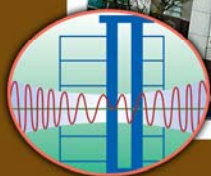


International Training Program for Seismic Design of Structures

October 22-26, 2007 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, and the fifth (ITP 2006) was held on October 23-27, 2006. The ITP 2007 training program will be held on October 22-26, 2007.



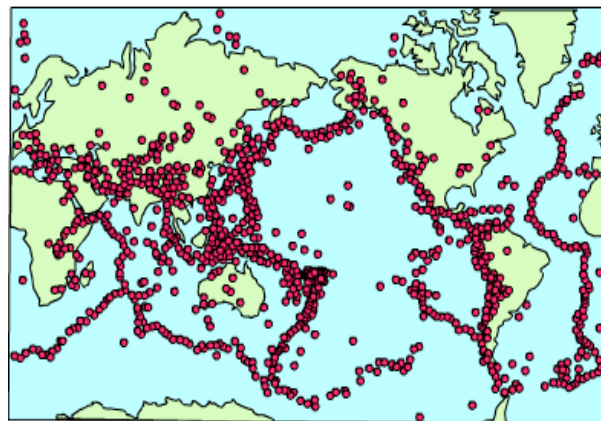
Background

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., 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 Initiation(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 NCREC 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 (NCREC) (<http://www.ncree.org.tw/>), 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/>) 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.org.tw/>) is funded by the National Science Council (<http://www.nsc.gov.tw/>) in Taiwan. With the joint effort from the National Science Council (NSC) 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 reader, 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 Dr. Yung-Yen Ko (yyko@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

ITP2007 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 C.K.S. 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 US 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 ticket 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 21 afternoon to 27 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 need 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.

● CKS Airport (Taipei) to Howard International House / Leader Hotel

We suggest you to

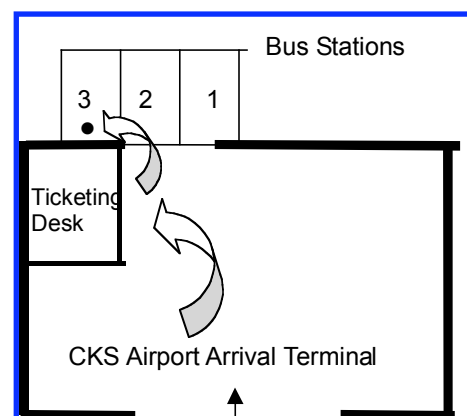
Step 1: Take a shuttle bus to Howard Plaza

Six bus companies provide frequent service between CKS International Airport and important destinations in Taiwan. Take one that stops at Howard Plaza (so-called Howard Hotel).

Buy a ticket at Ticketing Desk. The purchase price is around 140 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 **Howard Plaza** stop.





Step 2: Take a taxi from Howard Plaza to Howard International House / Leader Hotel

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.

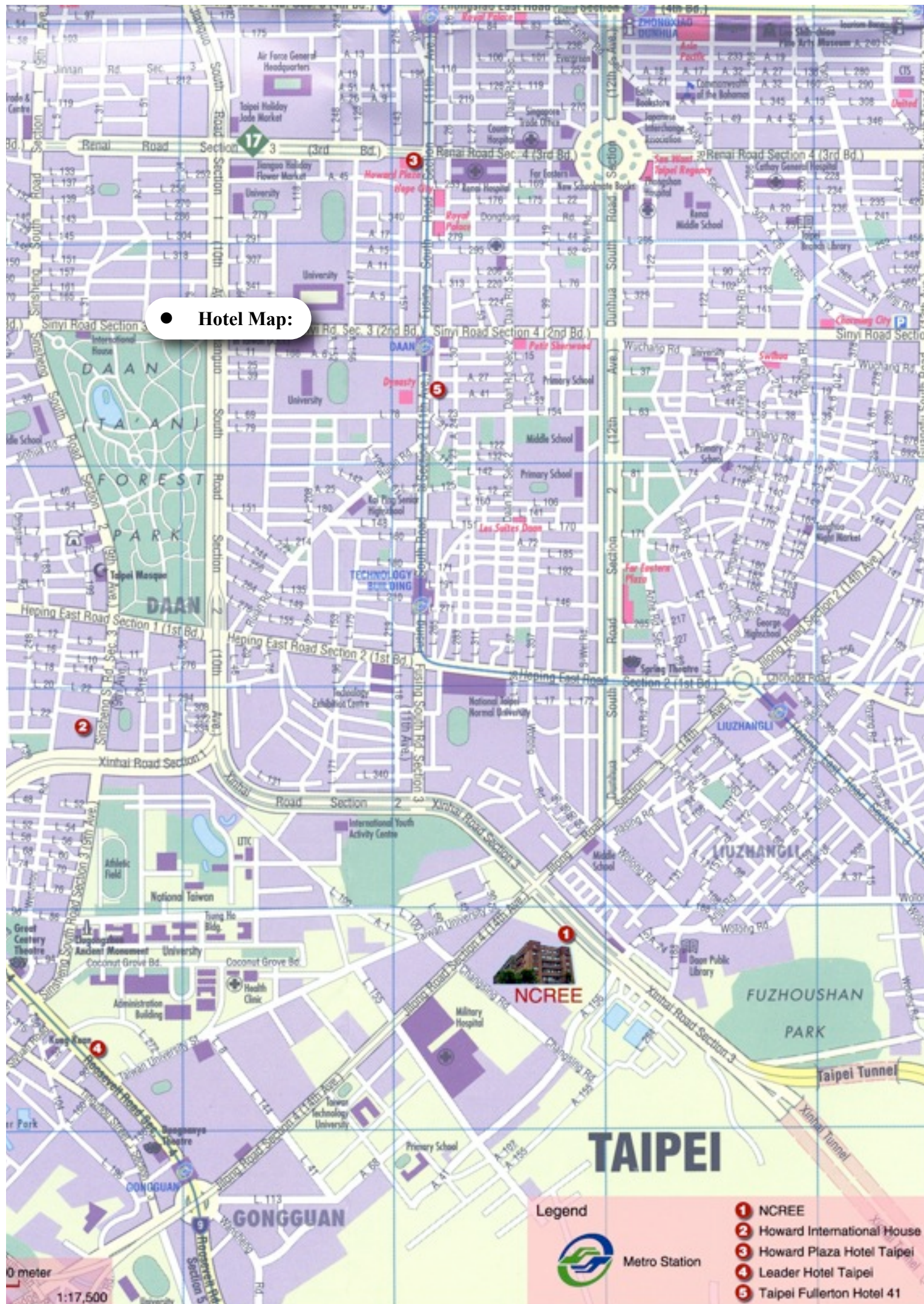
Generally speaking, the total taxi fee is around 100 to 150 TWD.

For Howard International House

**請帶我到：
福華文教會館
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)

● Hotel Map:





- **Howard International House**

Address: 30, Sec. 3, Xin-Sheng South Road, Taipei, 106, Taiwan

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 NCREE**

We arrange a bus transport running from Howard International House to NCREE in the morning and back in the afternoon during October 22 to 26 (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 NCREE are at corners of National Taiwan University. Walking from Howard International House to NCREE may take 20 to 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 22 to 27 (six mornings) for free.

- **Lunch**

We provide lunches at NCREC during the program. Only vegetarian diet and non-vegetarian diet are provided for lunch.

- **Dinner:**

We will provide dinners (rice boxes or restaurant coupons) from Oct. 22 to Oct. 26.

Money Exchange

You can exchange money at banks in CKS airport. The exchange rate is available at this page: <http://rate.bot.com.tw/nbeother/npf03s041.asp> which always updates. Extra exchange fee may be around 100 to 150 Taiwan Dollars.

Check List

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

- ☐ Flight fee receipt (issued by a travel agency)
- ☐ If the flight fee receipt is not listed in USD, bring an exchange rate approval (ask travel agency if you have question).
- ☐ Flight ticket stub
- ☐ 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	NCREE, NTU
Prof. Cheng-Hsing Chen	NCREE, NTU
Prof. Shyh-Jiann Hwang	NCREE, NTU
Prof. Lei-Lai Chung	NCREE, NTU
Dr. Chin-Hsun Yeh	NCREE
Dr. Juin-Fu Chai	NCREE
Dr. Gee-Yu Liu	NCREE
Dr. Pei-Yang Lin	NCREE
Dr. Chu-Chieh Lin	NCREE
Dr. Tao-Ming Chang	NCREE
Dr. Jiunn-Shyang Chiou	NCREE
Dr. Zheng-kuan Lee	NCREE
Dr. Hsiao-Hui Hung	NCREE
Dr. Yung-Yen Ko	NCREE
Dr. Kuang-Yen Liu	NCREE
Dr. Shang-Yi Hsu	NCREE
Mr. Ching-Chang Chang	Evergreen Consulting Engineering, Inc.
Mr. Bo-Zhou Lin	NCREE
Dr. Yu-Chea Sung	NTUST
Mr. Ming-Chieh Chuang	NCREE



Schedule

October 22 (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
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 |
| 10:00-11:00 | Tour around NCREC Laboratory Facilities
Dr. C. P. Cheng |
| 11:00-12:30 | Earthquake Engineering Research and Practice in the Participating Countries (I)
Each participating country |
| 12:30-14:00 | <i>Lunch break</i> |
| 14:00-17:00 | Earthquake Engineering Research and Practice in the Participating Countries (II)
Each participating country |
| 17:00 | Leave NCREC for hotel
Bus trip |



October 23 (Tuesday)

08:30-09:00 **Leave Howard International House for NCREC**
 Assembly at Howard International House lobby
 Bus trip to NCREC

Session 1: Earthquake Engineering and Seismic Hazard Analysis

09:00-10:00 **Strong Motion Observations, Geotechnical Database And
 Microtremor Applications in Taiwan**
 Dr. T. M. Chang

10:00-10:20 *Coffee break*

10:20-11:20 **1. Geotechnical Hazards During Chi-Chi Earthquake
 2. Ground Response Analysis of Hualien LSST Site**
 Dr. J. S. Chiou and Dr. S. Y. Hsu

11:20-11:30 *Coffee break*

11:30-12:30 **Soil-Structure Interaction Analysis: Fundamentals and Case
 Studies**
 Dr. Y. Y. Ko

12:30-14:00 *Lunch break*

14:00-15:00 **Seismic Evaluation of Existing Bridges: Theory and Appli-
 cation**
 Dr. Y.C. Sung

15:00-15:30 *Coffee break*

15:30-16:30 **Seismic isolation design for bridges**
 Dr. H. H. Hung

17:00 **Leave NCREC for hotel**
 Bus trip



October 24 (Wednesday)

- | | |
|-------------|--|
| 08:30-09:00 | Leave Howard International House for NCREE
Assembly at Howard International House Lobby
Bus trip |
| 09:00-10:00 | Lessons learned on the Highway Bridges in 921 Chi-Chi Earthquake from Damage Investigation to Reconstruction
Dr. K. Y. Liu |
| 10:00-10:20 | <i>Coffee break</i> |
| 10:20-11:20 | The Repair and Monitoring of an Earthquake-Damaged Cable-Stayed Bridge
Dr. Z. K. Lee |
| 11:20-11:30 | <i>Coffee break</i> |
| 11:30-12:30 | Development of Seismic Force Requirements for Buildings in Taiwan
Dr. J. F. Chai |
| 12:30-14:00 | <i>Lunch break</i> |
| 14:00-15:00 | Structural Design of Taipei 101 Tower
Dr. S. S. Shieh and Dr. C. C. Chang |
| 15:00-15:30 | <i>Coffee break</i> |
| 15:30-16:30 | Strategy and Survey for Seismic Upgrading of Existing School Buildings
Prof. L. L. Chung |
| 16:30-16:40 | <i>Coffee break</i> |
| 16:40-17:40 | Seismic Evaluation and Retrofit of Existing School Buildings
Prof. S. J. Hwang |
| 17:40 | Banquet
Bus trip to banquet site |

**October 25 (Thursday)**

- 08:30-09:00 **Leave Howard International House for NCREE**
Assembly at Howard International House Lobby
Bus trip
- 09:00-10:00 **Introduction and Application of Seismic Passive Control**
Dr. P. Y. Lin
- 10:00-10:20 *Coffee break*
- 10:20-11:20 **Nonlinear Analysis Techniques of Structures by PISA3D**
Mr. B. Z. Lin
- 11:20-11:30 *Coffee break*
- 11:30-12:30 **Introduction of Seismic Disaster Simulation Technology**
Dr. G. Y. Liu
- 12:30-14:00 *Lunch break*
- 14:00-15:00 **Applications of Taiwan Earthquake Loss Estimation System (TELES)**
Dr. C. H. Yeh
- 15:00-15:30 *Coffee break*
- 15:30-16:30 **Demonstration of TELES and Discussion**
Dr. C. C. Lin
- 16:30 **Leave NCREE for hotel**
Bus trip



October 26 (Friday)

08:30-09:00 **Leave Howard International House for NCREE**

Assembly at Howard International House lobby

Bus trip to NCREE

09:00-09:30 **Closing Ceremony**

09:30-10:00 *Coffee break*

10:00-17:30 **Technical Tour and Cultural Tour**

Dr. R. Z. Wang

➡ Taipei Financial Center

(<http://www.tfc101.com.tw/english/index.htm>)

➡ National Palace Museum

(<http://www.npm.gov.tw/english/index-e.htm>)

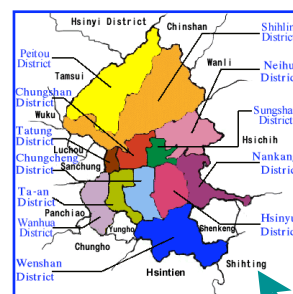
Return to Howard International House

If there are any modifications about the schedule, we will broadcast at the ITP 2007 web page: <http://w3.ncree.org.tw/itp/2007/>

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 detail: <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

● 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>)

