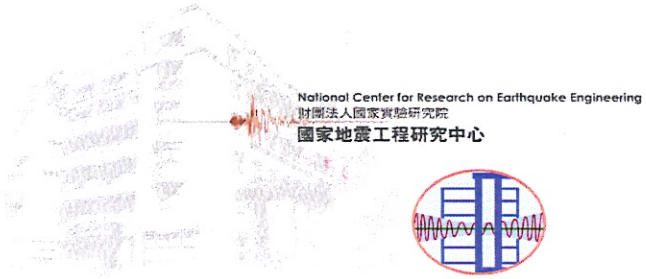
建築物震後耐震評估與補強技術研討會

—日本震後建築物耐震評估與補強介紹—



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（按出場序）

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國家地震工程研究中心 主任

國立台灣大學土木系 教授

- NAKANO Yoshiaki （中埜良昭）

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- MAEDA Masaki （前田匡樹）

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國立台灣科技大學營建工程系 教授

國立台灣科技大學工學院 副院長

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—日本震後建築物耐震評估與補強介紹—

敬邀

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建築物震後耐震評估與補強技術研討會
—日本震後建築物耐震評估與補強介紹—

主辦單位：財團法人國家實驗研究院國家地震工程研究中心、台灣科技大學營建工程系

協辦單位：中華民國地震工程學會、中華民國結構工程學會

時間：107年3月2日(星期五)

地點：國家地震工程研究中心101會議廳

名額：預計90人，免費參加，額滿為止。

◎主旨◎

臺灣地處環太平洋地震帶，在大規模地震災害或複合性災害發生後，對建築物將產生不同程度的損壞，必須在短期內針對損壞嚴重的建築物禁止使用，以免餘震繼續造成人命的傷亡。而自行政院於民國97年頒布「災害防救法」，讓地震相關的防救措施的擬定與推動，具有法源上的根據，故內政部於98年發布之災害後危險建築物緊急評估辦法及其組訓計畫，已明訂實施緊急評估的處理人員、作業程序、組訓演練與所需相關書表，另對於危險標誌之張貼、解除與爭議案件複評等實施方法亦有所規範。

然法令施行迄今已有時日，相關研究工作及救災經驗不斷精進與累積，現行辦法亦應逐步修訂，故需參卓國內外緊急評估作法及相關研究方能遂行，以使震後緊急評估工作更臻完善，期能在災害時迅速且準確的保障多數民眾之生命財產安全。此外，因今年2月6日在花蓮發生芮氏規模6.0的強震，所造成之損失實難以估計，因此本次邀請日本相關領域的知名學者來台訪問，透過演講與專家學者及工程師進行座談，介紹日本對震後建築物評估與補強之方法與研究，期能對於國內學術界及業界提供實質的幫助。

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時間 Time		講題 Topic	主講人 Speaker	主持人 Moderator
2018年3月2日(五) Mar. 2, 2018 Fri.	13:45～14:00	報　到 Registration		
	14:00～14:10	開幕致詞 Inauguration	黃世建 主任 Shyh-Jiann Hwang	
	14:10～15:10	An Overview of Damaging Earthquakes, Seismic Code and Seismic Evaluation & Rehabilitation in Japan	中埜良昭 教授 NAKANO Yoshiaki	邱建國 教授 Chien-Kuo Chiu
	15:10～15:30	休息 Coffee Break		
	15:30～16:30	Residual seismic capacity evaluation and damage classification guideline in Japan	前田匡樹 教授 MAEDA Masaki	邱建國教授 Chien-Kuo Chiu
	16:30～17:00	問題討論 Q & A	黃世建 主任 Shyh-Jiann Hwang	
	17:00	閉　幕 Closing		

Yoshiaki NAKANO

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EDUCATION

1989 Ph. D; Graduate School of Engineering, The University of Tokyo, "Reliability Analysis on Seismic Capacity of Existing Reinforced Concrete Buildings"
1986 Master of Engineering; Graduate School of Engineering, The University of Tokyo
1984 Bachelor of Engineering; Department of Architecture, Faculty of Engineering, The University of Tokyo

RESEARCH INTERESTS

* Seismic Evaluation and Rehabilitation of RC and Masonry Building Structures
* Post-earthquake Damage Assessment of RC and Masonry Building Structures
* Seismic Reliability Analysis of RC Building Structures
* Damage Prediction of Urban Cities due to Strong Ground Motions
* Tsunami Impacts on Building Structures
* Development of New Seismic Testing Techniques

PROFESSIONAL CAREER

05/2017 Vice President of International Association for Earthquake Engineering (IAEE) (to present)
06/2015 Director, Architectural Institute of Japan (AIJ) (until 05/2017)
06/2015 Vice President, Japan Association for Earthquake Engineering (JAEE) (untile 05/2017)
04/2012 Director General, Institute of Industrial Science, The University of Tokyo (until 03/2015)
04/2009 Deputy Director, Institute of Industrial Science, The University of Tokyo (until 03/2011)
08/2005 Professor (to present)
03/2002 Visiting Researcher at The University of Texas at Austin (until 01/2003)
03/1992 Associate Professor, Institute of Industrial Science, The University of Tokyo
04/1989 Lecturer, Institute of Industrial Science, The University of Tokyo

FIELD INVESTIGATIONS OF EARTHQUAKE DAMAGE OVERSEAS

1989 Loma Prieta, USA / 1992 Erzincan, Turkey (Secretary of AIJ Reconnaissance) / 1994 Northridge, USA / 1999 Kocaeli, Turkey (JICA) (Development of quick inspection procedure for earthquake damaged buildings in Turkey)/ 1999 Chichi, Taiwan (Secretary/Leader of AIJ Reconnaissance) (Damage investigation and technical cooperation with AIROC for restoration of damaged buildings) / 2004 Sumatra / 2005 Kashmir, Pakistan / 2006 Mid-Java, Indonesia / 2008 Wenchuan, China (Damage investigation and technical cooperation with SWJU for restoration of damaged buildings) / 2011 Canterbury, NZ / 2015 Gorkha, Nepal / 2016 Kaikoura, NZ etc.

RECENT PUBLICATIONS

1. T. Suzuki, H. Choi, Y. Sanada, **Y. Nakano**, K. Matsukawa, D. Paul, P. Gulkan, B. Binici: Experimental evaluation of the in-plane behaviour of masonry wall infilled RC frames, Bulletin of Earthquake Engineering, DOI 10.1007/s10518-017-0139-1, 2017.4.
2. **Yoshiaki Nakano**: Structural Design Requirements for Tsunami Evacuation Buildings in Japan, ACI Technical Publication, SP-313-01, 2017.3.
3. K.W. Jin, H. Choi, **Y. Nakano**: Experimental Study on Lateral Strength Evaluation of Unreinforced Masonry-Infilled RC Frame, Earthquake Spectra 32(3), DOI10.1193/100714EQS152M, 2016.2.
4. Ho Choi, Kiwoong Jin, Kazuto Matsukawa, and **Yoshiaki Nakano**: Evaluation of Equivalent Diagonal Strut Mechanism and Shear Strength of URM Wall Infilled R/C Frame, 2ECEES, paper ID: 748, 2014.8.
5. C. Quan, H. Choi, N. Takahashi, **Y. Nakano**, K. Matsukawa: Residual seismic capacity evaluation of RC frame with weak-beams based on energy absorption capacity, USMCA2013, pp.793-802, 2013.10.
6. Kiwoong JIN, Ho CHOI, Noriyuki TAKAHASHI and **Yoshiaki NAKANO**: Failure Mechanism and Seismic Capacity of RC Frames with URM Wall considering Beam Deformation, 15WCEE, IAEE, 2012.9.
7. **Yoshiaki Nakano** et al. (Editor: Shunsuke Sugano): Seismic Rehabilitation of Concrete Structures International Publication Series, IPS-2, 526 pp., ACI and JCI, 2007.10.
8. **Yoshiaki Nakano** et al.: Standard of Seismic Evaluation of Existing RC Buildings, 2001 / Guidelines for Seismic Retrofit of Existing RC Buildings, 2001, Japan Building Disaster Prevention Association, 2005.1.
9. **Y. Nakano**, M. Maeda, H. Kuramoto and M. Murakami: Guideline for Post-earthquake Damage Evaluation and Rehabilitation of RC Buildings in Japan, 13WCEE, CAEE, 2004.8.

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Special Area

- Reinforced concrete, Structural design and performance evaluation
- Earthquake engineering, Seismic retrofit

Proffesional Eeperience

- Department of architecture and Building Science, Graduate School of Engineering, Tohoku University, Japan 2000 - present
  - Professor (2011 - present)
  - Associate professor (2000 - 2011)
- Department of Construction Engineering, Faculty og Engineering, Yokohama National University, Japan 1994 - 2000
  - Associate professor (1998 - 2000)
  - Research associate (1994 - 1998)

Education

- Doctor of engineering, University of Tokyo (1994)
- Master of engineering, University of Tokyo (1991)
- Bachelor of engineering, University of Tokyo (1989)

Selected Research Project

- Next generation damage evaluation and seismic design based collapse mechanism and residual capacity of buildings damaged due to repeated strong ground motions, J-Rapid, JST (Japan Science and Technology Agency) 2016 – 2017
- Technical Development to Upgrade Structural Integrity of Buildings in Densely Populated Urban Areas and its Strategic Implementation towards Resilient Cities, SATREPS (Science and Technology Research Partnership for Sustainable Development), JST/JICA (Japan International Cooperation Agency), 2015 – present

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- Revision of Guideliens for Post Earthquake Damage Evaluation and Rehabilitation of RC Buildings, JBDPA(Japan Builiding Disaster Revention Association) 2011 – 2015
- Committee of Seismic Evaluation and Retrofit Design of Educational Fascilities, RIEF(Research Institute of Educational Fascikities) 1995 -2016
- Development of Guidelines for Seismic Perfomence of RC Buildings, AIJ(Architectural Insititute of Japan), 2001 - 2007

Selected Publication

- Hamood Alwashali, Yuta Torihata, Kiwoong Jin, Masaki Maeda, "Experimental observations on the in-plane behavior of masonry wall infilled RC frames; focusing on deformation limits and backbone curve", Bulletin of Earthquake Engineering, 2017.10.
- M. Maeda, T. Nishida, K. Matsukawa, M. Murakami, "Revision of Guideline for Post-Earthquake Damage Evaluation of Reinforced Concrete Buildings in Japan", 16th World Conference on Earthquake Engineering, (paper ID:3987), 2017.1.
- Ying Wang, Enrique Villalobos, Santiago Pujol, Hamood Al-Washali, Kazuki Suzuki, Masaki Maeda, Susumu Takahashi and Toshikatsu Ichinose, "On the Seismic Response of the Faculty of Architecture and Engineering Building at Tohoku University", Earthquake Spectra Feb 2016, Vol. 32, No. 1, pp. 523-545, DOI: 10.1193/053013EQS139M, February 2016.
- M.Maeda, K.Matsukawa and Y.Ito, "Revision of Guideline for Postearthquake Damage Evaluation of RC Buildings in Japan", Tenth U.S. National Conference on Earthquake Engineering, DOI:10.4231/D3959C81P, 2014.7.
- Masaki Maeda, Hamood Al-Washali, Kazuki Suzuki, and Kanako Takahashi, "Damage of RC Building Structures due to 2011 East Japan Earthquake", Proceedings of 2012 Structures Congress. ASCE. pp.1023-1034, 2012.3.
- Masaki MAEDA and Dae Eon Kang, "Post-Earthquake Damage Evaluation of Reinforced Concrete Buildings", Journal of Advanced Concrete Technology, Volume7 Number3, pp.327-335, 2009.11.
- Masaki MAEDA, Yoshiaki NAKANO, Joji SAKUTA, and Masanobu SAKASHITA, "Building Damage due to 2008 Wenchuan Earthquake and Cooperative Activities on Damage Restoration by Japanese Experts", Proceedings of International Conference on Earthquake Engineering - The First Anniversary of Wenchuan Earthquake, pp.72-81, 2009.5.