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# IGS News

*A Bulletin of Indian Geotechnical Society, Chennai Chapter*

www.igschennai.in

Editors : Prof. S.V. RAMASWAMY & Er. I.V. ANIRUDHAN

## Geotechnical Calendar

### National

- **Prof. T. S. Nagaraj Memorial National Seminar on Geotechnics for Infrastructure**, September 28th & 29th, 2007, IISc, Bangalore, Prof. P.V. Sivapullaiah, siva@civil.iisc.ernet.in
- **Case Studies in Engineering Soils (CASES)**, 2<sup>nd</sup> October 2007, Department of Civil Engineering, JNTU, Kakinada, Dr. K. Ramu, Email kramu2k@rediffmail.com
- **Terzaghi Day Events**, 6 October 2007, IGS Chennai Chapter, www.igschennai.in
- **International Workshop On Earthquake Hazards And Mitigations (Eham-2007)**, 7 - 8 December 2007, Department of Civil Engineering, IIT, Guwahati Dr. Ayothiraman. R, email: raman@iitg.ernet.in
- **Indian Geotechnical Conference, IGC - 2008**, 17-19 December 2008, Bangalore, Prof. T G Sitharam, IISc, email: igc2008@civil.iisc.ernet.in, http://civil.iisc.ernet.in/~igc2008

### International

- **XIV European Conference on Soil Mechanics and Geotechnical Engineering**, 24 - 27 September 2007, Madrid, Spain, www.ecsmge2007.org
- **X Australia - New Zealand Conference on Geomechanics**, 21 - 24 October 2007, Brisbane, Queensland, Australia, www.anzgeo2007.com
- **5th International Symposium on Earth Reinforcement (IS Kyushu '07)**, 14 - 16 Nov. 2007, Fukuoka, Japan, www.nda.ac.jp/cc/users/miyamiya/is-kyushu07/index2.htm
- **XIV African Regional Conference on Soil Mechanics and Geotechnical Engineering**, 26 - 28 Nov. 2007, Yaoundé, Cameroon, orga\_cra\_yde2007@yahoo.fr, www.CRA-YDE-2007.org.cm
- **2007 International Forum on Landslide Disaster Management**, 10 - 12 Dec. 2007, University of Hong Kong, Contact: Ken Ho, kenho@cedd.gov.hk, http://www.hkieged.org/LDM2007/forum.htm
- **XIII Asian Regional Conference on Soil Mechanics and Geotechnical Engineering**, 10 - 14 Dec. 2007, Kolkata, India, www.13arc2007.com
- **3rd International Conference on Site Characterization** 1 - 4 Apr. 2008, Taipei, Taiwan, Contact: An-Bin Huang, abhuang@mail.nctu.edu.tw
- **12th Conference on International Association for Computer Methods and Advances in Geomechanics**, 1-6 Oct. 2008, Goa, Prof D.N. Singh dns@civil.iitb.ac.in

## From the Editor's Desk ... Indian Geotechnical Conference 2006

ICSR centre was a beehive of activity even from the afternoon of December 12, 2007. A number of meetings such as the IGS executive committee meeting of the new committee for 2007-2008 and the old committee of 2005-2006, the meeting of chairmen of local chapters and the organizing committee meeting of Asian Regional Conference - 2007 were held at the building from 3 pm onwards. A large number of delegates were milling in and around in the building. They took the opportunity to register themselves early. The registration desk was functioning in full swing. This momentum continued during the next day also and the total number of delegates registered for the conference was 496. The number of delegates who attended through the sponsors was 150. The large number of 496 delegates was an evidence of the keen interest of geotechnical engineers to participate in IGC and its activities.

The auditorium of ICSR building was overflowing with delegates much earlier before the inaugural function started at 9:30 am on December 14 and the overflow was accommodated at the lecture hall 3. where the inauguration function was projected on a large TV screen. Prof S.R. Gandhi, The organizing chairman welcomed the gathering. Prof M.S. Ananth, Director IIT, Madras presided over the inaugural function, while Maj. General S.N. Mukherjee, IGS President delivered a special address. Sri K.V. Raghavan, Vice President, L&T ECC, delivered the key note address and inaugurated the conference. The IGS awards for the best technical papers and the Kukhelnmann award were then distributed followed by the induction of honorary members.

The conference proceedings in two volumes and a CD containing complete proceedings were released during the inauguration

The exhibition was declared open by the IGS President elect Mr. Mahavir Bidasaria immediately after the inauguration of the conference. There were twenty eight organizations exhibiting their work/products. The exhibition hall was strategically located on the way from the lecture halls to dining hall. The arrangement was appreciated by both the delegates and the exhibiting organizations. The exhibitors expressed their satisfaction at the number of delegates who visited the stalls at IGC 2006.

Civil Engineering (Retd.), IIT, Madras. The theme of the lecture was pull-out behaviour of screw and suction anchors in soft marine clays.

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Distinguished guests and delegates during IGC 2006  
And release of IGC 2006 Proceedings CD



## Elections to Executive Committee 2007-2009 IGS Chennai Chapter

As per the decision of the Executive Committee Meeting held on 20.08.2007, the election of office bearers for the period 2007 – 2009 will be held through postal votes as per the approved bylaws. The nomination forms and the election schedule are despatched to the members. The new executive committee and AGM will be held on 6 October 2007.

## Papers Published

**Ayothiraman, R., Maity, D. and Khasung, G.** (2006), "Foundation-Reservoir Interaction in the Seismic Response of Concrete Gravity Dam – A Case Study," in *13<sup>th</sup> Symposium on Earthquake Engineering*, 13SEE-2006, IIT Roorkee, Roorkee, pp. 1147 – 1158.

**Balakumar V. and Ilamparuthi K** 'Performance Monitoring And Numerical Simulation Of Piled Raft Foundation Of A Twelve Storied Building' *Indian Geotechnical Journal* April 2007 issue.

**Boominathan, A. and Ayothiraman, R.** (2007). "An Experimental Study on Static and Dynamic Bending Behaviour of Piles in Soft Clay," *Geotechnical and Geological Engineering*, Vol. 25(2), pp. 177 – 189

**Boominathan, A. and Ayothiraman, R.** (2007). "Measurement and Analysis of Horizontal Vibration Response of Pile Foundations," *Shock and Vibration*, Vol. 14, No. 2, pp. 89-106.

**Gunasekaran, M. and Robinson, R. G.** (2007), Measurement of strain in triaxial specimens: A review. *Indian Geotechnical Journal*, 37(3), 227-244. Robinson R G [robinson@iitm.ac.in]

**Karthigeyan S., Ramakrishna VVGST, Rajagopal K.,** "Numerical investigation of the effect of vertical load on the lateral response of piles", *ASCE Geotechnical and Geoenvironmental Engineering*, May 2007, Vol 133, No. 5, pages 512-521.

**Karthigeyan S., Ramakrishna VVGST, Rajagopal K.,** "Influence of vertical load on the lateral response of piles in sand", *Computers and Geotechnics*, Vol. 33, No. 2n 2006, 108-120.

**Murugesan, S. and Rajagopal, K.** (2006) Geosynthetic encased stone columns: Numerical evaluation. 'Geotextiles and Geomembranes', Volume-24, Issue-6, pp. 349-358.

**Rama Rao M , Rao A S, Babu R D** (2007) Arresting heave of expansive soil beds with lime-stabilized fly ash cushion. *J Inst. of Engrs.(I)* 87:13-17

**Rama Rao M , Rao A S, Babu R D.** An experimental study on the efficacy of lime-stabilized fly ash cushion in arresting heave of expansive soils. *Ground Improvement*, London (accepted for publication).

## Welcome New Life Members

865. Ponnana Prabhakara Rao	880. Shamini J.
866. Malarvathanan G.	881. Mary Rebekah Sharmila S.
867. Deepak C.A.	882. Premasudha B.
868. Shivakumar A. R.	883. Satish Kumar Yeduvaka
869. Venkatesan G.	884. Jayaganesh K.
870. Krishnaswami B.N.	885. Sivapriya S.V.
871. Reginald S.	886. Jayaprakash P.E.
872. Bhattacharya Amartyakumar	887. Suriyanarayanan N.S.
873. Venkant Kumar N.	888. Sugavaneswaran N.
874. Balamurugan R.	889. Dhamodhar V.
875. Somasekhar K.	890. Vasanthakumar T.G.
876. Sowmiya L.S.	891. Karthikeyan J.
877. Mohammed Toufeq M.	892. Rajendran Vadivel
878. Elavarasi V.	893. Prabhas Kumar Rath
879. Boornima S.	894. Sudhir Kumar Sahu

## Obituary

**Prof. T.S. Nagaraj** who was a distinguished faculty of Department of Civil Engineering, Indian Institute of Science for more than 3 decades, passed away on 23 April 2007 after a brief illness. He served Indian Geotechnical Society with distinction as Executive Member for several years. Prof Nagaraj received IGS Kuckelman Award in 1991 and delivered 1993 IGS Annual Lecture. His significant contributions in the fields of Geotechnical Engineering and concrete technology resulted over 290 publications and three books. In his illustrious career, Prof. Nagaraj guided many research students towards their PhD / MSc.(Engg) degrees.

## Personal Column

- Mr. V. Balakumar** visited Australia during February 2007 and attended a series of programme on Ground improvement in Griffith University, Gold Coast Brisbane and spent 10 days in their Geotechnical Engg dept.
- Mr. S.Murugesan**, PhD Scholar (Geotech) IIT Madras attended the 8th International Conference on Geosynthetics held at Yokohama, Japan during 18th to 22nd September 2006. He presented his research paper titled "Numerical analysis of geosynthetic encased stone columns" in the conference.
- Prof. K. Rajagopal** participated in the 8th International Conference on Geosynthetics held at Yokohama, Japan during 18th to 22nd September 2006 and chaired one of the technical sessions under the heading "Tensile loading on geosynthetics and their creep behaviours"
- Mr. S.Murugesan**, PhD Scholar (Geotech) IIT Madras, after submission of his PhD. thesis joined L&T ECC as Engineering Manager (Civil) at its head quarters at Manappakkam.
- Mr. Makrand S. Khare**, PhD Scholar (Geotech) IIT Madras, after submission of his PhD. thesis joined L&T ECC as Engineering Manager (Civil) at its head quarters at Manappakkam.
- Mr. Anirudhan I.V.**, Geotechnical Solutions, Chennai, appointed coeditor for Indian Geotechnical Journal.
- Prof. S.R. Gandhi** and **Prof. S.V. Ramaswamy** re-elected to the executive committee of National Body. **Prof. K. Rajagopal** is now member of the National Executive.

Members are requested to write to the society about their activities and other personal achievements. Members may please send their email ID to [anirudhen@eth.net](mailto:anirudhen@eth.net) for better communication.



Distinguished speakers and panellists- IGC 2006



## Activities - January - December 2007

### TERZAGHI DAY 2007

Indian Geotechnical Society, Chennai Chapter celebrates Terzaghi Day every year featuring technical lectures from invited speakers. This year also a half day programme is planned by the end of first week of October 2007.

Three of four invited lectures including the Terzaghi Day lecture are planned. Invitations will be send by second half of September 2007.

### Technical Lectures

**Dr. Suresh Parasar** of CH2M Hill Inc., Chantilly, VA, USA delivered a lecture, "PERFORMANCE MONITORING OF DEEP EXCAVATION AT CHANGI WATER RECLAMATION PLANT PROJECT, SINGAPORE" on 6 July 2007.



**MR. R. Radhakrishnan**, Bharat Geosystems Pvt. Ltd., Chennai, delivered a lecture, "REINFORCED EARTH WALL - DESIGN AND CONSTRUCTION" on 10 August 2007.



## IGC 2006 Report

Continued from page 1

lecturers from India and abroad, a good blend of academicians and field engineers. The response of the audience was excellent for these lectures. The speakers, particularly those from abroad, gave lucid and interesting presentations making optimal use of the projection facilities, sticking to the time constraints and following instructions.

The three parallel sessions also attracted a full house. It was encouraging to observe the delegates moving from one hall to the other even during the sessions to listen to presentations of their choice. Some senior members have earlier expressed the fear that some of the lecture halls during the parallel sessions may be deserted. This did not materialize possibly because the interest of the delegates extended over a wide range of topics.

Each parallel session had one or two invited lectures which were ably presented. There were a total of 15 invited lectures. The authors presented their papers in the remaining time after the invited lectures. Time was limited to 8 to 10 minutes for presentation. The discussion time was meagre or absent. The chairmen of the sessions had a tough problem in time management and they solved it admirably. The co-chairmen are probably superfluous in parallel sessions since in their closing remarks they mostly summarized the papers already presented.

The change of venue caused by the repairs to the big auditorium affected the cultural and banquet programme. The blend of classical and folk dances offered by Kalakshetra was short, enjoyable and brisk. Many delegates felt that it could have a bit longer. However the acoustics and seating arrangements at the Students Activities Centre were below par. The space in the dining area was also inadequate restricting free movement of the delegates.

The organizers have made elaborate arrangements for the reception, accommodation and boarding of the delegates. The delegates expressed their appreciation with the accommodation and boarding. Except for one or two cases, reception at arrival was also generally satisfactory. The credit for the success of the hospitality work should go to the students who did the bulk of the work. The students have to spend a lot of time attending to the needs of the delegates rather than attending the technical sessions of the conference. Possibly engaging event managers may be a solution to relieve the students of their voluntary responsibilities.

The valedictory function was held at 4 pm on December 16, 2007. Er. Mahavir Bidasaria, President of IGS presided over the function. Er. Shanker Guha, Technical Director, Simplex Infra Structure Limited delivered the valedictory address. Prof. S.R. Gandhi handed over a cheque for Rs 25000 to Er. Bidasaria being its initial contribution to IGS as part of the registration fees collected.

### IGC 2006 Statistics

There were 60 student delegates attending this conference. The spot registration was close to 100. The final tally of registration including the sponsors was just two short of 500.

The response to the request of abstract was overwhelming and 287 abstracts were received. 215 abstracts were selected for submission of full length papers. Number of papers for publication was decided based on the time available for presentation during the conference. 194 full length papers, 11 keynote papers and 15 invited papers were finally included in the proceedings. The maximum number of papers were on the ground improvement (38) and almost equal response was there on the topics geoenvironmental engineering (16) and soil dynamics and earthquake engineering (20).

The conference CD was also brought out by end of November and sent to 315 delegates registered before 27<sup>th</sup> November.



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## BOOK POST

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We are on the web - [www.igschennai.in](http://www.igschennai.in)

IGC 2006 GEOINDEX IN CHENNAI

## Growth of Geotechnical Wisdom



Cultural programme by Kalakshetra during IGC 2006



Technical Exhibition during IGC 2006

## National Workshop

A national workshop titled “**Retaining Structures with Geosynthetics**” was held at IIT Madras on 13th December 2006 as a pre-conference workshop one day prior to the IGC-2006. The workshop was organised with the cooperation of the IGS Chennai Chapter, International Geosynthetics Society and Central Board of Irrigation and Power, New Delhi. The unique feature of the workshop is this is the first time a pre-conference workshop was held prior to any Indian Geotechnical Conference. Prof. Tatsuoka is the President of the International Geosynthetics Society and Prof. Bathurst was the former President of the International Geosynthetics Society. Many of the conference delegates have attended this workshop. The registration fee was kept low for the conference delegates.

The lectures at the workshop were delivered by eminent panel of national and international experts, both academic and practicing engineers, on various topics related to the workshop theme. The following were the lectures delivered at the workshop:

1. Overview of Geosynthetic-Reinforced Soil Retaining Structures, R.J. Bathurst, GeoEngineering Centre at Queen's-RMC, Royal Military College of Canada, Kingston, Canada.
2. Geosynthetic-Reinforcing Technology for Remedy Works of Soil Structures Damaged By Earthquakes and Heavy Rainfalls, F. Tatsuoka, Tokyo University of Science, Japan.

3. Indian Experiences In Geosynthetic Reinforced Soil Retaining Structures, G.V. Rao, IIT Delhi.
4. Design Aspects of the Reinforced Soil Retaining Walls, M. Venkatraman, Garware Wall Ropes, Pune,
5. Case Studies On Polymeric Strip Reinforced Soil Walls, Prashant J. Navalakha, Sargon Geosynthetics Ltd., New Delhi.
6. VSL Retained Earth Walls: Polymer Reinforced Wall Systems, Dave Woods, VSL Ltd., Hong Kong.
7. Testing & Evaluation for Reinforced Soil Retaining Walls, K. Rajagopal, IIT Madras.

A total of 45 participants attended this workshop. Many of these are also delegates at IGC-2006. Advantage was taken of the presence of some of the foreign delegates to organise this workshop. Prof K. Rajagopal, IIT Madras, [gopalkr@iitm.ac.in]

