

CTSEE Honorary Awards  
presented to  
individuals who have made  
significant contributions  
to the development and advancement of  
earthquake engineering research and practice in Taiwan

October 12, 2006



Chinese Taiwan Society for Earthquake Engineering

## About CTSEE Honorary Awards

With unique geological setting, Taiwan is known for its seismicity. Severe earthquake happens every ten to fifteen years. Alongside with this reality, earthquake disaster mitigation has become an important goal around the region. And, with the leadership of academic experts and professionals, various significant researches were developed and had helped a lot in pursuit of a more active system from prevention to remediation of earthquake-related events.

As the challenges in this century unravel, continuous efforts are being done. Moreover, inline with the aim of this biennial conference, it is an honor to recognize several individuals for their outstanding, unfathomable, and priceless contributions in the field of earthquake engineering both here and abroad. Thus, Honorary Awards, presented by the Chinese Society of Earthquake Engineering in Taiwan, are hereby given to four of the great leaders in the field, briefly introduced below.

***Chau-Shioungh Yeh, Professor*** Dr. Yeh, is known as the “Father of Earthquake Engineering in Taiwan” by his students and colleagues for his invaluable endeavors on the establishment of Center for Earthquake Engineering Research and NCREE, thus, he served as the first director of both research centers, not to mention other notable organizations. As a pioneer in the field of earthquake engineering in Taiwan, his teachings and continuous efforts on researches and practices are of great significance and will remain for future generations.

***Joseph Penzien, Professor Emeritus*** Dr. Penzien, acknowledged as a “Top Seismic Engineer of the 20<sup>th</sup> Century”, is distinguished for his field on earthquake-related issues and structural engineering. He started introducing about random vibrations at the National Taiwan University in 1980 and helped through numerous researches in the region. This had developed continuing shared efforts between US and Taiwan.

***Maw-Shyong Sheu, Professor Emeritus*** Dr. Sheu is a dedicated and an outstanding professor at the National Cheng-Kung University, Taiwan who also had helped in leading the seismic-related researches and on disaster mitigation issues in the island while serving at the National Science Council. He is attributed as the leader in the super high-rise building structures in Taiwan through his founded consulting agency. And, he is one of the great contributors for the realization of NCREE.

***ST Mau, Professor*** Dr. Mau, a well-known researcher and professor, had helped a lot in promoting earthquake engineering researches both here and abroad. As chairman of Civil Engineering Department at NTU in 1972, he initiated the development of the Center for Earthquake Engineering Research in the said university, which led to the establishment of what is now the National Center for Research on Earthquake Engineering (NCREE) of Taiwan. Also, he is known for his mastery on issues concerning people and the likes.



Keh-Chyuan Tsai  
President,  
Chinese Taiwan Society for Earthquake Engineering



# Chau-Shiung Yeh



Professor

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## EDUCATION

Ph.D. in Department of Theoretical and Applied Mechanics, Cornell University, Ithaca, New York, U.S.A.

## WORK EXPERIENCE

- Prof., Dept. of Civil Engineering, National Taiwan University, Taipei, R.O.C. 1976-present
- Director, National Center for Research on Earthquake Engineering, R.O.C. 1990-1997.
- Visiting Prof., State University of New York at Buffalo, New York, U.S.A. 1989-1990.
- Director, Taiwan Construction Technology Research Center, Taipei, R.O.C. 1981 – 1983.
- Director, Center for Earthquake Engineering, NTU, Taipei, R.O.C. 1978 – 1980.
- Lecturer, Dept. of Civil Engineering, University of Singapore, Singapore. 1971 – 1975.

## HONOR AND AWARDS

- President, Chinese Society of Structural Engineering, 1988 – 1990.
- President, Chinese Society of Earthquake Engineering, 1992 – 1994.
- Prof. F. D. Sun's Medal of Chinese Society of Theoretical and Applied Mechanics, 1998.
- Academic Award, Ministry of Education, 2001.
- President, Chinese Society of Theoretical and Applied Mechanics, 2002 – 2004.
- National Chair Award, Ministry of Education, 2001 – 2004.
- Special Research Award, National Science Council, 2003.
- Engineering Medal Award, Chinese Society of Civil and Hydraulic Engineering, Dec. 2003.

## CONTRIBUTIONS

- Promoted education and researches in earthquake engineering.
- Leded engineers of Consultants company to perform dynamic analysis of arch dam and its fluid-structure interaction.
- Devoted himself to the discovery and research of the predominant period of Taipei basin.
- Established the Center for Earthquake Engineering Research in National Taiwan University.
- Established the National Center for Research on Earthquake Engineering (NCREE).

## **PROFESSIONAL TRIBUTES**

Prof. Yeh has made extraordinary contributions to the development and application of earthquake engineering research in Taiwan during the past three decades. He has gained a remarkable achievement on the theory of elastic wave propagation for earthquake engineering applications. He is an excellent educator in which many of his students have followed his steps in making notable contributions to the society. During his creation of the NCREE, he resolved many difficult issues on funding application, land, equipment acquisitions, and personnel recruiting. It is my privilege to salute Prof. Yeh as one of the most respectable person in our profession.

**- Dr. Tsai, K.C., Director, National Center for Research on Earthquake Engineering**

Professor Yeh is one of the most respected scholar in Taiwan. Since he joined the faculty of the Department of Civil Engineering of NTU, he pioneered earthquake engineering research by establishing an earthquake engineering research center in the school of engineering in NTU and helped to modernize the seismic design code in Taiwan. One of his most important contribution to the earthquake engineering research community is his discovery of the so-called “basin effect” which explains the amplification of seismic waves in Taipei basin. Fifteen years ago, he devoted himself to create the National Center for Research on Earthquake Engineering which greatly enhanced the research and made Taiwan a world class player in earthquake engineering.

**- Dr. Chang, K.C., Professor and Chair, National Taiwan University**

“The father of earthquake engineering in Taiwan”, this is what we call Prof. Yeh. Because of him, the Center for Earthquake Engineering Research in National Taiwan University can be established, and because of him, the National Center for Research on Earthquake Engineering (NCREE) can also be established and have come to prosperity. Through the academic career, we learned a lot from Prof. Yeh, not only in doing researches but also in learning engineering ethics. He supports young generation to do advanced studies. Sometimes he talks too much, but every word has its meaning that needs us to think it over and digest. We respect him from the bottom of our heart.

**- Dr. Loh, C.H., Professor, National Taiwan University**

Talking about the academic development and practical applications of earthquake engineering in Taiwan over the last three decades, we can not emphasize too much, the contributions from Professor C.S. Yeh. Professor Yeh initiated and established many organizations related to earthquake engineering research and applications and served as the first Director or Chairman of those organizations which included, among others, Center for Earthquake Engineering of National Taiwan University (1978); Chinese Society of Structural Engineering (1988); National Center for Research on Earthquake Engineering (1990); as well as Chinese Taiwan Society for Earthquake Engineering (1996). Due to continuous efforts paid by Professor Yeh, both research and practical applications on earthquake engineering are flourishing now island wide.

**-Dr. Tsai, I.C., Professor, National Taiwan University**

# Joseph Penzien



Professor Emeritus

Structural Engineering, University of California, Berkeley

Senior Principal & Chairman

International Civil Engineering Consultants, Inc. (ICEC)

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Berkeley, California 94704, USA

## EDUCATION

B.S. - Civil Engineering - University of Washington, 1945.

Sc.D. - Civil Engineering - Massachusetts Institute of Technology, 1950.

## WORK EXPERIENCE

- Professor Emeritus of Structural Engineering, University of California, Berkeley 1988-present.
- Director, Earthquake Engineering Research Center, University of California, Berkeley
- Member, Faculty of Civil Engineering, University of California, Berkeley 1953-88.
- Instructor, University of Washington, Seattle 1946-47, 1968-74, 1977-80.

## HONOR AND AWARDS

- Elected Member, National Academy of Engineering 1977.
- Research Prize 1965, Nathan M. Newmark Medal 1983, Alfred M. Freudenthal Medal 1986, Elected Honorary Member 1989, Ernest E. Howard Award 2000, ASCE.
- Elected Fellow, American Academy of Mechanics 1978, California Council on Science and Tech. 1997.
- NATO Senior Science Fellowship, 1969.
- Elected Honorary Member, Peruvian Association of Earthquake Engineering 1979, Architectural Institute of Japan 1986, International Assoc. of Earthquake Engineering 1992.
- Elected Honorary Member 1986, Housner Medal 1993, Distinguished Lecturer for year 2000, EERI.
- Silver Medal of Paris, 1980.
- The Berkeley Citation, 1988.
- Alfred E. Alquist Medal, California Earthquake Safety Foundation, 1996.
- Top Seismic Engineer of the 20<sup>th</sup> Century, Applied Technology Council, 2006.

## CONTRIBUTIONS

- Supervised seismic-related research of doctoral students from Taiwan at the University of California, Berkeley.
- Co-authored papers with researchers and practicing engineers from Taiwan on various topics in earthquake engineering.
- Participated in the development and implementation of the SMART-1 strong motion array in Lotung, Taiwan.
- Lectured on topics in random vibrations at the National Taiwan University in 1980; organized and participated in the 1981 short course (36 lectures) on timely topics in earthquake engineering.

## PROFESSIONAL TRIBUTES

I first met Dr. Penzien when I was a graduate student at UC Berkeley. I greatly benefited from his advice and enjoyed taking his course on random vibration. I clearly remember the CE Department in Berkeley as an exciting and intellectually stimulating place for graduate students and Dr. Penzien played a key in creating that atmosphere. Throughout his exemplary academic and professional career Dr. Penzien has made major contributions to the earthquake engineering and engineering mechanics. His accomplishments are an inspiration to the younger members of our profession. I sincerely congratulate him on receiving this award.

**-Dr. Ghaboussi, J., Professor Emeritus, University of Illinois at Urbana-Champaign**

The old Chinese saying “One day teacher is the same as a life-long father”, this is I can contribute a few words to Prof. J. Penzien through all those years’ collaborations and advises on my research career. I first met Prof. Penzien in the summer of 1982 at the National Taiwan University when I started to do research on SMART-1 array data (a joint research program between UC-Berkeley and NTU). With his instruction and advices, the SMART-1 array program became one of the most successful research programs in the engineering seismology society around the world. Through Prof. Penzien’s generosity and helpfulness, the Taiwan society of Earthquake Engineer learn a lot of technologies through his assistance. We do appreciate it very much.

**-Dr. Loh, C.H., Professor, National Taiwan University**

During recent half century as I know, Prof. Penzien is the greatest contributor to the earthquake Engineering researches and practices, both on academic activities and engineering consultants. He served 35 years in the Department of Civil Engineering at UC Berkeley, further more he was the founding Director of the University's Earthquake Engineering Research Center (EERC). He published so many papers, technical reports and 6 important books. Since 1982, Prof. Penzien has actively participated in many engineering projects in Taiwan, assuming major responsibility in setting seismic design criteria and assisting in seismic response and performance evaluations of numerous important engineered facilities including: Taipei Rapid Transit System, Kaoshiung Cross-Harbor Tunnel, Sungshan Railway Extension, Feitsui and Tchi Arch Dams, National Chung Cheng University being built in the city of Chiayi, Taiwan, etc. The great efforts had been paid by Prof. Penzien, on the academic works and engineering practices for the area of earthquake engineering, are very highly contributed and great appreciated. As an old friend, I have the honor with great pleasure to congratulate him to receive this award.

**-Prof. Chern, C.C., Professor Emeritus, National Taiwan University**

As many of you already know, Professor Penzien is a distinguished scholar and an experienced specialist in Earthquake Engineering. He has been to Taiwan so many times, not only for academic lecturing, but also for professional consulting. He is good friend of Taiwan; he has contributed a lot to the development of Earthquake Engineering of Taiwan. I have known Professor Penzien for over 25 years. His enthusiasm and devotedness to Earthquake Engineering set a great academic model for me. He has been giving me continuous instruction, support and encouragement. I really appreciate what he has done for me. He is my dear teacher forever.

**- Dr. Chen, C.H., Professor, National Taiwan University**

# Maw-Shyong Sheu



Professor Emeritus  
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## EDUCATION

Ph. D., Department of Civil Engineering, University of Washington, Seattle, Washington, USA, 1975.

## WORK EXPERIENCE

- Lecturer, Associate Professor, Professor, Chairman of Architecture Department, National Cheng-Kung University, Tainan, Taiwan, 1965-2004.
- President, Evergreen consulting Engineering, Taipei, Taiwan, 1976-1986.

## HONOR AND AWARDS

- Outstanding Teaching Professor, Ministry of Education, Taiwan, 1989 and 1994.
- Outstanding Engineering Professor, Institute of Engineers, Taiwan, 2003.
- Distinguished Professor of National Cheng-Kung University, Taiwan, 2003.
- Professor Emeritus of National Cheng-Kung University, Taiwan, 2004.
- Paper Award:
  - Institute of Engineers, Taiwan, 1972, 1990, 2003.
  - Institute of Civil and Hydraulic Engineering, Taiwan, 1979, 1980, 1990, 2003.
  - Institute of Architecture, Taiwan, 1998, 2003, 2004.
  - Chinese Association of Structural Engineering, Taiwan, 1997.
- Tsuboi Prize, International Association of Shell and Spatial Structure, France, 2004.

## CONTRIBUTIONS

- Led the direction of the earthquake engineering researches while serving as Division Head of large-scale *Research Program for Disaster Prevention*, National Science Council, Taiwan, 1982-1992.
- Promoted the establishment of the National Center on Research of Earthquake Engineering, Taiwan, 1988.



## PROFESSIONAL TRIBUTES

Once you get along with Prof. Sheu, it is believed you will sure that there is few people will not attracted by him through his kind and gentle, enthusiastic and smart. I myself am really deeply touched by his elegant personality and excellent leadership style. Through more than 30 years, working together in National Cheng Kung University, I have learnt a lot from him. Not only on his teaching manner, but also on his research and behaves attitude. No doubt that what he has done and has served for the field on earthquake engineering in Taiwan will last much longer than we can expected in our mind.

**- Dr. Hsu, D.S., Professor Emeritus, National Cheng Kung University**

As the founder of Evergreen Consulting Engineering, Inc. (EGC), Prof. Sheu is also the well-known leader of the super high-rise building structure designers in Taiwan. “Excellent planning of structural system will be more important than the precise structural analysis.” These were Professor Maw-Shyong Sheu’s golden words and also the motto for my work guidance of structural design all these years. Owing to his 30 years leadership, EGC has completed many of famous projects including Taipei 101, the tallest building in the world.

**- Mr. Kan, H.Y., Vice Chairman, Evergreen Consulting Engineering, Inc.**

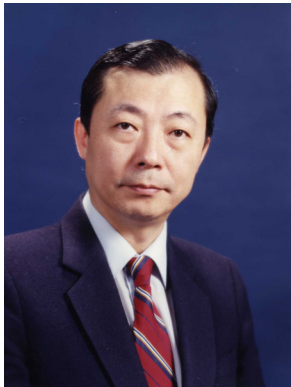
In 1982, the Taiwan National Science Council launched a large-scale *Research Program for Disaster Prevention*. This program consisted of three Five-Year Plans. After that, in 1997, the *National Science and Technology Program for Hazards Mitigation* was established. For more than 20 years, Prof. Sheu plays a very important role in developing the country-wide earthquake hazard mitigation research programs. With his guidance the natural hazard mitigation researches in Taiwan can be carried out successfully. Prof. Sheu is a kind gentleman. He devoted his research works during his academic career, and support young generation to move ahead. Because of him I can step into this hazard mitigation research community. We respect him and wish him good health.

**- Dr. Loh, C.H., Professor, National Taiwan University**

Besides being a productive teacher and researcher, Prof. Sheu is also a successful executive who would set the stage for all researchers. He played a leading role in two projects that greatly improved the earthquake engineering research capacity we have today in Taiwan. First, he advocated and helped the establishment of the NCREC. The second is the implementation of building strong motion arrays in 35 typical buildings. The positive effect of these two projects is revealed in the Chi-Chi earthquake until today. In NCKU, he also programmed and designed the largest earthquake engineering laboratory in southern Taiwan. We are all grateful to his leadership and pioneering vision.

**- Dr. Yao, G.C., Professor, National Cheng Kung University**

## **S. T. Mau**



Professor

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### **EDUCATION**

Ph.D., Cornell University.

### **WORK EXPERIENCE**

- Professor, California State University, Northridge, 2002- present.
- Professor, New Jersey Institute of Technology, Newark College of Engineering, 1998-2002.
- Professor, Civil Engineering Dept, University of Houston, 1984-1998.
- Professor, Civil Engineering Dept., National Taiwan University 1973-1984.
- Senior Research Engineer, Aeronautics and Astronautics Dept., MIT. 1971-1973.

### **HONOR AND AWARDS**

- Appointed to a National Panel on Earthquake Engineering for Concrete Dams by the National Research Council, Washington D.C 1986~1988.
- Moissieff Award of ASCE, 1989.
- Distinguished Research Award, Cullen College of Engineering, Univ. of Houston, 1997.

### **CONTRIBUTIONS**

- Worked through Dr. S.C. Liu of NSF/USA and the NSC/ROC to promote earthquake engineering research.
- Co-Chaired, with Dr. Joseph Penzien, a US/ROC Symposium of earthquake engineering to promote cooperative research, which resulted in six joint research grants.
- Initiated a Center for Earthquake Engineering Research at NTU, which established the talent base that led to the NSC grant to NTU to establish the NCREE.
- Recommended the establishment of a building seismic record program at the Central Weather Bureau.
- Commissioned by NSC to develop a five-year research program on natural hazard mitigation.

## **PROFESSIONAL TRIBUTES**

It is my honor to contribute in a small way to Prof. S. T. Mau's contributions to Taiwan earthquake engineering community, for he was my advisor in both master and Ph.D program at NTU. Prof. Mau was appointed as a chairman of Civil Engineering Department at the National Taiwan University in 1972. Because of him, the Civil engineering Department of NTU can have the opportunity to compete with the world esteemed universities in the field of earthquake engineering. As an academic researcher and an administrator, Prof. Mau always been ready to tackle whatever problems comes his way. He works intensely at his research works, and can not stop thinking about it until he had solved the problem. I respect him from the bottom of my heart and I am proud to be his student.

**- Dr. Loh, C.H., Professor, National Taiwan University**

In the recent 40 years here in academic area, Dr. Mau is strongly impressed that he is a very smart and hardworking professor. He was the youngest department head since the establishment of the Department of Civil Engineering at National Taiwan University. Prof. Mau had worked through NSF of USA and NSC of ROC to promoted earthquake engineering researches and US-ROC Symposium of earthquake engineering, furthermore to promote cooperative researches. Prof. Mau essentially initiated the Center for Earthquake Engineering Research at NTU, which established the talent base that led to the NSC grant to NTU to establish the NCREE, and highly recommended the establishment of a building seismic record program at the Central Weather Bureau of ROC. The great efforts had been paid by Prof. Mau, on the promotion of earthquake engineering research, practical applications and administrations, are very much contributed and appreciated. As an old friend, I am so pleased to have the honor to congratulate him to receive this award.

**- Prof. Chern, C.C., Professor Emeritus, National Taiwan University**

I was one of the students in his class of Structure Engineering at National Taiwan University in 1974. With his global view and diligent working, he restructured the culture of Civil Engineering both inside and outside the Campus of NTU during his service as Head of the Department of Civil Engineering. He has encouraged the faculty of the department to extend their research cooperation with international colleagues and participation in international academic activities. On the other hand, many local conferences have been taken place by his great input of efforts to pave the road for bringing the theoretical contribution to improve the performance of practices in all areas of Civil Engineering in Taiwan. The confidence of excellence in the disciplines of Civil Engineering for the graduates of NTU has been greatly enhanced and inspired since. His passionate and contribution to the Civil Engineering Profession is not limited to academic society, much attention to practical events is also endless encouraged and participated. He has often mentioned the importance of the practical fields of Civil Engineer in many occasions. For example, he thought the difficulties of implementing theories in real world prove Construction Engineers as the engineer of the Civil Engineers. Just like any one of my classmates and friends who have been touched with him, I always remember him as a master in both Education and Human Concern, who has been giving his light to the his surrounding people.

**- Dr. Wang, M.T., President, Taiwan Construction Research Institute**