

**ISSMGE FOUNDATION  
REPORT ON CONFERENCE ATTENDANCE**

<b>Your Name:</b> Renjitha Mary Varghese	<b>Your Organization:</b> Indian Institute of Science, Bangalore, India	<b>Date of report:</b> 07 <sup>th</sup> March 2014
<b>Conference Title:</b> Geo-Congress 2014, Geo- Characterization and Modeling for Sustainability	<b>Location of Conference:</b> Atlanta, Georgia, USA	<b>Dates of Conference:</b> 23 <sup>rd</sup> -26 <sup>th</sup> February 2014

**What you learned:**

Geo-Congress 2014, Geo-characterization and modeling for sustainability was a technical feast for all the participants. The participation in this conference gave me more insight into ongoing research works in the area of sand liquefaction and other areas. The keynote lectures were very fruitful especially the Bolton seed award lecture given by W.D. Liam Finn, Professor Emeritus, University of British Columbia, about the developments in the assessment of liquefaction potential and its consequences. He started his lecture with examples of liquefaction hazards happened due to failures in pile foundations and emphasised the importance of considering the lateral loads during the design of foundations. The networking breaks gave me opportunities to interact with students from different parts of the world and shared our ideas on research. The papers presented in the panel sessions were also of high quality and the discussions were very creative. I have presented my paper on 25<sup>th</sup> February 2014, in the session titled "Sustainable design in Geotechnical Earthquake Engineering and Soil Dynamics". The discussions after the presentations gave me more ideas or understandings about my results. In addition to that the presentation gave me more confidence in presenting my work in an international level audience. The half day course on Geo-Characterization and Numerical modeling, presented by Dr. Roger Hart, Principal software advisor, Itasca consulting group and Mr. Augusto Lucarelli, Lead Geotechnical Engineer, Studio Tenico Associato, gave more clarity to the numerical modeling part of my research works since I was using one of their softwares to model my experimental results. Additionally the lab tour to Georgia Institute of Technology gave a wonderful experience by visiting different labs and could get an opportunity to talk to some of the students who is working with different instruments. During the lab visit I got a chance to see Prof. J Carlos Santamarina's lab (Professor, Georgia institute of Technology, Georgia, USA) who gave Karl Terzaghi lecture on considering the energy geotechnology other than basic soil behaviour. And Geo-Challenge 2014 showed me the enthusiastic participants in modelling the mechanically stabilized earthwall with tire shreds and paper as reinforcement. The exhibit hall hours were really crowded in search of different instruments for lab and field testing. Finally the poster presentations were also very much interactive and could share ideas with each other. I found Geo-Congress 2014 as worthwhile and enjoyable conference.

**People you met:**

The conference gave a platform to meet and interact with many professional leaders from industry and academia. Very few of them are listed below

1. Prof. Krishna R Reddy (University of Illinois, Chicago, USA)
2. Prof. Susan E. Burns (Georgia Institute of Technology, USA)
3. Dr. Rogar Hart (Itasca Consulting Group Inc.)
4. Dr. Satya Varadhi (Parsons Engineering Science Inc.)
5. Dr. Arif Ali Moghal (King Saud University, Riyadh)
6. Dr. Shobha K. Bhatia (Syracuse University, NY)

***Main features of conference:***

The conference was extremely useful for the young emerging geotechnical engineers. Experts from various areas delivered lectures in their respective areas. The keynote sessions were exceptional and I could reform my knowledge in geotechnical area from those sessions. The one main features of the program was the parallel sections and interactive poster presentations. And participants shared their research methodologies and gave very qualitative presentations. The interactive discussions were interesting and motivating. The lab tour arranged to the Georgia Institute of Technology was another attraction of the conference. The overall theme of the conference was varied from micro to macro level and this may be the main interesting factor which differentiates this conference from others.

***Your comments on the conference:***

The technical quality of the conference was excellent. The organization of the conference is admirable. Especially the variety of themes in the keynote lectures and panel sessions were excellent. My appreciations and heartfelt thanks for the organizing committee of Geo-Congress 2014 for organizing such a wonderful event.

***Short report (maximum 400 words) suitable for publication in the ISSMGE Bulletin:***

**Geo-Congress 2014, Geo-characterization and modeling for sustainability**  
*23<sup>rd</sup>-26<sup>th</sup> February 2014, Atlanta, Georgia*

Geo-Congress 2014 was organized by Geo-Institute as the part of American Society of Civil Engineers (ASCE) under the leadership of Engineering Geology and Site Characterization committee. The main theme of the conference was "Geo-Characterization and Modeling for Sustainability".

The conference started on 23<sup>rd</sup> February 2014 with technically rich short courses for interested candidates. It was followed by Bolton Seed award lecture by Dr. W.D.Liam Finn. The main discussion was on the recent developments and consequences of assessing liquefaction potential and emphasised the importance of considering the lateral forces while designing foundations such as pile foundations.

On 24<sup>th</sup> February 2014, opening keynote lectures were started with William A Wallace on the solutions to the non-sustainable infrastructure without affecting the project owner's needs. It was followed by keynote lectures given by Dr. Roman D Hryciw, Dr. Sibel Pamukcu and three panel sessions. On the same day, there was an interesting student competition

program named as Geo-Challenge. Networking breaks during the sessions provided immense opportunity to the participants to widen their knowledge in their research areas by interacting with geotechnical experts. The day was ended with different committee meetings.

On 25<sup>th</sup> February 2014, there were parallel panel sessions and technical sessions. Panel sessions were on problems in Geo-characterisation from basic methods, report generation and the basic need of Geology in geotechnical engineering divisions. There were different technical sessions which gave introduction to the wide variety of researches happening worldwide. The third day was closed with Karl Terzaghi lecture given by Prof. J. Carlos Santamarina. In the era of evolving energy challenge, the presentation was focussed on the emerging energy geotechnology that made to reconsider the basic tenets of geotechnical engineering.

The last day of conference was started with interactive poster sessions followed by panel sessions and technical sessions. The closing ceremony was with the Ralph Peck award lecture, delivered by Dr. Youssef M. A. Hashash on the advances in monitoring the deformations near to excavations and techniques to control that. There was lab tour to Georgia Institute of Technology for interested candidates to explore more in the field of laboratory testing techniques.

The conference gave me a right platform to learn and understand different areas of geotechnical engineering and gave opportunity to extend knowledge in my area of research. I would like to express my sincere thanks to ISSMGE foundation for providing financial support for participating and presenting my work in the conference.

***Photographs from Conference:***



During my presentation in Geo-Congress 2014



With Dr. Shobha Bhatia



During Geo-Challenge 2014, GeoWall preparation