



July 29 2014

International Institute of Seismology and Earthquake Engineering BRI Japan

Number 111

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Latin American Earthquake Engineering Course in Japan

By Mr. Mizuo Inukai, IISEE Chief Research Engineer

Following the No. 110, we would like to introduce the Latin American Earthquake Engineering Course. The Course is composed of the course in Japan and the overseas program in El Salvador. This time, the course in Japan is introduced.

The course in Japan was held from 6 June to 18 July. The lectures of the course were Overview of Earthquake Engineering, Seismic Design of Structures, Post-Earthquake Evaluation, Retrofit Methods and others, widely.

Photo 1 shows a group photo after the beginning lecture of Overview of Earthquake Engineering. All participants listened to the lectures very attentively and the questions and discussion were enthusiastically.



Photo 1 : Group Photo after the Beginning Lecture



Photo 2 : Visit to the Concrete Bricks Produce Factory

overseas program, with cooperation of the related many persons in El Salvador, which will be executed.

Visits to the construction factories were planned. Photo 2 shows the visit to the Concrete Bricks Produce Factory. Since there are many masonry houses in Latin American countries, a lecture of Brick Produce and Quality Control was prepared, and after such lecture, the participants moved to the Factory to see it. Photo 3 shows the visit to the Concrete Produce Factory. In this Factory, the participants had interviews by a concrete newspaper company and

In the other lectures, two ex-participants of IISEE courses from Latin American countries became lecturers of the course in Japan. One ex-participant had a lecture in BRI, Tsukuba City, and the other ex-participant had a lecture of Web meeting linked with Mexico City. Moreover, another ex-participant was asked to make plans of the



Photo 3 : Visit to the Concrete Produce Factory (Concrete Slump Test)

Earthquakes

The 2011 off the Pacific coast of Tohoku Earthquake

Reports of Recent Earthquakes

Utsu Catalog

Earthquake Catalog

Call for Papers

IISEE Bulletin is now accepting submissions of papers for the seismology, earthquake engineering, and tsunami. Developing countries are targeted, but are not limited.

Your original papers will be reviewed by the editorial members and some experts.

NO submission fee is need.

Try to challenge!!



studied the concrete slump testing. In other study trips, they moved to the E-defense(NIED) in Miki City, Hyogo Prefecture, etc. They also had a lecture of education for disaster mitigation at the Disaster Mitigation Research Building, Nagoya University.

The course in Japan was held for some 6 weeks, and carried out smoothly by lecturers, participants, coordinators, IISEE staffs, etc. Also the friendship between participants and the information exchange of earthquake engineering in each country were deeply enriched, while the course was proceeded significantly.

Reports on Study Trips

(1) Mr. Jose Manuel DIAZ FELIZ (Dominican Republic)

The participants of the Latin American Course went to Tokyo on July 10th 2014. Our study trip included a morning visit to Toho Building at Shinjuku. This project is being built by Takenaka. It is 30 stories high steel structure. It will have movie theaters in the lower floors and a hotel in the upper levels. To counteract the effects of wind, two Active Mass Dampers will be used.



The building will also have 154 oil dampers to enhance the energy dissipation and control of lateral displacements. We all were extremely excited to actually get inside the structure during its construction and take pictures of the process. In the afternoon we went to Obayashi Corporation Technical Research Institute. They showed us a new damper they developed, named LAPUTA 2D. We were able to experience, on a simulator, the difference it makes during an earthquake. Everyone of us hopes that someday this kind of research could be done in our countries.

(2) Ms. Karla Jeannette BENITEZ DE ESCAMILLA (El Salvador)

Natural disaster could occur anywhere at any time, causing tremendous damage. In January 17th, 1995, at 05:46 occurred the Great Hanshin earthquake or Kobe earthquake with a magnitude of 7.3 JMA in the southern part of Hyogo Prefecture, Kansai region. As part of seminar objectives, we had the opportunity to visit Kobe and Nagoya cities, where we were able to acquire direct knowledge about the effects and lessons learned from the earthquake.



The Disaster Reduction and Human Renovation Institution (DRI) in Kobe, showed us all the damage caused by the earthquake, but the most impressive part was to learn how government and society worked together to rebuilt the city and hand down the experience with others through this institute, in order to create a disaster management culture, improve local capacities and build safe and secure communities. In addition, we visited the E-Defense laboratory, which conducts full-scale building test using the world largest shaking table, which helps to improve the structural and seismic behavior of buildings against earthquakes.

(3) Mr. Manuel Arturo SALAZAR NAVIDAD (El Salvador)

During the development of our Course we had the opportunity to improve our knowledge regarding concrete and masonry industrial preparation process. In



Enjoy, Now

Contact Us

The IISEE Newsletter is intended to act as a go-between for IISEE and ex-participants.

We encourage you to contribute a report and an article to this newsletter. Please let us know your current activities in your countries.

We also welcome your co-workers and friends to register our mailing list.

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order to do that, we visited two different factories, and they both taught and showed us the industrial process to make concrete and masonry with a high quality level following JIS (Japanese Industrial Standards), and with the main objective and vision of guarantee a good performance of the structures against static and dynamic loads.



We also made some cylinder specimens in BRI in the middle of June to apply compression and tensile tests.

As the mixture of concrete, in order to increase compression strength, two additives which reduce water content and air excess were added to the cement and aggregates. Before we cast concrete for the specimens, we executed some testing such as slump and air content to the unhardened concrete.

After one month from the concrete casting, with a good method of curing like JIS standard that specifies the considerable increase of the specimens' compression strength, we executed compression and tensile tests to them..

(4) Ms. Ileana Margarita SILVA ESPINOZA (Nicaragua)

In our study trip, the participants of the Latin American Course visited in July 3rd 2014 Hyogo Earthquake Engineering Research Center which is the major section of Full Scale Three-Dimensional Earthquake Testing Facility; named E-



Defense, which is the 15 m x 20 m shaking table, creates the same three-dimensional motion in the actual earthquakes. This visit was very important for me because the institute promotes the research, development in disaster mitigation with the collapse mechanism of the structures, and it promotes helps to the local government to implement measures through the diffusion and dissemination to the communities.

It was a big opportunity and a big experience that I won't forget. I wish that our countries learn about the country's vision, for a better future for all. We have big challenges, we are change's agent in the society.

Attendance to the Annual Convention of JCI

By Dr. Masanori Tani, IISEE Research Engineer

I attended to the Annual Convention of Japan Concrete Institute which was held on July 9th to 11st in Takamatsu City, Kagawa Prefecture. Over 600 papers were reported related to concrete technology and I made a presentation of my paper titled "Full-scale Experiment on Non-structural R/C Walls Focused on Failure Modes and Damage States."



Participants in Technical Exhibition of the Convention

Four E-course participants (Emdadul, Ergun, Onur, and Pamela) also attended to the convention. There was a technical exhibition that nearly 60 companies and research institutes introduce the latest technologies, construction methods, products, etc. Participants were listening to the explanation on the various fields including construction and materials as well as structure from staffs with great interest and asking to them studiously. At mealtimes, we enjoyed real Sanuki-Udon noodle in Kagawa Prefecture which self-claimed "Udon Prefecture" as birthplace

of Udon noodle. I hope participants will fully utilize the obtained knowledge during this stay in their individual study and after going back to their own countries.

In Memoriam: Dr. Daisuke Shimozuru (Japan)

It was with profound sorrow that we received the sad news of the passing away of Dr. Daisuke Shimozuru, Professor Emeritus of the University of Tokyo on June 25, 2014. He was a former Director General of Earthquake Research Institute of the University of Tokyo and a former chairperson of the Coordinating Committee for Prediction of Volcanic Eruptions of Japan Meteorological Agency. Dr. Shimozuru devoted himself to the IISEE training program, too. He was a lecturer on Physical Volcanology of the Seismology Course and a member of the IISEE Curriculum Committee from 1960s to 1980s. We would like to extend the sincerest sympathy from all of us at IISEE to his family.

Dear IISEE ex-participants:

This is the information of YEAR Book vol. 32, 2014. YEAR BOOK is an IISEE publication and works as a communication tool between IISEE and ex-participants. We publish it every two years. To revise the content of YEAR BOOK, we need your help. We are now sending you the form, "Response Sheet for IISEE YEAR BOOK."

Your prompt reply would be highly appreciated. The form is also downloaded from

http://iisee.kenken.go.jp/docs/Response_Sheet_for_IISEE_YEAR_BOOK.docx

Please send the form to iisee@kenken.go.jp by August 31, 2014.

★IISEE answer your Questions

Q. I am interested in your training courses. How can I get the detailed information on the training course and the procedure to apply?

A. IISEE training courses are conducted under the JICA(Japan International Cooperation Agency) training program. If you wish to apply for one of the courses, you are required to meet the following conditions:

1. your country should become one of the JICA-designated countries
2. you should be nominated by your government.

For further particulars apply to the JICA office or Japanese Embassy in your country.

<http://www.jica.go.jp/english/contact/overseas/>

***Please feel free to ask IISEE if you have any further questions.**