case histories"
3. Prof. Samuel Ejezie (Vice President of ISSMGE for Africa) "Behavior of lateritic soils in engineering construction tropical Africa" and "Vibration transmission in lateritic soils of the tropical region of Africa"
4. Prof. Askar Zhussupbekov ISSMGE Vice President for Asia) "Geotechnical construction on weak rock ground of new capital Astana Kazakhstan" and "Analyses of the settlement of pile foundations under weak rock conditions of Astana"
5. Prof. Antonio Bobet (Purdue University, USA) "Deformation and failure of soft rocks: a model for shales" and "Propagation and coalescence of frictional discontinuities"
6. Prof. Fatima Baligh (ISSMGE forthcoming Vice President for Africa) "Deep vibratory compaction method"
7. Dr. Mohamed A. Osman (Past Director of the Building and Road Research Institute, University of Khartoum, Sudan) "Weak rocks in Sudan origin, distribution and some geotechnical properties"
8. Dr. Ahmed M. Elsharief (Treasurer of ISSMGE, Director of Building and Road Research Institute, University of Khartoum) "Design and construction practices of piers in Nubian Sandstone Formation"

A round-table discussion took place on the second day on "Construction on Weak Rocks - Challenges and solutions." The third day offered the guests a field visit sponsored by the Dams Implementation Unit (DIU) to the Dam Complex of Upper Atbara and Setit which is currently under construction. All site visitors assembled at Khartoum International Airport where a twin engine Fokker plane was ready to departure. The plane took off from Khartoum with 50 Passengers on board at 7:00am and the flight took about 50 minutes to reach Alshowak airstrip. Many presentations were given to the visitors at site. These followed by a visit to all ongoing construction activities in the site. The visit lasted for three hours where the participants expressed great pleasure and joy to witness a project with such magnitude.

## NEWS ON RECENT CONFERENCES (Continued)

Photographs taken during the conference are presented below.



Photo 1 Reception of ISSMGE members



Photo 2 Group photograph of participants



NEWS ON RECENT CONFERENCES (Continued)



Photo 3 Session on-going



Photo 4 Dinner at Al-Saha Restaurant



Photo 5 GALA Dinner at Dar Al-Naft



NEWS ON RECENT CONFERENCES (Continued)



Photo 6 Dinner at Carinthia Hotel



Photo 7 Technical tour