

ICEDyn 2019



International Conference
on Structural Engineering Dynamics

Viana do Castelo, Portugal, June 24-26, 2019

TECHNICAL PROGRAMME

Monday, June 24th, Morning

08:30	Late Registration		
09:15	Opening Session		
09:40	<p>Keynote Lecture # 01 – The Potential for Obtaining Scaled Separated Forcing Functions and Scaled Transfer Functions from Operational Response Vibrations, in Particular of Rotating Machines</p> <p style="text-align: center;">Randall, R. B.¹, Antoni, J.², Borghesani, P.¹</p> <p style="text-align: center;">¹University of New South Wales, Sydney, Australia ²University of Lyon, INSA-Lyon, Villeurbanne, France</p> <p style="text-align: center;">Chair: Bucher, I., Dynamics Laboratory, Mech. Eng., Technion, Haifa, Israel</p>		
10:30	Coffee Break		
	<p>Room A - Session 1A Rotating Machinery I Chair: Randall, R., University of New South Wales, Australia</p>	<p>Room B - Session 1B Special Session: Damage/SHM (Developed by Araújo dos Santos, J., Moreno-García, P., Lopes, H.) Chair: Araújo dos Santos, J.V., Instituto Superior Técnico, Portugal</p>	<p>Room C – Session 1C Analytical Methods Chair: Awrejcewicz, J. Lodz University of Technology, Poland</p>
11:00	<p>037 Modal Reduction Technique for an On-Board Rotor-Bearing System with Time-Varying Parameters Briand, Y.¹, Dakel, M.¹, Chatelet, E.¹, Dufour, R.¹, Andrianoely, M. A.¹, Baudin, S.² ¹Univ. Lyon, INSA-Lyon, CNRS UMR5259, LaMCoS, France ²AVNIR Engineering, Paris, France</p>	<p>010 Hybrid Faults Separation and Diagnosis of Gear Transmission based on Sparse Decomposition He, G., Zeng, Z., Ding, K., Li, W. School of Mech. and Automotive Eng., South China Univ. of Technology, Guangzhou, P. R. China</p>	<p>046 Torsional Vibration Analysis of the Crankshaft of Reciprocating Compressors Driven by Electric Motors Morillo, A. H. V., Kurka, P. R. G., Bittencourt, M. L. School of Mech. Eng., University of Campinas, Brazil</p>
11:20	<p>060 Kriging Surrogate Models Dedicated to the Cylindrical Journal Bearing of a Francis Hydropower Unit Barbosa, J. S.¹, Sicchieri, L. C.¹, Dourado, A. P.², Cavalini Jr., A. A.¹, Steffen Jr., V.¹ ¹LMEst, Federal University of Uberlândia, Brazil ²University of Central Florida, Orlando, USA</p>	<p>013 Structural Monitoring for Damage Identification of Alcide De Gasperi School of Norcia Argento, G. R.¹, Spina, D.², Acunzo, G.³, Gabriele, S.¹ ¹DARC, Dept. of Architecture, Univ. Roma Tre, Italy ²DPC, Dept. of Civil Protection, Rome, Italy ³DMF, Dept. of Math. and Physics, Univ. Roma Tre, Italy</p>	<p>078 Non-Conservative Dynamical Systems under Asynchronous Parametric Excitation Karev, A., Hagedorn, P. Technical University of Darmstadt, Germany</p>
11:40	<p>061 Detection of Bearing Faults Without Knowledge of the Characteristic Frequency using Envelope Sparsity-Based Blind Filtering Peeters, C.¹, Guillaume, P.¹, Antoni, J.², Helsen, J.¹ ¹Free University of Brussels, Belgium ²LVA, INSA-Lyon, Villeurbanne, France</p>	<p>017 Order Analysis for Rotating Shafts using Displacement-Sensitive Fringe Pattern Zhong, J.¹, Zhong, S.¹, Maia, N. M. M.² ¹Laboratory of Optics, Terahertz and Non-destructive Testing School of Mech. Eng. & Automation, Fuzhou Univ., P. R. China ²IDMEC, Instituto Superior Técnico, Univ. of Lisbon, Portugal</p>	<p>126 Determination and Identification of Dispersion Curves for GLARE Composites with the use of Stiffness Matrix Method Barski, M., Stawiarski, A., Chwał, M., Muc, A. Inst. of Machine Design, Cracow Univ. of Technology, Poland</p>
12:00		<p>022 Detection and Classification of Structural Changes using T-Distributed Stochastic Neighbor Embedding Agis, D., Pozo, F. CoDALab, Dept. of Maths, School of Eng. of Barcelona, Polytechnic Univ. of Catalunya, Barcelona, Spain</p>	<p>127 Optimal Configuration of Cylindrical Laminated Shells Subjected to Flutter Constraint Muc, A., Augustyn, M., Barski, M., Chwał, M., Stawiarski, A. Inst. of Machine Design, Cracow Univ. of Technology, Poland</p>
12:30	Lunch		

Monday, June 24th, Afternoon

14:00	Keynote Lecture #02 – Unmanned Air Systems: a Tool in the Evaluation of an Aeroservoelastic Flight Test Demonstrator Bras, M. ¹ , Mocho, N. ² , Richards, J. ¹ , Warwick, S. ¹ , Moreira, F. ³ , Marra, J. ³ , Meinicke, A. ³ , Pedras, M. ³ , Melo, O. ³ , Suleman, A. ¹ ¹ University of Victoria, Victoria BC, Canada ² Instituto Superior Técnico, University of Lisbon, Portugal ³ Embraer S.A., São José dos Campos, São Paulo, Brazil Chair: Rade, D. Technological Institute of Aeronautics, Brazil		
	Room A - Session 2A Aeronautical/Aerospace Topics I Chair: Souza, L.C.G., Federal Univ. of ABC, Santo André, Brazil	Room B - Session 2B Special Session: Damage/SHM (cont.) (Developed by Araújo dos Santos, J., Moreno-García, P., Lopes, H.) Chair: Moreno-García, P., University of Cádiz, Spain	Room C - Session 2C Active Control I Chair: Mottershead, J. E., University of Liverpool, UK
14:50	011 Shock Propagation Prediction using Statistical Energy Analysis Raynal, E. ¹ , Schmitter, R. ¹ , Peltier, L. ² ¹ CNES, Centre National d'Etudes Spatiales, Toulouse, France ² SIGMA Clermont, Aubière, France	035 Generating and using Limit Cycles for the purposes of Damage Detection: the SDOF Case Memarzadeh, E., Bernal, D. Northeastern University, Boston MA, USA	021 Modified Acceleration Feedback for Structural Control Using Experimental Data Stancioiu, D., Sievert, L., Matthews, C., Rothwell, G., Jenkinson, I. Liverpool John Mores University, UK
15:10	027 Fast Model Predictive Control Scheme for Attitude Control Systems of Rigid-Flexible Satellite Murilo, A. ¹ , Peixoto, P. J. D. ¹ , Souza, L. C. G. ² , Lopes, R. V. ¹ ¹ University of Brasília, Brazil ² Federal University of ABC, Santo André, Brazil	059 The Relation Among Position of Damage and Magnitudes of Damage Indicators based on Mode Shape Derivatives Moreno-García, P. ¹ , Araújo dos Santos, J. V. ² , Lopes, H. ³ ¹ University of Cádiz, Spain ² IDMEC, Instituto Superior Técnico, Univ. of Lisbon, Portugal ³ DEM-ISEP, Polytechnic Institute of Porto, Portugal	051 Experimental Partial Feedback Linearisation: Comparison Between Two Active Control Strategies on a Non-Smooth Nonlinear System Lisitano, D. ¹ , Jiffri, S. ² , Bonisoli, E. ¹ , Mottershead, J. E. ³ ¹ Politecnico di Torino, Italy ² Swansea University, UK. ³ University of Liverpool, UK
15:30	002 H_∞ Control Design for a Rigid-Flexible Spacecraft under a Fuel Slosh Influence Souza, A. G. ¹ , Souza, L. C. G. ² ¹ Techn. Inst. of Aeronautics, São José dos Campos, Brazil ² Federal University of ABC, Santo André, Brazil	108 Multiple Crack Detection in Beams using the Modal Strain Energy Distribution Gillich, G. R. ¹ , Tufisi, C. ¹ , Maia, N. M. M. ² , Aman, A. T. ¹ , Korca, Z. I. ¹ ¹ "Eftimie Murgu" University of Resita, Romania ² IDMEC, Instituto Superior Técnico, Univ. of Lisbon, Portugal	068 Minimum Norm Controller For Partial Pole Placement using the Multi-Input Multi-Output Receptance Method Mokrani, B. ¹ , Batou, A. ¹ , Fichera, S. ¹ , Adamson, L. ¹ , Alaluf, D. ² , Mottershead, J. E. ¹ ¹ University of Liverpool, UK ² European Space Agency, Noordwijk, The Netherlands
15:50	Coffee Break		

Monday, June 24th, Afternoon (Cont.)

	Room A - Session 3A Aeronautical/Aerospace Topics II Chair: Suleman, A., Center for Aerospace Research, Victoria, Canada	Room B - Session 3B Experimental Techniques Chair: Moreira, R. A. S., University of Aveiro, Portugal	Room C - Session 3C Updating Chair: Silva, T. A. N., Universidade Nova de Lisboa, Portugal
16:20	<p>110 Towards a Direct Field Environmental Acoustic Testing Digital Twin: simulation-based Pre-Test Analysis to Optimize a MIMO Random Control Strategy Matas, E.¹, Álvarez Blanco, M.^{1,2}, Hallez, R.¹, Janssens, K.¹ ¹ Siemens Industry Software NV, Leuven, Belgium ² Dept. of Mech. Eng., KU Leuven, Heverlee, Belgium</p>	<p>039 Experimental Studies of Laminated Plated Structures with Internal Delaminations and Subjected to Compressive Loads Stawjarski, A.¹, Barski, M.¹, Chwał, M.¹, Romanowicz, P.¹, Jakubczak, P.², Bieniaś, J.², Muc, A.¹ ¹ Cracow University of Technology, Poland ² Lublin University of Technology, Poland</p>	<p>099 Estimating Natural Frequencies of Cylinders in Water Through Numerical Pluck Tests and Surrogate Models Ribeiro Neto, H., Cavalini Jr., A., Villar, M. M., Souza, P. R. C., Vedovoto, J. M., Silveira Neto, A. Federal University of Uberlândia, Santa Mônica, Brazil</p>
16:40	<p>128 Ground Vibration Test of a Modular Remotely Piloted Vehicle Oliveira, É.¹, Afonso, F.¹, Policarpo, H.^{1,2}, Rodrigues, S. S.¹, Lourenço, J.¹, Ornelas, J.¹, Pinto, P.¹, da Silva, R. G. A.³, Neves, M. M.¹, Maia, N. M. M.¹, Lau, F.¹, Suleman, A.^{1,4} ¹ IDMEC, Instituto Superior Técnico, Univ. of Lisbon, Portugal ² New University of Lisbon, Caparica, Portugal ³ Techn. Inst. of Aeronautics, S. José dos Campos, SP, Brazil ⁴ University of Victoria, British Columbia, Canada</p>	<p>071 Experimentally Validated Flexible Multibody Model of a 3RRR Parallel Manipulator Colombo, F. T., da Silva, M. M. EESC-USP, University of São Paulo, São Carlos, Brazil</p>	<p>034 Filter-based Identification of the Bouc-Wen Model Parameters Yang, C.¹, Bernal, D.², Liu, Y.¹ ¹ Harbin Institute of Technology, P. R. China ² Northeastern University, Boston, USA</p>
17:00	<p>062 Flight Dynamics Modeling of a Flexible Wing Unmanned Aerial Vehicle Castillo Zúñiga, D. F., Souza, A. G., Rios, A., Góes, L. C. S. Technological Institute of Aeronautics, São José dos Campos, Brazil</p>	<p>124 Towards a Multidimensional Topography Sensing Atomic Force Microscope using Multiple Vibration Modes Bucher, I., Rubin, E., Davis, S. Dynamics Laboratory, Mech. Eng., Technion, Haifa, Israel</p>	<p>116 A Numerical Procedure based on Cross-Entropy Method for Stiffness Identification Dantas, E.¹, Cunha Jr., A.¹, Silva, T. A. N.² ¹ NUMERICO, Rio de Janeiro State University, Brazil ² NOVA UNIDEMI, New Univ. of Lisbon, Caparica, Portugal</p>
17:20		<p>090 Digital Microelectromechanical Accelerometers for Vibration Monitoring Moreira, R. A. S. University of Aveiro, Portugal</p>	

Tuesday, June 25th, Morning

08:30	Keynote Lecture #03 – Modeling, Optimization and Experimental Characterization of the Dynamic Behavior of Advanced Composite Materials Rade, D. A. ¹ , Guimarães, T. A. M. ³ , Almeida, D. P. ² , ¹ Technological Institute of Aeronautics, São José dos Campos, SP, Brazil ² Federal University of Uberlândia, Campus Santa Mônica, Uberlândia, MG, Brazil ³ Technological Institute of Aeronautics and São Paulo State Institute of Technological Research, São José dos Campos, SP, Brazil Chair: Boltežar, M., University of Ljubljana, Slovenia		
	Room A - Session 4A Aeronautical/Aerospace Topics III Chair: Murilo, A. de A. P., University of Brasília, Brazil	Room B - Session 4B Special Session on Signal Processing for Damage Identification (Developed by Garibaldi, L.) Chair: Garibaldi, L., Polytechnic. of Torino, Italy	Room C - Session 4C Special Session on Phononic Crystals and Acoustic Metamaterials (Developed by Arruda, J., Rade, D.) Chair: Arruda, J. R. F., Univ. of Campinas, SP, Brazil
09:20	029 Nonlinear Aeroelastic Stall-Induced Oscillations of Pitching and Plunging Airfoil in Low wind Speeds Dos Santos, C. R., Marques, F. D. University of São Paulo, São Carlos, Brazil	006 An Accurate Extraction Method of Frequency-Modulation for Gear Fault Diagnosis Yang, X., Ding, K., He, G. South China University of Technology, Guangzhou, P. R. China	009 Spectral Transfer Matrix Method for Higher Order Phononic Crystal Waveguides Goto, A. M. ¹ , Nóbrega, E. D. ^{1,2} , Pereira, F. N. ^{1,3} , Dos Santos, J. M. C. ¹ ¹ University of Campinas, São Paulo, Brazil ² Federal University of Maranhão, Brazil ³ State University of Maranhão, Campus São Luís, Brazil
09:40	036 Optimal Factorization of the State-Dependent Riccati Equation Technique in a Satellite Attitude and Orbit Control System Romero, A. G. ¹ , Souza, L. C. G. ² ¹ Nat. Inst. for Space Research, S. José dos Campos, SP, Brazil ² Federal University of ABC, S. Bernardo do Campo, SP, Brazil	020 A Hybrid Sparse Representation Method for Diagnosis of Bearings Yu, J., Yang, Z., Sun, R., Zhang, J., Qiao, B. Xi'an Jiaotong University, Xi'an, P. R. China	065 Membrane and Smart Metamaterials for Unidirectional Wave Propagation Problems Sampaio, L. Y. M. ¹ , Rodrigues, G. K. ¹ , Sánchez, J. A. M. ² , de Oliveira, L. P. R. ¹ ¹ Dept. of Mech. Eng., Univ. of São Paulo, São Carlos, Brazil ² Dept. of Aeronautics Eng., Univ. of São Paulo, São Carlos, Brazil
10:00	049 Ground Vibration Testing and In-Flight Testing of a Full-Electric Light Aircraft Di Lorenzo, E., Musella, U., Vettori, S., Hallez, R., Debille, J., Peeters, B. Siemens Industry Software NV, Leuven, Belgium	041 Economic Storage and Accurate Reconstruction of Multi-Channel Vibration Records using Bayesian Virtual Sensing Kullaa, J. Metropolia University of Applied Sciences, Finland	052 Flexural Wave Band Gaps in Elastic Metamaterial Thick Plates Miranda Jr., E. J. P. ¹ , Dos Santos, J. M. C. ² ¹ Federal Institute of Maranhão, São Luís, MA, Brazil ² University of Campinas, SP, Brazil
10:20	053 Parameterized Nonlinear Model Predictive Control Applied to Satellite Attitude Control Rodrigues, R. S. ¹ , Murilo, A. de A. P. ² , Lopes, R. V. ³ , Souza, L. C. G. ⁴ ¹ Faculty of Technology, University of Brasília, Brazil ^{2,3} Faculty of Gama, University of Brasília, Gama-DF, Brazil ⁴ Federal University of ABC, Santo André-SP, Brazil	033 Virtual Closed Loop Parameter Estimation: a Review Bernal, D. ¹ , Ulriksen, M. D. ² ¹ Northeastern University, Boston, MA, USA ² Aalborg University, Esbjerg, Denmark	058 Application-Driven Sensitivity Analysis of Membrane-Type Acoustic Metamaterials Pereira, I., Rade, D. A. Technological Institute of Aeronautics, São José dos Campos, Brazil
10:40	Coffee Break		

Tuesday, June 25th, Morning (Cont.)

	Room A - Session 5A Transmissibility/ Transfer Path Analysis Chair: Neves, M. M., IDMEC / IST, Univ. of Lisbon, Portugal	Room B - Session 5B Special Session on Signal Processing for Damage Identification (cont.) (Developed by Garibaldi, L.) Chair: Bernal, D., Northeastern University, Boston, MA, USA	Room C - Session 5C Special Session on Phononic Crystals and Acoustic Metamaterials (cont.) (Developed by Arruda, J., Rade, D.) Chair: Dos Santos, J. M. C., University of Campinas, SP, Brazil
11:10	<p>106 Combining Blocked Force Transfer Path Analysis and Dynamic Substructuring for Acoustic Design Optimization</p> <p>Haeussler, M., Kobus, D., Rixen, D. J. Technical University of Munich, Garching, Germany</p>	<p>054 Fault Diagnosis of Wind Turbine Gearboxes through On-Site Measurements and Vibrational Signal Processing</p> <p>Castellani, F.¹, Garibaldi, L.², Astolfi, D.¹, Daga, A. P.², Becchetti, M.¹, Fasana, A.², Marchesiello, S.² ¹ Dept. of Engineering, University of Perugia, Italy ² Dept. of Mech. and Aerospace Eng., Polit. di Torino, Italy</p>	<p>067 Parallel Assembly of Acoustic Resonators to obtain Narrow-Band Unity Sound Absorption Peaks below 1000 Hz</p> <p>Carvalho De Sousa, A.^{1,2}, Deckers, E.^{1,2}, Claeys, C. ^{1,2}, Desmet, W. ^{1,2} ¹Dept. of Mech. Eng., KU Leuven, Belgium ²DMMS lab, Flanders Make, Belgium</p>
11:30	<p>014 Application of Neural Networks for Transfer Path Analysis</p> <p>Saigusa, K., Chauvicourt, F., Van der Auweraer, H. Siemens Industry Software N.V, Leuven, Belgium</p>	<p>069 On the use of Complex Gains in Virtual Feedback for Model Updating</p> <p>Ulriksen, M. D.¹, Bernal, D.² ¹ Dept. of Civil Eng., Aalborg University, Esbjerg, Denmark ² Northeastern University, Boston, MA, USA</p>	<p>074 Improving Longitudinal Wave Band Gaps in 1D Phononic Crystal Rods using a Genetic Algorithm</p> <p>Ribeiro, L. S.¹, Ribeiro, G. A. S.², Pires, D. S.³, Santana, E. E. C.¹, Miranda Jr., E. J. P.⁴ ¹ State University of Maranhão, São Luís, MA, Brazil ² Federal University of Goiás, Goiânia, GO, Brazil ³ Federal Inst. of Maranhão, IFMA-DEE, São Luís, MA, Brazil ⁴ Federal Inst. of Maranhão, IFMA-EIB-DE, São Luís, MA, Brazil</p>
11:50	<p>123 A Comparison between Dynamic Force Estimation via Classical Transfer Path Analysis and Kalman Filtering Techniques</p> <p>Ramos, A. C. R.¹, Álvarez-Briceño, R.², Melo, C. A. P.³, de Oliveira, L. P. R.¹ ¹ University of São Paulo, São Carlos, Brazil ² University San Francisco de Quito, Ecuador. ³ Federal Centre of Technological Education of Minas Gerais, Belo Horizonte, Brazil</p>	<p>122 Kurtosis Enhanced Demodulation Spectrum for Bearing Fault Diagnosis</p> <p>Sun, R.-B., Yang, Z. B., Chen, X.-F. School of Mech. Eng., Xi'an Jiaotong Univ., Xi'an, P. R. China</p>	<p>066 Locally Resonant Bandgaps in Elastic Meta-material Using Scaled Boundary Finite Element Method</p> <p>Cantanhêde, H. V., Dos Santos, J. M. C. University of Campinas, Campinas, Brazil</p>
12:10	<p>125 A Note on the Use of Vibro-Acoustic Transmissibility to Estimate Vibro-Acoustic Responses</p> <p>Neves, M. M.¹, Policarpo, H. F. D.¹, Maia, N. M. M.¹, Tcherniak, D.² ¹ IDMEC, Instituto Superior Técnico, Univ. of Lisbon, Portugal ² Brüel & Kjær Sound & Vibration Measurement, Denmark</p>	<p>087 Analysis of NASA Bearing Dataset of the University of Cincinnati by Means of Hjorth's Parameters</p> <p>Cavalaglio Camargo Molano, J., Strozzi, M., Rubini, R., Cocconcelli, M. University of Modena and Reggio Emilia, Reggio Emilia, Italy</p>	<p>079 Maximizing Wave Attenuation in 1D Phononic Crystal Rods</p> <p>Lima, V. D.¹, Assis, G. F. C. A.¹, Miranda Jr., E. J. P.², Dos Santos, J. M. C.¹, Arruda, J. R. F.¹ ¹ University of Campinas, UNICAMP-FEM-DMC, SP, Brazil ² Federal Inst. of Maranhão, IFMA-EIB-DE, S. Luís, MA, Brazil</p>
12:30	Lunch		

Tuesday, June 25th, Afternoon

14:00	Keynote Lecture #04 – Recent advances in Vibration Fatigue Boltežar, M., Slavič, J., Česnik, M., University of Ljubljana, Slovenia Chair: Link, M., University of Kassel, Germany		
	Room A - Session 6A Nonlinear Dynamics I Chair: Hagedorn, P., Technical University of Darmstadt, Germany	Room B - Session 6B Experimental Modal Analysis Chair: Slavič, J., University of Ljubljana, Slovenia	Room C - Session 6C Special Session on Phononic Crystals and Acoustic Metamaterials (cont.) (Developed by Arruda, J., Rade, D.) Chair: Rade, D., Technological Institute of Aeronautics, Brazil
14:50	012 Cyclostationary Gaussian and Non-Gaussian Linearization on Analyzing Double-Well Nonlinear Oscillators Chang, R. J. National Cheng Kung University, Tainan, Taiwan, ROC	045 On The Vibration of Gearboxes and Generator Stator using Measured Modal Parameters only Graf, B., Werner, D. University of Applied Sciences of Ulm, Germany	085 Wave Propagation in a Tunable Metamaterial Beam with Periodic Piezoelectric Shunts Macedo, P. ¹ , Nóbrega, E. D. ^{1,2} , Dos Santos, J. M. C. ¹ ¹ University of Campinas, Campinas-SP, Brazil ² Federal University of Maranhão, São Luis, MA, Brazil
15:10	018 Subspace System Identification of a Non-Smooth Nonlinearity under Random Excitation Anastasio, D. ¹ , Lisitano, D. ¹ , Marchesiello, S. ¹ , Bonisoli, E. ¹ , Mottershead, J.E. ² ¹ Polytechnic of Torino, Italy ² University of Liverpool, UK	105 The Poly-Reference Least-Square Complex Frequency Identification revised to improve Damping Estimation Hoffait, S. ¹ , Ligoit, J. ¹ , Bertha, M. ¹ , Moschini, S. ¹ , Simon, D. ¹ , Golinval, J.C. ² ¹ V2i. s.a., Parc Scientifique du Sart-Tilman, Liège, Belgium ² University of Liège, Belgium	086 Band Gap Investigation using Free and Forced Response with Cylindrical Shell Spectral Element Pereira, F. N. ¹ , Dos Santos, J. M. C. ² ¹ University of Maranhão - UEMA, São Luis-MA, Brazil ² University of Campinas, Campinas, SP, Brazil
15:30	100 Modeling and Experimental Characterization of a Duffing-Like Negative Stiffness Oscillator Anastasio, D., Fasana, A., Garibaldi, L., Marchesiello, S. Polytechnic of Torino, Italy	101 Single High-Speed Camera Spatial Deflection Shape Reconstruction Gorjup, D., Slavič, J., Boltežar, M. University of Ljubljana, Slovenia	
15:50	Coffee Break		

Tuesday, June 25th, Afternoon (Cont.)

	Room A - Session 7A Rotating Machinery II Chair: Steffen Jr., V., Fedederal University of Uberlândia, Brazil	Room B - Session 7B Model Validation/Uncertainty Chair: Varoto, P. S., University of São Paulo, São Carlos, Brazil	Room C - Session 7C Special Session: Vibration of Solids and Structures under Moving Loads (Developed by Koziol, P.) Chair: Koziol, P., Cracow University of Technology, Poland
16:20	<p>057 Combined Signal Processing and Machine Learning Condition Monitoring Helsen, J., Peeters, C., Daems, P.-J., Verstraeten, T., Nowe, A. Free University of Brussels, Belgium</p>	<p>107 Stochastic Dynamic Analysis of Sandwich Beam containing Periodic Viscoelastic Core Borges, R. A.¹, Rodovalho, L. F. F.², Rade, D. A.² ¹ Federal University of Goiás, Catalão/GO, Brazil ² Aeronautics Institute of Technology, São José dos Campos, SP, Brazil</p>	<p>047 Numerical and Experimental Investigation of Time-Varying Vibration Control for a Beam Subjected to Moving Masses Sievrt, L., Stancioiu, D., Matthews, C., Rothwell, G., Jenkinson, I. Liverpool John Moores University, Liverpool, UK</p>
16:40	<p>091 Probabilistic Analyses for the Prediction of Lateral Vibration in Large Steam Turbo-Generator Sets ter Beek, M., Bachet, E., Ebberts, J., Ruhe, M. Siemens AG, Power Generation Services Division, Gas and Power, Mülheim an der Ruhr, Germany</p>	<p>112 Tuned Mass Damper Identification for Uncertain Systems Kyprianou, A. Department of Mechanical and Manufacturing Engineering, University of Cyprus, Nicosia, Cyprus</p>	<p>114 Dynamics of a Nonlinear Double-Beam System Resting on a Nonlinear Foundation and Subjected to a Moving Load Koziol, P., Pilecki, R. Cracow University of Technology, Kraków, Poland</p> <p style="text-align: center;">Oral presentation only</p>
17:00	<p>082 Convolutional Neural Network Applied to Fault Classification in a Planetary Gearbox using Simulated Vibration Data Gecgel, O.¹, Ekwaro-Osire, S.¹, Morais, T. S.², Dias, J. P.¹, Rufato, R. C.² ¹ Texas Tech. University, Lubbock, Texas, USA ² Federal University of Uberlândia – MG, Brazil</p>	<p>115 Effects of Uncertainties on the Dynamic Response of an MDOF Piezoelectric Vibration Energy Harvester Varoto, P. S., University of São Paulo, São Carlos, Brazil</p>	<p>113 Dynamic Response of Beam-Foundation System to a Stochastic Moving Load Koziol, P.¹, Mares, C.², Kudla, D.¹, Pilecki, R.¹ ¹ Cracow University of Technology, Kraków, Poland ² Brunel University, London, UK</p> <p style="text-align: center;">Oral presentation only</p>
17:20	<p>070 Systematic Approach to the Design of Robust Controllers Applied to Supercritical Rotors Supported by Magnetic Bearings Carvalho, F. C., Oliveira, M. V. F., Pereira, B. L., Cavalini Jr., A. A., Steffen Jr., V. Federal University of Uberlândia – MG, Brazil</p>		

20:00 - Conference Banquet (at the hotel)

Wednesday, June 26th, Morning

	Room A - Session 8A Nonlinear Dynamics II Chair: Bonisoli, E., Polytechnic of Torino, Italy	Room B - Session 8B Operational Modal Analysis Chair: Brandt, A., Univ. of Southern Denmark, Odense M, Denmark	Room C - Session 8C Active Control II Chair: Ghandchi Tehrani, M., ISVR, Univ. of Southampton, UK
10:00	<p>040 <i>Experimental and Numerical Studies of a Non-Linear Damped Pendulum in an Alternating Magnetic Field</i> Wijata, A., Polczyński, K., Awrejcewicz, J. Lodz University of Technology, Poland</p>	<p>064 <i>Planning of an In-Flight Aeroelastic Testing of a Flexible Unmanned Aerial Vehicle using a Combined Accelerometers-Strain Sensors Operational Modal Analysis</i> Castillo Zúñiga, D. F., Souza, A. G., Góes, L. C. S. Technological Institute of Aeronautics, São José dos Campos, Brazil</p>	<p>088 <i>Vibration Attenuation of a Truss Structure with Piezoelectric Shunt-Damping for Varying Static Axial Loads in the Truss Members</i> Lenz, J.¹, Holzmann, H.¹, Platz, R.², Melz, T.¹ ¹ Technical University of Darmstadt, Germany ² Fraunhofer Institute for Structural Durability and System Reliability LBF, Darmstadt, Germany</p>
10:20	<p>104 <i>Transient Treatment of Convective Contributions in Elastic-Elastic Arbitrary-Lagrangian-Eulerian Contact with Friction</i> Weidauer, T., Willner, K. Friedrich-Alexander Universität Erlangen Nürnberg, Erlangen, Germany</p>	<p>048 <i>Automatic Detection and Removal of Harmonics in Vibration Signals</i> Brandt, A. Department of Technology and Innovation, University of Southern Denmark, Odense M, Denmark</p>	<p>089 <i>Active Vibration Control of a Nonlinear System using the Receptance Method</i> Ghandchi Tehrani, M. Inst. of Sound & Vibr. Research, Univ. of Southampton, UK</p>
10:40	Coffee Break		
		Room B - Session 9B Other Topics Chair: Oliveira, C. S., CERIS, IST, Univ. of Lisbon, Portugal	
11:10		<p>028 <i>Influence of Technical Seismicity on the Historical Building</i> Urushadze, S., Pirner, M., Bayer, J. Institute of Theoretical and Applied Mechanics of the Czech Academy of Sciences, Prague, Czech Republic</p>	
11:30		<p>129 <i>Low Cost Mobile System for Vibration Analysis on Board of Navy Vessels</i> Ramos, B. F. P., Sampaio, R. P. C., Damas, B. Portuguese Naval School, Naval Base of Lisbon, Almada, Portugal</p>	
11:50		<p>130 <i>Vibration characteristics of metallic truss footbridges: "In-situ" versus analytical studies</i> Oliveira, C. S., Camacho, V. T. CERIS/ICIST, Inst. Superior Tecnico, Univ. of Lisbon, Portugal</p>	
12:15	Lunch		

End of the Conference

14:30 Tour to Ponte de Lima + Dinner in Viana do Castelo