Monday, 9 July 2007	
8:30 – 9:00	**Conference Opening Ceremony**
Keynote lectures **Chairman: Holnicki-Szulc J.**	
9:00 – 9:45	Preumont A., de Marneffe B., Rordigues G., Nasser H. and Deraemaeker A.: *Issues in Modelling, Isolation, and Shape Control of Precision Structures for Space and Other Applications*
9:45 – 10:30	Tobushi H.: *Thermomechanical Properties of Shape-Memory Alloy and Polymer and their Composite*
10:30 – 11:00	**Coffee**
Session 1.1. Sensors and Structural Identification (S&SI) **Chairman: Boller C.**	
11:00 – 11:20	Bojko T., Bednarz J. and Lisowski W.: *Development of Wireless Sensors for Experimental Modal Analysis of Civil Engineering Structures*
11:20 – 11:40	Deraemaeker A., Benelechi S., Benjeddou A. and Preumont A.: *Analytical and Numerical Computation of Homogenized Properties of MFCS: Application to a Composite Boom with MFC Actuators and Sensors*
11:40 – 12:00	Hegde G. and Sinha R.: *A Technique for Locating Sensors on Buildings for Complete Modal Identification from Limited Number of Response Measurements*
12:00 – 12:20	Lenke P., Krebber K., Muthig M., Weigand F. and Thiele E.: *Distributed Strain Measurement Using Polymer Optical Fiber Integrated in Technical Textile to Detect Displacement of Soil*
12:20 – 12:40	Lokteva I. A., Kalach A. V. and Zyablov A. N.: *Piezosensor Application to the Analysis of Amino Acids in Solutions*
12:40 – 13:00	Nöther N., Wosniok A., Krebber K. and Thiele E.: *Dike Monitoring Using Fiber Sensor-based Geosynthetics*
Session 1.2. Active Materials and Actuators (AM&A) **Chairman: Inman D.**	
11:00 – 11:20	Boczkowska A. and Awietjan S.F.: *Urethane Magnetorheological Elastomers Microstructure and Properties*
11:20 – 11:40	Dienerowitz F. and Seemann W.: *Proposing a Pretwisted Bending Actuator*
11:40 – 12:00	Gudmundsson K. H., Jonsdottir F., Palsson H. and Karlsson S. G.: *Optimization of a Magneto-rheological Rotary Brake*
12:00 – 12:20	Hilton H. H., Preumont A., Avraam M., Lee D. H. and Dave E. V.: *Electro/magneto–viscoelasticity: Characterization, the Correspondence Principle, Material Property Optimizations and Structural Control Issues*
12:20 – 12:40	Mazlan S. A, Ekreem N. B. and Olabi A. G.: *Mechanical Properties of Magnetorheological Fluids under Compression Mode*

12:40 – 13:00	Wroblewski R., Leonowicz M. and Kaszuwara W.: *Effect of Alloy Composition and Heat Treatment on the Structure and Phase Transition Temperatures in Ni-Mn-Ga Alloys*
13:00 – 14:00	**Lunch**
Keynote lecture **Chairman: Preumont A.**	
14:00 – 14:45	Lee I.: *Static and Dynamic Behaviors of Smart and Aerospace Structures*
Session 2.1. Vibration and Shape Control (V&SC) **Chairman: Staszewski W.**	
14:45 – 15:05	Kauba M. and Mayer D.: *Implementation of a Decentralized Vibration Control System Based on Positive Position Feedback*
15:05 – 15:25	Ario I. and Pawlowski P.: *Elastic Instability for Pantographic Folding Structures Based on Multi-folding Microstructure Theory*
15:25 – 15:45	Bochenski M., Warminski J. and Cartmell M. P.: *Analytical and Experimental Investigations of Autoparametric Beam Structure*
Session 2.2. Composite Modelling (CM) **Chairman: Uhl T.**	
14:45 – 15:05	Lammering R. and Yang F.: *A Four – Node Finite Element for Piezoelectric Shell Structures in Convective Coordinates*
15:05 – 15:25	Daghia F., Inman D. J., Ubertini F. and Viola E.: *Experimental Testing of a Shape Memory Alloy Hybrid Composite Plate for Active Shape Control*
15:25 – 15:45	Trindade M. A. and Benjeddou A.: *On the Evaluation of Effective Electromechanical Coupling Coefficients for Structures with Piezoelectric Elements*
15:45 – 16:15	**Coffee**

Tuesday, 10 July 2007	
Keynote lectures **Chairman: Mota Soares C.**	
9:00 – 9:45	Inman D.J. and Erturk A.: *Energy Harvesting Using Smart Materials*
9:45 – 10:30	Giurgiutiu V.: *Damage Assessment of Structures an Air Force Office of Scientific Research Structural Mechanics Perspective*
10:30 – 11:00	**Coffee**
Session 1.1. Structural Health Monitoring and Signal Processing (SHM&SP) **Chairman: Farrar C.**	
11:00 – 11:20	Criado A., Pérez Melguizo C., Peña Macías J., Martinez-Oña R. and Kawiecki G.: *Low Frequency, Built-in Phased Array System for Stiffened Composite Structures Monitoring*
11:20 – 11:40	Lämsä V. and Kullaa J.: *Dynamical Extension of Nonlinear Factor Analysis in Structural Health Monitoring to Remove Environmental Effects*
11:40 – 12:00	Mita A., Iwasawa O. and Ogawa S.: *Smart Sensor Networks with Automatic Configuration Mechanism for Structural Health Monitoring Systems*
12:00 – 12:20	Mújica L. E. , Rodellar J. and Vehí J.: *A Case Based Reasoning Approach for Damage Assessment in Smart Structures*
12:20 – 12:40	Mahzan S., Staszewski W. J. and Worden K.: *Comparative Study of Impact Damage Detection in Aerospace Structures*
12:40 – 13:00	Sekula K. and Holnicki-Szulc J.: *Comparison of Real Time Impact Load Identification Procedures*
Session 1.2. Active Materials and Actuators (AM&A) **Chairman: Tobushi H.**	
11:00 – 11:20	Mikułowski G. and Batterbee D. C: *Flux Density Variation in Magnetorheological Fluid Devices*
11:20 – 11:40	Oscarsson M. and Endahl G.: *Energy Consistency in De-hysterisation of Magnetostrictive Material Strain and Magnetisation Data*
11:40 – 12:00	Patrusheva T. N., Pryanikov A. and Kholkin A.: *Extraction-pyrolysis Technique for Smart Glass and Fibers Preparation*
12:00 – 12:20	Pirge G. and Altintas S.: *A Study on the Microstructure of NiMnGa Magnetic Shape Memory Alloys*
12:20 – 12:40	Szurgott P., Boczkowska A., Kurzydłowski K. J. and Niezgoda T.: *Numerical Strength Analysis of Magnetic Fields Interaction with Elastomer Materials Containing Iron Particles*
12:40 – 13:00	Zapateiro M., Luo N. S., Taylor E. and Dyke S. J.: *Modeling and Identification of a Class of MR Fluid Foam Dampers*
13:00 – 14:00	**Lunch**

Keynote lecture **Chairman: Preumont A.**	
14:00 – 14:45	Boller C., Kuo C. M. and Qin N.: *Morphing Aircraft Options at Micro Scale Based on Smart Structural Solutions*
Session 2.1. Structural Health Monitoring and Signal Processing (SHM&SP) **Chairman: Hilton H. H.**	
14:45 – 15:05	Wilde K., Rucka M., Hirsz M. and Dudek M.: *Application of Neural Network for Multilevel SHM System in Plates*
15:05 – 15:25	Williams S. M.: *An Experiment to Show the Feasibility of Condition Monitoring above Ground Storage Tank Walls by Modal Testing with Piezoelectric Transducers*
15:25 – 15:45	Marinova D.: *Robust Approaches to Active Shape Regulating of Composite Plates*
Session 2.2. Active Materials and Actuators (AM&A) **Chairman: Deraemaeker A.**	
14:45 – 15:05	Heinonen J., Vessonen I., Klinge P., Lindroos T.: *Novel Applications for Semi-active Vibration Control Based on SMA Actuators*
15:05 – 15:25	Chandrashekar G., Kaczmarczyk S., Maguire M. and Smith R.: *Identification of the Modal Parameters of a Composite Aramid Suspension System*
15:25 – 15:45	Zak A. J.: *A New 3D Constitutive Model of SMA Behaviour and its Applications*
15:45 – 16:15	**Coffee**
16:15 – 17:00	**Panel Meeting of Conference Scientific Committee**

Wednesday, 11 July 2007	
Keynote lectures **Chairman: Williams S. M.**	
9:00 – 9:45	Farrar C. R.: *Challenges for Transitioning Structural Health Monitoring from Research to Practice*
9:45 – 10:30	Duan Z. D. and Liu Y.: *Updating of Finite Element Model in Considering Mode Errors with Fuzzy Theory*
10:30 – 11:00	**Coffee**
Session 1.1. Vibration and Shape Control (V&SC) **Chairman: Giurgiutiu V.**	
11:00 – 11:20	Yamada K., Matsuhisa H., Utsuno H. and Park J. G.: *Equivalent Mechanical and Electrical Models for Active and Passive Vibration Control Systems Using Piezoelectric Elements*
11:20 – 11:40	Elias T. C. and da Silva E. P.: *Numerical Simulation of the Dynamic Behavior of a Pseudoelastic Vibration Absorber*
11:40 – 12:00	Larbi W., Deü J.-F. and Ohayon R.: *Vibroacoustic Finite Element Formulation for Active-passive Reduction of Sound and Vibration*
12:00 – 12:20	Liu Y. I., Matsuhisa H. and Utsuno H.: *Two Degree-of-freedom Vibration Isolation System with Damping and Stiffness on-off Control*
12:20 – 12:40	Majewska K. M., Zak A. J. and Ostachowicz W. M.: *A Concept of Using MSM Actuators for Forced Vibration Control of a Rotor*
12:40 – 13:00	Moutinho C., Cunha Á. and Caetano E.: *Implementation of an Active Mass Damper to Control Vibrations in a "Lively" Footbridge*
Session 1.2. Damage and Impact Detection (D&ID) **Chairman: Duan Z. D.**	
11:00 – 11:20	von Ende S. and Lammering R.: *Modelling and Simulation of Lamb-wave Generation with Piezoelectric Plates*
11:20 – 11:40	Grabowska J., Krawczuk M., Ostachowicz W. and Palacz M.: *Damage Identification in Composite Rods*
11:40 – 12:00	Graczykowski C. and Holnicki-Szulc J.: *Adaptive Inflatable Structures for Impact Absorption*
12:00 – 12:20	Kudela P. and Ostachowicz W.: *A Multilayer Delaminated Composite Beam and Plate Elements: Reflections of Lamb Waves at Delamination*
12:20 – 12:40	Loktev A. A. and Lokteva I. A.: *Viscoelastic and Elastoplastic Models of Impact Solid Body on an Uflyand-Mindlin Plate*
12:40 – 13:00	Mendrok K. and Uhl T.: *Application of Modal Filter for Damage Detection*
13:00 – 14:00	**Lunch**

Keynote lecture **Chairman: Patrusheva T. N.**	
14:00 – 14:45	Cawley P., Simonetti F., Lowe M. and Clarke T.: *Pure Mode Transduction in Guided Wave Structural Health Monitoring*
Session 2.1. Vibration and Shape Control (V&SC) **Chairman: Cawley P.**	
14:45 – 15:05	Rudolf C., Martin T. and Wauer J.: *Piezoelectric Control of a Machine Tool with Parallel Kinematics*
15:05 – 15:25	Vigliotti A. and Concilio A.: *Active Control of Radiated Noise from Equipment Enclosures*
Session 2.2. Damage and Impact Detection (D&ID) **Chairman: Leonowicz M.**	
14:45 – 15:05	Wandowski T., Kudela P., Malinowski P. and Ostachowicz W.: *Lamb Wave-based Discontinuity Localization*
15:05 – 15:25	Rucka M., Witkowski W., Wilde K. and Chroscielewski J.: *Wave Propagation in Steel Truss Girder for Structural Health Monitoring*
15:45 – 16:15	**Coffee**
16:15 – 16:30	**Conference Closing Ceremony**