7aese International Conference on Advances in Experimental Structural Engineering

Foundation EUCENTRE – Pavia, ITALY
September 6-8, 2017
Preliminary program

		Sept. 6, 2017 Wednesday	Sept.7, 2017 Thursday	Sept. 8, 2017 Friday
8.45	9.15		Keynote lecture: O.S. Bursi - Room DICAr	Keynote lecture: R. Enokida - Room DICAr
9.15	9.45		Keynote lecture: M. Fardis - Room DICAr	Keynote lecture: M. Hoelher - Room DICAr
9.45	11.15		Parallel Sessions	Parallel Sessions
			SS5: Experimental investigation of RC precast buildings - Room 2	SS7: Computer-vision based structural health monitoring - Room 2
			S3.1: Hybrid Simulation and Other On-Line Testing Techniques I - Room 1	S7.1: Hybrid Simulation and Other On-Line Testing Techniques IV - Room DICAr
			S3.2: Novel Testing, Measuring and Monitoring Techniques in Structural Engineering - Room DICAr	
11.15	11.30		Coffee break	Coffee break
11.30	13.00	Registration	Parallel Sessions	Parallel Sessions
			SS6: Experimental assessment of isolation devices - Room 2	SS3: Advances in Experimental Soil-Structure Interaction - Room DICAr
			S4.1: Application of Experimental results to Structural Design and Analysis II - Room DICAr	S8.1: Application of Experimental results to Structural Design and Analysis IV - Room 1
			S4.2: Hybrid Simulation and Other On-Line Testing Techniques II - Room 1	S8.2: Design of new facilities, testing procedures - Room 2
13.00	13.30	Welcome reception	Lunch Break	Closing Cerimony
13.30	14.00			Farewell gathering

14.00	14.30	Opening Cerimony	Presentation of the volume in memory of Nigel Priestley
14.30	15.00	Keynote lecture n.1: S. Mahin - Room DICAr	Keynote lecture: A. Fillatraut - Room DICAr
15.00	15.30	Keynote lecture n.2: G.M. Calvi - Room DICAr	Keynote lecture: Xilin Lu - Room DICAr
15.30	17.00	Parallel Sessions	Parallel Sessions
		SS1A: Recent advances in testing of structural and nonstructural masonry I - Room 2	SS4A: Field Testing and Structural Health Monitoring I - Room DICAr
		S1.1: Active and Passive Structural Control I - Room 1	S5.1: Hybrid Simulation and Other On-Line Testing Techniques III - Room 2
		S1.2: Application of Experimental results to Structural Design and Analysis I - Room DICAr	S5.2: Active and Passive Structural Control II - Room 1
17.00	17.15	Coffee break	Coffee break
17.15	18.45	Parallel Sessions	Parallel Sessions
		SS1B: Recent advances in testing of structural and nonstructural masonry II - Room 2	SS4B: Field Testing and Structural Health Monitoring II - Room DICAr
		SS2: Hybrid Simulation Methods for Multi-hazard Engineering - Room DICAr	S6.1: Modeling/Numerical Simulation in Predicting and Interpreting Experimental Results - Room 1
		S2.1: Structural Health Monitoring, Signal processing, Diagnostic and Prognostic - Room 1	S6.2: Application of Experimental results to Structural Design and Analysis III - Room 2
19.00	19.30	Dinner at EUCENTRE Terrace	Presentation of the new multiaxial shaking table
19.30	21.00		Social Dinner at EUCENTRE Laboratories
21.00	22.00		

Special Sessions

SS1A	Recent advances in testing of structural and nonstructural masonry - I	Room 2	Sept. 6	15:30-17:00
	Organizer: prof. Andrea Penna, University of Pavia			
Document #	Title and Authors			
63	**Shaking Table Tests on 1/2 Scale One Story Masonry Structure** Marco Di Ludovico, Alberto Balsamo, **Gennaro Maddaloni**, Nunzia Iuliano, Giuseppe Maddaloni, Andrea Prota, Gaetano Manfredi			
99	**Shaking Table Out-of-plane Collapse Tests of Slender URM Walls** Francesco Graziotti, Umberto Tomassetti, Luca Grottoli, Andrea Penna, Guido Magenes			
110	**Examples of Centrifuge Testing for Experimental Structural Engineering** **Matthew J. DeJong**, Stefan Ritter, Iason Pelekis, Callum Fleming			
130	**Collapse Analysis of Unreinforced Masonry Vaults Using 3D-printed Scale-model Testing** **Michela Rossi**, Cristián Calvo Barentin, Tom Van Mele, Philippe Block			
136	**Experimental and Numerical Analysis of Seismic Response of Unreinforced Masonry Cross Vaults** Chiara Calderini, **Michela Rossi**, Sergio Lagomarsino, Lucrezia Cascini, Francesco Portioli			

SS1B	Recent advances in testing of structural and nonstructural masonry - II	Room 2	Sept. 6	17:15-18:45
	Organizer: prof. Andrea Penna, University of Pavia			
Document #	Titles and Authors			
104	**In-Plane Cyclic and Out-of-Plane Dynamic Testing Procedures for Infilled RC Frames** **Riccardo R. Milanesi**, Paolo Morandi, Filippo Dacarro, Luca Albanesi, Guido Magenes			
108	**In-plane Cyclic Tests on Innovative Infills with Sliding Joints and their Numerical Simulation** Andrea Rossi, Paolo Morandi, Riccardo R. Milanesi, Guido Magenes			
125	**Experimental Mechanical Characterisation Of Stone Masonry Under Uniaxial And Biaxial Stress Strate** Francesco Vanin, Katrin Beyer			
156	**Challenges and Main Features on Quasi-static Cyclic Out-of-plane Tests of Full-scale Infill Masonry Walls** António Arêde, **André Furtado**, José Melo, Hugo Rodrigues, Humberto Varum, Nuno Pinto			
202	**Open-Air Cyclic Testing of a Large-Scale Stone Masonry Specimen** İhsan Engin Bal, Eleni Smyrou, Murat Alaboz, Mehmet Nuri Yavuzer, Cem Demir, Mustafa Cömert, Alper İlki			

SS2	**Hybrid Simulation Methods for Multi-hazard Engineering**	Room DICAr	Sept. 6	17:15-18:45
	Organizer: Prof. Shirley Dike, Purdue University and Narukoti Nakata, Clarkson University			
Document #	**Title and Authors**			
79	**Advanced Real-Time Hybrid Simulation for Assessment of Tall Building Performance under Multiple Natural Hazards** **James Ricles**, Chinmoy Kolay, Thomas Marullo			
24	**Development of Advanced Experimental Technology on Reproducing Floor Response of High-rise Buildings subjected to Ground Motions** **Pei-Ching Chen**, Chin-Ta Lai, Keh-Chyuan Tsai			
65	**Example of Practical Decisions when Implementing a Hybrid Test for Producing Reference Results** **Francisco-Javier Molina**, Pierre Pegon			
114	**Vision for Hybrid Simulation Testing of Buildings under Wind Loading** Mohamed A. Moustafa, Peter Irwin			
90	**Development of New Real-Time Force Control Methods for Implementing Real-Time Hybrid Simulation and Effective Force Testing** Yunbyeong Chae, Ramin Rabiee, Abdullah Dursun, Chul-Young Kim			
51	**Development and Optimization Case Study of Distributed Real-Time Hybrid Simulation Method** **Xin Li**, Xilin Lu, Lei Lu, Jiaqi Xu, Wensheng Lu, Shirley Dyke			

SS3	**Advances in Experimental Soil-Structure Interaction**	Room DICAr	Sept. 8	11:30-13:00
	Organizer: Prof. Carlo Lai, University of Pavia			
Document #	**Title and Authors**			
157	**Physical Modelling of Soil-Structure Interaction** **Vincenzo Fioravante**, Daniela Giretti			
151	**Soft Grouting for Seismic Isolation** Valeria Nappa, Emilio Bilotta, **Alessandro Flora**			
170	**Slabs on Grades Supported by Soil Reinforced with Inclusions (to be confirmed)** **Cyril Plomteux**, Jerome Racinais			
171	**Rayleigh waves steering via seismic metamaterials** Antonio Palermo, S. Krodel, C. Daraio, **Alessandro Marzani**			
172	**Feasibility Study for In-situ dynamic tests** **Marco Furinghetti**, Alberto Pavese, Simone Peloso, Carlo G. Lai			

SS4A	**Field Testing and Structural Health Monitoring - I** Room DICAr Sept. 7 15.30-17.00
	Organizer: Prof. V. Dertimanis & Prof. E. Chatzi, ETH Zürich and Prof. M.P. Limongelli, Polytechnic of Milan
Document #	**Title and Authors**
17	**Monitoring And Safety Evaluation On The Reinforced Concrete Floor During Moving Of Overweight Facility**
	Jianyun Sun, Cuiqiang Zhang, Peng Wang, Zhaoran Wang, Pengfei Shi
64	**Permanent Monitoring and Real Time Assessment**
	Simone Peloso, Fortunato Cuppari, Chiara Casarotti, Alberto Pavese
78	**Ambient-vibration measurements as a tool for robust seismic assessment of existing large-size residential buildings (To be confirmed)**
	Yves Reuland
98	**Compensation of Temperature Effect on Impedance-based Damage Monitoring in Prestressed Tendon-Anchorage System**
	Jeong-Tae Kim, Thanh-Canh Huynh, So-Young Lee, Joo-Young Ryu
102	**Monitoring Is Essential In Assessing The Risks And Vulnerabilities Of Tall Buildings To Long-Period Earthquake Motions From Distant Sources**
	Mehmet Çelebi
106	**Dynamic System Properties from Real-Scale Free-Vibration Soil-Structure Interaction Experiments**
	Dimitris Pitilakis, Athanasios Vratsikidis
SS4B	**Field Testing and Structural Health Monitoring -II** Room DICAr Sept. 7 17.15-18.45
	Organizer: Prof. V. Dertimanis & Prof. E. Chatzi, ETH Zürich and Prof. M.P. Limongelli, Polytechnic of Milan
Document #	**Title and Authors**
111	**An Overview of Frequency and Damping Wandering in Existing Buildings (to be confirmed)**
	Philippe Guéguen
113	**Operational Regime Clustering for the Construction of PCE-Based Surrogates of Operational Wind Turbines**
	Luis David Avendaño-Valencia, Braulio Barahona, Cyprien Hoelzl, Eleni N. Chatzi
115	**Digital Image Correlation for Dynamic Shake Table Test Measurements**
	Luna Ngeljaratan, **Mohamed A. Moustafa**
124	**Structural health monitoring and damage detection techniques: numerical and experimental case studies (to be confirmed)**
	Rocco Ditommaso, Maria, De Bonis, Chiara, Iacovino, **Maria P. Limongelli**, Felice C., Ponzo, Daniele, Spina
134	**Experimental Analysis of the Torlonia Building in Avezzano, Italy**
	Giovanni Bongiovanni, Giacomo Buffarini, Paolo Clemente, **Fernando Saitta**, Concetta Tripepi
137	**Why the Z24 Bridge is so Important**
	Keith Worden, Charles R. Farrar, Haichen Shi, Elizabeth J. Cross

SS5	**Experimental investigation of RC precast buildings** Room 2 Sept. 7 9.45-11.15
	Organizer: Dr. R. Nascimbene, Foundation EUCENTRE, Pavia and Prof. G. Magliulo, University of Naples "Federico II"
Document #	**Title and Authors**
140	**Experimental Evaluation of the Seismic Response of Precast Wall Connections** **Emanuele Brunesi**, Roberto Nascimbene, Simone Peloso
105	**Experimental Studies of Beam-to-Column Dowel Connections in RC Precast Buildings** **Tatjana Isaković**, Blaž Zoubek, Miha Kramar, Matej Fischinger
94	**Experimental and Numerical Validation of a Sustainable and Innovative Construction System** Guido Bregoli, **Paolo Riva**
97	**Full-Scale Testing of a Precast Structure with Different Configurations of Cladding Panels: the Devil is in the Detail** **Marco Lamperti Tornaghi**, Paolo Negro

SS6	**Experimental assessment of isolation devices** Room 2 Sept. 7 11.30-13.00
	Organizer: Prof. Mauro Dolce, Direttore Generale Dipartimento della Protezione Civile
Document #	**Title and Authors**
139	**Effect of Friction on the Re-Centring Capability of Sliding Bearings with Curved Surfaces** **Virginio Quaglini**, Paolo Dubini, Emanuele Gandelli
96	**Experimental Evaluation of the Size Effect on Flat and Curved Sliding Motions** **Marco Furinghetti**, Alberto Pavese
173	**In situ dynamic tests on buildings with seismic isolation systems** Mauro Dolce, **Claudio Moroni**, R. Di Tommaso, Francesco Giordano
174	**Testing of seismic isolators and dampers: considerations and standard requirements** **Felice Ponzo**
175	**Seismic risk assessment of buildings with different isolation systems** **Andrea Dall'Asta**

SS7	Computer-vision based structural health monitoring	Room 2	Sept. 8	9:45-11:15
	Organizer: prof. Youngjin Cha			
Document #	**Title and Authors**			
80	**Faster R-CNN Based Structural Surface Damage Detection** Sadegh Mahmoudkhani, **Young-Jin Cha**			
50	**Fusion of ViSP(Visually Served Paired Structured Light System) with IMU for High-speed 6-DOF Structural Displacement Measurement (to be confirmed)** **Jeon Haemin**			
69	**Rapid, Automated Post-Event Image Classification and Documentation** Chul Min Yeum, **Shirley J. Dyke**, Bedrich Benes, Thomas Hacker, Julio Ramirez, Alana Lund, Santiago Pujol			
81	**Autonomous UAV for Structural Health Monitoring** Dongho Kang, **Young-Jin Cha**			
149	**Full-field Imaging and Modeling of Structural Dynamics with Digital Video Cameras** **Yongchao Yang**, Charles Farrar, David Mascarenas			

Other Parallel Sessions

S1.1	**Active and Passive Structural Control I** Chair: to be assigned	Room 1	Sept. 6	15:30-17:00
Document #	**Title and Authors**			
28	**Characterization of Frictional Properties of Different Sliding Materials for Curved Surface Sliders** Stefano Barone, **Alberto Pavese**, Gian Michele Calvi			
46	**Seismic Response Analysis of Nuclear Structure Using Innovative Three-Dimensional Isolation Device** Hao Xu, **Wenguang Liu**, Shaoping Li, Daoming Zi, Wenfu He			
47	**Multi-Target Design of Offshore Soft Soil Bridge Isolated with MFPS** **Siqi Wang**, Yong Yuan, Hongping Zhu			
55	**Dynamic Testing of a Full-scale Hydraulic Inerter-Damper for the Seismic Protection of Civil Structures** Shigeki Nakaminami, Hidenori Kida, **Kohju Ikago**, Norio Inoue			
57	**Experimental Evaluation on Seismic Behavior of Steel Panel Dampers in Frame Structures** Xiaoxuan Zhang, Wenhan Yin, Huajian Jin, Feifei Sun, Dazhu Hu			

S1.2	**Application of Experimental results to Structural Design and Analysis - I** Chair: to be assigned	Room DICAr	Sept. 6	15.30-17.00
Document #	**Title and Authors**			
23	**Seismic Residual Displacement of Core-Outrigger Structure Under Resonant Ground Motions** Fei Fei Sun, **Zhi Bin Hu**, Lei Xiao, Jie Huang			
29	**In-plane Mechanical Model of the Roller Guide-rail System in Elevators** **Xiaoyan Wang**, Wensheng Lu, Baofeng Huang, Khalid M. Mosalam			
34	**Shaking Table Tests of RC Structure with Replaceable Coupling Beams** **Cong Chen**, Xilin Lu, Xin Li			
67	**Experiment Design and Bidirectional Tests of a Full-scale Two-story Spatial Buckling-Restrained Braced RC Frame** Jianyun Sun, **Qiyang Tan**, Pengfei Shi, Guoshan Xu, Bin Wu, Yongxi Zhao, Liulian Li, Minghui Zhai			
128	**Experimental Investigation of a New Pier-to-deck Connection for Steel Concrete Composite Bridges in Longitudinal Direction** **Fabrizio Paolacci**, Renato Giannini, Silvia Alessandri			

S2.1	**Structural Health Monitoring, Signal processing, Diagnostic and Prognostic** Chair: to be assigned	Room 1	Sept. 7	17.15- 18.45
Document #	**Title and Authors**			
44	**Statistical Analysis of Pit Depths of Corroded Post-Tensioned Strands According to Different Chloride Condition in a Real Bridge on Service** **Seung Hee. Kwon**, Seon Doo. Jo, Chul Young. Kim			
112	**Integration of in Lab Experiments and Numerical Modeling in a Short-Term Safety Evaluation System for Beam-Type Bridges** **Marco Bonopera**, Kuo-Chun Chang, Chun-Chung Chen, Bo-Han Lee, Yu-Chi Sung, Nerio Tullini			
150	**Borgoforte Bridge Case: from Real-Time Monitoring to Risk Assessment and Management** **Alfredo Cigada**, Gianluca Crotti, Francesco Ballio			
41	**Neural Network Based Auxiliary Controller for Online Signal Correction of Electric Linear Motor Shake Table** Selma H. Larbi, Nouredine Bourahla, Hacine Benchoubane, Mohamed Badaoui			
80	**Faster R-CNN Based Structural Surface Damage Detection** Sadegh Mahmoudkhani, **Young-Jin Cha**			
69	**Rapid, Automated Post-Event Image Classification and Documentation** Chul Min Yeum, **Shirley J. Dyke**, Bedrich Benes, Thomas Hacker, Julio Ramirez, Alana Lund, Santiago Pujol			

S3.1	**Hybrid Simulation and Other On-Line Testing Techniques - I** Chair: to be assigned	Room 1	Sept. 7	9.45-11.15
Document #	**Title and Authors**			
15	**A Novel Hybrid Testing Method for Incomplete Boundary Conditions** Bin Wu, **Xizhan Ning**, Ge Yang, Zhu Mei			
25	**Hierarchical Kriging Surrogate of the Seismic Response of a Steel Piping Network Based on Multi-Fidelity Hybrid and Computational Simulators** **Giuseppe Abbiati**, Imad Abdallah, Stefano Marelli, Bruno Sudret, Bozidar Stojadinovic			
54	**Online Hybrid Test on a Seismically-Retrofitted Masonry Building** **Tao Wang**, Xiaoting Wang, Xi Chen, Wenfeng Li			
56	**An Experimental Study on the Robustness of a Tuned Viscous Mass Damper System Incorporated into a Single-Degree-Of-Freedom Structure** **Kohju Ikago**, Shun Taniguchi, Masahiro Ikenaga, Shigeki Nakaminami, Norio Inoue1, Kenji Saito			

S3.2	**Novel Testing, Measuring and Monitoring Techniques in Structural Engineering** Chair: to be assigned	Room DICAr	Sept. 7	9.45-11.15
Document #	**Title and Authors**			
19	**Enhancing Cyclic Strength of Welded Tubular Structures** Feleb N. Matti, **Fidelis Rutendo Mashiri**, Adrian Saliba			
132	**Analysis of the Materials Behaviour at High Strain-Rate in Support of Impact Resistant Structural Design** Ezio Cadoni, Matteo Dotta, Daniele Forni			
117	**Advancements in Experimental Testing of Nonlinear Soil Structure Interaction** Jenna Wong, Floriana Petrone, David McCallen			
126	**Advances On The Application Of X-Ray Micro-CT Scanning To Structural Engineering. The Case-Studies Of Granular Materials And Reinforced Concrete** **João Almeida**, Katrin Beyer			

S4.1	**Application of Experimental results to Structural Design and Analysis - II** Chair: to be assigned	Room DICAR	Sept. 7	11.30-13.00
Document #	**Title and Authors**			
76	**Experimental Procedures for Displacement-Controlled Pure Torsion Tests on Reinforced Concrete Shells** **Edvard P. G. Bruun**, Evan Charles Bentz			
100	**Experimental Investigation of Low Velocity Impact Behaviour of RC Two Way Slab Strengthening with CFRP Strips** **Tolga Yılmaz**, Nevzat Kıraç, Özgür Anil, Ceyda Sezer			
109	**Blind Prediction of a Three-Storey RC Frame Building with Masonry Infill Walls** **Alexander Kagermanov**, Paola Ceresa			
118	**Masonry Infilling of RC Building Against Progressive Collapse in case of Loss of Column** Nikos Stathas, Ioannis Karakasis, Elias Strepelias, Xenofontas Palios, Micheal Fardis, **Stathis Bousias**			
131	**Experimental Evaluation of System Level Properties of Porcelain Post Insulators Based on a Large Set of Full-Scale High-Voltage Insulators** **Shakhzod Takhirov**, Frank Blalock, Jerry Stewart			

S4.2	**Hybrid Simulation and Other On-Line Testing Techniques - II** Chair: to be assigned	Room 1	Sept. 7	11.30-13.00
Document #	**Title and Authors**			
77	**A General-Purpose Platform for Hybird Simulation with Model Updating** **Kung-Juin Wang**, Ming-Chieh Chuang, Chao-Hsien Li, Pu-Yuan Chin, Keh-Chyuan Tasi			
95	**Carleton Multi-Hazard Research Facility: Infrastructure and Preliminary Hybrid Testing** **Joshua E. Woods**, Sean Miller, Jeffrey Erochko, David T. Lau			
101	**Hybrid Simulation using the Subfeed in Highly Complex and Non-Linear Numerical Models** **Uwe E. Dorka**, Ferran Obón Santacana			
114	**Vision for Hybrid Simulation Testing of Buildings under Wind Loading** **Mohamed A. Moustafa**, Peter Irwin			

S5.1	**Hybrid Simulation and Other On-Line Testing Techniques - III** Chair: to be assigned	Room 2	Sept. 7	15.30-17.00
Document #	**Title and Authors**			
90	**Force-Displacement Hybrid Test of Engineering Structures with Multi-Degree-of-Freedom Testing** **Yunbyeong Chae**, Ramin Rabiee, Abdullah Dursun, Chul-Young Kim			
89	**Force-Displacement Hybrid Test of Engineering Structures with Multi-Degree-of-Freedom Testing** **Huimeng Zhou**, Mengning Li, Tao Wang, Nigel A. Linden, Matthew Schroeder			
95	**Hybrid Fire Testing via the Substructuring Method** Manfred Korzen			
48	**Real-Time Solution Scheme Of Numerical Substructure In Windows Environment** **Jin-Ting Wang**, Li-Qiao Lu, Fei Zhu			
160	**Hybrid Simulation Using Advanced General Purpose Finite Element Software Packages** **Shawn You**, Shawn Gao, Andreas Schellenberg			

5.2	**Active and Passive Structural Control II** Chair: to be assigned	Room 1	Sept. 7	15.30-17.00
Document #	**Title and Authors**			
119	**Full-scale Component Testing of Seismic Isolation Devices and Verification of Their Performance in Full-scale System Level Tests on a Shaking Table** **Shakhzod Takhirov**, Eric Fujisaki, Leon Kempner, Michael Riley, Brian Low			
145	**Study on Seismic Performance of Super Tall Building Structure with Viscous Damping Outriggers Based on Steady Frequency Excitation Method** **Cuiqiang Zhang**, Jianyun Sun, Pengfei Shi			
22	**Performance Assessment Of Alternative Seismic Isolation Solutions Based On Heterogeneous Simulations And State-Space Models** Giuseppe Abbiati, Igor Lanese, **Enrico Cazzador**, Oreste S. Bursi, Alberto Pavese			
161	**The Antiseismic Devices for the Padma Bridge and their Testing Procedure** Agostino Marioni, **Roberto Dalpedri**, Marco Banfi			
91	**Bi-Directional Pseudo-Dynamic Test of an Eight-Storey Buckling-Restrained Braced RC Frame Building** **Pengfei Shi**, Zhaoran Wang, Zhen Wang, Bin Wu, Zhizeng Zhao, Qiyang Tan, Jianyun Sun, Peng Wang, Minghui Zhai			

S6.1	**Modeling/Numerical Simulation in Predicting and Interpreting Experimental Results** Chair: to be assigned	Room 2	Sept. 7	17.15-18.45
Document #	**Title and Authors**			
8	**Ductility Performance on Jetty Steel Piles Repaired by Steel Patch Plates** Kazuo Furunishi, Yasuo Kitane, Yoshito Itoh			
47	**Shake Table Control Method for Nonlinear Hysteretic Systems** **Ki P. Ryu**, Andrei M. Reinhorn, Mettupalayam Sivaselvan			
72	**Load Bearing Capacity Testing of Dowel Pin Anchorage in Granite Cladding** Junru Tan, **Baofeng Huang**, Wensheng Lu, Khalid M. Mosalam			
200	**Numerical Simulation of Ambient Vibration Tests: a Case Study** Valeria Pepe, Alessandra De Angelis, Maria R. Pecce			
73	**On The Orientation of Ground Motions and Their Scaling in Accordance with Code Provisions** **Esengul Cavdar**, Gokhan Ozdemir			

S6.2	Application of Experimental results to Structural Design and Analysis - III Chair: to be assigned	Room 2	Sept. 7	17.15-18.45
Document #	**Title and Authors**			
30	**Experimental Behavior of Wide-Flange Steel Braces with Reinforced Section** **Chui-Hsin Chen**, Chao-Chen Sun, Pierre-Darry Versaillot			
108	**In-plane Cyclic Tests on Innovative Infills with Sliding Joints and their Numerical Simulation** **Andrea Rossi**, Paolo Morandi, Riccardo R. Milanesi, Guido Magenes			
62	**Stability of Wide-Flange Steel Columns under Multi-Axis Cyclic Loading** **Ahmed Elkady**, Dimitrios Lignos			
88	**Shaking Table Test of a Four-Tower Tall Building Connected with an Isolated Sky-Corridor on the Top** **Xilin Lu**			
127	**Out-Of-Plane Stability Of Thin RC Walls: Comparison Of Boundary Element Tests To Wall Tests** João Almeida, Angelica Rosso, **Katrin Beyer**			
142	**Shake Table Tests on Mobile Office Partitions** Crescenzo Petrone, **Gennaro Magliulo**, Antonio Bonati, Gaetano Manfredi			

S7.1	Hybrid Simulation and Other On-Line Testing Techniques - IV Chair: to be assigned	Room DICAr	Sept. 8	9.45-11.15
Document #	**Title and Authors**			
161	**Hybrid Testing of Seismic Isolated Structures: Test Reliability and Scaling Issues** Igor Lanese, Alberto Pavese, Giuseppe Abbiati, Oreste S. Bursi			
144	**Collapse Assessment of Building Columns through Multi-Axis Hybrid Simulation** **Mohammad J. Hashemi**, Hamidreza A. Yazdi, Riadh Al-Mahaidi, Emad Gad			
70	**Multi-Element Pseudo-Dynamic Hybrid Simulation of Concentric Braced Frames** **Saeid Mojiri**, Pedram Mortazavi, Oh-Sung Kwon, Constantin Christopoulos			
122	**2DOF Decentralized Model Prediction Control Approach for Hybrid Simulation** **Ning Li**, Bille F. Spencer Jr, Zhongxian Li			

S8.1	**Application of Experimental results to Structural Design and Analysis - IV** Chair: to be assigned	Room 1	Sept. 8	11.30-13.00
Document #	**Title and Authors**			
143	**Collapse assessment of RC Framed Buildings with Wide Beam-Column Connections and Effect of Spandrel Beam Reinforcement** Hamdolah Behnam, **M. Javad Hashemi**, JS Kuang, Riadh Al-Mahaidi, Kamiran Abdouka, John L Wilson			
163	**Shake-Table Test on a Half-Scale Stone Masonry Building Aggregate Including Retrofit Strategies** Gabriele Guerrini, Ilaria E. Senaldi, Francesco Graziotti, Guido Magenes, Katrin Beyer, Andrea Penna			
74	**In-Plane Behavior of Sandwich Roof Panels** **Ahmet Güllü**, Amirmahdi Mohammadi Saghayesh, Ercan Yüksel			
27	**Response of an existing two storey RC frame designed for gravity loads: in situ pushover tests and numerical analysis** **Giuseppe Sinopoli**, Chiara Casarotti, Simone Peloso, Alberto Pavese, Filippo Dacarro			
75	**Shake Table Tests of a Special Raised Floor System** Yavuz Durgun, Ahmet Güllü, Tansu Gökçe, **Ercan Yüksel**			

S8.2	**Design of new facilities, testing procedures** Chair: to be assigned	Room 2	Sept. 8	11.30-13.00
Document #	**Title and Authors**			
13	**Georgia Institute of Technology Laboratory for Blast, Shock and Impact** **Lauren K. Stewart**, Nan Gao, Genevieve Pezzola, Marc Sanborn, Kathryn Sanborn, Alix Nail, Giovanni Loreto			
18	**A new large scale laboratory: the LEDA Research Centre (Laboratory of Earthquake engineering and Dynamic Analysis)** **Marinella Fossetti**, Francesco Lo Iacono, Giovanni Minafò, Giacomo Navarra, Giovanni Tesoriere			
71	**An Overview of the University of Toronto Simulation (UT-SIM) Framework and its Application to the Performance Assessment of Structures** **Pedram Mortazavi**, Xu Huang, Oh-Sung Kwon, Constantin Christopoulos			
103	**Seismic Protection Devices: Design and Performance of a New Dynamic Test Facility** **Samuele Infanti**, Silvio De Toni, Aikaterina E. Pigouni			