

<b>Wednesday, July 14<sup>th</sup></b>					
08:00	Start Registration first floor				
09:00-09:45	<b>Plenary Lecture 2 Room H1 first / second floor</b>				
09:45 - 10:15 Coffee Break					
<b>Contributed Sessions</b>					<b>Mini – Symposia</b>
	<b>Room H1</b> first / second floor	<b>Room H5</b> second floor	<b>Room H6</b> second floor	<b>Room H3</b> second floor	<b>Room H8</b> second floor
10:15 – 11:45	<b>1-9</b> Modelling, Design and Dynamic Analysis V	<b>1-10</b> Adaptive Control and Fuzzy Algorithms		<b>6.3-1</b> Different Structures I: Aerospace, Off- Shore, Ship	<b>M1-1</b> Cultural Heritage Preservation: Device Design
11.45 - 13:00 Lunch					
13:00 – 14:30	<b>1-11</b> Modelling, Design and Dynamic Analysis VI	<b>1-12</b> Optimal Control Methods I	<b>6.1-2</b> Bridges II: Control and Pedestrian Bridges	<b>5-3</b> Health Monitoring III	<b>M1-2</b> Cultural Heritage Preservation: Case Studies
14:30 - 14:45 Break					
14:45 – 16:15	<b>1-13</b> Modelling, Design and Dynamic Analysis VII	<b>1-14</b> Optimal Control Methods II	<b>6.2-2</b> Buildings II: Base Isolation	<b>5-4</b> Health Monitoring IV: Concrete Structures	<b>M3-1</b> Sensor Technology Toward Structural Control I
16:15 - 16:45 Coffee Break					
16:45 – 18:15	<b>1-15</b> Passive Control I	<b>3-1</b> Experimental Methods I	<b>6.3-2</b> Different Structures II: Vehicles	<b>5-5</b> Health Monitoring V	<b>M3-2</b> Sensor Technology Toward Structural Control II

**WEDNESDAY, JULY 14<sup>th</sup>:**

**ROOM: H1 first / second floor**  Sectional Keynote Lecture  Plenary Lecture

**Plenary Lecture 2: 09:00 – 09:45**

<b>Chair: Irschik, H.</b>	<b>Co-Chair: Brandl, A.</b>
<b>Speaker: Belyaev, A.</b>	<b>The Method of Lyapunov's Functions in Mechanics and Control</b>

**Session 1-9: Modelling, Design and Dynamic Analysis V: 10:15 – 11:45**

<b>Chair: Holnicki-Szulc, J.</b>	<b>Co-Chair: Zehetner, C.</b>
Blekhman, I.; Shishkina, E.	On Vibrational Dynamic Materials
Ikhouane, F.; Rodellar, J.	Identification of the Hysteretic Bouc-Wen Model Parameters. A limit Cycle Approach
Ziemianski, L.; Piatkowski, G.	The Detection and Localization of an Attached Mass in Plates.
Andrade, C.; Martinez, I.	Permanent Electrochemical Sensors for the Corrosion Control in Reinforcement Structures.
Petti, L.; Palazzo, B.; De Iullis, M.	Torsional Seismic Response Control of Irregular Plan Systems by Using Viscous Dampers

**Session 1-11: Modelling, Design and Dynamic Analysis VI: 13:00 – 14:30**

<b>Chair: Lerch, R.</b>	<b>Co-Chair: Zehetner, C.</b>
Gabbert, U.; Köppe, H.; Nestorovic, T.; Seeger, F.	Finite Element Based Overall Design of Controlled Smart Structures
Nyashin, Y.; Lokhov, V.; Kiryukhin, V.	Modeling and Control of Stress and Strain by Eigenstrain
Troger, H.; Steindl, A.; Barkow, B.	Control of Unfolding of Space Structures which are Composed by Strings
Baratta, A.; Corbi, O.	An Open-Loop Approach Through The Inverse Response Spectrum

**Session 1-13: Modelling, Design and Dynamic Analysis VII: 14:45 – 16:15**

<b>Chair: Irschik, H.</b>	<b>Co-Chair: Manhartgruber, B.</b>
Krommer, M.	Shape Control of Sub - Domains of Structures
Nader, M.; von Garssen, H.; Irschik, H.	Vibration Compensation of Slender Beams and Thin Shell Structures by Distributed Piezoelectric Patches
Kiryukhin, V.; Nyashin, Y.; Lokhov	Design of Optimal Support Using the Stress and Strain Control Technique
Lokhov, V.; Nyashin, Y.; Kiryukhin, V.	Stress and Strain Control by Eigenstrain in Engineering Structures

**Session 1-15: Passive Control I: 16:45 – 18:15**

<b>Chair: Scheidl, R.</b>	<b>Co-Chair: Manhartgruber, B.</b>
Hochrainer, M.; Ziegler, F.	Tuned Liquid Column Damper—A Cheap Device for Control of Tall Building Vibrations
Taflanidis, A.; Angelides, D.; Manos, G.	Liquid Column Vibration Absorbers for Rotational Vibration Control of Structures
Pirner, M.; Urushadze, S.	Liquid Damper for Suppressing Horizontal and Vertical Motion of Footbridge
Saeed Monir, H.; Mahdi Eslami, M.	Vibration Control of Structures by Using a New Passive Energy Absorbing System

## WEDNESDAY, JULY 14<sup>th</sup>:

**ROOM: H5** second floor  Sectional Keynote Lecture

### Session 1-10: Adaptive Control and Fuzzy Algorithms: 10:15 – 11:45

Chair: Boller, C.		Co-Chair: Gerstmayr, J.	
Choi, K.; Cho, S.; Lee, J.; Lee, I.	Active Control for Seismic Response Reduction using Modal-fuzzy Approach		
Pozo Montero, F.; Ikhouane, F.; Rodellar Benedé, J.	Adaptive Backstepping Control of Hysteretic Base-isolated Structures		
Neild, A.; Stoten, D.; Drury, D.; Taylor, C.	Adaptive Control of Real-Time Dynamic Substructuring Experiments		
Zhou, L.; Xu, X.; Yan, G.	Fuzzy Logic and Genetic Algorithms for Intelligent Control of Structure Using MR Dampers		
Holicky, M.	Fuzzy Optimisation of Structural Performance		

### Session 1-12: Optimal Control Methods I: 13:00 – 14:30

Chair: Indeitsev, D.		Co-Chair: Gerstmayr, J.	
Gerstmayr, J.; Irschik, H.; Stangl, M.	Optimal Control Parameters of Flexible Multibody Systems with Contact		
Ryzynski, W.; Kowalczyk, R.	Optimal Control Seismic Response of Frame Structures Including Soil-Structure Interaction Effects		
Sukhanov, A.; Ispolov, Y.	Optimal Control Over the Motion of an Active Buoy		
Shoureshi, R.; Permana, V.; Lim, S.	Robust Control and Informatics for Structural Vibrations		

### Session 1-14: Optimal Control Methods II: 14:45 – 16:15

Chair: Rodellar, J.		Co-Chair: Gerstmayr, J.	
Wu, J.; Shen, Y.	Optimal Parameters of Tuned Liquid Column Damper Design for Damped SDOF Wind-Excited Structures		
Iourtchenko, D.; Menaldi, J.	Optimal Tracking of Stochastic Systems with Bounded Control Force		
Wu, K.; Janocha, H.	Optimal Thickness and Depth for Embedded Piezoceramic Actuators		

### Session 3-1: Experimental Methods I: 16:45 – 18:15

Chair: Reinhorn, A.		Co-Chair: Gerstmayr, J.	
Magonette, G.	Recent Advances and Future Needs in Large-Scale Experimental Facilities		
Marazzi, F.; Marazzi, R.; Magonette, G.	Energy Considerations about Shaker Excited Structures		
Reinhorn, A.; Sivaselvan, M.; Weinreber, S.; Shao, X.	Real-Time Dynamic Hybrid Testing of Structural Systems		
Vidal, V.; Molina, J.; Magonette, G.	Systematic Experimental Errors in Pseudodynamic Tests		

## WEDNESDAY, JULY 14<sup>th</sup>:

**ROOM: H6** second floor  Sectional Keynote Lecture

### Session 6.1-2: Bridges II: Control and Pedestrian Bridges: 13:00 – 14:30

Chair: Heuer, R.		Co-Chair: Handel, C.	
Garcia, J.; Dorka, U.; Magonette, G.; Bosi, A.		Semi-Active Control of Bridges. I: Laboratory Testing	
Rodellar, J.; Luo, N.; Villamizar, R.; Garcia, J.; Dorka, U.;		Semi-Active Control of Bridges. II: Control Algorithms	
Reiterer, M.		Control of Pedestrian-induced Bridge Vibrations by Tuned Liquid Column Dampers	
Occhiuzzi, A.; Spizzuoco, M.; Serino, G.		Semi-active Control of Pedestrian-induced Vibrations in Footbridges Through MR Dampers in TMDs	

### Session 6.2-2: Buildings II: Base Isolation: 14:45 – 16:15

Chair: Jurukovski, D.		Co-Chair: Handel, C.	
Jung, H.; Park, K.; Spencer, B.; Lee, I.		Seismic Protection of Base Isolated Building Using Robust Hybrid Control Systems	
Wang, S.; Wu, X.; Li, H.		Overturning Analysis for Base Isolated Buildings to Seismic Excitations	
Erdik, M.; Uckan, E.		Structures With Seismic Isolation in Turkey	
Fujitani, H.; Sodeyama, H.; Tomura, T.; Watanabe, H.; Soda, S.		Implementation of 400kN Magnetorheological Damper for an Actual Base-isolated Building	

### Session 6.3-2: Different Structures II: Vehicles: 16:45 – 18:15

Chair: Grünwald, M.		Co-Chair: Handel, C.	
Chakraborty, A.; Basu, B.		Non-linear Dynamic Response of a Vehicle with Tuned Mass Damper	
Vavro, J.; Kopecky, M.; Saga, M.		The Experimental Measurement the Natural Frequencies of the Automobile Disc and their Analysis	
Sapinski, B.; Rosól, M.		Vibration Suppression of a MR Suspension System for a Driver's Seat	
Obieta, G.; Martinez-Esnaola, M.; Sánchez, F.; Santiago, J.; Sagartzazu, X.		Application of Bragg Gratings to the Structural Analysis of a Lift Car Frame	

## WEDNESDAY, JULY 14<sup>th</sup>:

**ROOM: H3** second floor  Sectional Keynote Lecture

### Session 6.3-1: Different Structures I: Aerospace, Off- Shore, Ship: 10:15 – 11:45

<b>Chair: Marzocca, P.</b>		<b>Co-Chair: Deix S.</b>	
Grünewald, M.; Maier, R.; Jaenker, P.; Pfeiffer, A.	New Mechatronic systems for aeronautic applications		
Dittrich, K.; Becker, J.; Luber	Structural Concepts for Morphing Wing		
Cami, R.; Indirli, M.; Muzzarelli, M.; Spadoni, B.; Clemente, P.	The Use of an Innovative 3D-Isolation System for Seismic and Ambient Vibration to Protect the Roman Ship Excavated at Ercolano		

### Session 5-3: Health Monitoring III: 13:00 – 14:30

<b>Chair: Aktan, E.</b>		<b>Co-Chair: Deix S.</b>	
Peeters, B.; Van der Auweraer, H.	Operational Modal Analysis, a Tool for Structural Health Monitoring		
Uhl, T.; Klepka, A.; Bogacz	Modal Analysis for Nonstationary Systems and its Application for Structural Health Monitoring		
Lapko, A.; Kollataj, J.; Sadowska-Buraczewska, B.; Kowalczyk, R.	Application of Telemetry Technique for Long - Term Monitoring of R C Building Structures		

### Session 5-4: Health Monitoring IV: Concrete Structures: 14:45 – 16:15

<b>Chair: Masri, S.</b>		<b>Co-Chair: Ralbovsky, M.</b>	
Pearson-Kirk, D.; Solan, B.	The Benefits of Testing and Monitoring the Durability of Concrete Structures		
Song, G.; Gu, H.; Mo, Y.; Hsu, T.; Dhonde, H.	Health Monitoring of a Concrete Structure Using Piezoceramic Materials		
Wawrusiewicz, A.	The Evaluation of State of Concrete Structure by Multi Mapping		
De Wit, M.; Hovhanessian, G.	The Strain Relief Method for Measuring the Strain in Concrete		
De Wit, M.; Hovhanessian, G.	The Use of Acoustic Monitoring to Manage Concrete Structures		

### Session 5-5: Health Monitoring V: 16:45 – 18:15

<b>Chair: Vestroni, F.</b>		<b>Co-Chair: Ralbovsky, M.</b>	
Wahbeh, M.; Caffrey, J.; Masri, S.	Monitoring the Vibrations of Dispersed Civil Structures Through the Use of a Vision-Based Method		
Binici, B.; Kallivokas, L.	Crack Identification in Beams Using Multiple Spectra		
Della Vedova, M.; Elsener, B.; Evangelista, L.	Corrosion Protection and Monitoring of Post-tensioning Tendons		

**WEDNESDAY, JULY 14<sup>th</sup>:****ROOM: H8 second floor**  Sectional Keynote Lecture**Mini – Symp. M1-1: Cultural Heritage Preservation: Device Design 10:15 – 11:45**

<b>Chair: Casciati, F.</b>		<b>Co-Chair: Stangl, M.</b>	
Casciati, S.; Faravelli, L.	Fastening Cracked Blocks by SMA Devices		
van der Eijk, C.; Zhang, Z.	Seismic Dampers Based on Shape Memory Alloys (SMA): Metallurgical Background and Component Modelling		
Ouled Chtiba, M.; Choura, S.; El-Borgi, S.	Design of Passive Controllers for the Confinement of Structural Vibrations		
Berezovski, A.; Engelbrecht, J.; Maugin, G.	Dynamics of Phase Boundaries in Thermoelastic Solids		

**Mini – Symp. M1-2: Cultural Heritage Preservation: Case Studies: 13:00 – 14:30**

<b>Chair: Casciati, F.</b>		<b>Co-Chair: Stangl, M.</b>	
Boumechra, N.	Parametric Analysis of Vibrational Behaviour of Ancient Structures (Cases of Two Historical Buildings)		
Chrysostomou, C.; Demetriou, T.; Stassis, A.	Seismic Protection of an Aqueduct by Innovative Techniques		
Marinelli, A.; Symakezis, C.; Antonopoulos, A.	Structural Response of Masonry Historical Structures Using Fragility Curves		
El-Attar, A.; Osman, A.	Seismic Response of Two Historical Islamic Minarets		

**Mini – Symp. M3-1: Sensor Technology Toward Structural Control I: 14:45 – 16:15**

<b>Chair: Faravelli, L.</b>		<b>Co-Chair: Dibold, M.</b>	
Boller, C.	Smart Technologies in Structural Control - Are we all Talking about the Same Thing?		
Faravelli, L.; Rossi, R.	Design and Implementation of a Self-powered Accelerometric Station		
Domaneschi, M.; Casciati, F.; Inaudi, D.; Figini, A.	Long-gauge Fibre-optic Sensors: a New Approach to Dynamic System Identification		
Bydzovsky, J.; Kraus, L.; Svec, P.	Magnetoelastic Tenzometry for Harsh Environments		

**Mini – Symp. M3-2: Sensor Technology Toward Structural Control II: 16:45 – 18:15**

<b>Chair: Faravelli, L.</b>		<b>Co-Chair: Dibold, M.</b>	
Liu, S.	Strategic Issues in Sensors and Smart Structures		
Scruby, C.; Cawley, P.; Hayward, G.	Research into NDE Sensors for Structural Monitoring		
Nishitani, A.	Smart Concept and Smart Sensing		
Chang, P.	Passively Powered Smart Sensor for Infrastructure Monitoring		

