Program of 13WCSI

(as of 2013/09/19)

13WCSI Presntations

Room/ Date	Time	Presenting Author	Title	Chair and co-chair
MMHall Day1 AM	9:00–9:30		**Welcome speech** Fu Lin Zhou: President of ASSISi Takao Nishikawa: President of JSSI Norio Inoue: Chair, Organizing committee, Tohoku University	**Opening Ceremony** Chair: Taiki Saito
	9:30–11:10	Norio Inoue	Displacement Control Design Concept for Long-period Structures: Design Strategies for High-rise and Seismic Isolated Buildings subjected to Strong Ground Motions	**Keynote Lecture** Chair: Masahiko Higashino Co-chair: Deming Feng
		Fu Lin Zhou	LU Shan Earthquake M7.0 on 2013.4.12 and Recent Development on Seismic Isolation, Energy Dissipation & Structural Control in China	
		Vladimir I. Smirnov	Seismic Isolation, Energy Dissipation and Active Vibration Control System in Russia	
		Mikayel Melkumyan	Latest Developments in Seismic Isolation for Civil Structures in Armenia	
	11:25–13:05	Gianmario Benzoni	Experimental Results from Multi-directional Tests on Friction-based Isolators	
		Alessandro Martelli	Development and Application of Seismic Isolation, Energy Dissipation and Other Vibration Control Techniques in Italy for The Protection of Civil Structures, Cultural Heritage and Industrial Plants Part 1: Passive systems	
		Jenn-Shin Hwang	Recent Research and Application on Seismic Isolation, Energy Dissipation and Vibration Control in Taiwan	
		Kazuhiko Kasai	Implications for Design of Response-Controlled Buildings from Full-Scale Lab Tests and Actual Earthquake Observations	
MMHall Day3 PM	13:00–15:05	Nagahide Kani	Performance of Response-Controlled Buildings during the Huge 2011 Earthquake	**Special Session** Chair: Deming Feng Co-chair: Masahiko Higashino
		Masanori Iiba	Behavior of Seismically Isolated Buildings Based on Observed Motion Records during the 2011 Great East Japan Earthquake	
		Mineo Takayama	Development for Seismic Isolation Devices and Future Problems	
		Masato Kimura	The Survey of Questionnaires to Residents in Seismically Isolated Buildings during the 2011 off the Pacific Coast of Tohoku Earthquake	
		Kazuhiko Kasai	Performance of Response-Controlled Buildings during the 2011 Tohoku Earthquake	
		Stephen A. Mahin	Recent earthquakes highlight the need to enhance the resilience of structures and systems	
	15:05–15:20		**Closing speech** Fu Lin Zhou: President of ASSISi Taiki Saito: Chair, Steering committee	**Closing Ceremony** Chair: Kohju Ikago

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C201 Day1 PM1	14:30–16:15	Nagahide Kani (invited)	Maintenance Standards for Seismic-Isolation Buildings	**Seismic Isolation** Chair: Yongfeng Du Co-chair: Sachi Furukawa
		Masahiro Ikenaga	Application of Friction Damper with Coupling Mechanism Designed in Accordance with Input Ground Motion Levels to a Base Isolated Detached House	
		Ken Ishii	Three-dimensional Mechanical Model for Circular Multilayered Elastomeric Bearings Considering Compression Modulus Distribution on the Rubber Pad	
		Diana Ene	Hysteretic Behavior and Plastic Deformation Capacity of U-shaped Steel Dampers under 2D Random Loading Histories	
		Shiang-Jung Wang	Analytical and Experimental Study on Dynamic Characteristics and Seismic Behavior of Mid-Story Isolated Buildings	
C201 Day1 PM2	16:45–18:10	Yongfeng Du (invited)	Performance-based Design and Fragility Analysis of Base-isolated RC Frame Structure in Gansu Province	**Seismic Isolation** Chair: Hiroki Hamaguchi Co-chair: Ken Ishii
		Sachi Furukawa	Comparison of Vertical Dynamic Response Characteristics of Two Base-isolated Buildings based on Full-scale Shaking Table Test	
		Chun Cheng	A Research on the Hybrid Seismic Retrofit System using TMD and Soft-First Story Principle	
		Shuguang Wang	Experimental Study on Aseismic Performance of the Substructure of Isolated Masonry with Added Story after Stiffness Degeneration	
C201 Day2 AM1	9:00–10:45	Jose M Jara (invited)	Seismic Capacity and Demand of Irregular Isolated Bridges	**Seismic Isolation** Chair: Alexander Bubis Co-chair: Tracy C. Becker
		Takashi Fukushima	The Development of the Structural Design Method in the Pile-Head Seismic Isolation Approach Based on Static Horizontal Load Tests (Part 1)	
		Satoshi Maeno	The Development of the Structural Design Method for the Pile-Head Seismic Isolation Approach Based on Static Horizontal Load Tests (Part 2)	
		Parisa Shahbazi	Comparative Study on Behavior of Double Variable Curvature Friction Pendulum Systems	
		Yusuke Inazuma	Vibration Test of Seismic Isolated Structure with High-Damping Rubber Bearings	
C201 Day2 AM2	11:15–13:00	Alexander Bubis (invited)	Seismic Retrofit for Existed Structures Using SI in Russia	**Seismic Isolation** Chair: Jose M Jara Co-chair: Takashi Fukushima
		Luigi Di Sarno	Seismic Response Analysis of an As-built RC Bridge with Base-isolated Deck	
		Tracy C. Becker	Effects of Flexible Supports on the Backbone Behavior of Triple Friction Pendulum Bearings	
		Luigi Di Sarno	Modelling of the Uplift of Buildings to Install Base Isolation Systems	
		Cem Yenidogan	Effects of Near-field Earthquakes on Seismically Isolated Bridges	
C201 Day2 PM1	14:30–16:05	Stephen A. Mahin (invited)	Effects of Isolator Modeling on Floor Response Spectra of Seismically Base Isolated Nuclear Power Plant	**Seismic Isolation** Chair: Masahiro Ikenaga Co-chair: Shinji Matsuoka
		Masaaki Saruta	Observed Response of a Seismically Isolated Building during the 2011 off the Pacific Coast of Tohoku Earthquake	
		Shigeki Sakai	Dynamic Response Properties of Base Isolated Building about Earthquake Motions of the 2011 off the Pacific coast of Tohoku Earthquake	
		Takahiro Mori	Thermal and Mechanical Coupled FEA model for High Damping Rubber Bearings under Repeated Loading.	
		Norio Hori	Control of Seismic Response Displacement of Base Isolated Structure Specimen by Friction Damper with Coupling Mechanism	
C201 Day2 PM2	16:35–17:55	Shinji Matsuoka	Development of an Evaluation Method for Seismic Isolation Systems (Part 1) Design of Seismic Isolation Systems for Nuclear Power Plant	**Seismic Isolation** Chair: Stephen A. Mahin Co-chair Masaaki Saruta
		Yoshitaka Takeuchi	Development of an Evaluation Method for Seismic Isolation Systems (Part 2) The Basic Characteristics Test of a Seismic Isolation System for Nuclear Power Plant	
		Gihwan So	Effect of Long-term Characteristics Changes of Natural Rubber Bearings on the Dynamic Behavior of Seismically Isolated Structure	
		Michiyasu Yoshida	Response Evaluation of Seismic Isolated Lattice Roof Structure using Secant-Stiffness at Ultimate Deformation	
C201 Day3 AM1	9:50–11:30	Sayed Mahmoud	Response of Base-isolated Buildings Incorporating Soil Flexibility and Pounding with Retaining Walls	**Seismic Isolation** Chair: Masanori Iiba Co-chair: Norio Hori
		Toshiyuki Nakazawa	Safety Margin Ratio-Based Design of Isolation Gap Size for Base-isolated Structures	
		Norihisa Kawamura	Evaluation of the Fatigue Life of U-Shaped Steel Dampers after Extreme Earthquake Loading	
		Osamu Kouchiyama	Experimental Study on Fatigue Characteristics of Lead Rubber Bearings under Repeated Small-Amplitude Loading	
		Junwu Dai	Comparison of Numerical Simulation and Dynamic Test for A Base-Isolated 15-Story Steel Structure Building	

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C202 Day1 PM1	14:30–16:15	Wen liuhan Heisha (invited)	Recent Development and Application on Seismic Isolation Teqhnique for Bridges in China	**Seismic Isolation** Chair: Xiuli Xu Co-chair: Naohiro Nakamura
		Ichiro Nagashima	Study on Multi-cyclic Characteristics of Devices for Seismic Isolation against Long Period Earthquake Motions -Experimental Method using Large Shaking Table for Multi-cyclic Loading of Full-scale Devices -	
		Hiroshi Hibino	Study on Multi-cyclic Characteristics of Devices for Seismic Isolation against Long Period Earthquake Motions -Multi-cyclic Loading Experiment of Full-scale Elastic Sliding Bearing and Oil Damper-	
		Akihiro Kondo	Study on Multi-cyclic Characteristics of Devices for Seismic Isolation against Long Period Earthquake Motions Sub title: Multi-cyclic Loading Experiment of Full-scale Lead Rubber Bearing	
		Keiji Nakanishi	Study on Multi-cyclic Characteristics of Devices for Seismic Isolation against Long Period Earthquake Motions. Sub title:Multi-cyclic Loading Experiment of Full-scale High-damping Rubber Bearing	
C202 Day1 PM2	16:45–18:05	Xiuli Xu	Pounding Response Analysis of Continuous Girder Bridge with Plate Type Elastomeric Pad Bearing Under Earthquake	**Seismic Isolation** Chair: Wen liuhan Heisha Co-chair: Ichiro Nagashima
		Naohiro Nakamura	Study on Experiments and Analyses of Seismic Isolation System Using Viscous Dampers and Low Friction Bearings against Long Period Earthquake Motions	
		Sarun Chimamphant	Seismic Performance Investigation and Comparison of Base Isolated and Fixed Base Structures	
		Panayiotis Roussis	On the Effect of Seismic Isolation on the Rocking Response of Free-Standing Rigid Structures	
C202 Day2 AM1	9:00–10:45	Victor Zayas (invited)	Seismic Isolation Designs for Continued Functionality	**Seismic Isolation** Chair: Alessandro Martelli Co-chair: Roy E. Reyna
		Takenori Hida	Effects of Pile Damage and Input Motion Characteristics on Response of Base-isolated Structure Based on Centrifuge Tests	
		Naoto Kamoshita	Behavior of Elastic Sliding Bearings under Various Loading Conditions	
		Zhiguang Zhou	Effects of Changing Soil and Isolator Properties on Seismic Response of Isolated Nuclear Power Plant	
		Andrey Yun	Comparative Analysis of Modified Spectra and Single-Mass and Multi-Mass Models Behavior	
C202 Day2 AM2	11:15–13:00	Alessandro Martelli (invited)	On The Benefits of a Wide Use of Anti-Seismic Systems for The Seismic Protection of Schools and High Risk Chemical Plants	**Seismic Isolation** Chair: Victor Zayas Co-chair: Takenori Hida
		Qiaoling Xian	Shaking Table Test of the Floorslab Isolating and Energy Dissipating Structure Equipped with Various of Isolation Layer and Damper	
		Bertha A. Olmos	Nonlinear Response of Medium Size Continuous Bridges with LRB	
		Roy E. Reyna	Numerical Simulation of Base Isolated Buildings during The Great East Japan Earthquake and a Comparison of Different Hysteresis Models	
		Hamidreza Anajafi	Seismic-Isolation Effect on Bridge Seismic Performance, A Case Study	
C202 Day2 PM1	14:30–16:05	Huseyin Darama (invited)	Implementation of Seismic Isolation in Turkey for Continued Functionality	**Seismic Isolation** Chair: Ruben Boroschek Co-chair: Keita Kakemoto
		Peter Huber	Seismic Isolation System of Djamaa El Djazir Mosque in Algiers for Extreme Earthquake Requirements	
		Yoshie Shirasawa	Hotel Kintetsu Kyoto Station: Construction of a Hotel Building Seismically Isolated at Mezzanine Level Directly Above a Railway Platform and Handling the Challenges of an Extremely Narrow Site with Railway Noise and Vibration	
		Luigi Di Sarno	The Uplift of Existing Buildings to Install Base Isolation Systems: Challenges and Benefits	
		Kugkwan Chang	Design of Seismic Base Isolation on 5 story Reinforced Concrete Building	
C202 Day2 PM2	16:35–17:55	Ruben Boroschek	Seismic Base Isolation of the Nunoa Capital Building, the Tallest Base Isolated Residential Building in the Americas	**Seismic Isolation** Chair: Huseyin Darama Co-chair: Yoshie Shirasawa
		Keita Kakemoto	Seismic Control of Base-Isolated Structures Incorporated with a Force-restricted Viscous Mass Damper	
		Parisara Thiravechyan	Spectral Response Prediction of Base Isolated Structures	
		Hideki Kit Miyamoto	Seismic Isolation Retrofit of a Historical Cathedral in Haiti	
C202 Day3 AM1	9:50–11:30	Yasuhiro Hayabe	Large Structural Wall System with Random Openings Realized by Seismic Isolation System	**Seismic Isolation** Chair: Mineo Takayama Co-chair: Matsutaro Seki
		Hadj Mohamed Ounis	Effect of the Damping of the LRB System on the Dynamic Response of a Base Isolated Building	
		Can Zulfikar	Seismic Isolation Application for a Hospital Building in Turkey	
		Yuan Yong	Dynamic Characteristic Research In The Seismic Response Of The Hongkong-Zhuhai-Macau Cross-sea Bridge	
		Kenji Saiki	Damage of Expansion Joints for Seismically-Isolated Buildings and Countermeasures	

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C205 Day1 PM1	14:30–16:15	David Whittaker (invited)	Recent Developments in Seismic Isolation in New Zealand	**Seismic Isolation** Chair: Hamid Ahmadi Co-chair: Yoichi Mukai
		Yu Sakurai	Development of Granular-Polymer Plug Seismic Isolators	
		Koichi Sugimoto	Response Reduction Effect of Using Inertial Mass Dampers in a Base Isolated Structure	
		Peyman Narjabadifam	On the Practicality of Shape Memory Alloy (SMA)-based Superelasticity-assisted Sliding Isolation	
		Shouhei Omata	Research and Development of Laminated Type Base Isolation System using Urethane Elastomer	
C205 Day1 PM2	16:45–18:10	Hamid Ahmadi (invited)	High Damping Seismic Isolators-Performance and Historical Development	**Seismic Isolation** Chair: David Whittaker Co-chair: Yu Sakurai
		Yoichi Mukai	Aseismic Performance of Base-isolated Structures by Using Enhanced Tuned Mass Dampers with Amplifier Mechanism	
		Tracy C. Becker	Hybrid Shake Table for the Testing of Midlevel Seismic Isolation Systems	
		Masahiro Ikenaga	Feasiblity of Variable Oil Damper for Base Isolated Detached Houses	
C205 Day2 AM1	9:00–10:45	Yundong Shi	Semi-Active Control for Floor Isolation System Using Frequency Domain Control Methods	**Seismic Isolation** Chair: Mineo Takayama Co-chair: Tian-Chyuan Chan
		Toshio Nishi	A Survey of Specifications for Design and Testing of Seismic Isolators - Comparison of ISO 22762, EN 15129, and JIS K 6410 -	
		Matsutaro Seki	Design Comparison of the Seismically Isolated Building by the Chinese Code and Japanese Code(Part 1. Chinese Structural Design and Behavior to the Strong Ground Motions)	
		Demin Feng	Design Comparison of the Seismically Isolated Building by the Chinese Code and Japanese Code (Part 2. Japanese Structural Design and Behavior to the Strong Ground Motions)	
		Akihiro Takeuchi	The Outline of "Guideline for the Design of Seismic Isolation Device Connections and Installation Building Frames"	
C205 Day2 AM2	11:15–13:00	Mineo Takayama (invited)	Can the Seismically Isolated Buildings Survive Large Tsunami Waves?	**Social & Economic Aspects** Chair: Yundong Shi Co-chair: Nagahide Kani
		Tian-Chyuan Chan	Investigation and Analysis of Construction Costs of Seismic Isolation Building -A Case Study of Taipei 23 Stories Building	
		Koji Nishikawa	Evaluation of Responses of Base-Isolated Buildings to a Subduction Zone Mega-Earthquake	
		Tomoyuki Someya	Seismically Isolated Hospital Offers Ray of Hope in Disaster -Ishinomaki Red Cross Hospital-	
		Hiroki Hamaguchi	Seismic Performance Evaluation Methods for Non-Engineers	
C205 Day2 PM1	14:30–16:05	Xilin Lu (invited)	Study on Energy Dissipation Mechanism of Building Structures in Highly Seismic Regions with Application	**Response Control** Chair: Ping Tan Co-chair: Naoya Hirotani
		Fabio Romanelli	Multi-scenario Based Assessment of Seismic Hazard: a Must for the Effective Definition of the Seismic Input	
		Tomoaki Ito	Response Control Effectiveness of High-Rise Building Using Passive Variable Friction Dampers	
		Peng Pan	Development of Crawler Damper for Bridges	
		Kazuhiko Sasaki	Modeling of Liniear Properties of Viscous Fluid Material in Small Strain	
C205 Day2 PM2	16:35–17:55	Naoya Hirotani	A Building Mass Damper (A Creatively Tuned Mass Damper Utilizing Dynamic Mass)	**Response Control** Chair: Xilin Lu Co-chair: Tomoaki Ito
		Ping Tan	Random Analysis and PDEM Based Dynamic Reliability of Novel Damped Outrigger System	
		Hiroyasu Sakata	Appropriate performance evaluation of timber bearing walls with passive dampers under displacement control design	
		Keiji Kitajima	Research and Development of Next-Generation Seismic Response Control System using Super-Elastic Flexible Members	
C205 Day3 AM1	9:50–11:30	Miyuki Kaihotsu	Study of Aging Deterioration of Natural Rubber Bearing	**Seismic Isolation** Chair: Masato Kimura C-chair: Masako Hiramatsu
		Shuai Liu	Application of a New Combined Isolation Design Technique for Large LNG Storage Tank in the Soft Site	
		Jie Gao	Experimental Study of Variable Stiffness Seismic Isolator of Series Connection	
		Jie Gao	Experimental Study of Variable Stiffness Seismic Isolator of Parallel Connection	
		Qingzi Ge	Performance Assessment of Conventional and Base-isolated Extra-large LNG Storage Tank for Blast Loadings	

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C206 Day1 PM1	14:30–16:15	Amador Teran Gilmore (invited)	Earthquake-Resistant Design and Sustainability	**Response Control** Chair: Zhengqing Chen Co-chair: Kazutaka Shirai
		Peter Huber	Control of Deck Vibrations of Wolgograd Bridge with Semi-Active Tuned Mass Damper System	
		Tomoki Satake	Development and Application of Seismic Retrofit by Key Grid System in Practice	
		Manabu Hagioya	Study on Static Hysteresis Characteristics of the Shear Resistant Type Panel Damper	
		Masanari Okamoto	Development and Application Example of Rotational Inertia Mass Damper	
C206 Day1 PM2	16:45–18:10	Zhengqing Chen (invited)	Development and Application of a New Style Eddy Current Damping (ECD) for Vibration Suppression of Structures	**Response Control** Chair: Amador Teran Gilmore Co-chair: Tomoki Satake
		Kazutaka Shirai	Optimum Yield Strength of a Hysteretic Damper Incorporated into RC Structures Using the Transfer Function of an Equivalent Linear System	
		Touraj Taghikhany	Effect of Installation Pattern in Structures with Toggle Bracing Viscous Dampers	
		Jianwei Tu	Model Reference Adaptive Control on Active Mass Damper	
C206 Day2 AM1	9:00–10:45	Hideki Kit Miyamoto (invited)	Seismic Viscous Dampers: A Cost-Effective Solution with Enhanced Performance for Retrofit and New Construction	**Response Control** Chair: Carlos A. Zavala Co-chair: Takeshi Nakai
		Susumu Yoshinaka	Proposal of Design Formulas of Tuned Mass Dampers with Initial Displacement to Control Impulse Response	
		Moonjeong Kim	Optimal Layout Suggestion of High-strength steel for Improving the Seismic Performance of Steel Structure	
		Yoshihiro Yamazaki	Torsional Seismic Response Reduction by Passive Control Device for Conventional Post-and-Beam One-Story Timber Structure	
		Kohju Ikago	Seismic Control of Buildings Using Apparent Mass Dampers with Rotational Amplifying Mechanism: A Review of the State of the Art	
C206 Day2 AM2	11:15–12:55	Fatih Sutcu	An Innovative Equivalent Linear Design Method for Retrofitting Existing RC Buildings with BRBs	**Response Control** Chair: Hideki Kit Miyamoto Co-chair: Kohju Ikago
		Takeshi Nakai	Shaking Table Test on 3-story Structure Controlled by Damper Tube System Utilizing Torsional Vibration	
		Youngju Kim	Study on Seismic Performance of Coupled Shear Wall Structures With Energy Dissipation Devices	
		Carlos A. Zavala	Advances on Energy Dissipation Technologies for Buildings in Peru	
		Yasser Bigdeli	Response Control of Structures Using Circle Type TLD and TLCD Systems	
C206 Day2 PM1	14:30–16:05	Taiki Saito	Basic Performance of Seismic Control Structure using Movable Pulley Damper System	**Response Control** Chair: Ying Zhou Co-chair: Yosuke Nakaso
		Kohju Ikago	Fundamental Modes of Seismic Control Multi-Story Shear Building Using Tuned Viscous Mass Damper: An Analytical Study on a Case in Which the Secondary Mass Distribution is Proportional to That of Primary Stiffness	
		Kazuhiro Matsuda	Simplified Seismic Response Analysis of Wooden Frame Having Energy Dissipation Wall	
		Wuchuan Pu	A Seismic Control Design Approach for Concrete Structure Added with Hysteretic Damper	
		Yukihiro Matsumoto	Mechanical Characteristics of the Vibration Control System Using Bending Yielding Studs	
C206 Day2 PM2	16:35–17:35	Yosuke Nakaso	A New Seismic Retrofit of Existing Suspended Ceilings with Parabolically Arranged Cables	**Response Control** Chair: Wuchuan Pu Co-chair: Kazuhiro Matsuda
		Ying Zhou	Similarity Investigation and Parametric Identification for Viscoelastic Dampers	
		Yutaka Nakamura	Performance-Based Placement Design of Tuned Inertial Mass Dampers	
C206 Day3 AM1	10:30–11:30	Yuji Miyazu	Seismic Response Control by Fluid Inertial Mass Damper with Negative Equivalent Stiffness	**Response Control** Chair: Kazuhiko Kasai Co-chair: Masanori Tasaka
		Yuji Miyazu	Seismic Response Control by Linked Oil Dampers	
		Osamu Furuya	Study on Vibration Control Device using Oval Type Leaf Spring with Amplification Characteristic for Detached House	