### 5th International Conference on Earthquake Geotechnical Engineering

This conference took place from January 10th to 13th in Santiago, Chile with remarkable efforts by the organizing chairman, Prof. Ramon Verdugo, and his colleagues. It is the fifth occasion of the series of the conference, and the previous ones took place in Tokyo (1995), Lisbon (1999), Berkeley (2003), and Thessaloniki (2007). As implied by its title, this conference has been intended to exchange and disseminate the up-to-date knowledge and experience both internationally and domestically. This aim was well achieved after recent earthquakes in Chile and New Zealand. Some information is available for these earthquakes in recent issues of ISSMGE Bulletin (September and December Issues, 2010).



Group photo during the conference

Despite geographical difficulties, 378 participants were attracted from 35 countries to this conference, among which 138 were non-ISSMGE members and 76 were young students. Among 213 presentations, Prof. R. Dobry delivered the Ishihara Lecture on recent assessment of liquefaction potential. Moreover, three workshops on Tailings Dams, Liquefaction, and Performance Design were timely and valuable.

After the conference, 2-night 3-day post-conference tour was organized to visits damage sites of the 2010 Maule earthquake in Concepcion Area of Chile. Pictures taken by Dr. T. Kiyota, University of Tokyo, during this tour are presented below.

The next host of this series of conference in 2015 will be Dr. Misko Cubrinovski, University of Canterbury in Christchurch of New Zealand.

# 5th International Conference on Earthquake Geotechnical Engineering (continued)



Failure of coastal slope near Concepcion



Site of Tsunami damage in Dichato



Collapsed building in Concepcion



Subsidence of Tubul Bridge pier by 1 to 1.5 m because of subsoil liquefaction

The ISSMGE Foundation supplied three young fellows with financial supports that enabled them to take part in this conference. Their conference reports are presented in the following pages.

## 5th International Conference on Earthquake Geotechnical Engineering (continued)

Juan Ayala, Civil Engineering Student, Catholic University of Concepción

First of all, I would like to thank the ISSMGE Foundation for this great opportunity and initiative in helping those who cannot afford the registration fee to attend these types of events, the ISSMGE President Professor Jean-Louis Briaud, whom I had the chance to meet a day before the 5ICEE, and Professor Harry Poulos, Chair of the ISSMGE Membership, Practitioners, and Academicians Committee (MPAC) for approving my application.

For me, as a civil engineering student in the last years of an undergraduate degree, I had only the chance to go to national student congresses, so the opportunity to attend a conference with the magnitude of the 5ICEGE was something out of this world. This is because I could know a new world within the engineering that corresponds to the research area. The opportunity to meet geotechnical engineers, master degree students, geotechnical engineers with master's degrees, doctoral students, doctors in the area, people who pursue their studies of the post-doctoral degrees, and faculty reviewers of those researches was exceptional. I met geotechnical engineers "in different stages", and enjoyed the opportunity to know them during the conference which is more relaxed because everyone was disposed to talk with anybody, which is different from a classroom where you go to learn something and no to socialize.

The fact that I talked with them in that opportunity helped me know more about the geotechnical engineering work and also let me approach the research area, an activity that previously I only imagined for my teachers, and now I see it as an attainable goal. That is why I have decided to start a master-degree program in geotechnical engineering in my university this year.

After meeting the researchers, among whom I really liked those who are working with FEM, I found a huge amount of different job opportunities that I didn't know and I really like them.

I think I took a full advantage of this conference because I really learnt a lot about geotechnical engineering and in which direction the studies are going. I really enjoyed the presentations, because it was very different from reading papers. From my point of view, it was an excellent opportunity to have the authors explain their works directly to me. I guess the only thing I felt sorry about the conference was that I could not attend the three workshops that occurred simultaneously. I particularly went to the seismic design and stability analysis of tailings disposals which I found very interesting, but I wished I could go to the three of them.

I also really liked the closing ceremony where this group of geotechnical engineers with many years of experience talked about the conference in general, and showed how their experience let them see things that for me are difficult to see. In particular, my investigation is almost only in FEM; when we work with the reality, we use this mathematical method to approximate the real behavior of our soils, but we have to be careful about other varying behaviors that FEM assumes to be constant.

There are many more things that I remember from the conference but I am not going to boring you with all the details that I remember from each one. I just like to mention that for me the conference was a really great opportunity to grow as an engineer and as a professional. It was amazing to know that ISSMGE supports people like me who cannot afford things like this conference and that the support was directly given with money in a world where almost only love and smiles are still free.

Thank you.

# 5th International Conference on Earthquake Geotechnical Engineering (continued)

Mauricio Jara Ortiz

The conference was an excellent experience and the organization was first class as well as exhibitions. It was very gratifying to have participated in an event of such high quality, although it is only public status, and is more satisfactory to see that Chile has a lot to give to the Geotechnical Engineering in the area of research. One of the clear examples was the contributions of Drs. Verdugo, Ortigoza, Ledezma, Villalobos, and others.

It goes without saying that not only Chile has something to contribute to the global geotechnical but also all countries have the obligation to share information and research projects relevant to improving the safety and geotechnical models. Sharing information is vital in this area of engineering, so on the basis of this conference, to take such a great significance is a key moment to learn from more professionals, to share knowledge, information, and career options, to consult with all this, and to grow as a person and especially as a professional.

Topics were such as liquefaction, tailings dams, design, seismic performance, etc. According to some of the exposures observed in this conference, there is no doubt that soil liquefaction is an extremely important issue for a



country with Chile's seismic activity. That is why most witnessed sessions were related to the dynamics of soils, foundations and soil-structure interaction.

Another highlight was the presentation by Drs. F. Villalobos and M. Poblete, who are teachers at the master's degree in geotechnical engineering from the Catholic University of Concepción, besides the presentation of Ing. M. Navarrete belonging to the Catholic University of Concepción.

To conclude this brief report, I thank deeply that I could attend this conference, thank Prof. Jean-Louis Briaud (President of the International Society of Soil Mechanics and Geotechnical Engineering ISSMGE), Sr. Harry Poulos, Dr. Ramon Verdugo (SOCHIGE president), Ms. Paloma Peers for accommodating my request for registration.

## 5th International Conference on Earthquake Geotechnical Engineering (continued)

Pablo Gacitúa Cárcamo, UCSC student, Concepción, Chile

The conference was every bit as interesting as I could have imagined. It was not only great in its technical aspects but also allowed me to interact with fellow students, professors and scientists from all around the world. It was really interesting and exciting if you will, to attend lectures given by leading minds in the field of geotechnics such as Ricardo Dobry, Steven Kramer or Pedro Seco just to name a few.

Although I must admit that, since I am an undergraduate student, some of the lectures that were out of my reach, most of them that were very interesting along with the workshops, state of the art lectures, and theme lectures, allowed me to form a clear idea of where things are going in Geotechnical Engineering. Idea that broadens my perspective on every Geotechnical related class I take hereon.

Another aspect that I think was very beneficial to me was that I got to know first hand this whole academic world that until now to me was restricted to my faculty teachers. A world that I think is very interesting and that I now see as a possible career choice.

It also was a good way to make contacts with leading companies for a possible internship (which is mandatory in my university in order to get my degree) and, as I already mentioned, to meet fellow students from all over the world which can become fruitful contacts for any kind of investigation program at my university.

Coming back to classes in March, I and other few classmates who also attended the conference will be able, and willing, to share our experience and things learned with our fellow students and teachers.

Finally, I have nothing left to say but to thank Professor Harry Poulos, Paloma Peers, and the ISSMGE Foundation once again for granting me the registration fee and allowing me to attend the 5ICEGE.