

NEWSLETTER

A Bulletin of the
Indian Geotechnical Society, Delhi Chapter

IGS Delhi

Vol. 4 No.1

Editorial Board :
• Editor: Atul Nanda • Members: R. Ayothiraman, Altaf Usmani & Nripendra Kumar

April 2010

Message from Chairman



Dear Members,

Along with the members of the new Executive Committee of the IGS Delhi Chapter, I have great pleasure in wishing all members a very happy and prosperous 2010. Personally, for me, taking over charge as Chairman has been a very humbling experience. As I look back at the achievements of the various executive committees that have held office in the past, I am not only over-awed but also reminded of the task that lies ahead to justify the trust that you have reposed in this team.

We started off with two lectures, one by Prof. Braja M. Das and a second one by Dr. D.N Naresh. Both were very informative and thought-provoking. We shall continue to bring you interesting and useful lectures from eminent professionals both in India and abroad.

One issue that was discussed during the last AGM concerned the registration of the Delhi Chapter with the Registrar of Societies and the need for having a PAN Card. You will be happy to know that the application has already been submitted to the Registrar of Societies, and we expect to have our Chapter registered as a society very soon. Immediately after being registered, we shall apply for a PAN Card. We shall be filing the first income-tax return of the Chapter for the financial year ending March 2010.

Further, several events are planned over the next two years. We propose to organize a Short Course on Numerical Modeling in Geotechnical Engineering in April and also have a workshop along with the AGM this September. In 2011, a national level seminar is planned. We shall be updating you with the details. The biggest geotechnical event to be held this year is the 6th International Congress on Environmental Geotechnics being organized by the IGS main body. Since the event shall be held in Delhi, the Delhi Chapter shall be supporting it. Some of Executive Committee members are in the organizing committee and helping out in organizing this event. The Constitution of the Chapter has been revised by a committee headed by Prof. K.G. Sharma. With inputs from our chartered accountant, various legal provisions as required for the registration as a society have also been incorporated.

The IGS Delhi Chapter Awards, established to recognize the professional contribution made by our members, is now entering its fourth year. The third set of awards given at the last AGM went to Dr. D.V. Thareja (IGS Delhi Chapter Lifetime Achievement Award) and Mr. Sorabh Gupta (IGS Delhi Chapter Young Geotechnical Engineer Award). The nominations for the IGS Delhi Chapter awards for the year 2009 have been invited. Interested members may download the application for the same from our web site and apply.

The website of the chapter has been updated and all relevant information shall be posted on it regularly. The problems that were being experienced earlier have been successfully resolved.

Dr. Atul Nanda has taken over as the editor of this newsletter, which completes three years with this issue. Along with his editorial board members, he shall be bringing you geotechnical news and updates from India and abroad. The newsletter is an effective medium to interact with fellow members, inform others of the good work that you are doing and convey any information / news that you may have. I urge all members to write in and keep the lines of communication active and vibrant.

Your continuous support is the drive behind all our activities. Your views, suggestions, encouragement and good wishes keep us going. So, please do send these to us in good measure. I request all members to actively participate in all activities of the Chapter so that it may move from strength to strength.

Ravi Sundaram

General Body Meeting

A special General Body Meeting for revision of the Constitution of Indian Geotechnical Society, Delhi Chapter is being held at 1500 hrs on April 15, 2010 at the Central Road Research Institute Auditorium. All members are welcome to attend the same.

From the Editorial Desk...

Fellow Geotechnical Engineers,

A number of changes have taken place since the last newsletter. The executive committees of the Delhi chapter, under the chairmanship of Professor K.G. Sharma have completed their term and a new executive committee has been elected under the chairmanship of Mr. Ravi Sundaram. The excellent work carried out by Professor K.G. Sharma and his team is greatly appreciated by all.

The new editorial board consisting of Dr. A. Nanda (editor), Dr. R. Ayothiraman, Mr. Nipendra Kumar and Dr. A. Usmani looks forward to communicating with you through this newsletter till September next year.

The economic revival after the slowdown during the past two years has brought some cheer to the construction industry, only to be dampened by runaway inflation. We geotechnical engineers are affected by both, but may take solace from the fact that with industrial growth, funding on projects shall see an upswing of

construction activities which should benefit all of us, both in the government and private sectors.

Delhi is preparing for the Commonwealth Games which shall not only test our athletes and sportspersons but also showcase our city to the world. To gear up for this, you are all aware of the large number of projects that have been implemented - new lines of the Delhi Metro, so many flyovers, bridges, the big Village Complex near Akshardham, hotels, etc. all in various stages of implementation, all targeted to be completed before the Games. Many of you would have been involved in these projects. We shall be very happy if you can write your experiences, geotechnical issues on these projects and other issues and send to us so we may help you to share these with other members.

Another major event that shall come up right after the Games is the 6th International Congress on Environmental Geotechnics. This

newsletter has been bringing news related to this event right since it was allotted to India. We shall be covering the event and shall be bringing you all information related to this event. As of now, 17 eminent international personalities have consented to deliver keynote / plenary lectures. The congregation of so many experts on the subject in Delhi is in itself a spectacle which many of you may want to be a part of.

This is an election year for the IGS main body. You may have received communications from the presidential candidates, Prof. K.S. Rao (a Delhi Chapter member) and Prof. Srirama Rao (Kakinada). To those of you who are members of the main body as well, may the best man win. But, please do exercise vote for the sake of IGS.

The Chapter has been facing the issue of letters not reaching members because the address of some members has changed from what we have in our records. Please also help us by updating your address, so that we can reach all members of our chapter.

Arthur Casagrande - A Tribute

Arthur Casagrande (August 28, 1902 September 6, 1981) was an Austrian-born American civil engineer who made important contributions to the fields of engineering geology and geotechnical engineering during its infancy. He was amongst one of the most recognized associate of Karl Terzaghi. Renowned for his indigenous designs of soil testing apparatus and fundamental research on seepage and soil liquefaction, he is credited with developing soil mechanics teaching programme at Harvard University during the early 1930s and since has been modelled in many universities around the world. IGS Delhi chapter briefly amalgamates his life through his contributions and achievements.

Casagrande was born in Haidenschaft, Austria and moved to Trieste after attending his first year in school in Linz. He graduated from the Technische Hochschule (TH) in Vienna with a civil engineering degree in 1924, after which he carried on working there as a full-time assistant in the hydraulics laboratory. When Casagrande father died in 1924, he moved to United States for both financial reasons and professional interest. While visiting the Massachusetts Institute of Technology for a job interview, he met Karl Terzaghi who had only just arrived, and was immediately offered the job opportunity to work as his private assistant.

From 1926 to 1932, Casagrande worked as a research assistant with the US Bureau of Public Roads, assigned to MIT, where he assisted Terzaghi in his numerous research projects directed towards improving apparatus and techniques for soil testing. When Terzaghi took up a professorship at Vienna in 1929 after a short stint at MIT, Casagrande traveled with him to help him set up the soil mechanics laboratory that would later become one of the most famous research centers in soil mechanics. He also capitalized on the touring opportunity by visiting all soil mechanics laboratories in Europe at the time. When he returned to MIT a few months later, he had gained a thorough knowledge of the state-of-

the-art in this field. While at MIT, he developed the liquid limit apparatus, the hydrometer test, the horizontal capillary test, the odometer apparatus, and the shear box, all of which still form the prototypes for the ones in use today.

In 1932, Casagrande moved to Harvard University where he started the first course on Soil Mechanics program at Harvard University. This has been the model for all other programs that came later all around the world. There he rapidly established a school of postgraduate teaching and research that would see the number of students

steadily growing from 12 in 1932 to over 80 after World War II. He was promoted to a newly created chair of soil mechanics and foundation engineering at Harvard in 1946.

Casagrande was also credited for organizing the first ever International Conference on Soil Mechanics and Foundation Engineering in 1936, which Terzaghi considered to be too much of a gamble given the early stage in soil mechanics at that time. The conference however turned out to be a success and has legitimately established soil mechanics as an essential part of civil engineering. Alec

Skempton, another early pioneer in the field, would later refer to the time between the publication of *Erdbaumechanik* by Terzaghi in 1925 and the first International Conference as the vital formative period of modern soil mechanics. Casagrande won many awards throughout his career, including being named the first ever "Rankine Lecturer" by the British Geotechnical Association as well as a "Terzaghi Lecturer" by ASCE. A number of awards have been established in his honor including the "Arthur Casagrande Professional Development Award".

WELCOME TO OUR NEW MEMEBERS

IGS Delhi Chapter warmly welcomes the following people who have become members since January 2010. The IGS, Delhi Chapter looks forward to your active participation in the Chapter's activities.

ADDRESSES WANTED

List of IGS Delhi Chapter Members whose postal addresses needs to be updated as newsletter/correspondences have been returned.

Membership No.	Name	Membership No.	Name
865	Dr. R.Ayothiraman	15	Madhavan, K.
866	Mr.Sai Suresh Pusuluri	677	Sumnesh Lal Mathur
867	Mr. Imran Sayeed	552	Kalyana Sundram
868	Mr. Senthilnath G.T.	697	Gurcharan Singh
870	Mr. Nanda Kishore Yadla	-	A.K.Sharma (U.P. Irrigation)
871	Mr.Gopi Kannan L.	672	Sengar Harvir Singh
872	Dr. Anirban Mandal	673	Nitya Nand Rai
873	Mr. Pawan Kumar Singh	311	Vijayaraman,S.
874	Dr. Gnananandh Budi	265	Harsh Vardhan, K.
875	Dr. Altaf Usmani	382	Bhandra, T.K.
876	Mr. Rajiv Goel	709	Deepak Das
877	Mr. Manish Kansal	531	Midha, V.K.
878	Mr. KI HO KIM	708	Ganshyam Jha
879	Mr.Kyungsik Kim	617	Om Prakash Shukla
880	Mr. Kim Sung Mo	239	Abhay Kumar
881	Mr Rajat Taneja	762	Janey Vijayan
882	Mr. Dushyant KumarBhardwaj	663	Jyotirmay De
		140	Ghosh, C.B.
		81	John, K.A.
		-	Manish Tiwari (Keller Engg.)
		221	Subramanian, P.

GEOTECHNICAL NEWS

Two major international conferences are slated to be held in Delhi this year. The 6th International Congress on Environmental Geotechnics is to be held in India for the first time and would be a very valuable introduction to this new and rapidly growing field of geotechnical engineering. The 6th Asian Rock Mechanics Symposium is also to be held in Delhi after a period of several years and would provide a forum for all working in the field of rock mechanics and associated areas.

The Indian Geotechnical Conference IGC-2010 shall be held in Mumbai during December 16-18, 2010. The venue of the conference would be IIT Mumbai.

Two lectures were organized by the Delhi Chapter in 2010 (Jan). The first by Prof. Braja M. Das and the second by Dr. D.N. Naresh.

Prof. Braja M. Das gave a lecture presentation on developments in bearing capacity of shallow foundations on geo-grid reinforced soil. He discussed on the various important aspects of composite material consisting of compacted fill strengthened by inclusion of tensile elements such as geogrids, geotextiles and metal rods and/or strips. He demonstrated through various studies that multi-layered geogrid reinforcement increases the

ultimate and allowable bearing capacities of the soil underneath. This increase in bearing capacity ratios (BCRs and BCRu) is more noticeable in loose to medium sands. He also showed that geogrid reinforcement in sand helps to reduce settlement due to impact and cyclic loading. He further stresses the need for additional field tests and laboratory centrifuge testing in order to validate small-scale model test results.

Dr. D.N. Naresh presented a comprehensive overview of IS 2911 (Part 4) load test on piles, throwing a light on its present form and different international practices followed. He stressed on the need for revision on many provisions of load test of piles to take into account the recent developments. He highlighted several changes proposed in terms of test load for routine test of piles, initial test on piles, safe load and ultimate bearing capacity calculations. Interpretation / acceptance of vertical load test by different codes / practices were also demonstrated during his presentation. He also highlighted issues pertaining to criteria for selection of routine load test (Low strain integrity test/high strain integrity test), negative drag, free head vs. fixed head, and criterion for lateral load in terms of pile diameter and time interval between each increment.

46th IGS Annual Conference at Guntur

The 46th Annual conference of the Indian Geotechnical Society, IGC-2009 was held in the premises of R.V.R.&J.C. College, Guntur during 18-20 February, 2010. The conference, scheduled to be held in December, 2009, had to be postponed to February in view of the disturbed conditions prevailing in the state of Andhra Pradesh. Organized by the Guntur chapter of IGS and hosted by the College, the conference was a success despite the absence of several delegates on account of the postponement.

Shri C.P. Dinesh, General Manager, Hindustan Prefab Limited, New Delhi inaugurated the conference. In his inaugural address Shri Dinesh stressed the importance of proper interaction and understanding between researchers and professional engineers. Delivering the presidential address, Er. Mahavir Bidasaria, President of IGS, said that ever since the Society started in the year 1948, it had been doing extensive work in areas like bridge substructure design, dam engineering, earthquake engineering, rock mechanics etc.

Earlier, welcoming the delegate Prof. Ajjarapu Srirama Rao, Honorary Chairman of the Organizing Committee explained the main theme of the conference, Geotechnics

for Infrastructure Development. Sustainable development is possible only through infrastructure development, he observed.

Prof. M. Rama Rao, Organizing Secretary, said in his report that 188 papers were selected for publication in the proceedings. Besides, ten plenary lectures and fifteen theme lectures were also published in a separate volume, he added.

Er. G.Jai Bhagawan, Honorary Secretary of IGS gave a brief account of the activities of the Society. He complimented the organizers for making adequate preparation for the conference against heavy odds.

Besides six key note address and nine theme lectures, 92 papers were presented by their authors. Useful discussions followed the presentations. A separate programme was organized for the spouses of the delegates. Over 200 delegates attended the conference. A pre-conference workshop on 'Geosynthetics and Ground Improvement' was organized on 17th February 2010, by Prof. K. Raja Gopal, in which five lectures were delivered. Over 50 delegates participated.

TRAINING COURSE ON NUMERICAL MODELLING IN GEOTECHNICAL ENGINEERING 29th & 30th April 2010, CSMRS, New Delhi

Focus Areas

• Numerical Modelling an Engineer's Perspective	• Analysis of Soil and Rock Foundations
• Finite Element Analysis	• Analysis of Underground Excavations
• Distinct Element Analysis	• Demonstration of Software's (PLAXIS, Phase2)
• Soil and Rock Slope Stability Analysis	

Registration

The registration fee per participant is as under:

☞ For IGS-Delhi Chapter Members Rs.1800/, For Non Members Rs.2250/-

☞ Special discount will be given to students

The registration fee is to be paid through a Demand Draft or local Cheque drawn in favour of "IGS, Delhi Chapter" payable at New Delhi. Registration would be done strictly on the first come first basis. The last date for receipt of registration form along with the registration fee is 23rd April 2010.

Speakers

• Prof. K. G. Sharma, IIT Delhi	• Dr. R. Chitra, CSMRS
• Dr. G. V. Ramana, IIT Delhi	• Mr. Manish Gupta, CSMRS
• Dr. Atul Nanda, EIL,	• Dr. Jay Aglawe, Nagpur

Address for Correspondence

Dr. R. Chitra, Coordinator, Central Soil and Materials Research Station, Olof Palme Marg, Near IITD Hostels, Hauz Khas, New Delhi - 110 016, Phone No. 91 11 – 26532547, Fax: 91 11 2685 3108, E-mail: chitra009@gmail.com

17th International Conference on Soil Mechanics & Geotechnical Engineering held at Alexandria (Egypt) from 5th to 9th October, 2009



A Section of Indian Delegates

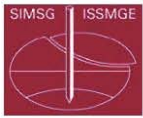
17th International Conference on Soil Mechanics and Geotechnical Engineering, with the main theme of The Academia and Practice of Geotechnical Engineering, was held in the premises of Bibliotheca Alexandrina, Alexandria (Egypt) from 5th to 9th October, 2009. Prof. M. Hamza was the Chairman of the Conference Organizing Committee. The opening session on 5th October, 2010 commenced with inauguration function followed by presentation of Kevin Nash Award. After the opening session, the Terzaghi oration lecture was delivered by Prof. G. Harry Poulos from Australia. There were five state-of-the-art lectures delivered by Prof. P. Mayne (USA), Prof. B. Simpson (UK), Prof. A. Negro Jr. (Brazil), Prof. C. Jian (Singapore) and Prof. M. Jaksa (Australia). There were two great project lectures by Prof. M. Jamiolkowski (Italy) and Prof. W. Brunner (Germany) and one heritage lecture by Mr. Z. Hawass (Egypt). All these lectures were held on first two days of the conference (5th and 6th October, 2009). The heritage lecture on Hidden Egypt was excellent and gave the history of Egypt, and its monuments and civilization.

The technical sessions (in parallel) were scheduled on 7th and 8th October, 2009 with themes of Laboratory testing;

Underground structures; Deep excavation, tunneling, ground water control; Deep foundations/retaining structures; Insitu testing; Monitoring and performance; Physical/constitutive modeling; Ground improvement, grouting, dredging; Management of geotechnical data and processes; Problematic soils and geosynthetics; Instrumentation; Slopes and embankments; Interactive design; and Natural hazard mitigation. The conference ended with the closing ceremony followed by cultural evening on 8th October, 2009. The technical exhibition open on four days of the conference was very good.

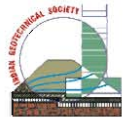
The conference was attended by more than 1300 delegates from 33 countries. From India, there were 16 delegates including Er. Mahavir Bidasaria, President IGS and Prof. M.R. Madhav, Vice President Asia of ISSMGE. Some of the Indian delegates were given the honors as Co-Chair or as Panelist in some technical sessions.

Past president of Delhi Chapter Professor K.G.Sharma made a presentation titled "Stress and seepage analysis of underground rock caverns". as a panelist. Valuable contributions in the form of technical papers were also made by Delhi Chapter members Mr.Ravi Sundaram, Mr.Sanjay Kumar, Dr.K.S.Rao, Dr.K.K.Gupta, Dr. Manoj Dutta, Dr.Atul Nanda and Dr.Altaf Usmani.



Sixth International Congress on Environmental Geotechnics (6ICEG 2010)

Environmental Geotechnics for Sustainable Development



Conference Themes

• MSW and Hazardous Waste Landfills	• Sustainability, Professional Practice and Education
• Slurry Ponds	• Geohazards, Disaster Mitigation and Management
• Contaminated Land, Groundwater and Abandoned Landfills	• Testing, Monitoring and Performance Evaluation
• Geosynthetics and New Materials	• Physical and Numerical Modelling

Status

• 340 abstracts were accepted out of 407 abstracts received from 40 different countries.
• 80 papers have already been received. The last date for uploading the paper is 28th Feb, 2010.
• Out of 24 stalls on offer, 9 stalls have already been booked.

Key Congress Dates

15th Mar 2010 Second Bulletin	15th May 2010 Deadline for receipt of Final Papers
15th Mar 2010 Decision on Papers	8th-12th Nov 2010 Congress at New Delhi

Registration

Details are available on the website. Payment options by IGS members and members of Local Chapters in Indian Rupees will be uploaded by April 2010.

Contact Us

6ICEG Secretariat

Geoenvironment & Geosynthetics Lab (Room V-203), Civil Engineering Department, Indian Institute of Technology Delhi, Hauz Khas, New Delhi – 110016, India.

Phone: + 91-11-26596223; Fax: + 91-11-26581117; Email: 6icegdelhi@gmail.com

Website: www.6iceg.org

ISRM INTERNATIONAL SYMPOSIUM 2010 AND 6TH ASIAN ROCK MECHANICS SYMPOSIUM

ADVANCES IN ROCK ENGINEERING, 23-27 October, 2010, New Delhi, India

The various themes of the symposium include Testing and Modelling of Rocks & Rock Masses, Slope Stability: Analysis & Design, Foundations, Underground Structures: Analysis, Design & Construction, Artificial Intelligence, Flow and Contaminant Transport, Rock Dynamics, Case Histories, Techniques for Improvement of Quality of Rock Mass, and Instrumentation and Monitoring.

DATES TO REMEMBER:

- Deadline for submission of synopses: 28 February 2010
- Notification of acceptance of synopses: 31 March 2010
- Submission of full texts of the accepted presentations : 31 July 2010

Contact Person: Mr. V.K. Kanjlia, Member Secretary, Indian National Group of ISRM

Phone : +91-11- 2611 5984/2688 2866/2410 1591, Fax : +91-11- 2611 6347

E-mail : uday@cbip.org; cbip@cbip.org, Web : <http://www.arms2010.org>

Seismic microzonation OF DELHI REGION

K.S.Rao, IIT Delhi.

The seismic risk for the urban areas is growing very rapidly and particularly in India in the last decade. After the 2001 Bhuj earthquake, the National Capital Region of Delhi, India attracted major attention of several scientific studies. This region, being in zone IV (IS 1893-2002) has experienced many earthquakes in past and recent times. This has emerged as a major problem, imposing great challenge that needs to be addressed timely. This can be done through a comprehensive seismic microzonation of the region. Seismic microzonation is an effective mitigation method and it is an important guiding tool in land use planning and safe construction practice to avoid the losses from the future earthquakes. Extensive microzonation studies for Delhi region are in underway by the IIT Delhi group led by the author and some of the highlights of the study are presented in the article.

Microzonation is a process of dividing a seismically active region into sub regions such that any characteristic of interest may be considered to be reasonably same over the micro zones. When such factors of characteristic are related to seismic activity, the process is called Seismic Microzonation. This is similar to the macro level hazard evaluation but requires more rigorous inputs about the site specific geological, geophysical, geotechnical, seismotectonic, ground response to earthquake motions and their effects on the safety of the constructions, taking into consideration the design aspects of buildings, ground conditions which would enhance the earthquake effects like soil amplification, liquefaction of soils etc.

Extensive bore hole data from more than 4000 locations were collected and synthesized for the geotechnical variance in and around Delhi. Two types of geophysical tests i.e. Seismic Refraction and MSAW tests for getting 2D P and S wave velocity models were carried out at 240 locations. A detailed site characterization based on Vs30 (Fig.1.) and geotechnical nature was carried out and developed several correlations among Vs30, Vp, depth and SPT N values. Based on the Vs30 values the area is classified into four zones ZA (South & South central), ZB (West & North West), ZC1 and ZC2 (Trans Yamuna). These zones are exactly matching with the geology and soil characteristics of the region. That is the zone ZA (Vs30 > 350 m/s) is falling in the central and southern part of Delhi where quartzite rock outcrops are available with dense gravely sands and the zone ZB (Vs30 = 250 to 350 m/s) is having dense sandy silts and silty sands with clay seams i.e. Pleistocene soils. The zones ZC1 and ZC2 are falling in the Trans Yamuna region where soils are very loose sandy silts with low N value (Holocene).

Local site effects in terms of predominant frequency and H/V spectral ratio were established from the microtremor

tests conducted using MS 2003 triaxial velocity sensor. Peak ground acceleration (PGA) values at bed rock were estimated considering both for field and near field active faults testing FINSIM code. Shear wave velocities obtained earlier are used to estimate the average spectral amplification factor (SAF) using DEGTRA software and PGA values at the surface were established.

Using the above site specific information detailed liquefaction analysis was carried out using three SPT based methods (Seed and Idrim, Seed and Peacock, and Iwasaki) and one shear wave velocity based method (Andrus and Stoke) as shown in Fig.2. According it is clear that in trans Yamuna region such as Yamuna Vihar, Viswas Nagar, Mayur Vihar, Preet Vihar, Noida sectors 15,30,51,61 and 62 have the liquefaction hazard due to future earthquakes.

The study has resulted in creating an elaborate digitized data base on geotechnical properties, P and S wave velocity structure, PGA variations at bed rock and ground surface, predominant frequency, spectral amplification factors, vulnerability indices, and liquefaction hazard potential for Delhi. Several microzonation maps are prepared. These studies will be of immense use for the pre, during and post earthquake mitigation strategies. These studies also throw several spin offs as well.

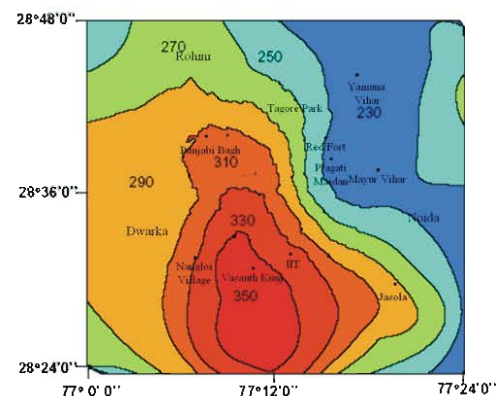


Fig.1. 2D Map of Shear Wave Velocity at 30m, Vs30

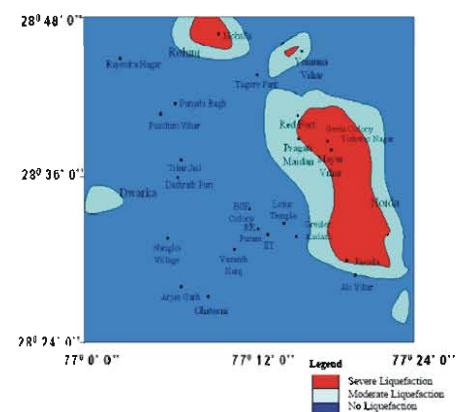


Fig.2. Liquefaction Hazard Map Based on Vs for Delhi

GEOTECHNICAL CALENDAR

Dates	Place	Event	Contact Details
INDIA			
Nov 8-12, 2010	New Delhi	Sixth International Congress on Environmental Geotechnics (6ICEG 2010)	6ICEG Secretariat Room V-203 Civil Engineering ,Department, IIT Delhi E-mail: 6icegdelhi@gmail.com Website: www.6iceg.org
23-27 Oct,2010	New Delhi	ISRM International Symposium 2010 and the 6th Asian Rock Mechanics Symposium, October 2010, India	V.K.Kanjilila Central Board of Irrigation & Power Malcha Marg, Chankyapuri, New Delhi 110021-India E-mail: uday@cbip.org; cbip@cbip.org Website: www.arms2010.org
ABROAD			
May 9-11, 2010	Huntington Beach, California USA	2nd IS on Cone Penetration Testing	Website: www.cpt10.com E mail: abstracts@cpt10.com
May 23-27, 2010	Brazil	9ICG on Geosynthetics	website: www.9icg_brazil2010.info
May 24-29, 2010	San Diego, CA, USA	5th IC on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics	Shamsher Prakash Emeritus Professor of Civil Engg. 227, Butler Carlton Hall, Missouri Univ. of Sc. & Tech. 1401, N. Pine St., Rolla, MO 65409-0030 (USA) E-mail: prakash@mst.edu
June 03-05, 2010	Shanghai, China	2nd GeoShanghai International Conference	Dr. Baoshan Huang Email: bhuang@utk.edu Dr. Xian Liu Email: geoshanghai@tongji.edu.cn Web Page: www.geoshanghai2010.org
June 07-10, 2010	Moscow, Russia	IC on "Geotechnical Challenges in Mega Cities"	Conference Secretariat M.L. Kholmyansky - Secretary General, NIIOSP, Moscow Gersevanov Res. Instt. of Bases and Underground Structures (NIIOSP) Russia 109428 Moscow, 2nd Institutskaya, St.6, build. 12, E-mail: info@GeoMos2010.ru
Jun 23-25, 2010	Seoul, Korea	Twin International Conferences on Geotechnical and Geoenvironmental Engineering. Important Dates: Abstract:15 Jan 2010, Acceptance:01 Feb 2010, Full text:01 May 2010	Conference DIRECTOR, Er John S Y Tan CI-Premier Pte Ltd. 150 Orchard Road#07-14, Orchard Plaza, Singapore-238841. Tel:+065-67332922 Email: cipremie@singnet.com.sg Website: www.cipremier.com
Sept. 5-10, 2010	Auckland, New Zealand	The 11th Congress of the International Association for Engineering Geology and the Environment (IAEG 2010) by The New Zealand Geotechnical Society (NZGS) on theme "Geologically Active".	Prof. Ming-Jing Jang Co-chairman & Secy Gen IS-Shanghai 2010 Faculty of Civil Engg., Tongji University, Shanghai, China E mail: mingjing.jiang@mail.tongji.edu.cn IAEG 2010 Auckland New Zealand
Oct 10-12, 2010	Shanghai, China	IS on Geomechanics and Geotechnics from Micro to Macro.	Prof. Ming-Jing Jiang Co-chairman and Secy. Gen. Organizing Committee IS -Shanghai 2010 Faculty of Civil Engineering Tongji University, Shanghai, China
May 23-27, 2011	Hong Kong	14th ARC on Soil Mechanics and Geotechnical Engineering organized by The Hong Kong Geotechnical Society (HKGES), Key Dates: Abstracts:31 Dec 2009, Acceptance:31 March 2010, Full Papers:30 Sep 2010, Acceptance Dec 2010.	Miss Laurel Lan Dept. of Civil & Structural Engg. The Hong Kong Polytechnic University Kowloon, Hong Kong Web site: www.cse.polyu.edu.hk/14arc E-mail: 14arc.2011@polyu.edu.hk