

# **Under the Auspices of**

International Association for Earthquake Engineering (IAEE)

#### Hosted by

Chinese Association of Earthquake Engineering (CAEE)

#### Sponsored by

China Earthquake Administration
Ministry of Construction, China

# Co-sponsored by

Beijing Municipal People's Government, China
Ministry of Education, China
Ministry of Science and Technology, China
Chinese Academy of Sciences
Chinese Academy of Engineering
National Natural Science Foundation of China
China Association for Science and Technology

## PURPOSE OF THE CONFERENCE

The 14th World Conference on Earthquake Engineering (14WCEE) will serve as an international forum at which specialists, government officials and NGO representatives in earthquake engineering and relevant fields may exchange the latest research results and technologies. The Conference strives to promote innovation, practice and safety in reducing the impact of earthquakes on our society and natural environment.

#### **THEME**

INNOVATION PRACTICE SAFETY

#### **LANGUAGE**

The official language of the Conference is English.

# PRELIMINARY PROGRAM AT A GLANCE

	Morning	Afternoon	Evening
Oct.12 (Sun.)		Registration	
Oct.13 (Mon.)	Opening Ceremony & Keynote Presentations	Parallel Sessions	Reception
Oct.14 (Tue.)	Parallel Sessions	Parallel Sessions	
Oct.15 (Wed.)	Keynote Presentations/ Parallel Sessions	Parallel Sessions	Cultural Experience Night
Oct.16 (Thu.)	Parallel Sessions	Parallel Sessions	Banquet
Oct.17 (Fri.)	Keynote Presentations/ Parallel Sessions	Parallel Sessions & Closing Ceremony	

# **INVITATION**



Dear Colleagues,

I am delighted to have this opportunity on behalf of IAEE to join Prof. Chen Jianmin, President of the Local Organizing Committee and Director General of China Earthquake Administration, in extending our cordial invitation to you to attend the 14th World Conference on Earthquake Engineering (14WCEE).

Since we left Vancouver in the summer of 2004, the world has experienced even worse earthquake disasters. Earthquakes in Iran, Indonesia, and Pakistan, for example, took tens of thousands of lives and caused enormous damage to our economy and society. These terrible experiences serve as a wake up call and to remind us there is much work to be done in reducing earthquake disaster.

Ever since its establishment, IAEE has been contributing all its might to world earthquake disaster mitigation. The World Conference on Earthquake Engineering is just one of the efforts in IAEE's endeavor to make a safer world.

The 14WCEE to be held in Beijing, China, October 12-17, 2008 will be an excellent opportunity for us to share our experience and knowledge and work together for the common goal of earthquake disaster mitigation. I therefore call for your active participation in the upcoming 14WCEE to promote closer international cooperation and extensive interchange of knowledge and ideas, and to share our latest results in research and practice.

I look forward to seeing you in Beijing, China in October 2008.

Tsuneo Katayama IAEE President

# **INVITATION**



Dear Friends,

As the President of the Local Organizing Committee of the 14th World Conference on Earthquake Engineering and Director General of China Earthquake Administration, I want to extend a warm invitation to you to attend the Conference to be held in Beijing, China, October 12-17, 2008.

The Conference will bring together government officials, NGO representatives, international research and development communities, scholars, and numerous segments of the private industries to present their latest results on earthquake hazard mitigation and to exchange ideas on how to improve earthquake safety around the world. It will also become a phenomenal event for earthquake disaster prevention because of its unique opportunity for professionals from all over the world to learn from each other on earthquake engineering and hazard mitigation. We will do our utmost to make this event one of the best and most successful to date, and we believe that all delegates will find their participation both professionally rewarding and personally enjoyable.

The post-conference field trips will have six options for the participants to choose. Each of these options is designed to allow the participants to better understand the development of earthquake disaster prevention in China, and to enjoy the oriental scenery and the harmonious coexistence of ancient civilization and modern culture.

I look forward to seeing you in Beijing in 2008!

CHEN Jianmin
President
Local Organizing Committee
14th World Conference on Earthquake Engineering

### **ORGANIZATION**

#### STEERING COMMITTEE

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HUI Liangyu, Vice Premier, State Council, China

#### **Members:**

WANG Guangtao, Minister, Ministry of Construction, China

WANG Qishan, Mayor, Beijing Municipal People's Government, China

SONG Ruixiang, Former Director General, China Earthquake Administration

#### LOCAL ORGANIZING COMMITTEE

#### **President:**

CHEN Jianmin, Director General, China Earthquake Administration

#### **Vice Presidents:**

HUANG Wei, Vice Minister, Ministry of Construction, China

JI Lin, Vice Mayor, Beijing Municipal People's Government, China

LIU Yuchen, Deputy Director General, China Earthquake Administration

ZHAO Qinping, Vice Minister, Ministry of Education, China

LIU Yanhua, Vice Minister, Ministry of Science and Technology, China

LI Jiayang, Vice President, Chinese Academy of Sciences

DU Xiangwan, Vice President, Chinese Academy of Engineering

SUN Jiaguang, Vice President, National Natural Science Foundation of China

QI Rang, Vice President, China Association for Science and Technology

XIE Lili, President of Chinese Association of Earthquake Engineering, Vice

President of IAEE

#### **Committee members:**

HE Zhende	WU Huijuan	ZHANG Yi
XIE Huanzhong	CHANG Xu	GAO Zhongqi
CHAI Yucheng	LI Ming	ZHANG Hongwei
NIU Zhijun	LI Ke	LU Shoude
HUANG Jianfa		

#### **Secretary General:**

LIU Yuchen

#### **Deputy Secretary Generals:**

ZENG Shaohua	XIE Huanzhong	CHANG Xu
GAO Zhongqi	CHAI Yucheng	ZHAO Ming
QI Xiaozhai	WANG Yayong	HU Chunfeng

#### ORGANIZATION

#### SCIENTIFIC COMMITTEE

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XIE Lili, HU Yuxian

#### Members:

ANAGNOSTOPOULOS, Stavros A. (Greece)

BLAZQUEZ, Rafael (Spain)

CARDONA, Omar D. (Colombia)

CHEN Houqun (China)

CHERRY, Sheldon (Canada)

ESTEVA, Luis (Mexico)

FACCIOLI, E. (Italy)

FAN Lichu (China)

GHAFORY-ASHTIANY, Mohsen (Iran)

GULKAN, Polat (Turkey)

HOPKINS, David C. (New Zealand)

IEMURA, Hirokazu (Japan)

JAIN, Sudhir K. (India)

KATAYAMA, Tsuneo (Japan)

LEE, George (USA)

LIAO Zhenpeng (China)

LIN Gao (China)

LOH Chin-Hsiung (China)

MOEHLE, Jack P. (USA)

O'ROURKE, Thomas D. (USA)

OTANI, Shunsuke (Japan)

OU Jinping (China)

PAN, Tso-Chien (Singapore)

PENZIEN, Joseph (USA)

SHAH, Haresh (USA)

SHEN Zuyan (China)

SPENCER, B. F. (USA)

WANG Guangyuan (China)

ZHOU Fulin (China)

ZHOU Xiyuan (China)

#### Secretary General:

WANG Zifa (China)



#### TOPICS AND COORDINATORS

· Lessons learned from recent earthquakes

BELAZOUGUI, Mohamed (Algeria) E-mail: cgsd@wissal.dz
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· Observation and analysis of ground motions

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· Engineering seismology

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· Geotechnical engineering

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· Structural engineering

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· Lifeline systems

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· Seismic hazard analysis and zonation

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· Seismic codes and standards

ESTEVA, Luis (Mexico) E-mail: LEstevaM@iingen.unam.mx

WANG Yayong (China) E-mail: yayongwang@sina.com

#### TOPICS AND COORDINATORS

· Earthquake risk reduction for urban and rural areas

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WU Zhongliang (China) E-mail: wuzhl@gucas.ac.cn

· Social and economic impacts of earthquakes

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LIU Weiqing (China) E-mail: wqliu@njut.edu.cn

· Emerging technologies in earthquake engineering

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SPENCER, B.F. (USA) E-mail: bfs@uiuc.edu

OU Jinping (China) E-mail: oujinping@hit.edu.cn

· Experimental studies

MAHIN, Stephen (USA) E-mail: mahin@ce.berkeley.edu TSAI Keh-Chyuan (China) E-mail: kctsai@ncree.org.tw

· Earthquake and multi-hazards

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WANG Lanmin (China) E-mail: wanglm@gssb.gov.cn

· Numerical methods in earthquake engineering

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DU Xiuli (China) E-mail: duxl@iwhr.com

·Tsunami

KING, Andrew (New Zealand) E-mail: a.king@gns.cri.nz

KO Jan-ming (China) E-mail: cejmko@inet.polyu.edu.hk



#### **KEYNOTE PRESENTATIONS**

The Local Organizing Committee intends to invite between 10 to 15 leading experts addressing their frontier research results to the attendees in keynote presentations during the Conference. Further information on keynote presentations will be available at http://www.14wcee.org.

#### SPECIAL SESSIONS

Applications are open until June 30, 2007. For questions and inquiry, please contact the Local Organizing Committee at secretariat@14wcee.org. Additional information will be updated at http://www.14wcee.org.

#### CALL FOR ABSTRACTS

The Conference welcomes the submission of abstracts for listed topics and special sessions no later than October 1, 2007.

#### ABSTRACT PREPARATION AND SUBMISSION

Abstract submission can be completed on-line. Please follow the instructions on the website (http://www.14wcee.org). The instructions for abstract preparation can also be downloaded from the website. The Local Organizing Committee reserves the right to accept and reject abstracts for inclusion in the program, and to decide whether it will appear as an oral presentation or a poster session.

#### **IMPORTANT DATES**

Deadline for Abstract Submission: October 1, 2007

Acceptance Notification: **January 1, 2008**Deadline for Paper Submission: **May 1, 2008**Deadline for Early Registration: **May 1, 2008** 

#### CONFERENCE FEES

	Before May 1, 2008	Before Aug. 1, 2008	After Aug. 1, 2008
Full Registration	US\$400.00	US\$475.00	US\$550.00
Full-time Students Registration	US\$240.00	US\$280.00	US\$320.00
Accompanying Persons	US\$160.00	US\$200.00	US\$250.00
One Day Registration	US\$160.00	US\$160.00	US\$160.00

#### 1. Full Registration Fee Covers:

- Submittal fee for one paper
- · All technical sessions
- Program and proceedings (CD)
- · Conference kit
- · Coffee break and working lunch
- · Reception
- Traditional performance with dinner
- Banquet

#### 2. Full-time Students Registration Fee Covers:

- · Submittal fee for one paper
- · All technical sessions
- Program and proceedings (CD)
- · Conference kit
- · Coffee break and working lunch
- Reception
- · Cultural Experience Night with dinner

#### 3. Accompanying Persons Fee Covers:

- Reception
- · Cultural Experience Night with dinner
- · Banquet.

#### 4. One Day Registration Fee Covers:

- · Program pamphlet
- Technical sessions for the registered day
- · Conference kit
- · Coffee break and working lunch for the registered day

For each additional paper, an extra of US\$ 150 is required.



#### **EXHIBITION**

An exhibition "Exibit On 14WCEE" will be held concurrently with the Conference at the same venue. All companies, universities, and institutions related to earthquake engineering are welcome to set up booths in the exhibition area. For details please visit the Conference website: http://www.14wcee.org and contact China International Conference Center for Science and Technology (PCO of 14WCEE) at pco@14wcee.org.

#### SPONSORSHIP

Sponsorship opportunities are available at various levels, including a limited number of Major Sponsor opportunities. Major Sponsors will be offered the highest profile at the Conference, including funding events such as reception, meals, etc., and maximum visibility through printed materials and on the website. Please contact the 14WCEE Secretariat to discuss how your organization can benefit from sponsoring an event at the 14WCEE.

#### FIELD TRIP INFORMATION

Field Trips will be organized for participants to better understand the development of earthquake disaster prevention in China and to enjoy China's unique culture and ancient civilization.

#### PT1 Beijing-Xi'an-Beijing (3 days)

Review geological features (ground fissures) of Xi'an city which are evolving into a new natural hazard in China. The tour will also include a visit to the Terra-Cotta Warriors and the Small Wild Goose Pagoda (2 stories of which collapsed during the 1556 Hua Xian County M 8.0 Earthquake).

#### PT2 Beijing-Xi'an-Guilin-Shanghai (6 days)

Review the geological hazard (ground fissures) of Xi'an city and visit the National Key Laboratory for Disaster Prevention in Civil Engineering at Tongji University in Shanghai. Visitors will also have the opportunity to visit the Terra-Cotta Warriors and the Small Wild Goose Pagoda in Xi'an, karst caves and the beautiful Li Jiang River in Guilin and the Yu Garden and the Bund in Shanghai.

#### PT3 Beijing-Chengdu-Lhasa-Zedang-Chengdu (7 days)

Visit the Dujiangyan Irrigation System, a water project construction of ancient China built over 2,200 years ago in Chengdu. The tour also includes a visit to Giant Panda Research Institute, Qiang Yang Palace, a Chinese native religion-Taoism Palace in Chengdu, the Potala Palace, Tibet Museum and some famous Monasteries.

#### PT4 Beijing-Urumqi-Turpan-Dunhuang-Jiayuguan-Lanzhou-Beijing (9 days)

Visit Heavenly Lake, a geological relic of the Quaternary Period Glacier in Urumqi and the seismically retrofitted rural houses in Jiayuguan city. The tour also includes a visit to Grape Valley, the Mogao Grottoes, the Crescent Moon Spring, the Jiayuguan Pass of the Great Wall, the Galloping Horse Treading on a Flying Swallow and Labrang Lamasery.

#### PT5 Beijing-Harbin-Beijing (4 days)

Visit the Institute of Engineering Mechanics (IEM), China Earthquake Administration (CEA), Harbin Institute of Technology (HIT) and the volcanoes of Wudalianchi Geopark that are the best preserved and the most typical recent volcanic cluster in China.

#### PT6 Beijing-Kunming-Dali-Lijiang-Kunming (6 days)

Survey the remains of 1996 Lijiang earthquake, understand the reconstruction after the quake, and review the Lijiang fault and piedmont fault in Yulong Snow Mountain. The tour also includes a visit to the Three Pagodas Temple, Butterfly Spring Park, the Grand View Pavilion and the Stone Forest.

#### **OPTIONAL TOURS**

The organizer of the Conference will offer several local tours during the Conference for accompanying persons. The details will be available at the website: http://www.14wcee.org.

## **CONTACT**

For requests about registration, visa application, hotel and tour reservation, payment and confirmation please contact:

China International Conference Center for Science and Technology (PCO of 14WCEE)

No. 86 Xueyuan Nanlu, Beijing 100081, China

Tel: +86-10-62103106

Fax: +86-10-62174126

Email: pco@14wcee.org

http://www.14wcee.org

http://www.14wcee.com

http://www.14wcee.net

For requests about abstract submission, scientific and other academic issues please contact:

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http://www.14wcee.com

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VENUE
BEIJING JIUHUA SPA & RESORT



In the east of the Changping District of Beijing lies the Jiuhua Spa & Resort. As a royal palace in the old days, Jiuhua features a wealth of history and culture, which is reflected in its Ming & Qing style architecture and wonderful facilities. Next to the 6th Ring Road and only thirty minutes drive from the Beijing Capital International Airport, Jiuhua is the nearest Spa & Resort to downtown Beijing. It provides 2400 guestrooms and suites, many restaurants featuring various cuisines, more than 100 meeting rooms and a variety of entertainment services. The Convention and Exhibition Center at the Jiuhua Spa & Resort is well equipped, supporting a high standard of service and catering to large conventions up to 3500 participants. Jiuhua's Xiaotangshan Hot Spring is one of China's four major hot springs, abundantly rich in minerals and elements which are beneficial to one's overall health and frequently used for medical treatment.



# 14th WORLD CONFERENCE ON EARTHQUAKE ENGINEERING

# **Steering Committee**

**President:** 

HUI Liangyu Vice Premier, State Council, China

**Members:** 

JIANG Weixin Minister, Ministry of Housing and Urban-Rural

Development, China

GUO Jinlong Mayor, Beijing Municipal People's Government,

China

SONG Ruixiang Former Director General, China Earthquake

Administration



# 14th WORLD CONFERENCE ON

# **EARTHQUAKE ENGINEERING**

# **Local Organizing Committee**

**President:** 

CHEN Jianmin Director General, China Earthquake Administration

**Vice Presidents:** 

HUANG Wei Vice Minister, Ministry of Housing and Urban-Rural

Development, China

CHEN Gang Vice Mayor, Beijing Municipal People's Government,

China

LIU Yuchen Deputy Director General, China Earthquake

Administration

ZHAO Qinping Vice Minister, Ministry of Education, China

LIU Yanhua Vice Minister, Ministry of Science and Technology,

China

DING Zhongli Vice President, Chinese Academy of Sciences

DU Xiangwan Vice President, Chinese Academy of Engineering

SUN Jiaguang Vice President, National Natural Science Foundation of

China

QI Rang Vice President, China Association for Science and

Technology

XIE Lili President of Chinese Association of Earthquake

Engineering, Vice President of IAEE

#### **Committee members:**

HE Zhende WU Huijuan ZHANG Yi LI Junhua

XIE Huanzhong WU Mingshan CHANG Xu GAO Zhongqi

CHAI Yucheng LI Ming ZHANG Hongwei NIU Zhijun

LI Ke LU Shoude HUANG Jianfa

# **Secretary General:**

LIU Yuchen

# **Deputy Secretary Generals:**

ZENG Shaohua XIE Huanzhong WU Mingshan CHANG Xu

GAO Zhongqi CHAI Yucheng ZHAO Ming QI Xiaozhai

WANG Yayong HU Chunfeng



# 14th WORLD CONFERENCE ON

# **EARTHQUAKE ENGINEERING**

#### **Scientific Committee**

#### Chairmen:

XIE, Lili (China), HU, Yuxian (China)

#### **Members:**

ANAGNOSTOPOULOS, Stavros A. (Greece)

BLAZQUEZ, Rafael (Spain)

CARDONA, Omar D. (Colombia)

CHEN, Houqun (China)

CHERRY, Sheldon (Canada)

ESTEVA, Luis (Mexico)

FACCIOLI, E. (Italy)

FAN, Lichu (China)

GHAFORY-ASHTIANY, Mohsen (Iran)

GULKAN, Polat (Turkey)

HOPKINS, David C. (New Zealand)

IEMURA, Hirokazu (Japan)

JAIN, Sudhir K. (India)

KATAYAMA, Tsuneo (Japan)

LEE, George (USA)

LIAO, Zhenpeng (China)

LIN, Gao (China)

LOH, Chin-Hsiung (Chinese Taiwan)

MOEHLE, Jack P. (USA)

O'ROURKE, Thomas D. (USA)

OTANI, Shunsuke (Japan)

OU, Jinping (China)

PAN, Tso-Chien (Singapore)

PENZIEN, Joseph (USA)

SHAH, Haresh (USA)

SHEN, Zuyan (China)

SPENCER, B. F. (USA)

WANG, Guangyuan (China)

ZHANG, Chuhan (China)

ZHOU, Fulin (China)

ZHOU, Xiyuan (China)

# **Secretary General:**

WANG, Zifa (China)



# 14th WORLD CONFERENCE ON

# **EARTHQUAKE ENGINEERING**

#### **Regular Session**

# **Topics and Coordinators**

01 Lessons learned from recent earthquakes

BELAZOUGUI, Mohamed (Algeria) E-mail: cgsd@wissal.dz

SUN Baitao (China) E-mail: sunbt@iem.ac.cn

02 Observation and analysis of ground motions

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LI Xiaojun (China) E-mail: beerli@vip.sina.com

03 Engineering seismology

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WEN Kuo-Liang (Chinese Taiwan) E-mail: wenkl@ncree.org

04 Geotechnical engineering

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**05** Structural engineering

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06 Lifeline systems

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07 Seismic hazard analysis and zonation

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08 Seismic codes and standards

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09 Earthquake risk reduction for urban and rural areas

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10 Social and economic impacts of earthquakes

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LIU Weiging (China) E-mail: wqliu@njut.edu.cn

11 Emerging technologies in earthquake engineering

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12 Experimental studies

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13 Earthquake and multi-hazards

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14 Numerical methods in earthquake engineering

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15 Tsunami

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KO Jan-ming (China) E-mail: cejmko@inet.polyu.edu.hk

**Special Session** 

**Topics and Conveners** 

S01 Earthquake Risk & Insurance

S01-01 Micro-Credit and Micro-Insurance for Earthquake Disaster Mitigation

SHAH, Haresh E-mail: hshah@stanford.edu

S01-02 From Science and Technology to Insurance: Earthquake Insurance as a Risk

**Mitigation Measure** 

DONG, Weimin E-mail: weimind@rms.com

**S02** Researches on Earthquake Prediction

ZHANG, Guomin E-mail: gmzhang@seis.ac.cn

ZHANG, Xiaodong E-mail: zxd@seis.ac.cn

S03 Earthquake Risk in Low and Medium Seismicity Regions

ELNASHAI, Amr S. E-mail: aelnash@uiuc.edu

**S04 Open Seismic Risk Analysis** 

SCAWTHORN, Charles E-mail: cscawthorn@att.net

**S05 JAEE Special Sessions** 

**S05-01 Spectacular Projects of Base-Isolated Buildings** 

WADA, Akira

KOBORI, Toru E-mail: Kobori@nikken.co.jp

**S05-02 Spectacular Projects of Passively-Controlled Buildings** 

MARTELLI, Alessandro

KASAI, Kazuhiko E-mail: kasai@serc.titech.ac.jp

S05-03 Earthquake Early Warning System

MOTOSAKA, Masato E-mail: motosaka@archi.tohoku.ac.jp

FUJINAWA, Yukio

S06 Recent Contributions of the China-US Cooperative Research Program in

**Earthquake Engineering** 

LEE, George C. E-mail: gclee@buffalo.edu

QI, Xiaozhai E-mail: qxziem@126.com

**S07** Historical Aspects of Earthquake Engineering

REITHERMAN, Robert E-mail: reitherman@curee.org

**S08** Architecture and Earthquake Engineering

CHARLESON, Andrew E-mail: andrew.charleson@vuw.ac.nz

S09 Earthquake Engineering Research and Practices in Seasonally Frozen and

**Permafrost Conditions** 

YANG, Z. (Joey) E-mail: afzy@uaa.alaska.edu

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SRITHARAN, Sri E-mail: sri@iastate.edu

S10 Long-period ground motions and their impacts on large-scale structures

KOKETSU, Kazuki E-mail: koketsu@eri.u-tokyo.ac.jp

GRAVES, Robert W.

MEGAWATI, Kusnowidjaja

HEATON, Thomas H.

S11 Assessment and Rehabilitation of Historical Buildings

MONTI, Giorgio E-mail: giorgio.monti@uniroma1.it

S12 Seismic Design of Wood Frame Buildings

VAN DE LINDT, John W. E-mail: jwv@engr.colostate.edu

S13 Seismic Aspects of Large Embankment and Concrete Dams

WIELAND, Martin E-mail: martin.wieland@poyry.com

CHEN, Hougun E-mail: chenhq@iwhr.com

**S14 Seismic Design Optimization** 

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FRAGIADAKIS, Michalis E-mail: mfrag@central.ntua.gr

S15 Collapse simulation and seismic assessment of existing reinforced concrete buildings

- Realistic experimental verification and rigorous analytical modeling

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KABEYASAWA, Toshimi E-mail: kabe@eri.u-tokyo.ac.jp

S16 Network for Earthquake Engineering Simulation (NEES) Special Sessions

**S16-01 NEES Collaboratory Research Advances** 

LEON, Roberto T. E-mail: rleon@ce.gatech.edu

WHITMER, John E-mail: john.whitmer@nees.org

S16-02 NEES Collaboratory Innovations in Research Methods

McCabe, Steven L. E-mail: steve.mccabe@nees.org

WHITMER, John E-mail: john.whitmer@nees.org

**S17 E-Defense Special Sessions** 

S17-01 E-Defense Steel - Full-Scale Shake Table Tests and Analyses on Conventional,

Value-Added, and Innovative Multi-Story Steel Buildings

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S17-02 E-Defense Bridge - Verification of Seismic Performance of Bridge Structures

**Utilizing Large-Scale Shaking Table** 

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S17-03 International Collaboration - Experiences and Challenges for Sharing

Large-Scale Testing Facilities and Sharing and Disseminating Experimental Information

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S18 Earthquake Disaster Mitigation on Non-engineered Houses

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S19 Fire Resistance of Structures Subsequent to Seismically Induced Damage

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S20 Seismic Risk Reduction of Operational and Functional Components for Buildings

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**S21 Quantifying Seismic Resilience** 

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S22 Information Networking on "Implementation Technology" for Earthquake Disaster

Reduction - with a framework from the Disaster Reduction Hyperbase (DRH) Initiative

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S23 Information sharing and educational initiatives for improving global seismic safety

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S24 Dr. Kobori Memorial Session

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S25 From Kyoto to Beijing: 20 years of structural control

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S26 Recent Geotechnical Findings in Destructive Near-Field Earthquakes

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S27 IASPEI-IAEE Special session on "Dialogue Between Seismologist and Earthquake

**Engineers On Effective Earthquake Risk Reduction Implementation**"

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# S28 Experimental and analytical investigation of near-source effects on structures

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S29 Seismic Technologies for Rural Dwellings and Model Projects

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**S30 ASCE Special session** 

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S31 Wenchuan Earthquake Special Session

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