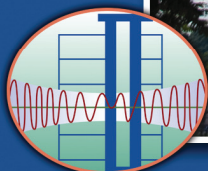


International Training Program for Seismic Design of Structures

October 20-24, 2008 Taipei, Taiwan

General Information



National Center for Research on Earthquake Engineering



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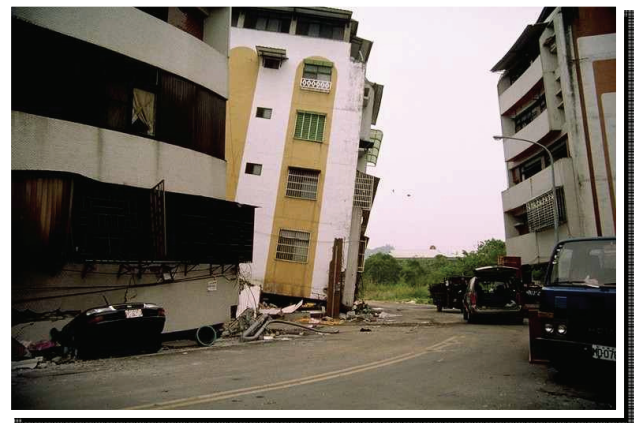
• Overview

The National Center for Research on Earthquake Engineering (NCREE) of Taiwan R.O.C. provides a variety of research programs related to earthquake engineering. These research programs encompass basic researches about seismic design and engineering of building and bridge structures. In complying with the objective, "International Cooperation on Research and Training Programs," of the National Science Council of Taiwan R.O.C., the NCREE organizes a short-term training program on the seismic design of structures. The first training program (ITP 2002) was held on January 21-25, 2002, the second one (ITP 2003) was held on October 13-17, 2003, the third (ITP 2004) was held on October 25-29, 2004, the fourth (ITP 2005) was held on October 24-28, 2005, the fifth (ITP 2006) training program was held on October 23-27, 2006, the sixth (ITP 2007) training program was held on October 22-26, 2007, and the coming seventh **(ITP 2008) training program will be held on October 20-24, 2008.**



Background

Recent major earthquakes around the Pacific Rim such as the Loma Prieta earthquake (USA, 1989), Northridge earthquake (USA, 1994), Kobe earthquake (Japan, 1995), Izmit earthquake (Turkey, 1999), Chi-Chi earthquake (Taiwan, 1999), Southern Sumatra (Indonesia, 2000), Bhuj-Ahmadabad-Rajkot earthquake (India, 2001), San Miguel (El Salvador, 2001), Baghlan earthquake (Afghanistan, 2001), Xinjiang earthquake (China, 2002), Algiers-Bourmerdes-Thenia earthquake (Algeria, 2003), Sumatra-Andaman earthquake (Indonesia, 2004), South Asia earthquake (Pakistan and India, 2005), Yogyakarta earthquake (Indonesia, 2006), etc., Wen-Chuan earthquake (China, 2008) have caused serious life and property losses in the affected areas. It is therefore necessary to promote the seismic design technology to mitigate the seismic hazard caused by the high seismicity of the Pacific Rim. Thus, the training program for the researchers and practical engineers from other countries should be considered as one of the necessary actions that should be taken to approach the goal.





The World Seismic Safety Initiative(WSSI) under the International Association for Earthquake Engineering (IAEE) suggested recently to the major countries such as the United States, Canada, Japan, New Zealand and Taiwan the establishment of training program like the activity organized by NCREE under the funding of the National Science Council of Taiwan for the researchers and engineers from other countries.

Venue

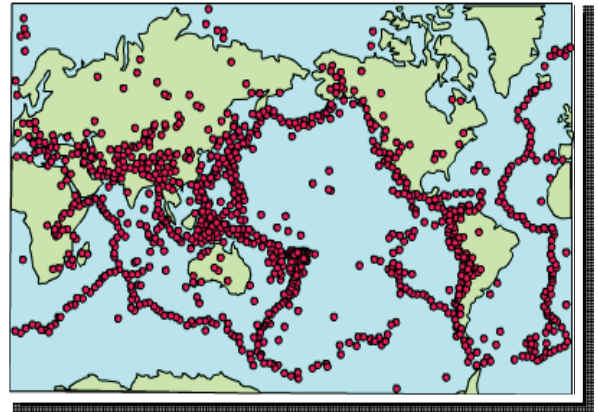
The program is to be held at the National Center for Research on Earthquake Engineering (NCREE) (<http://www.ncree.gov.tw/eng/index.htm>), Taipei, Taiwan.

Taipei is the most important cultural, political and economic center of Taiwan with a population of more than three million. While the city has been modernized completely in the past, half a century ago, it nevertheless preserves the rich cultural traditions of Chinese history. The National Palace Museum

(<http://www.npm.gov.tw/en/home.htm>)

located in the suburb of Taipei is famous worldwide for its priceless collection of artistic treasures which represent over 3,000 years of Chinese history. (<http://english.taipei.gov.tw/>)

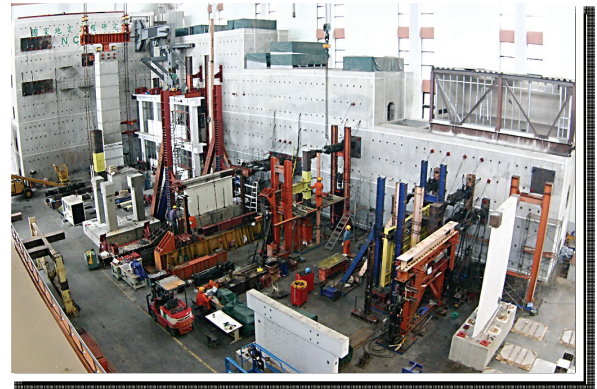
As the capital of this country, Taipei is a vibrant blend of traditional culture and cosmopolitan life. Taipei is the political, economic, educational and recreational center of the country with large numbers of significant cultural sights located throughout the city. A more recent cultural focal point in the city is the National Palace Museum, which houses hundreds of thousands of Chinese antiques and art works. The museum is located in the north of the city and is a must see for lovers of ancient Chinese culture. The eastern section of the city was mostly barren fields until the 1970s when the city began to develop the area as a financial and commercial district. This area reveals the modern face of Taipei with its glass and steel skyscrapers, wide boulevards and the World Trade Center. Taipei also boasts dozens of world-class performance venues to enjoy some of the best theater and concert events. The city also offers a wide range of other diversions, with shopping malls, night clubs and music bars, high-quality hotels and exotic restaurants. With the wealth of interesting and fun activities available in Taipei and the city's warm reception extended to guests, foreign visitors are certain to have an unforgettable experience in this remarkable city.





About NCREE

The National Center for Research on Earthquake Engineering (NCREE, <http://www.ncree.gov.tw/eng/index.htm>) is funded by the National Science Council (NSC, <http://web1.nsc.gov.tw/mp.aspx?mp=7>) in Taiwan. With the joint effort from the National Science Council and the National Taiwan University (NTU), the National Center for Research on Earthquake Engineering was established in 1990. Since then, the institution has worked endlessly to upgrade seismic resistant design standards for all constructions and to provide feedbacks for the engineering community through research and development. It is hoped that through the coordinated activities of NCREE, the enthusiasm to conduct high-quality research will be stimulated to bring out the full potential of its participants. These activities will include the holding of seminars and workshops on a regular basis in which knowledge can be advanced and improved continually. In addition, special emphasis has been and will continually be given to technology transfer in the engineering professions for enhanced seismic-resistant designs.



Earthquake Engineering Research and Practice in the Participating Countries

In order to share knowledge and experiences among different countries, each participating country is supposed to give a presentation, showing the situations or development of the country including (but not limiting) one or more than one of the following topics: building design codes, structural engineering, engineering material, seismology, seismic hazard, geotechnical engineering, and soil-structure interaction. **Each presentation takes about 20 minutes, including 5 minutes of discussion.**

The presentation facilities we provide include a notebook computer (with a CD-ROM drive, Microsoft Windows operating system, and Microsoft Office software), a projector connecting to the notebook, a transparency projector, and a laser pointer. If you need any other facilities, please tell to the contact person in advance.

Kindly send the presentation file to both Dr. Yung-Yen Ko (yyko@ncree.org.tw) and Mr. Chun-Yi Lin (cylin@ncree.org.tw) before you depart and do not forget to bring the file (in CD or USB disk) in case of technical problems.



Travel Support

ITP2008 will pay for the participants' certificate fee and flight fee (sponsored by the National Science Council in Taiwan). Each participant should buy the round-trip flight fee between his/her country and Taipei, Taiwan (the Taoyuan International Airport). There are upper bounds of the flight fee support (country dependent). Nevertheless, our experiences tell us that the flight fee is mostly lower than the upper bounds. We will inform the participants about the upper bound when we send the admissions.

We will settle the flight fee support in New Taiwan Dollars at the end of the training program. For our accounting system, a receipt of the ticket purchase (approved by a travel agency) and the stub of the boarding pass are required. We will take them and settle with a lowest price between them. Please note that the ticket itself is not a receipt.

Hotel Accommodation

NCREE will arrange a 6-day single-room accommodation (**October 19 afternoon to 25 morning**) for each participant at the Howard International House (<http://intl-house.howard-hotels.com/>). If participant wants to advance or extend the room, he or she needs to pay the extra fee. The rate is about 50 USD per day. Please contact with the hotel directly.

Local Transportations

We do not provide airport pick-up service.

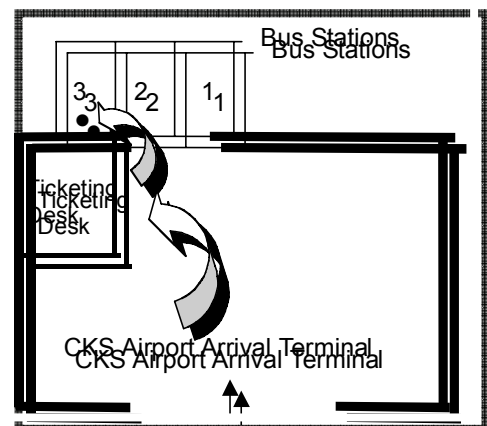
● Taoyuan International Airport to Howard International House

We suggest you to

Step 1: Take a shuttle bus to Taipei Main Station (台北車站)

Six bus companies provide frequent service between Taoyuan International Airport and important destinations in Taiwan. Take final destination at Taipei Main Station. Buy a ticket at Ticketing Desk. The purchase price is around **125 New Taiwan Dollars (TWD)** per person. The bus leaves every 20 to 30 minutes, and takes around 60 to 90 minutes to Taipei.

Remember to get off the bus at Taipei Main Station.



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Step 2: Take a taxi from Taipei Main Station to Howard International House

Step 3: Take a taxi. Show the driver the following Chinese instruction notes (next page) to your hotel.

When the taxi arrives at your hotel, you may see the taximeter in the taxi, which shows the fee, and give extra 10 TWD if you use the rear trunk of taxi.

Generally speaking, the total taxi fee is up to **150 TWD**.

For Howard International House :

請帶我到：
台北福華國際文教會館
台北市新生南路三段 30 號

(Please take me to Howard International House at 30, Sec. 3, Xin-Sheng South Road, Taipei)

Howard International House

Leader Hotel Taipei

NCREE

TAIPEI

Legend



Metro Station

- 1 NCREE
- 2 Howard International House
- 3 Howard Plaza Hotel Taipei
- 4 Leader Hotel Taipei
- 5 Taipei Fullerton Hotel 41



0 meter
1:17,500

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TEL: +886 2 8369 1155 (domestic: 02 8369 1155)

FAX: +886 2 8369 1177 (domestic: 02 8369 1177)

Web site: <http://intl-house.howard-hotels.com/>

- **Between Howard International House and NCREC**

We arrange a bus transport running from Howard International House to NCREC in the morning and back in the afternoon during **October 20 to 24** (see the schedule). If you want to go by bus, please assemble on schedule. Do not expect that the bus will wait.

If you want to go by walking, the foregoing map maybe helpful. The Howard International House and NCREC are at corners of National Taiwan University. **Walking from Howard International House to NCREC may take 25 minutes.**





Meal Arrangements

● Breakfast

As most of the hotels, Howard International House provides each roomer a standard breakfast. You can enjoy your breakfast from **October 20 to 25** (six mornings) for free.

● Lunch

We provide lunches at NCREE during the program. Only vegetarian diet and non-vegetarian diet are provided for lunch. **Please notify if you need a vegetarian diet.**

● Dinner:

We will provide restaurant coupons from Oct. 20 to Oct. 24 at the Howard International House. Besides, you can have Chinese food by yourself, or go to Shih-Lin night market, Shi-Da night market, or Gong-Guan night market to enjoy Taiwanese food.

Money Exchange

You can exchange money at banks in Taoyuan International Airport. The locations of the banks are available in this website:

http://www.taoyuanairport.gov.tw/english/about/item_e_e.jsp?itemid=2

The exchange rate is available at following page, which always updates. Extra exchange fee may be around 100 to 150 Taiwan Dollars.

<http://rate.bot.com.tw/Pages/Static/UIP003.en-US.htm>

Check List

Remember to bring the following items to Taiwan for the program:

- ☐ **Passport**
- ☐ **Flight fee invoice or receipt (issued by a travel agency)**
- ☐ **If the flight fee invoice or receipt is not listed in USD, please bring an exchange rate approval (ask the travel agencies if you have question).**
- ☐ **Flight ticket receipt (You can get this when you check in at the check-in counter)**
- ☐ **File(s) of your presentation.**
- ☐ **Books, reports, or data about seismic design for possible discussion.**
- ☐ **Some Taiwan Dollars (at least for transportation between airport and hotel).**
- ☐ **Gym wear or swimming suit if you like to exercise in the Howard International House.**



Speakers

Name	Organization
Prof. Keh-Chyuan Tsai	National Center for Research on Earthquake Engineering National Taiwan University
Dr. Tao-Ming Chang	National Center for Research on Earthquake Engineering National Taiwan University
Prof. Cheng-Hsing Chen Dr. Jiunn-Shyang Chiou	National Taiwan University National Center for Research on Earthquake Engineering
Prof. Cheng-Hsing Chen Dr. Yung-Yen Ko Dr. Shang-Yi Hsu	National Taiwan University National Center for Research on Earthquake Engineering National Center for Research on Earthquake Engineering
Dr. Juin-Fu Chai	National Center for Research on Earthquake Engineering
Dr. Fu-Pei Hsiao	National Center for Research on Earthquake Engineering
Dr. Chun-Lin Wu	National Center for Research on Earthquake Engineering
Dr. Kuang-Yen Liu	National Center for Research on Earthquake Engineering
Prof. Yu-Chea Sung	National Taipei University of Technology
Dr. Hsiao-Hui Hung	National Center for Research on Earthquake Engineering
Dr. Pei-Yang Lin	National Center for Research on Earthquake Engineering
Mr. Bo-Zhou Lin Mr. Ming-Chieh Chuang	National Center for Research on Earthquake Engineering
Dr. Chin-Hsun Yeh	National Center for Research on Earthquake Engineering
Mr. Chang-Ching Chang	Evergreen Consulting Engineering, Inc.
Dr. Zhang-Kuan Lee	National Center for Research on Earthquake Engineering
Dr. Tzu-Kun Lin	National Center for Research on Earthquake Engineering



Schedule

October 20 (Monday)

- | | |
|-------------|--|
| 08:30-09:00 | Leave Howard International House for NCREC
Assembly at Howard International House Lobby, Bus trip |
| 09:00-09:30 | Opening Ceremony Dr. W. C. Wang, Director General, Department of International Programs, National Science Council Prof. K. C. Tsai, Director, NCREC |
| 09:30-10:00 | Recent Research Activities at National Center for Research on Earthquake Engineering (NCREC)
Prof. K. C. Tsai, Director, NCREC |
| 10:00-10:15 | <i>Coffee break</i> |
| 10:15-12:00 | Earthquake Engineering Research and Practice in
Philippines, Vietnam, India, Mongolian (25mins for each country) |
| 12:00-13:00 | <i>Lunch break</i> |
| 13:00-14:15 | Earthquake Engineering Research and Practice in
Thailand, Malaysia, Indonesia (25mins for each country) |
| 14:15-14:30 | <i>Coffee break</i> |
| 14:30~15:45 | Earthquake Engineering Research and Practice in
Jordan, Turkey, Mexico (25mins for each country) |
| 15:45-16:00 | <i>Coffee break</i> |
| 16:00-17:30 | Earthquake Engineering Research and Practice in
Honduras, Republic of Guatemala, and El Salvador
(25mins for each country) |
| 17:30 | Leave NCREC for hotel
Bus trip |



October 21 Tuesday)

- 08:30-09:00 **Leave Howard International House for NCREE Assembly**
at Howard International House lobby Bus trip to NCREE
- 09:00-10:00 **Strong Motion Observations and Geotechnical Database
and Micro tremor Applications in Taiwan**
Dr. T. M. Chang
- 10:00-10:15 *Coffee break*
- 10:15-11:15 **Geotechnical Hazards During the Sep. 21, 1999, Chi-Chi
Earthquake**
Prof. C. H. Chen and Dr. J. S. Chiou
- 11:15-11:30 *Coffee break*
- 11:30-12:30 **A Study of Soil-Structure Interaction Using In-situ Forced
Vibration Test on School Building**
Prof. C. H. Chen and Dr. Y. Y. Ko
Seismic Evaluation of Caisson Type Harbor Structure
Prof. C. H. Chen and Dr. S. Y. Hsu
- 12:30-13:30 *Lunch break*
- 13:30-14:30 **Development of Seismic Force Requirements for Buildings
in Taiwan**
Dr. J. F. Chai
- 14:30-14:45 *Coffee break*
- 14:45-15:45 **Seismic Evaluation of Existing School Buildings**
Dr. F. P. Hsiao
- 15:45-16:00 *Coffee break*
- 16:00-17:00 Seismic Retrofit of Existing School Buildings
Dr. C. L. Wu
- 17:00-17:30 **Banquet**
Bus trip to banquet site



October 22(Wednesday)

- | | |
|-------------|--|
| 08:30-09:00 | Leave Howard International House for NCREC Assembly at Howard International House lobby
Bus trip to NCREC |
| 09:00-10:00 | Lessons learned on the Highway Bridges in Chi-Chi Earthquake from Damage Investigation to Reconstruction
Dr. K. Y. Liu |
| 10:00-10:15 | <i>Coffee break</i> |
| 10:15-11:15 | Seismic Evaluation of Existing Bridges: Theory and Application
Prof. Y. C. Sung |
| 11:15-11:30 | <i>Coffee break</i> |
| 11:30-12:30 | Seismic isolation design for bridges
Dr. H. H. Hung |
| 12:30-13:30 | <i>Lunch break</i> |
| 13:30-14:30 | Introduction and Application of Seismic Passive Control
Dr. P. Y. Lin |
| 14:30-14:45 | <i>Coffee break</i> |
| 14:45-15:45 | Nonlinear Analysis Techniques of Structures by PISA3D
Mr. B. Z. Lin and Mr. M. C. Chuang |
| 15:45-16:00 | <i>Coffee break</i> |
| 16:00-17:00 | Introduction of Taiwan Earthquake Loss Estimation System
Dr. C. H. Yeh |
| 17:00-17:30 | Leave NCREC for hotel
Bus trip |

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October 23(Thursday)

- | | |
|-------------|---|
| 08:30-09:00 | Leave Howard International House for NCREE Assembly at Howard International House lobby
Bus trip to NCREE |
| 09:00-10:00 | Structural Design of Taipei 101 Tower
Mr. C. C. Chang |
| 10:00-10:15 | <i>Coffee break</i> |
| 10:15-11:15 | The Repair and Monitoring of an Earthquake-Damaged Cable-Stayed Bridge
Dr. Z. K. Lee |
| 11:15-11:30 | <i>Coffee break</i> |
| 11:30-12:30 | Tour of NCREE Laboratory Facilities
Dr. T. K. Lin |
| 12:30-13:30 | <i>Lunch break</i> |
| 13:30-14:30 | Structural Design of the New Civil Engineering Building of NTU
Dr. T. K. Lin |
| 14:30-14:45 | <i>Coffee break</i> |
| 14:45-15:45 | Tour of the New Civil Engineering Building of NTU
Mr. W. S. Hwang |
| 15:45-16:00 | <i>Coffee break</i> |
| 16:00-17:00 | Closing Ceremony |
| 17:00-17:30 | Leave NCREE for hotel
Bus trip |



October 24(Friday)

- 08:30-10:30 Go to Shih-Kang Dam from hotel by tour bus
- 10:30-12:00 Visit Shih-Kang Dam
- 12:00-13:00 Go to 921 Earthquake museum from Shih-Kang Dam
Using Lunch box on the bus
- 13:00-15:30 Visit 921 Earthquake museum
- 15:30-16:00 Go to THSR Taichung station
- 16:16-17:06 Come back to Taipei by Taiwan High Speed Rail (THSR)

If there are any modifications about the schedule, we will make an announcement at the ITP 2008 web page: <http://w3.ncree.org.tw/itp/2008/>





About Taipei

Located in northern Taiwan, Taipei is the political, economic, financial, and cultural center of the Republic of China. It has thriving arts and academic scene and countless modern commercial buildings. With its vibrant cultural and economic growth, it has become a modern international metropolis.

(more details: <http://english.taipei.gov.tw>)

● Transportation



Taipei MRT route: Taipei's Mass Rapid Transit (MRT) System has four lines connecting the entire city. These include the Mucha, Tamsui, Hsintien, and Nankang lines. These lines offer a great view of the city and a convenient way to go around the town. (more details: <http://english.trtc.com.tw/>)

Taxi: Taipei's taxi fee is: 70 TWD of basic fee at the beginning 1.65 km, then extra 5 TWD every 0.3 km, and extra 5 TWD every 2.5 minutes when taxi is stopping. The above fee is counted automatically and shown on the electric screen. In addition, you are supposed to pay extra 10 TWD if the rear trunk is used.

● Map

You may see the Taipei map at

<http://www.taiwan-map.com/>



● Travel Guide Web Sites

You may have some travel guides in the Friends Hotel or see the following web sites: <http://english.taipei.gov.tw/dot/>

● Weather

<http://www.cwb.gov.tw/V5e/index.htm>

http://weather.yahoo.com/forecast/TWXX0021_f.html

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● Pay Phone

You can call domestically or internationally from your hotel room. Before calling through the phone, please check the calling rates with hotel first. Hotel will charge when you check out.

Hotel also provides public pay phones. Due to the popularity of mobile phones, there are fewer and fewer public pay phones on streets. You can select Pre-paid Card or E-Call Card.

(<http://www.cht.com.tw/CHTFinalE/Web/Personal.php?CatID=7>)