

**17WCEE
Program at a Glance**

September 28th (Tue), 2021

 :Invited Lecture

Hybrid Sessions

Room	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00
Session Room 1 Main Hall, Conference Building 2F	Opening Act & Opening Ceremony		Meet the Masters 1 Tsuneo Katayama	Keynote 1 Kojiro Irikura			O28B01 Control and Hybrid System	O28C01 (COS) Protective Technologies for Possible Extreme Seismic Events in Future		O28D01 Damping Devices		
Session Room 2 Tachibana Conference Hall, Conference Building 2F				Meet the Masters 2 James Jirsa			O28B02 Seismic Performance of Bridges 1	O28C02 Seismic Performance of Bridges 2		O28D02 Structural Members, Seismic Response		
Session Room 3 Hagi Conference Hall, Conference Building 2F							O28B03 (COS) Rebuilding from the Great East Japan Earthquake - Current Status, Future Outlook and Lessons Learned	O28C03 Earthquake Response and Early Warning		O28D03 Damage Estimation		
Session Room 4 Meeting Room 1, Exhibition Building							Future Direction 1 Emerging Vulnerability	Sponsored Session 1 Non-Profit Organization for Action- oriented Disaster Risk Reduction		O28D04 (SOS) Engineering Bases to Ensure Protection of NPPs against Earthquakes		
Session Room 5 Meeting Room 2, Exhibition Building							O28B05 Liquefaction 1	O28C05 Liquefaction 2		O28D05 Slope Failure		

Fully Virtual Sessions

Room	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00
On-line 1							O28B06 (SOS) Recent Progress of Chinese Resilient Urban/Rural and Seismic Disaster Mitigation	O28C06 Ground Motion Studies 1		O28D06 Hazard Assessment 1		
On-line 2							O28B07 (SOS) 2021 Kyoto Symposium for the 6th Effects of Surface Geology on Seismic Motion (ESG6): Reflections on Past and Upcoming ESGs and the State-of-the-Art/-Practice	O28C07 Damper and Energy Dissipation 1		O28D07 Damper and Energy Dissipation Devices		
On-line 3							O28B08 Case Study on Seismic Retrofit Construction	O28C08 Seismic Assessment and Retrofit		O28D08 Experimental Results on Seismic Retrofit 1		
On-line 4							O28B09 Seismic Performance of Joints	O28C09 Seismic Performance of Bracing Members		O28D09 Design Provisions for Innovative System		
On-line 5							O28B10 (COS) Recent Advances in Seismic Performance Of Non-Structural Elements (SPONSE) 1	O28C10 (COS) Recent Advances in Seismic Performance Of Non-Structural Elements (SPONSE) 2		O28D10 (COS) Recent Advances in Seismic Performance Of Non-Structural Elements (SPONSE) 3		
On-line 6							O28B11 (SOS) Confined Masonry Construction for Improving Global Earthquake Resilience: Implementation Challenges	O28C11 (SOS) Contribution to Sendai Framework		O28D11 (SOS) Towards Promoting Safer and Earthquake-Resistant Housing		
On-line 7												
On-line 8												



**17WCEE
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September 29th (Wed), 2021

 :Invited Lecture

Hybrid Sessions

Room	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00
Session Room 1 Main Hall, Conference Building 2F	O29A01 Reinforced Concrete		Keynote 2 Satoshi Fujita				O29B01 Experimental Findings in Base Isolators		O29C01 Case Study on Performance-Based Design		O29D01 RC Components and Systems	
Session Room 2 Tachibana Conference Hall, Conference Building 2F			Keynote 3 Niels B. Holm- Nielsen				O29B02 (SOS) Comparison of Building Seismic Codes Worldwide		O29C02 (SOS) Post-Earthquake Urban Evolution 1906-2020 with the History of WCEE		O29D02 (COS) Semi-Active Control Strategy of Base- Isolation System against Near Fault Ground Motions Verified by E-Defense Test and Real- Time Hybrid Simulation	
Session Room 3 Hagi Conference Hall, Conference Building 2F	O29A03 Management Policy								O29C03 Innovative Technology in Earthquake Engineering		O29D03 Tsunami Disaster 1	
Session Room 4 Meeting Room 1, Exhibition Building	Future Direction 2 Seismic Design for Minimum Damage						O29B04 Assessment and Retrofitting of Bridges		O29C04 Lifelines		O29D04 Foundation Structures	
Session Room 5 Meeting Room 2, Exhibition Building							O29B05 Soil Structure Interaction 1		O29C05 Soil Structure Interaction 2		O29D05 Ground Failure	

Fully Virtual Sessions

Room	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00
On-line 1	O29A06 Hazard Assessment 2						O29B06 Ground Motion Studies 2		O29C06 Concrete Walls 1		O29D06 Exposure	
On-line 2	O29A07 Improving Design Provisions 1						O29B07 Damper and Energy Dissipation 2		O29C07 Seismic Isolation and Control of Bridges		O29D07 Seismic Isolation Systems 1	
On-line 3	O29A08 Dynamic, Hybrid Test and Simulation						O29B08 (COS) Recent Advances in Hybrid Simulation: Methods and Applications		O29C08 (SOS) "DEKATSU" the Consortium of Data and Service Collaboration among Private Companies and Academic Institutions for Tokyo Metropolitan Resilience Project		O29D08 (COS) Anti-Catastrophe: Performance of Infrastructure Systems for Social Resilience Against Extreme Earthquake Events	
On-line 4	O29A09 (COS) Advancements in Evaluation of Existing Buildings						O29B09 (SOS) Recent Advancements in Seismic Design and Performance of New and Existing Steel Structures		O29C09 (COS) Seismic Analysis and Mitigation Strategies of Major-Hazard Industrial Facilities			
On-line 5	O29A10 (SOS) Development of Seismic-Resilient Lateral Systems for Tall Timber Buildings						O29B10 (SOS) Should a Structure be Designed Assuming Maximum-Direction Ground Motions Along the Principal Axes?					
On-line 6	O29A11 (SOS) Management of Post-Disaster Debris and Waste						O29B11 (SOS) Deploying High Strength Reinforcement in Seismic Regions - Risks and Rewards		O29C11 (COS) Full- vs. Reduced-Scale Tests for Modeling/Assessment of Structural Members, Dampers and Isolators			
On-line 7	O29A12 (COS) Performance Gap Challenges After Loma Prieta: Managing Seismic Risk in the Legal Arena						O29B12 Dam, Earth and Underground Structures		O29C12 Shaking Table Test			
On-line 8	O29A13 (SOS) Resilience and Risk Assessment of Structures under Multiple Hazards						Sponsored Session 2 Kinematics					



**17WCEE
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September 30th (Thu), 2021

 :Invited Lecture

Hybrid Sessions

Room	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00
Session Room 1 Main Hall, Conference Building 2F	O30A01 Steel Components and Systems 1		Meet the Masters 3 Luis Esteva Maraboto				O30B01 Seismic Isolator 1		O30C01 Structural Member Assessment 1		O30D01 Steel Components and Systems 2	
Session Room 2 Tachibana Conference Hall, Conference Building 2F	O30A02 Concrete Walls 2		Meet the Masters 4 Theodosis P. Tassios				O30B02 Lessons Learnt from Earthquakes		O30C02 (SOS) Integrated Research on Great Earthquakes and Disaster Mitigation in Nepal Himalaya		Sponsored Session 3 Shelter Japan Corporation	
Session Room 3 Hagi Conference Hall, Conference Building 2F	O30A03 (COS) Cutting-Edge Research on Buckling-Restrained Braces (BRBs) and their Applications 1								O30C03 (SOS) Observation and Estimation of Damping of Buildings			
Session Room 4 Meeting Room 1, Exhibition Building	Future Direction 3 Super Advanced Exploration, Simulation, and Monitoring						O30B04 Inelastic Response of Structural Systems 1		O30C04 Nuclear		O30D04 Inelastic Response of Structural Systems 2	
Session Room 5 Meeting Room 2, Exhibition Building							O30B05 (SOS) A New Seismic Observation Perspective for Estimation of Site Amplification		O30C05 Soil Structure Interaction 3			

Fully Virtual Sessions

Room	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00
On-line 1	O30A06 Risk Assessment of Buildings						O30B06 Loss Estimation 1		O30C06 Loss Estimation 2		O30D06 Human Behavior	
On-line 2	O30A07 Nonlinear Modeling of Structural Members and Systems						O30B07 Seismic Retrofit of Historic Buildings		O30C07 Non-Structural Components and Systems		O30D07 Seismic Isolation Systems 2	
On-line 3	O30A08 Design Ground Motion						O30B08 (SOS) Earthquake Ground Motion Hazard in Subduction Regions		O30C08 Masonry Structures		O30D08 Probabilistic Modeling	
On-line 4	O30A09 (SOS) Machine Learning Applications in Seismic Risk and Resilience Assessment of Distributed Infrastructure Systems						O30B09 Seismic Performance of Bridges 3		O30C09 Rapid Structural Assessment		O30D09 (COS) Low Damage/ Resilient Construction	
On-line 5	O30A10 (SOS) Open-Source Tools for Simulating the Effects of Earthquakes and Other Natural Hazards on Communities						O30B10 (COS) Cutting-Edge Research on Buckling-Restrained Braces (BRBs) and their Applications 2				O30D10 (COS) Recent Advances in Seismic Isolation and Supplemental Damping Systems for Vibration Control	
On-line 6	O30A11 (SOS) Forty Years after Mete Sozen's First Pitch for Drift-Driven Design						O30B11 (COS) Designing for Tsunami Loads and Effects per ASCE 7-16				O30D11 (SOS) Earthquake Resistant Buildings Using Raw and Engineered Bamboo	
On-line 7	O30A12 Ground Motion Studies 3						O30B12 (SOS) The 2019 Tokyo Metropolitan Resilience Project E-Defense Test of a 3-Story Disaster Management Center					
On-line 8	O30A13 (COS) Regional Seismic Risk and Resilience Assessment											



**17WCEE
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October 1st (Fri), 2021

 :Invited Lecture

Hybrid Sessions

Room	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
Session Room 1 Main Hall, Conference Building 2F	O01A01 Structural Member Assessment 2		Keynote 4 Robert J. Budnitz				O01B01 Masonry		O01C01 Seismic Isolator 2
Session Room 2 Tachibana Conference Hall, Conference Building 2F	O01A02 Bridges and Infrastructures		Keynote 5 Amod Mani Dixit				O01B02 Structural Member Assessment 3		O01C02 Various Methods of Seismic Retrofit 1
Session Room 3 Hagi Conference Hall, Conference Building 2F	O01A03 Inelastic Response of Structural Systems 3								O01C03 Experimental Findings in Protective Devices
Session Room 4 Meeting Room 1, Exhibition Building	Future Direction 4 Societal Resilience to Earthquakes and Tsunamis						O01B04 Tsunami Disaster 2		Blind Contest The 1st Tsunami Blind Prediction Contest - Impact on land structures -
Session Room 5 Meeting Room 2, Exhibition Building	O01A05 (SOS) Contributions of Large-Scale Experimental Facilities to Computational Earthquake Engineering and Their Futures - From 15-Year Experience of E-Defense -						O01B05 (SOS) Achievements of SIP Social Resiliency Against Natural Disasters		O01C05 Machine Learning

Fully Virtual Sessions

Room	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
On-line 1	O01A06 Uncertainty and Risk						O01B06 Inelastic Response of Structural Systems 4		O01C06 Inelastic Response of Structural Systems 5
On-line 2	O01A07 Ground Motion Studies 4						O01B07 Liquefaction 3		O01C07 Ground Motion Studies 5
On-line 3	O01A08 (COS) Physics-Based Modeling Using Kinematic and Dynamic Source Representations for Quantitative Strong Motion Simulation						O01B08 (SOS) For Building Platform to Learn about Structure from Other Nations		O01C08 Risk Assessment of Infrastructures
On-line 4	O01A09 (SOS) Framework for Infrastructure Systems Resilience: Overview and Illustrative Applications in Japan and U.S.						O01B09 (COS) Post-Earthquake Damage Analysis, Economic Losses and Seismic Risk Mitigation Strategies for Public and Private Buildings		O01C09 Seismic Retrofit Design
On-line 5	O01A10 (SOS) Roadblocks and Incentives for Worldwide Adaptation and Implementation of Seismic Structural Health Monitoring (S2HM)						O01B10 (SOS) "Non-Engineered 2.0": Rethinking Design Philosophies and Technological Strategies to Improve the Seismic Performance and Resilience of Non-Engineered Constructions		O01C10 Other Contribution to Earthquake Engineering
On-line 6	O01A11 (COS) Major Developments in Evaluating Seismic Performance of Buildings and Implementation in New Design						O01B11 (SOS) Performance-Based Seismic Design: State of U.S. Research and Practice		
On-line 7	O01A12 (SOS) Transportation System Seismic Performance: PEER TSRP and Lifelines Programs								
On-line 8									



October 2nd (Sat), 2021

 :Invited Lecture

Hybrid Sessions

Room	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
Session Room 1 Main Hall, Conference Building 2F	O02A01 Experimental Results on Seismic Retrofit 2		Keynote 6 George Gazetas		O02B01 Various Methods of Seismic Retrofit 2		Closing Ceremony	
Session Room 2 Tachibana Conference Hall, Conference Building 2F	O02A02 Energy Facility		Keynote 7 Tracy Kijewski- Correa		O02B02 (COS) Seismic Analysis and Design of Mechanical Structures			
Session Room 3 Hagi Conference Hall, Conference Building 2F	O02A03 Diagnosing Vulnerable Buildings				O02B03 Seismic Vulnerability			
Session Room 4 Meeting Room 1, Exhibition Building	O02A04 (COS) The 2019 Large-Scale Test Program of Wood Dwellings Including Soil-Foundation Systems Towards Improving Earthquake Resiliency				O02B04 Code Provisions for Seismic Retrofit			
Session Room 5 Meeting Room 2, Exhibition Building								

Fully Virtual Sessions

Room	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
On-line 1	O02A06 Ground Motion Studies 6				O02B06 (SOS) Integrated Hazard and Disaster Simulations Related Earthquakes and Tsunami Using High Performance Computing Technology			
On-line 2	O02A07 Timber Components and Systems				O02B07 Improving Design Provisions 2			
On-line 3	O02A08 Recovery and Resilience				O02B08 Damage Impact and Risk Communication			
On-line 4	O02A09 Seismic Performance of Equipment and Piping System				O02B09 (SOS) Current Status and Future Perspectives of Effects of Surface Fault Displacement on Critical Infrastructure			
On-line 5	O02A10 (SOS) Seismic Performance of Precast Concrete Structures Emphasizes on the Connections							
On-line 6	O02A11 Post Disaster Assessment and Computational Science							
On-line 7	O02A12 Risk Assessment at Urban Level							
On-line 8								

