

# **X International Conference on Structural Dynamics (EURODYN 2017)**

Procedia Engineering Volume 199

Rome, Italy  
10 – 13 September 2017

Part 1 of 5

**Editors:**

**Fabrizio Vestroni  
Francesco Romeo  
Vincenzo Gattulli**

ISBN: 978-1-5108-4839-9

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Copyright© by Elsevier B.V.  
All rights reserved.

Printed by Curran Associates, Inc. (2017)

For permission requests, please contact Elsevier B.V.  
at the address below.

Elsevier B.V.  
Radarweg 29  
Amsterdam 1043 NX  
The Netherlands

Phone: +31 20 485 3911  
Fax: +31 20 485 2457

<http://www.elsevierpublishingsolutions.com/contact.asp>

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2633  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

# TABLE OF CONTENTS

## PART 1

<b>PREFACE</b> .....	1
<i>Fabrizio Vestroni, Vincenzo Gattulli, Francesco Romeo</i>	
<b>TRANSPOD ULTRA-HIGH-SPEED TUBE TRANSPORTATION: DYNAMICS OF VEHICLES AND INFRASTRUCTURE</b> .....	8
<i>Ryan Janzen</i>	
<b>RANDOM VIBRATIONS OF NONLINEAR CONTINUA ENDOWED WITH FRACTIONAL DERIVATIVE ELEMENTS</b> .....	18
<i>Pol D. Spanos, Giovanni Malara</i>	
<b>AERODYNAMIC AND PEDESTRIAN-LEVEL WIND CHARACTERISTICS OF SUPER-TALL BUILDINGS WITH VARIOUS CONFIGURATIONS</b> .....	28
<i>Yukio Tamura, Xiaoda Xu, Hideyuki Tanaka, Yon Chul Kim, Akihito Yoshida, Qingshan Yang</i>	
<b>OPTIMISED AMBIENT VIBRATION TESTING OF LONG SPAN BRIDGES</b> .....	38
<i>James Brownjohn, Siu-Kui Au, Binbin Li, James Bassitt</i>	
<b>CERTAINLY UNCERTAIN - THE CHARM OF FUZZY PREDICTIONS</b> .....	48
<i>Michael Hanss, Markus Mäck</i>	
<b>ACOUSTIC BLACK HOLES FOR FLEXURAL WAVES: A SMART APPROACH TO VIBRATION DAMPING</b> .....	56
<i>Victor V. Krylov</i>	
<b>SPARSE AND LOW-RANK METHODS IN STRUCTURAL SYSTEM IDENTIFICATION AND MONITORING</b> .....	62
<i>Satish Nagarajaiah</i>	
<b>INTENTIONAL UTILIZATION OF STRONG NONLINEARITY IN STRUCTURAL DYNAMICS</b> .....	70
<i>Alexander F. Vakakis</i>	
<b>UNDERSTANDING THE DYNAMICS OF MULTI-DEGREE-OF-FREEDOM NONLINEAR SYSTEMS USING BACKBONE CURVES</b> .....	78
<i>D. J. Wagg</i>	
<b>A PROPOSAL FOR NORMALIZED IMPEDANCE FUNCTIONS OF INCLINED PILES IN NON-HOMOGENEOUS MEDIA</b> .....	86
<i>Guillermo M. Álamo, Alejandro E. Martínez-Castro, Luis A. Padrón, Juan J. Aznárez, Rafael Gallego, Orlando Maeso</i>	
<b>USING AMBIENT VIBRATION MEASUREMENTS TO GENERATE EXPERIMENTAL FLOOR RESPONSE SPECTRA AND INTER-STORY DRIFT CURVES OF REINFORCED CONCRETE (RC) BUILDINGS</b> .....	92
<i>A. Asgarian, G. McClure</i>	
<b>APPLICATION OF NON-CLASSICAL SHELLS THEORIES FOR FREE VIBRATION ANALYSIS OF ANNULAR PLATES</b> .....	98
<i>Svetlana M. Bauer, Eva B. Voronkova, Andrei L. Smirnov</i>	
<b>THE DYNAMIC ANALYSIS OF A STEEL PIPELINE UNDER A SEISMIC SHOCK</b> .....	104
<i>Pawel Boron, Joanna Dulinska</i>	
<b>CALIBRATION OF FINITE ELEMENT MODELS OF CONCRETE ARCH-GRAVITY DAMS USING DYNAMICAL MEASURES: THE CASE OF RIDRACOLI</b> .....	110
<i>Giulia Buffi, Piergiorgio Manciola, Laura De Lorenzis, Nicola Cavalagli, Fabrizio Comodini, Andrea Gambi, Vittorio Gusella, Marco Mezzi, Wolfgang Niemeier, Claudio Tamagnini</i>	
<b>DYNAMIC RESPONSE DUE TO CABLE RUPTURE IN A TRANSMISSION LINES GUYED TOWERS</b> .....	116
<i>Thiago B. Carlos, João Kaminski Jr.</i>	
<b>EVALUATION OF DYNAMIC CHARACTERISTICS IN A TRANSMISSION LINE LATTICED STEEL TOWER</b> .....	122
<i>Augusto De Souza Pippi, João Kaminski Junior, Marco Antônio Silva Pinheiro</i>	
<b>MOHR CIRCLE-BASED GRAPHICAL VIBRATION ANALYSIS AND EARTHQUAKE RESPONSE OF ASYMMETRIC SYSTEMS</b> .....	128
<i>Marco Faggella, Rosario Gigliotti, Carmen Morrone, Enrico Spacone</i>	
<b>ANALYSIS OF DYNAMIC INSTABILITIES IN BRIDGES UNDER WIND ACTION THROUGH A SIMPLE FRICTION-BASED MECHANICAL MODEL</b> .....	134
<i>D. De Domenico, I. Failla, G. Ricciardi</i>	

<b>A PARAMETRIC STUDY ON THE STRUCTURAL DAMPING OF SUSPENDED CABLES</b> .....	140
<i>Francesco Foti, Luca Martinelli, Federico Perotti</i>	
<b>FLOORING-SYSTEMS AND THEIR INTERACTION WITH FURNITURE AND HUMANS</b> .....	146
<i>C. Frier, L. Pedersen, L. V. Andersen, P. Persson</i>	
<b>DYNAMIC RESPONSE OF A DAMAGING MASONRY WALL</b> .....	152
<i>Daniela Addressi, Cristina Gatta, Fabrizio Vestroni</i>	
<b>UNSTABLE RESPONSE OF 2-DOF GYROSCOPIC SYSTEMS WITH STABLE EIGENVALUES</b> .....	158
<i>Oliviero Giannini</i>	
<b>ANALYSIS AND COMPARISON OF TWO DIFFERENT CONFIGURATIONS OF EXTERNAL DISSIPATIVE SYSTEMS</b> .....	164
<i>Laura Gioiella, Enrico Tubaldi, Fabrizio Gara, Lugino Dezi, Andrea Dall'Asta</i>	
<b>INFLUENCE OF BASE PLATE BENDING STIFFNESS ON THE SEISMIC PERFORMANCE OF LIQUID STORAGE TANKS</b> .....	170
<i>Diego Hernandez-Hernandez, Tam Larkin, Nawawi Chow</i>	
<b>SEISMIC DESIGN EVALUATION OF REINFORCED CONCRETE BUILDINGS FOR NEAR-SOURCE EARTHQUAKES BY USING NONLINEAR TIME HISTORY ANALYSES</b> .....	176
<i>Mahmood Hosseini, Banafshehalsadat Hashemi, Zahra Safi</i>	
<b>FREE VIBRATION ANALYSIS OF PARTIALLY PERFORATED CIRCULAR PLATES</b> .....	182
<i>Kyeong-Hoon Jeong, Myung-Jo Jhung</i>	
<b>A STUDY ON FRAGILITY ANALYSES OF MASONRY BUILDINGS IN ERZINCAN (TURKEY) UTILIZING SIMULATED AND REAL GROUND MOTION RECORDS</b> .....	188
<i>Shaghayegh Karimzadeh, Koray Kadas, Aysegül Askan, Murat Altug Erberik, Ahmet Yakut</i>	
<b>STUDY ON CHANGES IN DYNAMIC CHARACTERISTICS OF HIGH-RISE STEEL-FRAMED BUILDINGS BASED ON STRONG MOTION DATA</b> .....	194
<i>Toshihide Kashima</i>	
<b>THE RELATIONSHIP BETWEEN PSYCHOMOTOR EFFICIENCY AND SELECTED PERSONALITY TRAITS OF PEOPLE EXPOSED TO NOISE AND VIBRATION STIMULI</b> .....	200
<i>Aleksander Korchut, Wojciech Korchut, Alicja Kowalska-Koczwara, Anna Romanska – Zapala, Krzysztof Stypula</i>	
<b>DYNAMIC PROPERTIES OF BYBLOS MUNICIPALITY BUILDING WITH SOIL-STRUCTURE INTERACTION USING GEOPHYSICAL METHODS</b> .....	206
<i>Nisrine Makhoul, Jacques Harb</i>	
<b>A PROPOSAL FOR A MEMBRANE MODEL FOR THE SMALL DEFORMATIONS OF A SPIDER ORB-WEB</b> .....	212
<i>Antonino Morassi, Alejandro Soler, Ramón Zaera</i>	
<b>A NEW SET OF EQUATIONS OF MOTION FOR CONSTRAINED STRUCTURES AND A COMPARISON OF THE EFFECT OF BILATERAL AND UNILATERAL CONSTRAINTS</b> .....	218
<i>Sotirios Natsiavas, Elias Paraskevopoulos</i>	
<b>APPLICATION OF THE DYNAMIC STIFFNESS METHOD IN THE VIBRATION ANALYSIS OF STIFFENED COMPOSITE PLATES</b> .....	224
<i>Emilija Damnjanovic, Marija Nefovska-Danilovic, Mira Petronijevic, Miroslav Marjanovic</i>	
<b>SOIL-STRUCTURE INTERACTION EFFECTS ON THE SEISMIC PERFORMANCES OF REINFORCED CONCRETE MOMENT RESISTING FRAMES</b> .....	230
<i>Romeo Tomeo, Antonio Bilotta, Dimitris Pitilakis, Emidio Nigro</i>	
<b>ENERGY-BASED RESPONSE OF SIMPLE STRUCTURAL SYSTEMS BY USING SIMULATED GROUND MOTIONS</b> .....	236
<i>Volkan Ozsarac, Shaghayegh Karimzadeh, Murat Altug Erberik, Aysegul Askan</i>	
<b>VIBRATION AND BUCKLING OF OPEN TWBS WITH LOCAL WEAKENING</b> .....	242
<i>G. Piana, A. Carpinteri, E. Lofrano, G. Ruta</i>	
<b>ON THE FUNDAMENTAL PERIODS OF VIBRATION OF FLAT-BOTTOM GROUND-SUPPORTED CIRCULAR SILOS CONTAINING GRAN-LIKE MATERIAL</b> .....	248
<i>Luca Pieraccini, Michele Palermo, Silvestri Stefano, Tomaso Trombetti</i>	
<b>IDENTIFICATION OF LOW CYCLE DYNAMIC LOADS ACTING ON HEAVY MACHINERY</b> .....	254
<i>Damian Pietrusiak, Przemyslaw Moczko, Tadeusz Smolnicki, Eugeniusz Rusinski</i>	
<b>THE EFFECT OF EARTHQUAKE SITE-SOURCE DISTANCE ON DYNAMIC RESPONSE OF CONCRETE ELEVATED WATER TANKS</b> .....	260
<i>H. Shakib, H. Alemzadeh</i>	
<b>SEISMIC ASSESSMENT OF MASONRY TOWERS BY MEANS OF NONLINEAR STATIC PROCEDURES</b> .....	266
<i>Gabriele Milani, Rafael Shehu, Marco Valente</i>	
<b>SEISMIC VULNERABILITY REDUCTION OF MASONRY CHURCHES: A CASE STUDY</b> .....	272
<i>Gabriele Milani, Rafael Shehu, Marco Valente</i>	

<b>PREVENTING OF EARTHQUAKE-INDUCED POUNDING BETWEEN STEEL STRUCTURES BY USING POLYMER ELEMENTS – EXPERIMENTAL STUDY</b> .....	278
<i>Barbara Soltysik, Tomasz Falborski, Robert Jankowski</i>	
<b>NONLINEAR ROCKING OF RIGID BLOCKS ON FLEXIBLE FOUNDATION: ANALYSIS AND EXPERIMENTS</b> .....	284
<i>Pol D. Spanos, Alberto Di Matteo, Antonina Pirrotta, Mario Di Paola</i>	
<b>FLUID DYNAMIC INTERACTION BETWEEN TRAIN AND NOISE BARRIERS ON HIGH-SPEED-LINES</b> .....	290
<i>Angelo Vittozzi, Gianluca Silvestri, Luisa Genca, Michela Basili</i>	
<b>NUMERICAL EVALUATION OF NATURAL VIBRATION FREQUENCIES OF THERMO-MODERNIZED APARTMENT BUILDINGS SUBJECTED TO MINING TREMORS</b> .....	296
<i>Krystyna Kuzniar, Maciej Zajac</i>	
<b>EFFECT OF PERIODIC PILE ROW IN SUBWAY VIBRATION ISOLATION</b> .....	302
<i>Shenglong Zhang, Wenbin Wang, Zongzhen Wu, Yuanting Dai, Yulu Li, Huaming Dai</i>	
<b>A SURFACE VIBRATION-BASED METHOD FOR TUMOR DETECTION OF WOMEN BREAST IN A DIET SYSTEM</b> .....	310
<i>Cong Zhou, J. Geoffrey Chase, Hina Ismail, Geoffrey W. Rodgers, Chris Pretty, Matthew Signal, Marcus Haggars</i>	
<b>NONLINEAR SEISMIC DAM AND FOUNDATION ANALYSIS USING EXPLICIT NEWMARK INTEGRATION METHOD WITH STATIC CONDENSATION</b> .....	316
<i>Utku Albostan, Tunc Bahcecioglu, Yalin Arici, Ozgur Kurc</i>	
<b>A MODAL UDWADIA-KALABA FORMULATION FOR VIBRO-IMPACT MODELLING OF CONTINUOUS FLEXIBLE SYSTEMS WITH INTERMITTENT CONTACTS</b> .....	322
<i>Jose Antunes, Vincent Debut, Laurent Borsoi, Xavier Delaune, Philippe Piteau</i>	
<b>DEVELOPMENT OF A NON-DESTRUCTIVE BELL-TUNING TECHNIQUE THROUGH OPTIMIZED STRUCTURAL MODIFICATIONS</b> .....	330
<i>Miguel Carvalho, Vincent Debut, José Antunes</i>	
<b>DYNAMIC COMPUTATIONS OF NONLINEAR BEAMS IN CONTACT WITH ROUGH SURFACES</b> .....	336
<i>Denis Duhamel, Trong Dai Vu, Zouhir Abbadi, Hai-Ping Yin, Arnaud Gaudin</i>	
<b>ASYMPTOTIC AND NUMERICAL ANALYSIS OF FREE LOW-FREQUENCY RING-STIFFENED SHELLS VIBRATIONS</b> .....	342
<i>Sergei B. Filippov</i>	
<b>A REDUCED INTERFACE COMPONENT MODE SYNTHESIS METHOD USING COARSE MESHES</b> .....	348
<i>Mladen Gibanica, Thomas J. S. Abrahamsson, Daniel J. Rixen</i>	
<b>COMPUTATIONAL METHOD FOR THE DYNAMICS OF RAILWAY TRACKS ON A NON-UNIFORM VISCOELASTIC FOUNDATION</b> .....	354
<i>Tien Hoang, Denis Duhamel, Gilles Foret, Jean-Luc Pochet</i>	
<b>APPLICATION OF DIFFERENTIAL TRANSFORMATION FINITE ELEMENT METHOD IN APERIODIC VIBRATION OF NON-PRISMATIC BEAM</b> .....	360
<i>Ryszard Holubowski</i>	
<b>SENSITIVITY ANALYSIS OF DYNAMIC CHARACTERISTICS OF COMPOSITE BEAMS WITH VISCOELASTIC LAYERS</b> .....	366
<i>Magdalena Lasecka-Plura, Roman Lewandowski</i>	
<b>MULTIOBJECTIVE SIZING OPTIMIZATION OF SEISMIC-ISOLATED REINFORCED CONCRETE STRUCTURES</b> .....	372
<i>Luca Rizzian, Numa Léger, Mariapia Marchi</i>	
<b>MODEL ORDER REDUCTION IN DESIGN OF PARAMETERIZED STRUCTURES UNDER DIFFERENT LOAD CONFIGURATIONS</b> .....	378
<i>Raúl Rodríguez Sánchez, Martin Buchschmid, Gerhand Müller</i>	
<b>TIME-DOMAIN ANALYSIS OF VISCOELASTIC SYSTEMS</b> .....	384
<i>Lucie Rouleau, Jean-François Deü</i>	
<b>FAST 3D FEM-BEM COUPLING FOR DYNAMIC SOIL-STRUCTURE INTERACTION</b> .....	391
<i>Winfried Schepers</i>	
<b>EVALUATION OF BEHAVIOUR FACTORS OF STEEL MOMENT-RESISTING FRAMES USING STANDARD PUSHOVER METHOD</b> .....	397
<i>Djamal Yahmi, Taieb Branci, Abdelhamid Bouchaïr, Eric Fournely</i>	
<b>A FINITE ELEMENT BASED METHOD FOR ESTIMATING NATURAL FREQUENCIES OF LOCALLY DAMAGED HOMOGENEOUS BEAMS</b> .....	404
<i>Michael Edward Ursos, Eric Augustus Tingatinga, Romeo Eliezer Longalong</i>	

<b>VIBRATION TRANSMISSION WITHIN BEAM-STIFFENED PLATE STRUCTURES USING DYNAMIC STIFFNESS METHOD .....</b>	<b>411</b>
<i>Xuewen Yin, Wenwei Wu, Hui Li, Kuikui Zhong</i>	
<b>FORCED VIBRATION TESTING OF FOOTBRIDGES USING CALIBRATED HUMAN SHAKER AND WIRELESS SENSORS .....</b>	<b>417</b>
<i>James Brownjohn, Mateusz Bocian, David Hester</i>	
<b>OUTPUT-ONLY FULL-FIELD MODAL TESTING .....</b>	<b>423</b>
<i>Yen-Hao Chang, Weizhuo Wang, Eann A. Patterson, Jen-Yuan Chang, John E. Mottershead</i>	
<b>MAXIMUM BENDING MOMENTS IN A RC TWO-WAY SLAB SUBJECTED TO WALL LOADS .....</b>	<b>429</b>
<i>Alonso Gómez Bernal, Eduardo Arellano Méndez, Hugón Juárez García</i>	
<b>TESTING AND MODELLING OF THE DAMPING EFFECTS FOR FLUID-BASED INERTERS .....</b>	<b>435</b>
<i>Xiaofu Liu, Jason Zheng Jiang, Branislav Titurus, Andrew J. L. Harrison, Daniel McBryde</i>	
<b>NONLINEAR DYNAMICS OF SELF-CENTRING SEGMENTAL COMPOSITE ROCKING COLUMN .....</b>	<b>441</b>
<i>Mohammad M Kashani, Alicia Gonzalez-Buelga</i>	
<b>COMPRESSIVE SENSING-MOVING HORIZON ESTIMATOR FOR DISTRIBUTED LOADS .....</b>	<b>447</b>
<i>M. Kirchner, J. Croes, F. Cosco, W. Desmet</i>	
<b>EXPERIMENTAL DATA BASED CABLE TENSION IDENTIFICATION VIA NONLINEAR STATIC INVERSE PROBLEM .....</b>	<b>453</b>
<i>Arnaud Pacitti, Michaël Peigney, Frédéric Bourquin, Walter Lacarbonara</i>	
<b>EVALUATION OF THE APPLICABILITY OF AN ENERGY METHOD TO CALCULATE THE DAMPING IN A LAB-SCALE STRUCTURE .....</b>	<b>459</b>
<i>S. S. Gómez, A. Metrekine</i>	
<b>EXPERIMENTAL AND ANALYTICAL INVESTIGATION OF THE INELASTIC BEHAVIOR OF STRUCTURES ISOLATED USING FRICTION PENDULUM BEARINGS .....</b>	<b>465</b>
<i>Anastasios Tsiavos, David Schlatter, Tomislav Markic, Bozidar Stojadinovic</i>	
<b>MASS SENSING USING SELF-EXCITED OSCILLATION IN VISCOUS ENVIRONMENTS .....</b>	<b>471</b>
<i>Naoki Yanagisawa, Hiroshi Yabuno</i>	
<b>MEASUREMENT OF ROTATING BEAM VIBRATION USING OPTICAL (DIC) TECHNIQUES .....</b>	<b>477</b>
<i>Ahmed Yashar, Neil Ferguson, Maryam Ghandchi Tehrani</i>	
<b>DYNAMIC TESTING OF AN INFLATABLE WRAP-RIB REFLECTOR ANTENNA .....</b>	<b>483</b>
<i>Jianxin Yu, Hui Feng Tan, Jianzheng Wei</i>	
<b>GEOMETRICALLY NONLINEAR TRANSVERSE VIBRATIONS OF BERNOULLI-EULER BEAMS CARRYING A FINITE NUMBER OF MASSES AND TAKING INTO ACCOUNT THEIR ROTATORY INERTIA .....</b>	<b>489</b>
<i>Adri Ahmed, Benamar Rhali</i>	
<b>STRUCTURAL DAMPING ESTIMATION USING A SIMPLE EQUATION BASED ON THE EQUIVALENT VISCOUS DAMPING CONCEPT .....</b>	<b>495</b>
<i>Ronwaldo Emmanuel R. Aquino, Yukio Tamura</i>	
<b>PAYLOAD OSCILLATIONS CONTROL IN HARBOR CRANES VIA SEMI-ACTIVE VIBRATION ABSORBERS: MODELING, SIMULATIONS AND EXPERIMENTAL RESULTS .....</b>	<b>501</b>
<i>Andrea Arena, Walter Lacarbonara, Arnaldo Casalotti</i>	
<b>MULTI-BODY CONTACT IN NON-LINEAR DYNAMICS OF REAL MECHANICAL SYSTEMS .....</b>	<b>510</b>
<i>Ivana Atanasovska</i>	
<b>DYNAMICAL ANALYSIS OF VARIOUS TRANSMISSION LINE CABLES .....</b>	<b>516</b>
<i>Nilson Barbieri, Mayara Kelly Tenório Calado, Marcos José Mannala, Key Fonseca De Lima, Gabriel De Sant'Anna Vitor Barbieri</i>	
<b>ANALYSIS OF PURELY HARMONIC VIBRATIONS IN NON-LINEAR DYNAMIC SYSTEMS ON THE EXAMPLE OF THE NON-LINEAR DEGENERATE SYSTEM .....</b>	<b>522</b>
<i>Mirosław Bocian, Krzysztof Jamroziak, Mariusz Kosobudzki, Maciej Kulisiewicz</i>	
<b>THERMAL BEHAVIOR ANALYSIS AT LARGE FREE VIBRATION AMPLITUDES OF THIN ANNULAR FGM PLATES WITH POROSITIES .....</b>	<b>528</b>
<i>Boutahar Lhoucine, El Bikri Khalid, Benamar Rhali</i>	
<b>A 2-DOF MODEL OF AN ELASTIC ROCKET STRUCTURE UNDER CIRCULATORY FORCE .....</b>	<b>534</b>
<i>Reyolando M. Brasil, Leandro F. Brejão, José M. Balthazar</i>	
<b>ASSESSMENT TOOLS FOR NUMERICAL RESOLUTION OF A CONTACT DYNAMIC PROBLEM WITH MODAL BASIS REDUCTION .....</b>	<b>540</b>
<i>T. Catterou, V. Blanc, G. Ricciardi, S. Bourgeois, B. Cochelin</i>	
<b>MULTIVARIATE ANALYSIS OF VORTEX-INDUCED VIBRATIONS IN A TENSIONED CYLINDER REVEAL NONLINEAR MODAL INTERACTIONS .....</b>	<b>546</b>
<i>Ersegun D. Gedikli, Jason M. Dahl, David Chelidze</i>	

<b>PROGRESSIVE LOCOMOTION OF A CHAIN OF BODIES IN A RESISTANT MEDIUM</b> .....	552
<i>F. L. Chernousko</i>	
<b>INELASTIC DEFORMATION RATIO FOR SEISMIC DEMANDS ASSESSMENT OF STRUCTURES</b> .....	558
<i>Benazouz Chikh, Ahmed Mebarki, Nacer Laouami, Youcef Mehani</i>	
<b>SEISMIC FRAGILITY CURVES FOR LEGGED WINE STORAGE TANKS WITH A NOVEL ISOLATION DEVICE</b> .....	564
<i>J. I. Colombo, J. L. Almazán</i>	
<b>NON LINEAR VIBRATIONS OF IMPERFECT FLUID-FILLED VISCOELASTIC CYLINDRICAL SHELLS</b> .....	570
<i>Zenon J. G. N. Del Prado, Marco Amabili, Paulo B. Gonçalves</i>	
<b>CLOSED DYNAMICAL MODEL OF A DOUBLE PROPELLER HAWT</b> .....	577
<i>Liubov Klimina, Ekaterina Shalimova, Marat Dosaev, Rinaldo Garziera</i>	
<b>NONLINEAR MODEL PARAMETER IDENTIFICATION FOR ICE-INDUCED VIBRATIONS</b> .....	583
<i>Leo Dostal, Eliz-Mari Lourens, Andrei Metrikine</i>	
<b>DYNAMICS OF TWO IMPACTING BEAMS WITH CLEARANCE NONLINEARITY</b> .....	589
<i>Larysa Dzyubak, Atul Bhaskar</i>	
<b>A PIECEWISE-LINEAR MODEL OF INTRACRANIAL PRESSURE DYNAMICS</b> .....	595
<i>D. Evans, C. Drapaca, J. P. Cusumano</i>	
<b>NONLINEAR SEISMIC BEHAVIOR OF HISTORICAL MASONRY TOWERS BY MEANS OF DIFFERENT NUMERICAL MODELS</b> .....	601
<i>Luca Facchini, Michele Betti, Riccardo Corazzi, Vladimir Cerisano Kovacevic</i>	
<b>ESTIMATION PROBLEMS FOR UNCERTAIN NONLINEAR DYNAMICAL SYSTEMS WITH ELLIPSOIDAL STATE CONSTRAINTS</b> .....	607
<i>Tatiana F. Filippova</i>	
<b>NON-HOLONOMIC DYNAMICS OF A BALL MOVING INSIDE A SPHERICAL CAVITY</b> .....	613
<i>Jiri Náprstek, Cyril Fischer</i>	
<b>ASSESSMENT OF THE MAINSHOCK-AFTERSHOCK COLLAPSE VULNERABILITY OF RC STRUCTURES CONSIDERING THE INFILLS IN-PLANE AND OUT-OF-PLANE BEHAVIOUR</b> .....	619
<i>André Furtado, Hugo Rodrigues, António Arêde, Humberto Varum</i>	
<b>STUDY OF THE CONTRIBUTION OF NONLINEAR NORMAL MODES (NNMS) IN LARGE AMPLITUDE OSCILLATIONS OF SIMPLY SUPPORTED BEAMS</b> .....	625
<i>Javier González-Carbajal, Daniel García-Vallejo, Jaime Domínguez</i>	
<b>AN EQUIVALENT STIFFNESS APPROACH FOR MODELING NON-LINEARITY IN THE DYNAMICS OF PRE-TENSIONED CABLE-STAYED MASTS</b> .....	631
<i>Gian Felice Giaccu</i>	
<b>HIGHER-ORDER MOMENTS OF EIGENVALUE AND EIGENVECTOR DISTRIBUTIONS FOR THE NONLINEAR STOCHASTIC DYNAMICS OF CABLE NETWORKS</b> .....	637
<i>Gian Felice Giaccu, Luca Caracoglia, Bernardo Barbiellini</i>	
<b>NONLINEAR BEHAVIORS OF AN ACOUSTICAL RESONATOR: THEORETICAL AND EXPERIMENTAL EVIDENCES</b> .....	643
<i>Valentin Alamo Vargas, Emmanuel Gourdon, Alireza Ture Savadkoobi</i>	
<b>UNCOVERING DETACHED RESONANCE CURVES IN SINGLE-DEGREE-OF-FREEDOM SYSTEMS</b> .....	649
<i>Giuseppe Habib, Giuseppe I. Cirillo, Gaetan Kerschen</i>	
<b>ATYPICAL PARAMETRIC INSTABILITY IN LINEAR AND NONLINEAR SYSTEMS</b> .....	657
<i>Peter Hagedorn, Artem Karev, Daniel Hochlenert</i>	
<b>VIBRO-IMPACT DYNAMICS OF TWO ROLLING BALLS ALONG CURVILINEAR TRACE</b> .....	663
<i>Katica R. (Stevanovic) Hedrih</i>	
<b>MODELLING FRICTION CHARACTERISTICS IN TURBINE BLADE VIBRATIONS USING A FOURIER SERIES EXPANSION OF A REAL FRICTION HYSTERESIS</b> .....	669
<i>Thomas Hoffmann, Lars Panning-Von Scheidt, Jörg Wallaschek</i>	
<b>NONLINEAR VIBRATIONS OF A CABLE SYSTEM WITH A TUNED MASS DAMPER UNDER DETERMINISTIC AND STOCHASTIC BASE EXCITATION</b> .....	675
<i>Stefan Kaczmarczyk, Radoslaw Iwankiewicz</i>	
<b>MODEL REDUCTION AND OPTIMAL CONTROL FOR AN ELECTROMECHANICAL STRUCTURE WITH VISCOELASTIC LINKS</b> .....	681
<i>Georgy Kostin, Vasily Saurin</i>	
<b>FROM A CHAIN OF NONLINEAR OSCILLATORS TO NONLINEAR LONGITUDINAL VIBRATIONS OF AN ELASTIC BAR: THE CASE OF PURE NONLINEARITY</b> .....	687
<i>Ivana Kovacic, Miodrag Zukovic</i>	

<b>ANALYSIS OF THE OUT-OF-PLANE CAPACITY OF UNREINFORCED MASONRY INFILL WALLS</b> .....	693
<i>M. Lönhoff, C. Dobrowolski, H. Sadegh-Azar</i>	
<b>LIMIT CYCLES IN VORTEX-INDUCED VIBRATIONS: A CRITICAL ANALYSIS</b> .....	699
<i>Francesca Lupi, Hans-Jürgen Niemann, Rüdiger Höffer</i>	
<b>NONLINEAR OPTICAL VIBRATIONS OF SINGLE-WALLED CARBON NANOTUBES</b> .....	705
<i>L. I. Manevitch, V. V. Smirnov, M. Strozzi, F. Pellicano</i>	
<b>TWIN-WAVES PROPAGATION PHENOMENA IN MAGNETICALLY-COUPLED STRUCTURES</b> .....	711
<i>F. Mezzani, F. Coppo, S. Pensalfini, N. Roveri, A. Carcaterra</i>	

## PART 2

<b>NONLINEAR DYNAMICS AND BIFURCATIONS OF A SPHERICAL MULTI-TETHERED LIGHTER-THAN-AIR SYSTEM IN UNIFORM AND MODULATED FLOW</b> .....	717
<i>La Mi, Oded Gottlieb</i>	
<b>NEW THEORY FOR THE LOW FREQUENCIES NON LINEAR ACOUSTIC RADIATION OF CLAMPED-CLAMPED BEAMS AT LARGE VIBRATIONS AMPLITUDES</b> .....	723
<i>H. Moulay Abdelali, Y. Tiscar, R. Benamar</i>	
<b>3D NONLINEAR CONSTITUTIVE MODELING FOR DYNAMIC ANALYSIS OF REINFORCED CONCRETE STRUCTURAL MEMBERS</b> .....	729
<i>Christos Mourlas, George Markou, Manolis Papadrakakis</i>	
<b>EVOLUTIONARY ANALYSIS OF FOKKER-PLANCK EQUATION USING MULTI-DIMENSIONAL FINITE ELEMENT METHOD</b> .....	735
<i>Jiri Náprstek, Radomil Král</i>	
<b>STABILITY AND POST-CRITICAL BEHAVIOR OF A TWO-DEGREES OF FREEDOM AERO-ELASTIC SYSTEM IN A CROSS FLOW</b> .....	741
<i>Jiri Náprstek, Stanislav Pospíšil</i>	
<b>AN AUGMENTED LAGRANGIAN FORMULATION FOR THE EQUATIONS OF MOTION OF MULTIBODY SYSTEMS SUBJECT TO EQUALITY CONSTRAINTS</b> .....	747
<i>Elias Paraskevopoulos, Nikolaos Potosakis, Sotirios Natsiavas</i>	
<b>BEHAVIOR OF SPECIAL HOSPITAL EQUIPMENTS AS RIGID BLOCK WITH MASS ECCENTRICITY SUBJECTED TO HORIZONTAL COMPONENT OF GROUND MOTION</b> .....	753
<i>Kaveh Nezamisavojbolaghi, Mahmood Hosseini</i>	
<b>DYNAMICS OF A COMPOUND CELESTIAL BODY AND A MASSIVE POINT, SUBJECTED MUTUAL ATTRACTION</b> .....	759
<i>Alexander Burov, Vasily Nikonov</i>	
<b>DYNAMIC ANALYSIS OF NONLINEAR ELASTICALLY SUPPORTED VON-KÀRMÀN PLATES SUBJECTED TO SUBSONIC FLOW</b> .....	765
<i>Hamed Norouzi, Davood Younesian</i>	
<b>DETERMINING PERIODIC ORBITS VIA NONLINEAR FILTERING AND RECURRENCE SPECTRA IN THE PRESENCE OF NOISE</b> .....	772
<i>Sebastian Oberst, Steffen Marburg, Norbert Hoffmann</i>	
<b>INFLUENCE OF THE MECHANICS OF ESCAPE ON THE INSTABILITY OF VON MISES TRUSS AND ITS CONTROL</b> .....	778
<i>Diego Orlando, Paulo B. Gonçalves, Stefano Lenci, Giuseppe Rega</i>	
<b>EVALUATION OF EFFECT OF CONFINEMENT ON THE COLLAPSE PROBABILITY OF REINFORCED CONCRETE FRAMES SUBJECTED TO EARTHQUAKES</b> .....	784
<i>Nina Øystad-Larsen, Emrah Erduran, Amir M. Kaynia</i>	
<b>DESTABILIZING DAMPING EFFECT ON FLAT-PLATE VIBRATIONS DUE TO FLOW-INDUCED FLUTTER</b> .....	790
<i>Luca Pigolotti, Claudio Mannini, Gianni Bartoli</i>	
<b>NONLINEAR DYNAMICS OF A PARAMETRIC ANALYTICAL MODEL FOR BEAM-CABLE-BEAM STRUCTURES</b> .....	796
<i>Francesco Potenza, Marco Lepidi, Umberto Di Sabatino, Vincenzo Gattulli</i>	
<b>NONLINEAR VIBRATIONS OF SYMMETRIC CROSS-PLY LAMINATES VIA THERMOMECHANICALLY COUPLED REDUCED ORDER MODELS</b> .....	802
<i>Eduardo Saetta, Valeria Settini, Giuseppe Rega</i>	
<b>EXPERIMENTS AND NUMERICAL SIMULATIONS OF NONLINEAR VIBRATIONS OF A BEAM WITH NON-IDEAL BOUNDARY CONDITIONS AND UNCERTAINTIES</b> .....	808
<i>T. Roncen, J-J. Sinou, J-P. Lambelin</i>	



<b>NONLINEAR DYNAMIC RESPONSE OF A THREE-DIMENSIONAL GUYED MAST</b> .....	814
<i>Jorge Ballaben, Marta Rosales, Sergio Preidikman</i>	
<b>A SUBSTRUCTURE-BASED NUMERICAL TECHNIQUE AND EXPERIMENTAL ANALYSIS OF TURBINE BLADES DAMPING WITH UNDERPLATFORM FRICTION DAMPERS</b> .....	820
<i>Nikolai Sazhenkov, Irina Semenova, Mikhail Nikhamkin, Sergei Semenov</i>	
<b>NECESSARY AND SUFFICIENT CONDITIONS OF EXISTENCE OF PERIODICAL MOTIONS IN THE MODEL OF A HINGE MECHANISM IN A FLOW</b> .....	826
<i>Liubov Klimina, Boris Lokshin, Yury Selyutskiy, Rinaldo Garziera</i>	
<b>INTERACTION OF INTERNAL AND EXTERNAL RESONANCES DURING FORCE DRIVEN VIBRATIONS OF A NONLINEAR THIN PLATE EMBEDDED INTO A FRACTIONAL DERIVATIVE MEDIUM</b> .....	832
<i>Marina V. Shitikova, Yury A. Rossikhin, Vladimir Kandu</i>	
<b>INTERNAL RESONANCES IN A TRANSVERSALLY EXCITED IMPERFECT CIRCULAR CYLINDRICAL SHELL</b> .....	838
<i>Lara Rodrigues, Paulo B. Gonçalves, Frederico M. A. Silva</i>	
<b>EVALUATION OF THE GROUND MOTION SCALING PROCEDURES FOR CONCRETE GRAVITY DAMS</b> .....	844
<i>Berat Feyza Soysal, Bekir Özer Ay, Yalin Arici</i>	
<b>WIDE-SENSE ROBUST AND STABLE IN THE LARGE TERMINAL CONTROL FOR VAN DER POL DYNAMICS: POINCARÉ'S-APPROACH-BASED BACKSTEPPING METHOD</b> .....	850
<i>M. K. Sparavalo</i>	
<b>NUMERICAL INVESTIGATION OF THE HOPF-BOGDANOV-TAKENS MODE INTERACTION FOR A FLUID-CONVEYING TUBE</b> .....	857
<i>Alois Steindl</i>	
<b>A QUALITATIVE ANALYSIS OF THE DYNAMICS OF A DISC ON A ROTATING PLANE WITH DRY FRICTION</b> .....	863
<i>Olga A. Vinogradova</i>	
<b>COMPARING THE DIRECT NORMAL FORM METHOD WITH HARMONIC BALANCE AND THE METHOD OF MULTIPLE SCALES</b> .....	869
<i>T. L. Hill, S. A. Neild, D. J. Wagg</i>	
<b>LYAPUNOV EXPONENTS AND ROTATION NUMBERS IN ROTOR- AND VEHICLE DYNAMICS</b> .....	875
<i>Walter V. Wedig</i>	
<b>LABORATORY EVALUATION OF A FULLY AUTOMATIC MODAL IDENTIFICATION ALGORITHM USING AUTOMATIC HIERARCHICAL CLUSTERING APPROACH</b> .....	882
<i>Giacomo Zonno, Rafael Aguilar, Benjamín Castañeda, Rubén Boroschek, Paulo B. Lourenço</i>	
<b>FORCE IDENTIFICATION USING CORRELATED NOISE MODELS</b> .....	888
<i>B Radhika</i>	
<b>A DATA DRIVEN SOLUTION TO SYNCHRONICITY DEVIATIONS IN OPERATIONAL MODAL ANALYSIS</b> .....	894
<i>Dionisio Bernal</i>	
<b>CRACK LOCALIZATION IN BEAMS BY FREQUENCY SHIFTS DUE TO ROVING MASS WITH ROTARY INERTIA</b> .....	900
<i>Francesco Cannizzaro, Julian De Los Rios, Salvatore Caddemi, Ivo Caliò, Sinniah Ilanko</i>	
<b>STATE SPACE MODEL AND ITS ESTIMATION FOR OPERATIONAL MODAL ANALYSIS WITH NON-WHITE NOISE INPUTS</b> .....	906
<i>Javier Cara, Jesús Juan, Enrique Alarcón</i>	
<b>IDENTIFYING A STOCHASTIC PROCESS RELATED TO THE STIFFNESS IN A VOICE PRODUCTION MECHANICAL MODEL</b> .....	912
<i>E. Cataldo, C. Soize</i>	
<b>ONLINE BAYESIAN IDENTIFICATION OF NON-SMOOTH SYSTEMS</b> .....	918
<i>Manolis N. Chatzis, Eleni N. Chatzi</i>	
<b>A NONLINEAR MODEL INVERSION METHOD FOR JOINT SYSTEM PARAMETER, NOISE, AND INPUT IDENTIFICATION OF CIVIL STRUCTURES</b> .....	924
<i>Hamed Ebrahimian, Rodrigo Astroza, Joel P. Conte, Costas Papadimitriou</i>	
<b>OUTPUT-ONLY IDENTIFICATION OF RIGID BODY MOTIONS OF FLOATING STRUCTURES: A CASE STUDY</b> .....	930
<i>C. Ruzzo, G. Failla, M. Collu, V. Nava, V. Fiamma, F. Arena</i>	
<b>STRUCTURAL AND SEISMIC MONITORING OF THE “CARDARELLI” HOSPITAL IN CAMPOBASSO</b> .....	936
<i>Danilo Gargaro, Carlo Rainieri, Giovanni Fabbrocino</i>	

<b>MODAL DENSITY INFLUENCE ON MODAL COMPLEXITY QUANTIFICATION IN DYNAMIC SYSTEMS</b> .....	942
<i>Fabrizio Iezzi, Claudio Valente</i>	
<b>ROBUST STRATEGY FOR THE EXCITATING FORCE IDENTIFICATION</b> .....	948
<i>Josselin Pons, Jerome Laborde, Louis Jezequel</i>	
<b>FINITE ELEMENT MODELING FOR STRUCTURAL DYNAMIC ANALYSIS OF BOLTED JOINTS UNDER UNCERTAINTY</b> .....	954
<i>P. Langer, K. Sepahvand, C. Guist, S. Marburg</i>	
<b>IDENTIFICATION OF MODAL PARAMETERS BASED ON MOVING LOAD EXCITATION</b> .....	960
<i>Yi Liu, John Macdonald, Dario Di Maio</i>	
<b>SMARTPHONE DATA STREAMS FOR BRIDGE HEALTH MONITORING</b> .....	966
<i>Thomas Matarazzo, Mohammad Vazifeh, Shamim Pakzad, Paolo Santi, Carlo Ratti</i>	
<b>BAYESIAN OPTIMAL EXPERIMENTAL DESIGN FOR PARAMETER ESTIMATION AND RESPONSE PREDICTIONS IN COMPLEX DYNAMICAL SYSTEMS</b> .....	972
<i>Costas Papadimitriou, Costas Argyris</i>	
<b>MODEL UPDATING STRATEGY OF THE DLR-AIRMOD TEST STRUCTURE</b> .....	978
<i>Edoardo Patelli, Matteo Broggi, Yves Govers, John E. Mottershead</i>	
<b>INFORMATION FUSION OF DIFFERENT MODES FOR AN EFFICIENT BAYESIAN DAMAGE DETECTION METHODOLOGY</b> .....	984
<i>Kanta Prajapat, Samit Ray-Chaudhuri</i>	
<b>OPTIMAL INPUT LOCATION FOR MODAL IDENTIFICATION</b> .....	990
<i>Debasish Jana, Kanta Prajapat, Suparno Mukhopadhyay, Samit Ray Chaudhuri</i>	
<b>UNCERTAINTY QUANTIFICATION OF MODAL CHARACTERISTICS IDENTIFIED FROM FREQUENCY-DOMAIN STOCHASTIC SUBSPACE IDENTIFICATION</b> .....	996
<i>Edwin Reynnders, Kristof Maes</i>	
<b>OUTPUT ONLY SYSTEM IDENTIFICATION BASED ON SYNCHROSQUEEZED TRANSFORM</b> .....	1002
<i>Smita Kaloni, Manish Shrikhande</i>	
<b>IDENTIFICATION OF FRAME MODELS UNDER UNMEASURED BASE MOTION: EXPERIMENTAL VALIDATION</b> .....	1008
<i>Vincenzo Sepe, Claudio Valente, Luigia Zuccarino, Rossella Siano, Fabrizio Iezzi</i>	
<b>OPERATIONAL MODAL ANALYSIS ON A LIGHTHOUSE STRUCTURE SUBJECTED TO ICE ACTIONS</b> .....	1014
<i>Torodd S. Nord, Knut Andreas Kvåle, Øyvind W. Petersen, Morten Bjerckås, Eliz-Mari Lourens</i>	
<b>A NEW DEVELOPED MODAL PARAMETER IDENTIFICATION METHOD BASED ON EMPIRICAL MODE DECOMPOSITION AND NATURAL EXCITATION TECHNIQUE</b> .....	1020
<i>Xingyu Song, Hongwei Ma, Kun Wang</i>	
<b>SYSTEM IDENTIFICATION OF BOGAZICI SUSPENSION BRIDGE DURING HANGER REPLACEMENT</b> .....	1026
<i>Serdar Soyoz, Umit Dikmen, Nurdan Apaydin, Korkut Kaynardag, Emre Aytulun, Oguz Senkardasler, Necati Catbas, Hilmi Lus, Erdal Safak, Mustafa Erdik</i>	
<b>IDENTIFICATION OF STRUCTURAL STIFFNESS PARAMETERS VIA WAVELET PACKET FROM SEISMIC RESPONSE</b> .....	1032
<i>Wei-Chih Su, Chiung-Shiann Huang</i>	
<b>ON MINIMIZING THE INFLUENCE OF THE NOISE TAIL OF CORRELATION FUNCTIONS IN OPERATIONAL MODAL ANALYSIS</b> .....	1038
<i>Marius Tarpø, Peter Olsen, Sandro Amador, Martin Juul, Rune Brincker</i>	
<b>A SUBSTRUCTURE APPROACH FOR FATIGUE ASSESSMENT ON WIND TURBINE SUPPORT STRUCTURES USING OUTPUT-ONLY MEASUREMENTS</b> .....	1044
<i>Konstantinos Tatsis, Vasilis Dertimanis, Imad Abdallah, Eleni Chatzi</i>	
<b>QUASI-ISOSPECTRAL STURM-LIOUVILLE OPERATORS AND APPLICATIONS TO SYSTEM IDENTIFICATION</b> .....	1050
<i>Antonio Bilotta, Antonino Morassi, Emilio Turco</i>	
<b>APPROXIMATE BAYESIAN COMPUTATION BY SUBSET SIMULATION FOR MODEL SELECTION IN DYNAMICAL SYSTEMS</b> .....	1056
<i>Majid K. Vakilzadeh, James L. Beck, Thomas Abrahamsson</i>	
<b>DYNAMIC STIFFNESS IDENTIFICATION OF PORTAL FRAME BRIDGE-SOIL SYSTEM USING CONTROLLED DYNAMIC TESTING</b> .....	1062
<i>Abbas Zangeneh, Christoffer Svedholm, Andreas Andersson, Costin Pacoste, Raid Karoumi</i>	
<b>EXPERIMENTAL VERIFICATION OF OPTIMAL SENSOR PLACEMENT FOR MULTI-SETUP MODAL TESTING</b> .....	1068
<i>Jie Zhang, Kristof Maes, Guido De Roeck, Edwin Reynnders, Geert Lombaert</i>	

<b>EFFECTIVE STIFFNESS IDENTIFICATION FOR STRUCTURAL HEALTH MONITORING OF REINFORCED CONCRETE BUILDING USING HYSTERESIS LOOP ANALYSIS</b> .....	1074
<i>Cong Zhou, J. Geoffrey Chase, Geoffrey W. Rodgers, Baofeng Huang, Chao Xu</i>	
<b>EVOLUTIONARY FREQUENCY RESPONSE FUNCTION OF LINEAR SYSTEMS SUBJECTED TO EARTHQUAKE ACCELEROGRAMS USING THE ADAPTIVE CHIRPLET DECOMPOSITION</b> .....	1080
<i>T. Alderucci, F. Giunta, G. Muscolino</i>	
<b>STOCHASTIC RESPONSE OF A FRACTIONAL VIBROIMPACT SYSTEM</b> .....	1086
<i>Daniil Yurchenko, Andrea Burlon, Mario Di Paola, Giuseppe Failla, Antonina Pirrotta</i>	
<b>INFLUENTIAL STRUCTURAL PARAMETERS OF POUNDING BETWEEN BUILDINGS DURING EARTHQUAKES</b> .....	1092
<i>V. Crozet, I. Politopoulos, M. Yang, J-M. Martinez, S. Erlicher</i>	
<b>A NONDETERMINISTIC GHM BASED MODEL APPLIED TO SANDWICH BEAMS</b> .....	1098
<i>W. N. Felipe, F. S. Barbosa</i>	
<b>STEADY-STATE RESPONSE OF A RANDOM DYNAMICAL SYSTEM DESCRIBED WITH PADÉ APPROXIMANTS AND RANDOM EIGENMODES</b> .....	1104
<i>E. Jacquelin, O. Dessombz, J.-J. Sinou, S. Adhikari, M. I. Friswell</i>	
<b>COMPARATIVE STUDY OF THE PATH INTEGRATION METHOD AND THE STOCHASTIC AVERAGING METHOD FOR NONLINEAR ROLL MOTION IN RANDOM BEAM SEAS</b> .....	1110
<i>Wei Chai, Leo Dostal, Arvid Naess, Bernt J. Leira</i>	
<b>MARKOV CHAIN MONTE CARLO SIMULATION METHODS FOR STRUCTURAL RELIABILITY ANALYSIS</b> .....	1122
<i>Carsten Proppe</i>	
<b>EXPLICIT FREQUENCY RESPONSE FUNCTION OF BEAMS WITH CRACK OF UNCERTAIN DEPTH</b> .....	1128
<i>G. Muscolino, R. Santoro</i>	
<b>SPECTRAL STOCHASTIC FINITE ELEMENT METHOD IN VIBROACOUSTIC ANALYSIS OF FIBER-REINFORCED COMPOSITES</b> .....	1134
<i>K. Sepahvand, S. Marburg</i>	
<b>EFFECT OF GEOMETRIC IRREGULARITIES ON THE DYNAMIC RESPONSE OF MASONRY ARCHES</b> .....	1140
<i>L. Severini, M. De Jong, N. Cavalagli, V. Gusella</i>	
<b>TRANSIENT RESPONSE OF ONE-DEGREE-OF-FREEDOM SYSTEMS WITH BOUC-HYSTERESIS EXCITED BY WHITE NOISE</b> .....	1146
<i>Holger Waubke, Christian H. Kasess</i>	
<b>ASSESSMENT OF OPTIMAL DESIGN METHODS OF VISCOUS DAMPERS</b> .....	1152
<i>Domenico Altieri, Enrico Tubaldi, Edoardo Patelli, Andrea Dall'Asta</i>	
<b>META-MODELS FOR FATIGUE DAMAGE ESTIMATION OF OFFSHORE WIND TURBINES JACKET SUBSTRUCTURES</b> .....	1158
<i>Sebastian Brandt, Matteo Broggi, Jan Hafele, Cristian Guillermo Gebhardt, Raimund Rolfes, Michael Beer</i>	
<b>PROBABILITY MODELS TO ASSESS THE SEISMIC SAFETY OF RIGID BLOCK-LIKE STRUCTURES AND THE EFFECTIVENESS OF TWO SAFETY DEVICES</b> .....	1164
<i>Alessandro Contento, Paolo Gardoni, Angelo Di Egidio, Andrea M. De Leo</i>	
<b>RELIABILITY-BASED DYNAMIC ANALYSIS OF PROGRESSIVE COLLAPSE OF HIGHWAY BRIDGES</b> .....	1170
<i>Feng Miao, Michel Ghosn</i>	
<b>LONG-TERM STOCHASTIC EXTREME RESPONSE ANALYSIS OF FLOATING BRIDGES</b> .....	1175
<i>Finn-Idar Grøtta Giske, Bernt Johan Leira, Ole Øiseth</i>	
<b>AN EFFICIENT DYNAMIC SUBSTRUCTURING AND APPLICATION TO RELIABILITY ANALYSIS</b> .....	1181
<i>H. A. Jensen, V. Araya</i>	
<b>A PROBABILISTIC FRAMEWORK FOR SEISMIC RISK ASSESSMENT OF ELECTRIC POWER SYSTEMS</b> .....	1187
<i>Abdullahi M. Salman, Yue Li</i>	
<b>RELIABILITY-BASED DESIGN OPTIMIZATION OF REINFORCED CONCRETE STRUCTURES WITH ELASTOMERIC ISOLATORS</b> .....	1193
<i>Numa Léger, Luca Rizzian, Mariapia Marchi</i>	
<b>SMGDA: AN UNCERTAINTY BASED MULTI-OBJECTIVE OPTIMIZATION APPROACH. ILLUSTRATION TO AN AIRPLANE COMPOSITE MATERIAL</b> .....	1199
<i>Quentin Mercier, Fabrice Poirion, Jean-Antoine Désidéri</i>	

<b>UNCERTAINTY QUANTIFICATION FOR AN ELASTO-ACOUSTIC NONLINEAR REDUCED-ORDER COMPUTATIONAL MODEL.....</b>	1204
<i>E. Capiez-Lernout, C. Soize, R. Ohayon</i>	
<b>MODEL UNCERTAINTIES IN COMPUTATIONAL VISCOELASTIC LINEAR STRUCTURAL DYNAMICS.....</b>	1210
<i>R. Capillon, C. Desceliers, C. Soize</i>	
<b>QUANTIFICATION OF NON-HOMOGENEOUS INTERVAL UNCERTAINTY BASED ON SCATTER IN MODAL PROPERTIES.....</b>	1216
<i>Matthias Faes, David Moens</i>	
<b>UNCERTAINTY QUANTIFICATION ON A CHEMICAL POROELASTIC COUPLED PROBLEM: MECHANOBIOLOGY OF IMPLANT HEALING.....</b>	1222
<i>Dounia Moukadiri, Béatrice Faverjon, David Dureisseix, Nicole Kessissoglou, Pascal Swider</i>	
<b>SENSITIVITY ANALYSIS OF MATERIAL AND LOAD PARAMETERS TO FATIGUE STRESSES OF AN OFFSHORE WIND TURBINE MONOPILE SUBSTRUCTURE.....</b>	1228
<i>Ana Glišić, Peter Schaumann, Matteo Broggi, Michael Beer</i>	
<b>BAYESIAN CALIBRATION OF MECHANICAL PARAMETERS OF HIGH-SPEED TRAIN SUSPENSIONS.....</b>	1234
<i>D. Lebel, C. Soize, C. Funfschilling, G. Perrin</i>	
<b>NUMERICAL UNCERTAINTY ANALYSIS OF ACTIVE AND PASSIVE STRUCTURES IN THE STRUCTURAL DESIGN PHASE.....</b>	1240
<i>Sushan Li, Elena Maja Slomski, Tobias Melz</i>	
<b>ENERGY-BASED COLLAPSE ASSESSMENT OF COMPLEX REINFORCED CONCRETE STRUCTURES WITH UNCERTAINTIES.....</b>	1246
<i>Jie Li, Hao Zhou</i>	
<b>REDUCED ORDER LEVEL MODELING OF STRUCTURE-BASED UNCERTAINTY ON FLUID FORCES FOR THE DYNAMICS OF NEARLY-STRAIGHT PIPES.....</b>	1252
<i>Shrinil Shah, Marc P. Mignolet</i>	
<b>BAYESIAN MODEL UPDATING OF HISTORIC MASONRY TOWERS THROUGH DYNAMIC EXPERIMENTAL DATA.....</b>	1258
<i>G. Bartoli, M. Betti, L. Facchini, A. M. Marra, S. Monchetti</i>	
<b>THE DYNAMICS OF COUPLED STRUCTURES POSSESSING INHOMOGENEOUS ATTACHMENTS.....</b>	1264
<i>M R Souza, N. S. Ferguson</i>	
<b>FLUID EFFECT ON ICE INDUCED VIBRATIONS.....</b>	1270
<i>A. K. Abramian, D. A. Indeitsev, N. M. Bessonov</i>	
<b>TRANSIENT CALCULATION OF PRESSURE WAVES IN A WELL INDUCED BY TUBULAR EXPANSION.....</b>	1276
<i>W. Assaad, H. R. Pasaribu, D. Zijsling, K. N. Van Dalen, A. V. Metrikine</i>	
<b>COMPETITION BETWEEN TURBULENCE AND FLUID-ELASTIC FORCES IN THE RESPONSE OF A LOOSELY SUPPORTED TUBE UNDER CROSS-FLOW.....</b>	1282
<i>Laurent Borsoi, Philippe Piteau, Xavier Delaune, Jose Antunes</i>	
<b>VIV-GALLOPING INTERACTION OF THE DECK OF A FOOTBRIDGE WITH SOLID PARAPETS.....</b>	1290
<i>Stefano Cammelli, Anna Bagnara, Jessica Garcia Navarro</i>	
<b>POLYMERIC FLEXIBLE PLATE IN THE WAKE OF A BLUFF BODY FOR ENERGY HARVESTING.....</b>	1296
<i>Emmanuel Binyet, Chih-Yung Huang, Jen-Yuan (James) Chang</i>	
<b>NON-LINEAR FINITE ELEMENT ANALYSIS OF AN ELASTIC STRUCTURE LOADED BY HYDROSTATIC FOLLOWER FORCES.....</b>	1302
<i>C. Hoareau, J.-F. Deü</i>	
<b>SOFIA - A SIMULATION TOOL FOR BOTTOM FOUNDED AND FLOATING OFFSHORE STRUCTURES.....</b>	1308
<i>Morten E. Nielsen, Martin D. Ulriksen, Lars Damkilde</i>	
<b>DYNAMICAL NONLINEAR MODELLING OF A PRESSURISED WATER REACTOR FUEL ASSEMBLY SUBJECTED TO AN AXIAL FLOW.....</b>	1314
<i>Guillaume Ricciardi</i>	
<b>RESPONSE DYNAMICS OF A FREELY OSCILLATING CYLINDER UNDER THE EFFECT OF NOISE.....</b>	1320
<i>M. S. Aswathy, Sunetra Sarkar</i>	
<b>VORTEX-INDUCED VIBRATIONS OF A VERTICAL RISER WITH TIME-VARYING TENSION.....</b>	1326
<i>Mats Jørgen Thorsen, Svein Sævik</i>	

<b>SEISMIC HAZARD AND STRUCTURAL ANALYSIS OF THE CONCRETE ARCH DAM (RULES DAM ON GUADALFEO RIVER)</b> .....	1332
<i>Enrico Zacchei, José Luis Molina, Reyolando M. L. R. F. Brasil</i>	
<b>AN ANALYTICAL INVESTIGATION INTO THE USE OF MAGNETO-RHEOLOGICAL ELASTOMERS TO SUPPRESS FLEXURAL WAVES IN BEAMS</b> .....	1338
<i>F. C. L. Almeida, M. J. Brennan, A. T. Paschoalini, V. M. Santos, F. S. Bellucci, A. E. Job</i>	
<b>ON THE SIGNUM FUNCTION AND ITS EFFECT ON ACOUSTIC CORRELATION FOR LEAK LOCATION IN BURIED PLASTIC WATER PIPES</b> .....	1344
<i>F. C. L. Almeida, M. J. Brennan, A. T. Paschoalini, P. F. Joseph, Y. Gao</i>	
<b>ON THE ROLE OF VIBRO-ACOUSTICS IN LEAK DETECTION FOR PLASTIC WATER DISTRIBUTION PIPES</b> .....	1350
<i>M. J. Brennan, M. Karimi, F. C. L. Almeida, F. Kroll De Lima, P. C. Ayala, D. Obata, A. T. Paschoalini, N. Kessissoglou</i>	
<b>ACOUSTIC ENERGY TRANSFER BY FRICTION INDUCED VIBRATIONS</b> .....	1356
<i>G. Lacerra, F. Massi, E. Chatelet, E. Moulin</i>	
<b>VIBRO-ACOUSTICS OF INFINITE AND FINITE ELASTIC FLUID-FILLED CYLINDRICAL SHELLS</b> .....	1362
<i>L. S. Ledet, S. V. Sorokin</i>	
<b>ENVIRONMENTAL VIBRATION REDUCTION UTILIZING AN ARRAY OF MASS SCATTERERS</b> .....	1368
<i>A. T. Peplow, L. V. Andersen, P. Bucinskas</i>	
<b>A 2.5D SPECTRAL APPROACH TO REPRESENT ACOUSTIC AND ELASTIC WAVEGUIDES INTERACTION ON THIN SLAB STRUCTURES</b> .....	1374
<i>Fj. Cruz-Muñoz, A. Romero, A. Tadeu, P. Galvín</i>	
<b>STUDY ON STRUCTURE-BORNE LOW-FREQUENCY NOISE FROM RAIL TRANSIT BRIDGES USING INVERSE BOUNDARY ELEMENT METHOD</b> .....	1380
<i>X. D. Song, Q. Li, D. J. Wu</i>	
<b>POWER-BASED APPROACH FOR ASSESSMENT OF STRUCTURE-BORNE SOUND IN MECHANICAL NETWORKS OF VEHICLE STRUCTURES</b> .....	1386
<i>Rupert Ullmann, Stefan Sicklinger, Martin Buchschmid, Gerhard Müller</i>	
<b>MODELING OF ORTHOTROPIC PLATES OUT OF CROSS LAMINATED TIMBER IN THE MID AND HIGH FREQUENCY RANGE</b> .....	1392
<i>Christoph Winter, Martin Buchschmid, Gerhard Müller</i>	
<b>VIBRATIONS OF A THIN ELASTIC PLATE FLOATING ATOP A HEAVY DENSITY-STRATIFIED FLUID</b> .....	1398
<i>M. G. Zhuchkova</i>	
<b>CALCULATION OF DISPLACEMENTS AND STRESSES IN LAMINATED GLASS BEAMS UNDER DYNAMIC LOADINGS USING AN EFFECTIVE YOUNG MODULUS</b> .....	1405
<i>Manuel L. Aenlle, F. Pelayo, G. Ismael</i>	
<b>CONSEQUENCES OF DIFFERENT DEFINITIONS OF BENDING CURVATURE ON NONLINEAR DYNAMICS OF BEAMS</b> .....	1411
<i>Enrico Babilio, Stefano Lenci</i>	
<b>INNER RESONANCE IN FIBER-MATRIX COMPOSITES WITH HOMOGENEOUS FIBERS</b> .....	1417
<i>Guy Bonnet, Vincent Monchiet</i>	
<b>DYNAMIC RESPONSE OF EQUIVALENT ORTHOTROPIC PLATE MODEL FOR STIFFENED PLATE: NUMERICAL-EXPERIMENTAL ASSESSMENT</b> .....	1423
<i>Giuseppe Battaglia, Alberto Di Matteo, Antonina Pirrotta, Giorgio Micale</i>	
<b>A SYSTEMATIC APPROACH TO DERIVE DYNAMIC EQUATIONS FOR HOMOGENEOUS AND FUNCTIONALLY GRADED MICROPOLAR PLATES</b> .....	1429
<i>Hossein Abadikhah, Peter D. Folkow</i>	

### PART 3

<b>HOMOGENIZED BENDING MODEL OF A PERIODIC RIBBED PLATE WITH INNER RESONANCE</b> .....	1435
<i>Pascal Fossat, Claude Boutin, Mohamed Ichchou</i>	
<b>DAMPED BLOCH WAVES IN LATTICES METAMATERIALS WITH INERTIAL RESONATORS</b> .....	1441
<i>Andrea Bacigalupo, Luigi Gambarotta</i>	
<b>QUANTIFYING RATE DEPENDENCE OF HYSTERETIC SYSTEMS</b> .....	1447
<i>Tamás Kalmár-Nagy, Davide Bernardini, Biagio Carboni, Walter Lacarbonara</i>	

<b>REVEALING NONLINEAR DYNAMICAL BEHAVIOUR OF LAMINATED GLASS</b> .....	1454
<i>Stefano Lenzi, Laura Consolini, Francesco Clementi, Gianmichele Cocchi</i>	
<b>ASYMPTOTIC APPROXIMATION OF THE BAND STRUCTURE FOR TETRACHIRAL METAMATERIALS</b> .....	1460
<i>Marco Lepidi, Andrea Bacigalupo</i>	
<b>CUT-OFF FREQUENCIES AND CORRECTION FACTORS OF EQUIVALENT SINGLE LAYER THEORIES</b> .....	1466
<i>Roberta Massabò</i>	
<b>TIME HISTORY RESPONSE ANALYSIS USING EXTENDED RAYLEIGH DAMPING MODEL</b> .....	1472
<i>Naohiro Nakamura</i>	
<b>THE EXPERIMENTAL DETERMINATION OF BIFURCATION COMPONENTS OF FRICTION</b> .....	1478
<i>Kirill Nuzhdin, Victor Musalimov</i>	
<b>ANALYSIS OF HYDROELASTIC SLAMMING OF FLEXIBLE STRUCTURES: MODELING AND EXPERIMENTS</b> .....	1484
<i>Adel Shams, Sam Zhao, Maurizio Porfiri</i>	
<b>DISPERSION OF ELASTIC WAVES IN LAMINATED GLASS</b> .....	1489
<i>J. Kaplunov, D. A. Prikazchikov, L. A. Prikazchikova</i>	
<b>NUMERICAL MODELING OF THE MICROSTRUCTURE OF CERAMIC-METALLIC MATERIALS</b> .....	1495
<i>Adam Kurzawa, Dariusz Pyka, Joanna Pach, Krzysztof Jamrozak, Mirosław Bocian</i>	
<b>HIGH FREQUENCY REDUCED MODELS FOR REPETITIVE BEAMS</b> .....	1501
<i>Antoine Rallu, Stephane Hans, Claude Boutin</i>	
<b>DYNAMICS AND WAVE DISPERSION OF STRONGLY HETEROGENEOUS FLUID-SATURATED POROUS MEDIA</b> .....	1507
<i>Eduard Rohan, Vu Hieu Nguyen, Salah Naili</i>	
<b>MODELLING OF PRE-STRESSED PIEZOELECTRIC STRUCTURES WITH INHOMOGENEOUS COATING</b> .....	1513
<i>T. I. Belyankova, V. V. Kalinchuk</i>	
<b>SOME ADVANCEMENTS IN THE ULTRASONIC EVALUATION OF INITIAL STRESS STATES BY THE ANALYSIS OF THE ACOUSTOELASTIC EFFECT</b> .....	1519
<i>Anna Castellano, Aguinardo Fraddosio, Salvatore Marzano, Mario Daniele Piccioni</i>	
<b>A NUMERICAL METHOD FOR THE SCATTERING BY DEFECTS IN AXISYMMETRICAL OPEN ELASTIC WAVEGUIDES</b> .....	1527
<i>Mathieu Gallezot, Fabien Treyssède, Laurent Laguerre</i>	
<b>SCATTERING OF BULK STRAIN SOLITARY WAVES IN BI-LAYERS WITH DELAMINATION</b> .....	1533
<i>K. R. Khusnutdinova, M. R. Tranter</i>	
<b>ENERGY PRESERVING FINITE DIFFERENCE SCHEME FOR SIXTH ORDER BOUSSINESQ EQUATION</b> .....	1539
<i>N. Kolkovska, V. Vucheva</i>	
<b>A MATCH COEFFICIENT APPROACH FOR DAMAGE IMAGING IN STRUCTURAL COMPONENTS BY ULTRASONIC SYNTHETIC APERTURE FOCUS</b> .....	1544
<i>S. Sternini, A. Quattrocchi, R. Montanini, A. Pau, F. Lanza Di Scalea</i>	
<b>DETECTION OF MAJOR IMPACT DAMAGE TO COMPOSITE AEROSPACE STRUCTURES BY ULTRASONIC GUIDED WAVES AND STATISTICAL SIGNAL PROCESSING</b> .....	1550
<i>M. Capriotti, H. E. Kim, F. Lanza Di Scalea, H. Kim</i>	
<b>FE SIMULATION OF STEADY STATE WAVE MOTION IN SOLIDS COMBINED WITH A PML APPROACH</b> .....	1556
<i>Joonsang Park, Amir M. Kaynia</i>	
<b>NUMERICAL MODELING OF WAVEGUIDES ACCOUNTING FOR TRANSLATIONAL INVARIANCE AND ROTATIONAL SYMMETRY</b> .....	1562
<i>Fabien Treyssède</i>	
<b>CONTROL OF ADJACENT BUILDINGS USING SHARED TUNED MASS DAMPER</b> .....	1568
<i>Z. Guenidi, M. Abdeddaim, A. Ounis, M. K. Shrimali, T. K. Datta</i>	
<b>EARTHQUAKE EXCITED BASE-ISOLATED STRUCTURES PROTECTED BY TUNED LIQUID COLUMN DAMPERS: DESIGN APPROACH AND EXPERIMENTAL VERIFICATION</b> .....	1574
<i>Christoph Adam, Alberto Di Matteo, Thomas Furtmüller, Antonina Pirrotta</i>	
<b>INVESTIGATIONS ON THE PERFORMANCE OF A NOVEL SEMI-ACTIVE TUNED LIQUID COLUMN DAMPER</b> .....	1580
<i>Okyay Altay, Felix Nolteernsting, Sebastian Stemmler, Dirk Abel, Sven Klinkel</i>	

<b>DYNAMIC RESPONSE OF A VISCOUSLY DAMPED TWO ADJACENT DEGREE OF FREEDOM SYSTEM LINKED BY INERTER SUBJECTED TO BASE HARMONIC EXCITATION</b> .....	1586
<i>Michela Basili, Maurizio De Angelis, Daniele Pietrosanti</i>	
<b>ALTERNATING THE TWIN ROTOR DAMPER BETWEEN TWO MODES OF OPERATION TO ELIMINATE SMALL VIBRATIONS</b> .....	1592
<i>Richard Bäumer, Richard Terrill, Uwe Starossek</i>	
<b>VIBRATION CONTROL OF AN EXISTING BUILDING THROUGH THE VIBRATING BARRIER</b> .....	1598
<i>Pierfrancesco Cacciola, Nataša Banjanac, Alessandro Tombari</i>	
<b>CONCEIVING META-STRUCTURES FOR CIVIL ENGINEERING APPLICATIONS</b> .....	1604
<i>Sara Casciati</i>	
<b>DESIGN OF BUILDINGS WITH SEISMIC ISOLATION USING LINEAR QUADRATIC ALGORITHM</b> .....	1610
<i>Chia-Ming Chang, Syuan Shia, Cho-Yen Yang</i>	
<b>EFFECTS OF TUNED RAIL DAMPER ON TRACK DYNAMIC CHARACTERISTICS OPTIMIZATION</b> .....	1616
<i>Jialiang Chen, Weifeng Liu, Xiaojing Sun</i>	
<b>WIND TOWER VIBRATION CONTROLLED BY A PENDULUM TMD USING GENETIC OPTIMIZATION: BEAM MODELLING</b> .....	1623
<i>Gino B. Colherinhas, Maura A. M. Shzu, Suzana M. Avila, Marcus. V. G. De Moraes</i>	
<b>ON DYNAMIC ANALYSIS AND CONTROL OF AN ELEVATOR SYSTEM USING POLYNOMIAL CHAOS AND KARHUNEN-LOËVE APPROACHES</b> .....	1629
<i>Diego Colón, Americo Cunha Jr, Stefan Kaczmarczyk, José M. Balthazar</i>	
<b>STRUCTURAL DISCONNECTION AS A GENERAL TECHNIQUE TO IMPROVE THE DYNAMIC AND SEISMIC RESPONSE OF STRUCTURES: A BASIC MODEL</b> .....	1635
<i>Cristiano Fabrizio, Andrea M. De Leo, Angelo Di Egidio</i>	
<b>DISTRIBUTED MULTIPLE TUNED MASS DAMPERS FOR WIND RESPONSE CONTROL OF CHIMNEY WITH FLEXIBLE FOUNDATION</b> .....	1641
<i>Said Elias, Vasant Matsagar, T. K. Datta</i>	
<b>PRELIMINARY RESULTS AND SIMULATION OF AN ACTIVE PENDULUM SYSTEM FOR A THREE FLOOR BUILDING</b> .....	1647
<i>Isabela Birs, Silviu Folea, Florina Ionescu, Ovidiu Prodan, Cristina Muresan</i>	
<b>ANALYTICAL, NUMERICAL AND EXPERIMENTAL STUDIES ON THE SEMI-ACTIVE FRICTION TENDON</b> .....	1653
<i>Hernán Garrido, Oscar Curadelli, Daniel Ambrosini</i>	
<b>VIBRATION MITIGATION OF A LINEAR HOST STRUCTURE USING A PASSIVE NEUTRALIZER: EFFECT OF NONLINEARITY IN THE NEUTRALIZER SUSPENSION</b> .....	1659
<i>R. Aiello, G. Gatti</i>	
<b>PIEZOELECTRIC ACTUATOR DESIGN CONSIDERING SPILLOVER EFFECTS</b> .....	1665
<i>J. F. Gonçalves, D. M. De Leon, E. A. Perondi</i>	
<b>MATHEMATICAL MODELLING OF ADAPTIVE SKELETAL STRUCTURES FOR IMPACT ABSORPTION AND VIBRATION DAMPING</b> .....	1671
<i>Cezary Graczykowski, Piotr Pawlowski</i>	
<b>APPROXIMATE COMPLEX EIGENSOLUTION OF PROPORTIONALLY DAMPED LINEAR SYSTEMS SUPPLEMENTED WITH A PASSIVE DAMPER</b> .....	1677
<i>S. Hracov, Jiri Náprstek</i>	
<b>A DECENTRALIZED STRATEGY OF STRUCTURAL RECONFIGURATION IN MITIGATION OF VIBRATIONS</b> .....	1683
<i>Blazej Poplawski, Grzegorz Mikulowski, Arkadiusz Mróz, Krzysztof Sekula, Lukasz Jankowski</i>	
<b>INCLUDING INERTERS IN AIRCRAFT LANDING GEAR SHOCK STRUT TO IMPROVE THE TOUCH-DOWN PERFORMANCE</b> .....	1689
<i>Yuan Li, Jason Zheng Jiang, Pia Sartor, Simon A. Neild, Huailei Wang</i>	
<b>USE OF INERTER-BASED VIBRATION ABSORBERS FOR SUPPRESSING MULTIPLE CABLE MODES</b> .....	1695
<i>Jiannan Luo, John H. G. Macdonald, Jason Zheng Jiang</i>	
<b>NONLINEAR PASSIVE DAMPING OF THE X-SHAPED STRUCTURE</b> .....	1701
<i>Jing Bian, Xingjian Jing</i>	
<b>SWITCH CONTROL OF TWIN ROTOR DAMPER FOR BRIDGE VIBRATION MITIGATION UNDER DIFFERENT EXCITATIONS</b> .....	1707
<i>Yu Zhang, Luyu Li, Xiaohua Zhang</i>	

<b>COMPARISON OF TMD DESIGNS FOR A FOOTBRIDGE SUBJECTED TO HUMAN-INDUCED VIBRATIONS ACCOUNTING FOR STRUCTURAL AND LOAD UNCERTAINTIES .....</b>	<b>1713</b>
<i>Klaus Lievens, Geert Lombaert, Guido De Roeck, Peter Van Den Broeck</i>	
<b>APPLICATION OF A 245 METRIC TON DUAL-USE ACTIVE TMD SYSTEM .....</b>	<b>1719</b>
<i>Christian Meinhardt, Nikolaos Nikitas, Demetris Demetriou</i>	
<b>SEISMIC RESPONSE CONTROL OF MULTI-STORY ASYMMETRIC-PLAN BUILDINGS USING PIN-SUPPORTED STRUCTURES WITH PASSIVE ENERGY DISSIPATION DEVICES.....</b>	<b>1725</b>
<i>Yuji Miyazu, Akiyasu Ito</i>	
<b>INVESTIGATION ON THE EFFECT OF NEAR-FAULT EARTHQUAKE ON DOUBLE CONCAVE FRICTION PENDULUM (DCFP) BASE ISOLATED BUILDINGS .....</b>	<b>1731</b>
<i>Alireza Mohammadi, Gholamreza Nouri</i>	
<b>THREE-DIMENSIONAL SEISMIC RESPONSE OF TWO-STORY WOODEN BUILDINGS WITH SEISMIC DEVICES USING MECHANICAL LINKAGE.....</b>	<b>1737</b>
<i>Shohei Morikawa, Yuji Miyazu, Naohiro Nakamura</i>	
<b>ROBUST SIMULTANEOUS OPTIMIZATION OF FRICTION DAMPER FOR THE PASSIVE VIBRATION CONTROL IN A COLOMBIAN BUILDING.....</b>	<b>1743</b>
<i>Sergio Pastor Ontiveros-Pérez, Leticia Fleck Fadel Miguel, Leandro Fleck Fadel Miguel</i>	
<b>LMI-BASED DESIGN OF DISTRIBUTED ENERGY-DISSIPATION SYSTEMS FOR VIBRATION CONTROL OF LARGE MULTI-STORY STRUCTURES.....</b>	<b>1749</b>
<i>F. Palacios-Quinónero, J. Rubió-Massegú, J. M. Rossell, H. R. Karimi</i>	
<b>A DIRECT DESIGN PROCEDURE FOR FRAME STRUCTURES WITH ADDED VISCOUS DAMPERS FOR THE MITIGATION OF EARTHQUAKE-INDUCED VIBRATIONS.....</b>	<b>1755</b>
<i>Michele Palermo, Stefano Silvestri, Giada Gasparini, Antoine Dib, Tomaso Trombetti</i>	
<b>OPTIMAL CONTROL THEORY BASED DESIGN OF ELASTO-MAGNETIC METAMATERIAL .....</b>	<b>1761</b>
<i>S. Pensalfini, F. Coppo, F. Mezzani, G. Pepe, A. Carcaterra</i>	
<b>EXPERIMENTAL STUDY OF THE SEISMIC RESPONSE OF COUPLED BUILDINGS MODELS .....</b>	<b>1767</b>
<i>Luis Pérez, Suzana Avila, Graciela Doz</i>	
<b>OPTIMUM DESIGN OF THE TUNED MASS-DAMPER-INERTER FOR SERVICEABILITY LIMIT STATE PERFORMANCE IN WIND-EXCITED TALL BUILDINGS.....</b>	<b>1773</b>
<i>Agathoklis Giaralis, Francesco Petrini</i>	
<b>OPTIMIZATION OF A PSEUDOELASTIC ABSORBER FOR VIBRATION MITIGATION .....</b>	<b>1779</b>
<i>Vinicius Piccirillo, Davide Bernardini, Giuseppe Rega</i>	
<b>A NEW ALGORITHM FOR SEMI-ACTIVE CONTROL OF MIXED BASE ISOLATION .....</b>	<b>1785</b>
<i>Vu Duc-Chuan, Politopoulos Ioannis, Diop Sette</i>	
<b>USE OF FLAT-TYPE MULTILAYER RUBBER-METAL PACKAGE FOR VIBRATION MITIGATION .....</b>	<b>1791</b>
<i>Svetlana Polukoshko</i>	
<b>HYSTERESIS BASED VIBRATION CONTROL OF BASE-ISOLATED STRUCTURES .....</b>	<b>1798</b>
<i>José Rodellar, Guillem Garcia, Yolanda Vidal, Leonardo Acho, Francesc Pozo</i>	
<b>APPLICATION OF EDDY CURRENT DAMPER TECHNOLOGY FOR PASSIVE TUNED MASS DAMPER SYSTEMS WITHIN FOOTBRIDGES.....</b>	<b>1804</b>
<i>David Saige, Jürgen Engelhardt, Sebastian Katz</i>	
<b>PREDICTION AND EXPERIMENTAL ANALYSIS OF THE EFFECTIVENESS OF VIBRATION-ISOLATING TRAMWAY.....</b>	<b>1810</b>
<i>Krzysztof Koziol, Krzysztof Stypula, Tadeusz Tatara</i>	
<b>ACTIVE CONTROL OF ART OBJECTS SUBJECTED TO SEISMIC EXCITATION.....</b>	<b>1816</b>
<i>Ilaria Venanzi, Laura Ierimonti, Annibale Luigi Materazzi</i>	
<b>PERFORMANCE OF A DUAL-STAGE INERTER-BASED VIBRATION ISOLATOR .....</b>	<b>1822</b>
<i>Jian Yang, Jason Z. Jiang, Xiang Zhu, Hao Chen</i>	
<b>DYNAMICS AND CONTROL OF THE GYROPTO WAVE ENERGY POINT ABSORBER UNDER SEA WAVES.....</b>	<b>1828</b>
<i>Zili Zhang, Søren R. K. Nielsen, Biswajit Basu</i>	
<b>THE STRUCTURE-IMMITTANCE APPROACH FOR PASSIVE VIBRATION CONTROL.....</b>	<b>1834</b>
<i>Sara Ying Zhang, Jason Zheng Jiang, Simon A. Neild</i>	
<b>EVALUATION OF DIFFERENT MONITORING TECHNIQUES DURING DAMAGE INFLECTION ON STRUCTURES .....</b>	<b>1840</b>
<i>Karoline Alten, Marian Ralbovsky, Alois Vorwagner, Helmut Topfitzer, Stefan Wittmann</i>	
<b>MODAL STRAIN IDENTIFICATION USING SUB-MICROSTRAIN FBG DATA FROM A PRE-STRESSED CONCRETE BEAM DURING PROGRESSIVE DAMAGE TESTING.....</b>	<b>1846</b>
<i>D. Anastasopoulos, M. De Smedt, G. De Roeck, L. Vandewalle, E. Reynders</i>	



<b>SENSITIVITY DRIVEN ROBUST VIBRATION-BASED DAMAGE DIAGNOSIS UNDER UNCERTAINTY THROUGH HIERARCHICAL BAYES TIME-SERIES REPRESENTATIONS .....</b>	<b>1852</b>
<i>Luis David Avendaño-Valencia, Eleni N. Chatzi</i>	
<b>DAMAGE ANALYSIS IN AUTOMOTIVE GEARBOX.....</b>	<b>1858</b>
<i>Nilson Barbieri, Gabriel De Sant'Anna Vitor Barbieri, Bruno Matos Martins, Lucas De Sant'Anna Vitor Barbieri</i>	
<b>OPTIMAL DESIGN OF SENSOR NETWORKS FOR DAMAGE DETECTION .....</b>	<b>1864</b>
<i>Giovanni Capellari, Eleni Chatzi, Stefano Mariani, Saeed Eftekhari Azam</i>	
<b>GEOMETRICALLY NON-LINEAR FREE AND FORCED VIBRATION OF CLAMPED-CLAMPED FUNCTIONALLY GRADED BEAM WITH DISCONTINUITIES.....</b>	<b>1870</b>
<i>Chajdi Mohcine, Merrimi El Bekkaye, El Bikri Khalid</i>	
<b>EFFECTIVE FILTERING OF MODAL CURVATURES FOR DAMAGE IDENTIFICATION IN BEAMS.....</b>	<b>1876</b>
<i>Jacopo Ciambella, Annamaria Pau, Fabrizio Vestroni</i>	
<b>DETECTING DAMAGED REINFORCEMENT BARS IN CONCRETE STRUCTURES USING GUIDED WAVES.....</b>	<b>1882</b>
<i>Evelyne El Masri, Neil Ferguson, Timothy Waters</i>	
<b>VIBRATION-BASED DAMAGE DETECTION FOR A POPULATION OF NOMINALLY IDENTICAL STRUCTURES VIA RANDOM COEFFICIENT GAUSSIAN MIXTURE AR MODEL BASED METHODOLOGY .....</b>	<b>1888</b>
<i>K. J. Vamvoudakis-Stefanou, S. D. Fassois</i>	
<b>INTEGRATED PROCESS OF IMAGES AND ACCELERATION MEASUREMENTS FOR DAMAGE DETECTION .....</b>	<b>1894</b>
<i>Francesco Potenza, Gianni Castelli, Vincenzo Gattulli, Erika Ottaviano</i>	
<b>DAMAGE DETECTION OF FIBRE-REINFORCED COMPOSITE STRUCTURES USING EXPERIMENTAL MODAL ANALYSIS.....</b>	<b>1900</b>
<i>Christian A. Geweth, Ferina Saati Khosroshahi, Kheirollah Sepahvand, Christoph Kerkeling, Steffen Marburg</i>	
<b>COMPUTATIONAL FRAMEWORK FOR ONLINE ESTIMATION OF FATIGUE DAMAGE USING VIBRATION MEASUREMENTS FROM A LIMITED NUMBER OF SENSORS .....</b>	<b>1906</b>
<i>Dimitrios Giagopoulos, Alexandros Arailopoulos, V. Dertimanis, Costas Papadimitriou, Eleni Chatzi, Konstantinos Grompanopoulos</i>	
<b>DAMAGE DETECTION IN STRUCTURES BASED ON PRINCIPAL COMPONENT ANALYSIS OF FORCED HARMONIC RESPONSES.....</b>	<b>1912</b>
<i>Jean-Claude Golinval</i>	
<b>STATISTICAL METHODS FOR DAMAGE DETECTION APPLIED TO CIVIL STRUCTURES .....</b>	<b>1919</b>
<i>Szymon Gres, Martin Dalgaard Ulriksen, Michael Döhler, Rasmus Johan Johansen, Palle Andersen, Lars Damkilde, Søren Andreas Nielsen</i>	
<b>EXPLOITING SPATIAL SPARSITY IN VIBRATION-BASED DAMAGE DETECTION.....</b>	<b>1925</b>
<i>Chandler B. Smith, Eric M. Hernandez</i>	
<b>DAMAGE DETECTION IN RAILWAY BRIDGES USING MACHINE LEARNING: APPLICATION TO A HISTORIC STRUCTURE.....</b>	<b>1931</b>
<i>Elisa Khouri Chalouhi, Ignacio Gonzalez, Carmelo Gentile, Raid Karoumi</i>	
<b>DEVELOPMENT OF VIRTUAL SENSORS TO INCREASE THE SENSITIVITY TO DAMAGE.....</b>	<b>1937</b>
<i>Jyrki Kullaa</i>	
<b>EXPERIMENTAL VALIDATION OF A NOVEL PSEUDO-MODAL APPROACH FOR DAMAGE DETECTION .....</b>	<b>1943</b>
<i>E. Lofrano, A. Paciacconi, A. Paolone, F. Romeo</i>	
<b>PERTURBATION DAMAGE INDICATORS BASED ON COMPLEX MODES .....</b>	<b>1949</b>
<i>E. Lofrano, A. Paolone, G. Ruta, A. Taglioni</i>	
<b>A VEHICLE-BASED HEALTH MONITORING SYSTEM FOR SHORT AND MEDIUM SPAN BRIDGES AND DAMAGE DETECTION SENSITIVITY .....</b>	<b>1955</b>
<i>Ayaho Miyamoto, Akito Yabe, Eugen Brühwiler</i>	
<b>THE <math>\lambda</math>-CURVES METHOD FOR CRACK IDENTIFICATION IN BEAMS .....</b>	<b>1964</b>
<i>José Fernández-Sáez, Antonino Morassi, Lourdes Rubio</i>	
<b>PERFORMANCE ASSESSMENT OF VIBRATION PARAMETERS AS DAMAGE INDICATORS FOR BRIDGE STRUCTURES UNDER AMBIENT EXCITATION .....</b>	<b>1970</b>
<i>John James Moughty, Joan Ramon Casas</i>	
<b>DAMAGE DETECTION ASSESSMENT IN REINFORCED CONCRETE SLABS USING IMPACT TESTS.....</b>	<b>1976</b>
<i>Roberto Pimentel, Tulio Guedes, Lucas Melo, Gabriel Ferreira, Márcio Gonçalves</i>	
<b>EFFECT OF CUT-OUT AND DELAMINATION ON MODAL PROPERTIES OF SINGLY-AND DOUBLY-CURVED COMPOSITE PLATES .....</b>	<b>1982</b>
<i>Komal Chawla, Samit Ray-Chaudhuri</i>	

<b>MODAL PARAMETER-BASED DAMAGE IDENTIFICATION IN CYLINDRICAL PIPE USING DYNAMIC RESPONSE.....</b>	1988
<i>Kumar Gaurav, Kumari Sonam, Vaibhav Singhal, Koushik Roy</i>	
<b>UNCERTAINTY BOUNDS ON HIGHER-ORDER FRFS FROM GAUSSIAN PROCESS NARX MODELS.....</b>	1994
<i>Keith Worden, Cecilia Surace, William Becker</i>	
<b>CHARACTERIZATION OF DEFECTS IN PLATES USING SHEAR AND LAMB WAVES.....</b>	2001
<i>Dimitra V. Achillopoulou, Annamaria Pau</i>	
<b>NONLINEAR ELASTICITY IN BUILDINGS: A PROSPECTIVE WAY TO MONITOR STRUCTURAL HEALTH.....</b>	2008
<i>Ariana Astorga, Philippe Guéguen, Toshihide Kashima</i>	
<b>APPLICATION STUDY OF EMBEDDED RAYLEIGH BASED DISTRIBUTED OPTICAL FIBER SENSORS IN CONCRETE BEAMS.....</b>	2014
<i>António Barrias, Joan R. Casas, Sergi Villalba</i>	
<b>NON-DESTRUCTIVE STRUCTURAL INTEGRITY TESTING OF FINITE PLATES BASED ON THE WAVE SCATTERING AT DEFECTS WITH SUB-WAVELENGTH SIZE.....</b>	2020
<i>Philip Becht, Elke Deckers, Claus Claeys, Bert Plumers, Wim Desmet</i>	
<b>APPLICATION OF MODAL FLEXIBILITY-BASED DEFLECTIONS FOR DAMAGE DIAGNOSIS OF A STEEL FRAME STRUCTURE.....</b>	2026
<i>G. Bernagozzi, C. E. Ventura, S. Allahdadian, Y. Kaya, L. Landi, P. P. Diotallevi</i>	
<b>AN EFFECTIVE METHOD OF SIGNAL PROCESSING IN PROBLEMS OF LOW-FREQUENCY DEFECTOSCOPY.....</b>	2034
<i>O. V. Bocharova, I. E. Andzjikovich, A. V. Sedov, V. V. Kalinchuk</i>	
<b>LONG-TIME MONITORING OF THE G. MEAZZA STADIUM IN A PATTERN RECOGNITION PROSPECTIVE.....</b>	2040
<i>Alessio Datteo, Francescantonio Lucà, Giorgio Busca, Alfredo Cigada</i>	
<b>DAMPING ESTIMATION OF LARGE WIND-SENSITIVE STRUCTURES.....</b>	2047
<i>Etienne Cheynet, Jasna Bogunovic Jakobsena, Jonas Snæbjörnsson</i>	
<b>STRUCTURAL HEALTH MONITORING SYSTEM OF BRIDGES.....</b>	2054
<i>Cristian-Claudiu Comisu, Nicolae Taranu, Gheorghita Boaca, Maria-Cristina Scutaru</i>	
<b>FATIGUE, DETERIORATION AND SYSTEM ANALYSIS OF THE BOYNE VIADUCT.....</b>	2060
<i>Lorcan Connolly, Alan O'Connor, Cathal Bowe</i>	
<b>EXPLORING THE LIMITS OF THE TRUNCATED SPRT METHOD FOR VIBRATION-RESPONSE-ONLY DAMAGE DIAGNOSIS IN A LAB-SCALE WIND TURBINE JACKET FOUNDATION STRUCTURE.....</b>	2066
<i>Nikos I. Spanos, John S. Sakellariou, Spilios D. Fassois</i>	
<b>VIBRATION-BASED MULTI-SITE DAMAGE PRECISE LOCALIZATION VIA THE FUNCTIONAL MODEL BASED METHOD.....</b>	2072
<i>C. S. Sakaris, J. S. Sakellariou, S. D. Fassois</i>	
<b>COMPENSATION OF TEMPERATURE EFFECTS IN LONG-TERM MONITORING OF A HIGHWAY BRIDGE LOCATED IN THE AUSTRIAN ALPS.....</b>	2078
<i>Thomas Furtmüller, Christoph Adam</i>	
<b>DYNAMIC BEHAVIOUR OF A RETROFITTED SCHOOL BUILDING SUBJECTED TO THE AFTER-SHOCK SEQUENCE OF THE 2016 CENTRAL ITALY EARTHQUAKE.....</b>	2084
<i>Fabrizio Gara, Marco Regni, Sandro Carbonari, Alessandro Balducci, Luigino Dezi</i>	
<b>DAMAGE DETECTION IN AN UNCERTAIN NONLINEAR BEAM.....</b>	2090
<i>Luis Gustavo Giacon Villania, Samuel Da Silva, Americo Cunha Jr</i>	
<b>CONDITION-BASED DECISION USING TRAFFIC-LIGHT CONCEPT APPLIED TO CIVIL ENGINEERING BUILDINGS.....</b>	2096
<i>Philippe Guéguen, Alexandru Tigănescu</i>	
<b>ESTIMATION OF TRACK MODULUS OVER LONG DISTANCES USING ARTIFICIAL NEURAL NETWORKS.....</b>	2102
<i>Ngoan T. Do, Saeideh Fallah Nafari, Mustafa Gül</i>	
<b>ONLINE DAMAGE DETECTION USING RECURSIVE PRINCIPAL COMPONENT ANALYSIS.....</b>	2108
<i>B Bhowmik, M Krishnan, B Hazra, V Pakrashi</i>	
<b>DAMAGE DETECTION IN A BOLTED LAP JOINT USING GUIDED WAVES.....</b>	2114
<i>Rafal Kedra, Magdalena Rucka</i>	
<b>BAYESIAN OUTLIER DETECTION FOR HEALTH MONITORING OF BRIDGES.....</b>	2120
<i>Yoshinao Goi, Chul-Woo Kim</i>	
<b>BAYESIAN VIRTUAL SENSING FOR FULL-FIELD DYNAMIC RESPONSE ESTIMATION.....</b>	2126
<i>Jyrki Kullaa</i>	

<b>VIBRATION-BASED MODEL UPDATING OF A TIMBER FRAME STRUCTURE</b> .....	2132
<i>Claude Leyder, Eleni Chatzi, Andrea Frangi</i>	
<b>ON THE USE OF EQUIVALENT FORCES FOR STRUCTURAL HEALTH MONITORING BASED ON JOINT INPUT-STATE ESTIMATION ALGORITHMS</b> .....	2140
<i>E. Lourens, D. J. M. Fallais</i>	

#### PART 4

<b>MODEL UPDATING FOR STRUCTURAL HEALTH MONITORING USING STATIC AND DYNAMIC MEASUREMENTS</b> .....	2146
<i>Sebastian Schommer, Viet Ha Nguyen, Stefan Maas, Arno Zürbes</i>	
<b>VALIDATION OF TIME-DELAYED RECURSIVE FORCE IDENTIFICATION IN STRUCTURAL DYNAMICS</b> .....	2154
<i>K. Maes, K. Van Nimmen, S. Gillijns, G. Lombaert</i>	
<b>WIND TURBINE VIBRATION BASED SHM SYSTEM: INFLUENCE OF THE SENSORS LAYOUT AND NOISE</b> .....	2160
<i>João Pacheco, Gustavo Oliveira, Filipe Magalhães, Álvaro Cunha, Elsa Caetano</i>	
<b>INSTALLATION AND RESULTS FROM THE FIRST 6 MONTHS OF OPERATION OF THE DYNAMIC MONITORING SYSTEM OF BAIXO SABOR ARCH DAM</b> .....	2166
<i>Sérgio Pereira, Filipe Magalhães, Jorge Gomes, Álvaro Cunha, José V. Lemos</i>	
<b>AUTOMATED OPERATIONAL MODAL ANALYSIS OF AN ARCH BRIDGE CONSIDERING THE INFLUENCE OF THE PARAMETRIC METHODS INPUTS</b> .....	2172
<i>Gabriele Marrongelli, Filipe Magalhães, Álvaro Cunha</i>	
<b>EXTRACTION OF DAMAGE-SENSITIVE EIGEN-PARAMETERS FOR SUPERVISED SHM</b> .....	2178
<i>Maria Giovanna Masciotta, Luís F. Ramos, Marcello Vasta, Paulo B. Lourenço</i>	
<b>TIME-FREQUENCY DOMAIN IDENTIFICATION OF MODAL PARAMETERS IN COMPLEX MASONRY STRUCTURES UNDER AMBIENT VIBRATIONS</b> .....	2184
<i>Mario Alberto Marmolejo, Johanning Marulanda, Gaetano Miraglia, Peter Thomson, Rosario Ceravolo</i>	
<b>MONITORING AND TESTING OF HIGH POWER INDUSTRIAL FANS VIBRATION</b> .....	2190
<i>E. Rusinski, J. Czmochoowski, P. Moczko, D. Pietrusiak</i>	
<b>AMBIENT VIBRATION TESTS AT SOME BUTTRESS DAMS IN ROMANIA</b> .....	2196
<i>A. Abdulamit, S. Demetriu, A. Aldea, C. Neagu, D. Gaftoi</i>	
<b>ON MODEL-BASED SYSTEM APPROACH FOR HEALTH MONITORING OF DRIVETRAINS IN FLOATING WIND TURBINES</b> .....	2202
<i>Amir R. Nejad, Torgeir Moan</i>	
<b>CONSTRUCTION OF A TRAFFIC ESTIMATION MODEL USING DYNAMIC RESPONSE FEATURES EXTRACTED FROM SHM DATA IN A CABLE-STAYED BRIDGE</b> .....	2208
<i>Kaiwan Wattana, Mayuko Nishio</i>	
<b>STRUCTURAL HEALTH ASSESSMENT OF A R/C BUILDING IN THE COASTAL AREA OF CONCEPCIÓN, CHILE</b> .....	2214
<i>J. J. Olivera López, L. Vergara Reyes, C. Oyarzo Vera</i>	
<b>SYSTEM IDENTIFICATION OF HISTORY MEXICAN MASONRY BRIDGES</b> .....	2220
<i>Bertha A. Olmos, José M Jara, Guillermo Martínez, Juan I. López</i>	
<b>SEQUENTIAL PROJECTION PURSUIT FOR OPTIMAL TRANSFORMATION OF AUTOREGRESSIVE COEFFICIENTS FOR DAMAGE DETECTION IN AN EXPERIMENTAL WIND TURBINE BLADE</b> .....	2226
<i>Simon Hoell, Piotr Omenzetter</i>	
<b>A MULTI-OBJECTIVE ELECTROMECHANICAL IMPEDANCE TECHNIQUE TO IDENTIFY DEBONDING IN RC BEAMS FLEXURAL STRENGTHENED WITH FRP</b> .....	2232
<i>Ricardo Perera, Rui Sun, Enrique Sevillano, Antonio Ruiz</i>	
<b>ONE-YEAR MONITORING OF A REINFORCED CONCRETE SCHOOL BUILDING: EVOLUTION OF DYNAMIC BEHAVIOR DURING RETROFITTING WORKS</b> .....	2238
<i>A. Pierdicca, F. Clementi, P. Mezzapelle, A. Fortunati, S. Lenci</i>	
<b>CHALLENGING ASPECTS IN REMOVING THE INFLUENCE OF ENVIRONMENTAL FACTORS ON MODAL PARAMETER ESTIMATES</b> .....	2244
<i>Carlo Rainieri, Filipe Magalhaes</i>	
<b>MODAL IDENTIFICATION OF A WIND TURBINE</b> .....	2250
<i>D. C. Araújo, L. C. E Castro, M. A. M. Shzu, S. M. Ávila, M. V. G. De Moraes</i>	
<b>WIND EFFECTS AND DYNAMICS CHARACTERISTICS OF BASE-ISOLATED BUILDING BASED ON FULL-SCALE MEASUREMENT DURING TYPHOONS</b> .....	2256
<i>Dionysius M. Siringoringo, Yozo Fujino</i>	

<b>OPERATIONAL MODAL ANALYSIS BASED PREDICTION OF ACTUAL STRESS IN AN OFFSHORE STRUCTURAL MODEL</b> .....	2262
<i>Marius Tarpo, Bruna Nabuco, Anders Skafte, Julie Kristoffersen, Jonas Vestermark, Sandro Amador, Rune Brincker</i>	
<b>VIBRATION ANALYSIS OF THE CIVIC TOWER IN RIETI</b> .....	2268
<i>E. M. Tronci, D. Pietrosanti, G. Cordisco, M. De Angelis</i>	
<b>FUZZY FINITE ELEMENT MODEL UPDATING OF A LABORATORY WIND TURBINE BLADE FOR STRUCTURAL MODIFICATION DETECTION</b> .....	2274
<i>Heather Turnbull, Piotr Omenzetter</i>	
<b>DAMAGE LOCALIZATION IN OFFSHORE STRUCTURES USING SHAPED INPUTS</b> .....	2282
<i>Martin D. Ulriksen, Dionisio Bernal, Morten E. Nielsen, Lars Damkilde</i>	
<b>VALIDATION OF A DATA-FUSION BASED SOLUTION IN VIEW OF THE REAL-TIME MONITORING OF CABLE-STAYED BRIDGES</b> .....	2288
<i>Fabio Casciati, Sara Casciati, Lucia Faravelli, Michele Vece</i>	
<b>VIBRATION BASED STRUCTURAL HEALTH MONITORING OF THE SUBSTRUCTURES OF FIVE OFFSHORE WIND TURBINES</b> .....	2294
<i>Wout Weijtjens, Tim Verbelen, Emanuele Capello, Christof Devriendt</i>	
<b>GUIDED WAVE PROPAGATION FOR ASSESSMENT OF ADHESIVE BONDING BETWEEN STEEL AND CONCRETE</b> .....	2300
<i>Beata Zima, Magdalena Rucka</i>	
<b>VARIATION IN MODELS FOR SIMPLE DYNAMIC STRUCTURE-SOIL-STRUCTURE INTERACTION PROBLEMS</b> .....	2306
<i>L. V. Andersen, A. Peplow, P. Bucinskas, P. Persson, K. Persson</i>	
<b>MITIGATION OF RAILWAY INDUCED VIBRATION AT THE TRACK, IN THE TRANSMISSION PATH THROUGH THE SOIL AND AT THE BUILDING</b> .....	2312
<i>Lutz Auersch</i>	
<b>SOIL-STRUCTURE INTERACTION AT RAILWAY BRIDGES WITH INTEGRAL ABUTMENTS</b> .....	2318
<i>Hetty Bigelow, Daniel Pak, Benno Hoffmeister, Markus Feldmann, Günter Seidl, Thomas Petraschek</i>	
<b>MICROPILE FOUNDATION SUBJECTED TO DYNAMIC LATERAL LOADING</b> .....	2324
<i>M. C. Capatti, D. Roia, S. Carbonari, F. Dezi</i>	
<b>NONLINEAR RESPONSE OF BRIDGE PIERS ON INCLINED PILE GROUPS: THE ROLE OF ROCKING FOUNDATION INPUT MOTION</b> .....	2330
<i>S. Carbonari, M. Morici, F. Dezi, G. Leoni</i>	
<b>THE DIFFERENT RESPONSE OF APPARENTLY IDENTICAL STRUCTURES: A FAR-FIELD LESSON FROM THE MIRANDOLA 20TH MAY 2012 EARTHQUAKE</b> .....	2336
<i>Silvia Castellaro</i>	
<b>EFFECT OF EXCAVATION DEPTHS ON GROUND SURFACE SETTLEMENT FOR EMBEDDED CANTILEVER RETAINING STRUCTURE DUE TO SEISMIC LOADING</b> .....	2342
<i>Sanku Konai, Aniruddha Sengupta, Kousik Deb</i>	
<b>FE/PML NUMERICAL SCHEMES FOR DYNAMIC SOIL-STRUCTURE INTERACTION AND SEISMIC WAVE PROPAGATION ANALYSIS</b> .....	2348
<i>Ioanna-Kleoniki Fontara, Winfried Schepers, Stavros Savidis, Frank Rackwitz</i>	
<b>INVESTIGATION OF THE EARTHQUAKE GROUND MOTION COHERENCE IN HETEROGENEOUS NON-LINEAR SOIL DEPOSITS</b> .....	2354
<i>F. Gatti, L. De Carvalho Paludo, A. Svay, F. Lopez-Caballero, R. Cottreau, D. Clouteau</i>	
<b>IMPLEMENTATION OF THE CONSISTENT LUMPED-PARAMETER MODEL FOR THE COMPUTATION OF THE SEISMIC RESPONSE OF NONLINEAR PILED STRUCTURES</b> .....	2360
<i>Francisco González, Luis A. Padrón, Juan J. Aznárez, Orlando Maeso</i>	
<b>ON SURFACE WAVE FIELDS ARISING IN SOIL-STRUCTURE INTERACTION PROBLEMS</b> .....	2366
<i>Nihal Ege, Baris Erbas, Andreas Chorozoglou, Julius Kaplunov, Danila A. Prikazchikov</i>	
<b>QUANTIFYING DYNAMIC SOIL-STRUCTURE INTERACTION FOR RAILWAY INDUCED VIBRATIONS</b> .....	2372
<i>K. A. Kuo, G. Lombaert, G. Degrande</i>	
<b>APPLICATION OF MINE-INDUCED FREE-FIELD AND BUILDING FOUNDATION VIBRATIONS FOR EVALUATION OF THEIR HARMFULNESS USING MINING SCALES</b> .....	2378
<i>Krystyna Kuzniar, Tadeusz Tatara</i>	
<b>CONSIDERING DYNAMIC SOIL-STRUCTURE INTERACTION IN DESIGN OF HIGH-SPEED RAILWAY BRIDGES</b> .....	2384
<i>Johan Lind Östlund, Mahir Ülker-Kaustell, Andreas Andersson, Jean-Marc Battini</i>	
<b>THE EFFECT OF STRESS WAVE DISPERSION ON THE DRIVABILITY ANALYSIS OF LARGE-DIAMETER MONOPILES</b> .....	2390
<i>P. C. Meijers, A. Tsouvalas, A. V. Metrikine</i>	

<b>2-PHASE DYNAMIC SIMULATION OF DEEP SAND COMPACTION TO REDUCE LIQUEFACTION</b> .....	2396
<i>Sparsha Nagula, Juergen Grabe</i>	
<b>EFFECTS OF THE THREE-DIMENSIONAL CONFIGURATION OF THE SOIL-STRUCTURE SYSTEM ON BUILDING RESPONSES TO WAVE PROPAGATION</b> .....	2402
<i>Hiroto Nakagawa, Shoichi Nakai, Toshihide Kashima</i>	
<b>EFFECT OF GEOLOGICAL IRREGULARITY ON THE DAMAGE OF PILE FOUNDATIONS DURING AN EARTHQUAKE</b> .....	2408
<i>Shoichi Nakai, Hiroto Nakagawa</i>	
<b>COMPUTING THE MODAL CHARACTERISTICS OF STRUCTURES CONSIDERING SOIL-STRUCTURE INTERACTION EFFECTS</b> .....	2414
<i>M. Papadopoulos, R. Van Beeumen, S. François, G. Degrande, G. Lombaert</i>	
<b>VIBRATIONS OF FLEXIBLE STRIP ON VISCOELASTIC HALFSPACE</b> .....	2420
<i>Marko Radišić, Mira Petronijević, Gerhard Müller</i>	
<b>ADVANTAGES AND DETRIMENTS OF 1-DIRECTIONAL 3-COMPONENT WAVE PROPAGATION APPROACH FOR SOIL-STRUCTURE INTERACTION MODELING</b> .....	2426
<i>Reine Fares, Maria Paola Santisi D'Avila, Anne Deschamps</i>	
<b>A PRACTICAL SOIL-STRUCTURE INTERACTION MODEL FOR A WIND TURBINE SUBJECTED TO SEISMIC LOADS AND EMERGENCY SHUTDOWN</b> .....	2433
<i>Francesca Taddei, Marco Schauer, Lisanne Meinerzhagen</i>	
<b>COMPUTATIONAL STUDIES ON INTERACTIONS BETWEEN ROBOT LEG AND DEFORMABLE TERRAIN</b> .....	2439
<i>Guanjin Wang, Amir Riaz, Balakumar Balachandran</i>	
<b>ALTERNATIVES TO PREVENT PROGRESSIVE COLLAPSE PROTECTING REINFORCED CONCRETE COLUMNS SUBJECTED TO NEAR FIELD BLAST LOADING</b> .....	2445
<i>Ramon Codina, Daniel Ambrosini, Fernanda De Borbon</i>	
<b>FINITE ELEMENT MODELING OF THE IMPACT OF HEAVY VEHICLES ON HIGHWAY AND PEDESTRIAN BRIDGE DECKS</b> .....	2451
<i>Edouard Berton, Najib Bouaanani, Charles-Philippe Lamarche, Nathalie Roy</i>	
<b>EXPERIMENTAL AND NUMERICAL STUDY ON THE BEHAVIOR OF CIRCULAR RC COLUMNS UNDER IMPACT LOADING</b> .....	2457
<i>Cristoforo Demartino, Jiguang Wu, Yan Xiao</i>	
<b>DYNAMIC ANALYSIS OF A BLAST LOADED STEEL STRUCTURE</b> .....	2463
<i>Lucia Figuli, Chiara Bedon, Zuzana Zvaková, Štefan Jangl, Vladimír Kavický</i>	
<b>LATERAL CONFINEMENT EFFECTS ON THE AXIAL COMPRESSIVE STRENGTH OF MORTAR SPECIMEN</b> .....	2470
<i>W. Y. Zheng, F. Liu, Q. M. Li</i>	
<b>DAMAGE ASSESSMENT OF HOLLOW CORE REINFORCED AND PRESTRESSED CONCRETE SLABS SUBJECTED TO BLAST LOADING</b> .....	2476
<i>A. Maazoun, J. Vantomme, S. Matthys</i>	
<b>ANALYTICAL STUDY ON LOADING CAPACITY OF PRESTRESSED CONCRETE SLEEPER</b> .....	2482
<i>Shintaro Minoura, Tsutomu Watanabe, Masamichi Sogabe, Keiichi Goto</i>	
<b>ANALYSIS OF TETHER ANCHORED FLOATING SUSPENSION BRIDGE SUBJECTED TO LARGE SHIP COLLISIONS</b> .....	2488
<i>Ole Harald Moe, Yanyan Sha, Johannes Veie, Jørgen Amdahl</i>	
<b>NUMERICAL ASSESSMENT OF THE BEHAVIOUR OF A FIXED OFFSHORE PLATFORM SUBJECTED TO SHIP COLLISION</b> .....	2494
<i>Constança Rigueiro, João Ribeiro, Aldina Santiago</i>	
<b>IMPACT DAMAGE IN WOVEN CARBON FIBRE/EPOXY LAMINATES: ANALYSIS OF DAMAGE AND DYNAMIC STRAIN FIELDS</b> .....	2500
<i>Laurence A. Coles, Anish Roy, Leonid Voronov, Sergey Semenov, Mikhail Nikhamkin, Nickolay Sazhenkov, Vadim V. Silberschmidt</i>	
<b>DYNAMIC RESPONSES OF A FLOATING BRIDGE SUBJECTED TO SHIP COLLISION LOAD ON BRIDGE GIRDERS</b> .....	2506
<i>Yanyan Sha, Jørgen Amdahl, Cato Dørum</i>	
<b>DYNAMIC ENERGY ABSORPTION BEHAVIOR OF LATTICE MATERIAL FILLED WITH SHEAR THICKENING FLUID</b> .....	2514
<i>Xianqian Wu, Qiuyun Yin, Chenguang Huang, Fachun Zhong</i>	
<b>NUMERICAL PREDICTION OF BLAST WALL EFFECTIVENESS FOR STRUCTURAL PROTECTION AGAINST AIR BLAST</b> .....	2519
<i>Weifang Xiao, Matthias Andrae, Lars Ruediger, Norbert Gebbeken</i>	

<b>PROTECTIVE COMPONENTS MADE OF STEEL FIBER REINFORCED CONCRETE UNDER CONTACT DETONATION</b> .....	2525
<i>Tobias Zircher, Manfred Keuser, Albert Burbach, Steffen Lehmann</i>	
<b>ON THE MOVING MULTI-LOADS PROBLEM IN DISCONTINUOUS BEAM STRUCTURES WITH INTERLAYER SLIP</b> .....	2531
<i>Salvatore Di Lorenzo, Christoph Adam, Giuseppe Failla, Antonina Pirrotta</i>	
<b>NEW SEMI-ANALYTICAL SOLUTION FOR A MOVING MASS PROBLEM: THE EFFECT OF INITIAL CONDITIONS AND ABRUPT CHANGE IN FOUNDATION STIFFNESS</b> .....	2537
<i>Zuzana Dimitrovová</i>	
<b>INFLUENCE OF THE SEAM BETWEEN SLAB AND CA MORTAR OF CRTSII BALLASTLESS TRACK ON VIBRATION CHARACTERISTICS OF VEHICLE-TRACK SYSTEM</b> .....	2543
<i>Qingsong Feng, Hangyu Chao, Xiaoyan Lei</i>	
<b>INFLUENCE OF MOTION PARAMETERS ON INCIDENCE OF RESONANT TRACK ROPE VIBRATIONS IN A BI-CABLE ROPEWAY SYSTEM</b> .....	2549
<i>Marta Knawa-Hawryszków</i>	
<b>INSTABILITY OF AN OSCILLATOR MOVING ALONG A THIN RING ON A VISCOELASTIC FOUNDATION</b> .....	2555
<i>T. Lu, A. V. Metrikine</i>	
<b>THE DYNAMICS OF AN INFINITE UNIFORM EULER-BERNOULLI BEAM ON BILINEAR VISCOELASTIC FOUNDATION UNDER MOVING LOADS</b> .....	2561
<i>Traian Mazilu</i>	
<b>DYNAMIC COMPARISON OF A RAILWAY CATENARY SECTION UPGRADE BY FIELD MEASUREMENT ASSESSMENTS</b> .....	2567
<i>Petter Nævik, Anders Rønquist</i>	
<b>A DECOUPLED NUMERICAL PROCEDURE FOR MODELLING SOIL INTERACTION IN THE COMPUTATION OF THE DYNAMIC RESPONSE OF A RAIL TRACK</b> .....	2573
<i>F. Perotti, M. Tomasin, S. Alfi, A. Collina</i>	
<b>AN EDGE MOVING LOAD ON AN ORTHOTROPIC PLATE RESTING ON A WINKLER FOUNDATION</b> .....	2579
<i>Saad N. Alhobaiti, Julius Kaplunov, Danila A. Prikazchikov</i>	
<b>CRITICAL VELOCITIES OF A BEAM ON NONLINEAR ELASTIC FOUNDATION UNDER HARMONIC MOVING LOAD</b> .....	2585
<i>Diego Froio, Egidio Rizzi, Fernando M. F. Simões, António Pinto Da Costa</i>	
<b>DYNAMIC ANALYSIS OF BERNOULLI-EULER BEAMS WITH INTERVAL UNCERTAINTIES UNDER MOVING LOADS</b> .....	2591
<i>Filippo Giunta, Giuseppe Muscolino, Alba Sofi, Isaac Elishakoff</i>	
<b>EXPERIMENTAL AND ANALYTICAL STUDY ON ELEVATING WORKING PLATFORM</b> .....	2597
<i>Luigi Solazzi</i>	
<b>DYNAMIC RESPONSE OF A TIMOSHENKO BEAM TO A DETERMINISTIC AND STOCHASTIC SERIES OF IMPULSES</b> .....	2603
<i>Olga Szyłko-Bigus, Pawel Sniady</i>	
<b>DYNAMICS AND STABILITY OF SLENDER STRUCTURES CARRYING A MOVING LOAD OR MASS</b> .....	2609
<i>X. W. Zhao, G. H. M. Van Der Heijden</i>	
<b>MEASUREMENTS ON THE VEHICLE-TRACK INTERACTION AND THE EXCITATION OF RAILWAY-INDUCED GROUND VIBRATION</b> .....	2615
<i>Lutz Auersch, Samir Said, Roger Müller</i>	
<b>SEMI-ANALYTICAL APPROACH TO MODELLING THE DYNAMIC BEHAVIOUR OF SOIL EXCITED BY EMBEDDED FOUNDATIONS</b> .....	2621
<i>Paulius Bucinskas, Lars Vabbersgaard Andersen</i>	
<b>MITIGATION OF VIBRATIONS AND RE-RADIATED NOISE IN BUILDINGS GENERATED BY RAILWAY TRAFFIC: A PARAMETRIC STUDY</b> .....	2627
<i>Aires Colaço, Pedro Alves Costa, Paulo Amado-Mendes, Luís Godinho, Rui Calçada</i>	
<b>DERAILMENT MECHANISM OF TRAINS RUNNING OVER BRIDGES DURING STRONG EARTHQUAKES</b> .....	2633
<i>Qing. Zeng, Elias G. Dimitrakopoulos</i>	
<b>STUDY ON DYNAMIC CHARACTERISTICS OF A CURVED TRACK SUBJECTED TO HARMONIC MOVING LOADS</b> .....	2639
<i>Linlin Du, Weining Liu, Weifeng Liu, Longxiang Ma</i>	
<b>GROUND-BORNE VIBRATIONS CAUSED BY UNSUPPORTED RAILWAY SLEEPERS IN BALLASTED TRACKS</b> .....	2645
<i>Morteza Esmaeili, Seyed-Ali Mosayebi, Jabbar-Ali Zakeri</i>	

<b>DYNAMIC AMPLIFICATION OF BRIDGE-EXPANSION-JOINTS CONSIDERING ROUGHNESS INDUCED VEHICLE VIBRATIONS</b> .....	2651
<i>Roland Friedl M. Sc., Ingbert Mangerig</i>	
<b>ON THE SPECTRUM OF RAIL VIBRATION GENERATED BY A PASSING TRAIN</b> .....	2657
<i>V. G. Cleante, M. J. Brennan, G. Gatti, D. J. Thompson</i>	
<b>A TRACK MODEL FOR THE PREDICTION OF GROUND-BORNE VIBRATIONS DUE TO PARAMETRIC EXCITATION</b> .....	2663
<i>M. Germonpré, G. Degrande, G. Lombaert</i>	
<b>GOOD PRACTICES IN RAILWAY VIBRATION PREDICTION USING EMPIRICAL AND HYBRID MODELS</b> .....	2669
<i>Jaume Solé, Pierre Huguenet</i>	
<b>VIBRATIONS IN SOILS: A SPECTRAL PREDICTION METHOD</b> .....	2675
<i>Abdul Karim Jamal Eddine, Luca Lenti, Jean-Francois Semblat</i>	
<b>EFFECT OF TRACK DEFECTS ON VIBRATION FROM HIGH SPEED TRAIN</b> .....	2681
<i>Amir M. Kaynia, Joonsang Park, Karin Norén-Cosgriff</i>	
<b>CONSIDERING LOW FREQUENCY SOUND PROPAGATION IN BRIDGE DESIGN</b> .....	2687
<i>Chul-Woo Kim, Shun Kohdera, Kazuyuki Ono, Shinya Kimura, Mitsuo Kawatani</i>	
<b>THE ENVIRONMENTAL IMPACT OF THE VIBRATION INDUCED BY THE PASSAGE OF TRAINS AT VARIOUS SPEEDS</b> .....	2693
<i>Tatara Tadeusz, Kozuch Barbara</i>	
<b>ANALYSIS OF GROUND-BORNE NOISE AND VIBRATION LEVELS GENERATED BY BUSES</b> .....	2699
<i>Guillaume Coquel, Corinne Fillol</i>	
<b>A LABORATORY TEST ON THE VIBRATION MITIGATION EFFICIENCY OF FLOATING LADDER TRACKS</b> .....	2705
<i>Meng Ma, Bolong Jiang, Minghang Li, Xiaojing Sun</i>	
<b>EFFECT OF STRUCTURAL DESIGN ON TRAFFIC-INDUCED BUILDING VIBRATIONS</b> .....	2711
<i>P. Persson, L. V. Andersen, K. Persson, P. Bucinskas</i>	
<b>SCOPING METHODOLOGY TO ASSES INDUCED VIBRATION BY RAILWAY TRAFFIC IN BUILDINGS</b> .....	2717
<i>D. López-Mendoza, A. Romero, D. P. Connolly, P. Galvin</i>	
<b>DYNAMIC WINKLER FOUNDATION FOR VIBRATION ANALYSES OF FLEXIBLE FOOTINGS</b> .....	2723
<i>Winfried Schepers, Silke Appel</i>	
<b>A SIMPLE AND EFFICIENT NUMERICAL MODEL FOR DYNAMIC INTERACTION OF HIGH SPEED TRAIN AND RAILWAY STRUCTURE INCLUDING DERAILMENT DURING AN EARTHQUAKE</b> .....	2729
<i>M. Tanabe, K. Goto, T. Watanabe, M. Sogabe, H. Wakui, Y. Tanabe</i>	
<b>DOUBLE WALL BARRIERS AS MITIGATION MEASURES FOR GROUND VIBRATION TRANSMISSION</b> .....	2735
<i>Cédric Van Hoorickx, Mattias Schevenels, Geert Lombaert</i>	
<b>GROUND VIBRATION CHARACTERISTICS OF BALLASTED LADDER TRACK</b> .....	2741
<i>Tsutomu Watanabe, Masamichi Sogabe, Hajime Wakui, Jorge Shimabuku, Masahiro Shoji</i>	
<b>STUDY ON THE TRAIN-INDUCED ENVIRONMENTAL VIBRATIONS CONSIDERING SOIL-STRUCTURE INTERACTION</b> .....	2747
<i>J. B. Yao, H. Xia, N. Zhan</i>	
<b>ANALYSIS OF T-BOLTS ABNORMAL FRACTURE OF DTVI2 FASTENER BASED ON METRO PASS-BY DYNAMIC MONITORING</b> .....	2753
<i>Wang Wenbin, Wu Zongzhen, Liu Li, Dai Huaming</i>	
<b>DUALITY BETWEEN TIME AND FREQUENCY DOMAINS FOR VIBRATION SERVICEABILITY ANALYSIS OF FLOOR STRUCTURES</b> .....	2759
<i>Atheer F. Al-Anbaki, Aleksandar Pavic</i>	
<b>PROBABILITY DISTRIBUTION OF FOOTBRIDGE PEAK ACCELERATION TO SINGLE AND MULTIPLE CROSSING WALKERS</b> .....	2766
<i>Alberto Maria Avossa, Cristoforo Demartino, Francesco Ricciardelli</i>	
<b>ACTIVE VIBRATION CONTROL OF LIGHTWEIGHT FLOOR SYSTEMS</b> .....	2772
<i>J. Baader, M. Fontana</i>	
<b>INFLUENCE OF VISUAL INFORMATION ON PEDESTRIAN ACTIONS ON Laterally OSCILLATING STRUCTURES – EXPERIMENTAL STUDY USING VIRTUAL REALITY ENVIRONMENTS</b> .....	2778
<i>Mateusz Bocian, John H. G. Macdonald, Jeremy F. Burn</i>	
<b>EXPERIMENTAL INVESTIGATION ON SYNCHRONIZATION OF BOUNCING CROWD</b> .....	2784
<i>Huan Tan, Jun Chen</i>	

<b>VIBRATION ANALYSIS USING MOBILE DEVICES (SMARTPHONES OR TABLETS)</b> .....	2790
<i>A. Feldbusch, H. Sadegh-Azar, P. Agne</i>	
<b>DESIGN OF HIGHLY SENSITIVE FLOORS FOR HUMAN INDUCED VIBRATIONS</b> .....	2796
<i>Mirko Friehe, Christoph Heinemeyer, Markus Feldmann</i>	
<b>BIODYNAMIC MODELLING OF HUMAN RHYTHMIC ACTIVITIES</b> .....	2802
<i>Cássio Gaspar, Elsa Caetano, Carlos Moutinho, J. G. Santos Da Silva</i>	
<b>VIBRATION EFFECTS OF LOADS DUE TO GROUPS CROSSING A LIVELY FOOTBRIDGE</b> .....	2808
<i>Pawel Hawryszków, Roberto Pimentel, Felipe Silva</i>	
<b>REALISTIC SIMULATION OF A RANDOM PEDESTRIAN FLOW</b> .....	2814
<i>Michael Kasperski</i>	
<b>DAMPING INDUCED BY BOBBING OR JUMPING PERSONS</b> .....	2820
<i>Benjamin Czwikla, Michael Kasperski</i>	
<b>DAMPING INDUCED BY WALKING AND RUNNING</b> .....	2826
<i>Patrick Heinemann, Michael Kasperski</i>	
<b>INVESTIGATION OF BEHAVIOUR OF METAL STRUCTURES WITH POLYMER DAMPERS UNDER DYNAMIC LOADS</b> .....	2832
<i>Natalia Lasowicz, Robert Jankowski</i>	
<b>ON RANDOM SPATIAL DISTRIBUTION OF ACTIVE CROWDS ON GRANDSTANDS AND THEIR EFFECTS ON DYNAMIC RESPONSE</b> .....	2838
<i>Jiri Máca, Ondrej Rokoš</i>	
<b>NUMERICAL INVESTIGATION OF A SIMPLE MODEL OF HUMAN JUMPING ON AN OSCILLATING STRUCTURE</b> .....	2844
<i>Nicholas A. Alexander, John H. G. Macdonald, Alan R. Champneys</i>	
<b>A NEW PROCEDURE BASED ON TIME DOMAIN INDICATORS FOR OPTIMAL TMD TUNING ON FOOTBRIDGES</b> .....	2850
<i>A. Magdaleno, N. Ibán, M. Cacho-Pérez, F. J. Cara, I. M. Díaz, A. Lorenzana, E. Pereira</i>	

## PART 5

<b>EFFECT OF WALKING PEOPLE ON DYNAMIC PROPERTIES OF FLOORS</b> .....	2856
<i>Ahmed S. Mohammed, Alexandar Pavic</i>	
<b>A MSD MODEL FOR COUPLED ANALYSIS OF PEDESTRIAN-FOOTBRIDGE DYNAMIC INTERACTION</b> .....	2864
<i>Eleonora Lai, Maria G. Mulas</i>	
<b>AN EXPERIMENTAL STUDY FOCUSED ON SPECTATORS' BEHAVIOR AND INDUCED VIBRATIONS OF A REINFORCED CONCRETE GRANDSTAND ON A FOOTBALL STADIUM</b> .....	2871
<i>Tomáš Plachý, Michal Polák, Martin Verner</i>	
<b>A DYNAMIC ANALYSIS OF THE CABLE-STAYED FOOTBRIDGE IN CELÁKOVICE TOWN</b> .....	2877
<i>Šana Vladimír, Polák Michal, Plachý Tomáš</i>	
<b>HUMAN-STRUCTURE INTERACTION IN PEDESTRIAN BRIDGES: A PROBABILISTIC APPROACH</b> .....	2883
<i>Federica Tubino</i>	
<b>INVERSE IDENTIFICATION OF THE PEDESTRIAN CHARACTERISTICS GOVERNING HUMAN-STRUCTURE INTERACTION</b> .....	2889
<i>Katrien Van Nimmen, Peter Van Den Broeck, Geert Lombaert</i>	
<b>DEVELOPMENT OF A HUMAN-STRUCTURE DYNAMIC INTERACTION MODEL FOR HUMAN SWAY FOR USE IN PERMANENT GRANDSTAND DESIGN</b> .....	2895
<i>Varvara Vasilatoua, Rob Harrisona, Nikolas Nikitasb</i>	
<b>MODELLING FRAMEWORK OF PEDESTRIAN-FOOTBRIDGE INTERACTION IN VERTICAL DIRECTION</b> .....	2901
<i>Fiammetta Venuti, Vitomir Racic, Alessandro Corbetta</i>	
<b>A SIMPLIFIED METHOD TO ACCOUNT FOR THE EFFECT OF HUMAN-HUMAN INTERACTION ON THE PEDESTRIAN-INDUCED VIBRATIONS OF FOOTBRIDGES</b> .....	2907
<i>Xinxin Wei, Peter Van Den Broeck, Guido De Roeck, Katrien Van Nimmen</i>	
<b>AN EFFICIENT APPROACH FOR CONSIDERING THE EFFECT OF HUMAN-STRUCTURE INTERACTION ON FOOTBRIDGES</b> .....	2913
<i>Emma Zäll, Andreas Andersson, Mahir Ülker-Kaustell, Raid Karoumi</i>	
<b>DYNAMICS OF THE SCISSORS-TYPE MOBILE BRIDGE</b> .....	2919
<i>Yuki Chikahiro, Ichiro Ario, Piotr Pawlowski, Cezary Graczykowski, Masatoshi Nakazawa, Jan Holnicki-Szulc, Syuichi Ono</i>	



<b>MODELLING OF A BRIDGE PIER SUBJECTED TO SCOUR</b> .....	2925
<i>N. Boujia, F. Schmidt, D. Siegert, D. Pham Van Bang, C. Chevalier</i>	
<b>NUMERICAL EVALUATION OF MODAL PROPERTIES CHANGE OF RAILWAY BRIDGES DURING TRAIN PASSAGE</b> .....	2931
<i>Daniel Cantero, Anders Rønquist</i>	
<b>A THEORETICAL AND EXPERIMENTAL EVALUATION OF THE MODAL PROPERTIES OF A CABLE-STAYED FOOTBRIDGE</b> .....	2937
<i>Izabela J. Drygala, Joanna M. Dulinska</i>	
<b>A FAST COMPUTATIONAL FRAMEWORK FOR SEISMIC RANDOM RESPONSE OF MULTI-SUPPORT STRUCTURES</b> .....	2943
<i>Xianting Du, He Xia, Hong Qiao</i>	
<b>EFFECT OF SPATIAL VARIABILITY OF EARTHQUAKES ON CABLE-STAYED BRIDGES</b> .....	2949
<i>Eleftheria Efthymiou, Alfredo Camara</i>	
<b>BRIDGE WEIGH-IN-MOTION USING A MOVING FORCE IDENTIFICATION ALGORITHM</b> .....	2955
<i>Paul C. Fitzgerald, Enrique Sevillano, Eugene J. Obrien, Abdollah Malekjafarian</i>	
<b>DYNAMIC PROPERTIES VARIATION BY IRREGULAR SUPERSTRUCTURE AND SUBSTRUCTURE COMMON BRIDGES</b> .....	2961
<i>M. C. Gómez Soberón, J. M. Gómez Soberón</i>	
<b>DYNAMIC LOAD TESTS ON THE NORTH-SOUTH AXIS CABLE-STAYED BRIDGE WITH A NON-SYMMETRIC CENTRAL PYLON</b> .....	2967
<i>Salvador Ivorra, Dora Foti, Francesco Paparella, F. Javier Baeza</i>	
<b>DYNAMIC PROPERTIES AND SEISMIC VULNERABILITY OF TYPICAL RC BRIDGES LOCATED IN MÉXICO</b> .....	2973
<i>José M Jara, Bertha A. Olmos, Guillermo Martínez</i>	
<b>PERFORMANCE OF STEEL-LAMINATED RUBBER BEARINGS SUBJECTED TO COMBINATIONS OF AXIAL LOADS AND SHEAR STRAINS</b> .....	2979
<i>Konstantinos N. Kalfas, Stergios A. Mitoulis</i>	
<b>INVESTIGATION OF THE EFFECT OF DIRECTIVITY PULSES ON THE SEISMIC RESPONSE OF A CURVED RC BRIDGE</b> .....	2985
<i>Vasileios Angelidakis, Vassiliki Kardoutsou, Ioannis Psycharis, Ioannis Taflampas</i>	
<b>THE SIMULATION OF THE INFLUENCE OF SURFACE IRREGULARITIES IN ROAD PAVEMENTS ON THE RESPONSE OF THE BRIDGE TO MOVING VEHICLE</b> .....	2991
<i>Jan Kortis, Lubos Daniel, Maros Duratny</i>	
<b>EXPERIMENTAL RESEARCH ON THE DYNAMIC RESPONSES OF THE STEEL-CONCRETE COMPOSITE BEAMS UNDER THE HARMONIC FORCES</b> .....	2997
<i>Zhang Yanling, Liu Bei, Liu Huan, Li Yunsheng, Zhang Yue</i>	
<b>NONLINEAR FE MODEL UPDATING OF SEISMIC ISOLATED BRIDGE INSTRUMENTED DURING THE 2010 MW 8.8 MAULE-CHILE EARTHQUAKE</b> .....	3003
<i>Yong Li, Rodrigo Astroza, Joel P. Conte, Pedro Soto</i>	
<b>CHARACTERIZATION OF RADIAL AND CIRCUMFERENTIAL MECHANICAL ENERGY COMPONENTS IN BI-DIRECTIONAL NONLINEAR SEISMIC RESPONSE OF STEEL BRIDGE PIERS</b> .....	3009
<i>Yanyan Liu, Akira Igarashi</i>	
<b>EXPERIMENTAL RESULTS IN DAMPING EVALUATION OF A HIGH-SPEED RAILWAY BRIDGE</b> .....	3015
<i>M. Brunetti, J. Ciambella, L. Evangelista, E. Lofrano, A. Paolone, A. Vittozzi</i>	
<b>INVESTIGATION OF THE DYNAMIC RESPONSE AND EFFECT OF SOIL PROPERTIES OF ARROYO BRACEA II BRIDGE IN MADRID-SEVILLA HIGH-SPEED RAILWAY LINE THROUGH EXPERIMENTAL ANALYSES</b> .....	3021
<i>P. Galvín, E. Moliner, A. Romero, M. D Martínez-Rodrigo</i>	
<b>DYNAMIC SIMULATION AND CRITICAL ASSESSMENT OF A COMPOSITE BRIDGE IN HIGH-SPEED RAILWAY</b> .....	3027
<i>Kodai Matsuoka, Andrea Collina, Masamichi Sogabe</i>	
<b>ANALYSIS OF TETHER ANCHORED FLOATING SUSPENSION BRIDGE SUBJECTED TO EXTREME ENVIRONMENTAL LOADS</b> .....	3033
<i>Ole Harald Moe, Ketil Aas-Jakobsen, Jørgen Amdahl</i>	
<b>VIBRATION ANALYSIS OF SHORT SKEW BRIDGES DUE TO RAILWAY TRAFFIC USING ANALYTICAL AND SIMPLIFIED MODELS</b> .....	3039
<i>Khanh Nguyen Gia, Jose M. Goicolea</i>	
<b>ESTIMATION OF THE DYNAMIC RESPONSE OF A SLENDER SUSPENSION BRIDGE USING MEASURED ACCELERATION DATA</b> .....	3047
<i>Øyvind Wiig Petersen, Ole Øiseth, Eliz-Mari Lourens</i>	

<b>ASSESSMENT OF AN OLD STEEL RAILWAY BRIDGE USING DYNAMIC TESTS.....</b>	<b>3053</b>
<i>Tomáš Plachý, Michal Polák, Pavel Ryjáček</i>	
<b>DYNAMIC RESPONSE OF AN FRP FOOTBRIDGE DUE TO PEDESTRIANS AND TRAIN BUFFETING.....</b>	<b>3059</b>
<i>Justin Russell, Xiaojun Wei, Stana Živanovic, Casper Kruger</i>	
<b>SEISMIC RESILIENCE OF CONCRETE BRIDGES WITH FLARED COLUMNS.....</b>	<b>3065</b>
<i>Farahnaz Soleimani, Sujith Mangalathu, Reginald Desroches</i>	
<b>EXPERIMENTAL ANALYSIS OF A COMPOSITE BRIDGE UNDER HIGH-SPEED TRAIN PASSAGES.....</b>	<b>3071</b>
<i>Claudio Somaschini, Kodai Matsuoka, Andrea Collina</i>	
<b>NEAR-FAULT AND FAR-FAULT GROUND MOTION EFFECTS ON CABLE-SUPPORTED BRIDGES.....</b>	<b>3077</b>
<i>Kurtulus Soyluk, Hayrettin Karaca</i>	
<b>EFFECT OF WINDPROOF BARRIER ON AERODYNAMIC PERFORMANCE OF VEHICLE- BRIDGE SYSTEM.....</b>	<b>3083</b>
<i>Tian Zhang, Wei-Wei Guo, Fei Du</i>	
<b>WIND INDUCED VIBRATIONS OF A HIGH TAPERED OBELISK: WIND TUNNEL TESTS, NUMERICAL ANALYSIS AND DESIGN OF COUNTERMEASURES.....</b>	<b>3091</b>
<i>L. Amerio, T. Argentini, L. Bernini, F. Perotti, A. Zasso</i>	
<b>PARAMETRIC STUDY ON THE USE OF THE FOKKER-PLANCK EQUATION TO EXAMINE THE NONSTATIONARY WIND-INDUCED DYNAMICS OF TALL BUILDINGS.....</b>	<b>3097</b>
<i>Luca Caracoglia</i>	
<b>HYBRID SEMI-ACTIVE MASS DAMPERS IN STRUCTURES; ASSESSING AND OPTIMISING THEIR DAMPING CAPACITY.....</b>	<b>3103</b>
<i>Demetriou Demetris, Nikitas Nikolaos</i>	
<b>REAL-SCALE OBSERVATIONS OF VORTEX INDUCED VIBRATIONS OF STAY-CABLES IN THE BOUNDARY LAYER.....</b>	<b>3109</b>
<i>Vincent Denoël, Thomas Andrienne</i>	
<b>THE HARDANGER BRIDGE MONITORING PROJECT: LONG-TERM MONITORING RESULTS AND IMPLICATIONS ON BRIDGE DESIGN.....</b>	<b>3115</b>
<i>Aksel Fenerci, Ole Øiseth</i>	
<b>AERODYNAMIC PROPERTIES OF WIND TURBINE TOWERS BASED ON WIND TUNNEL EXPERIMENTS.....</b>	<b>3121</b>
<i>Robert Fontecha, Bettina Henneke, Frank Kemper, Markus Feldmann</i>	
<b>A FINITE ELEMENT APPROACH TO MODEL GALLOPING VIBRATIONS OF ICED SUSPENDED CABLES.....</b>	<b>3127</b>
<i>Francesco Foti, Luca Martinelli, Federico Perotti</i>	
<b>INTERFERENCE OF VORTEX-INDUCED VIBRATION AND GALLOPING: EXPERIMENTS AND MATHEMATICAL MODELLING.....</b>	<b>3133</b>
<i>Claudio Mannini, Tommaso Massai, Antonino Maria Marra, Gianni Bartoli</i>	
<b>SIMULATION OF WIND FORCE ACTING ON SUPER-HIGH-RISE BUILDING IN PASSING TYPHOON.....</b>	<b>3139</b>
<i>Narumi Ougiya, Makoto Kanda</i>	
<b>ON THE IMPORTANCE OF CROSS-SECTIONAL DETAILS IN THE WIND TUNNEL TESTING OF BRIDGE DECK SECTION MODELS.....</b>	<b>3145</b>
<i>Bartosz Siedziako, Ole Øiseth</i>	
<b>MEASUREMENTS OF DOWNBURST WIND LOADING ACTING ON AN OVERHEAD TRANSMISSION LINE IN NORTHERN GERMANY.....</b>	<b>3152</b>
<i>Dominik Stengel, Klaus Thiele</i>	
<b>ACTIVE MODAL CONTROL OF RAIN-WIND INDUCED VIBRATION OF STAY CABLES.....</b>	<b>3158</b>
<i>Niels Holm Krarup, Zili Zhang, Poul Henning Kirkegaard</i>	
<b>DRY GALLOPING IN INCLINED CABLES: LINEAR STABILITY ANALYSIS.....</b>	<b>3164</b>
<i>Giuseppe Piccardo, Daniele Zulli, Angelo Luongo</i>	
<b>FATIGUE ASSESSMENT OF A WIND TURBINE BLADE WHEN OUTPUT FROM MULTIPLE AERO-ELASTIC SIMULATORS ARE AVAILABLE.....</b>	<b>3170</b>
<i>Imad Abdallah, Konstantinos Tatsis, Eleni Chatzi</i>	
<b>WIND TUNNEL TESTING OF SMALL VERTICAL-AXIS WIND TURBINES IN TURBULENT FLOWS.....</b>	<b>3176</b>
<i>Andreu Carbó Molina, Gianni Bartoli, Tim De Troyer</i>	
<b>STRUCTURAL HEALTH MONITORING STRATEGIES BASED ON THE ESTIMATION OF MODAL PARAMETERS.....</b>	<b>3182</b>
<i>Emilio Di Lorenzo, Simone Manzato, Bart Peeters, Francesco Marulo, Wim Desmet</i>	

<b>OPTIMIZATION OF WIND TURBINE TOWERS BY USING A MULTIVARIATE STOCHASTIC CALCULATION METHOD .....</b>	<b>3188</b>
<i>Mirko Friehe, Frank Kemper, Robert Fontecha, Markus Feldmann</i>	
<b>COUPLING EFFECTS ON THE DYNAMIC RESPONSE OF MOORED FLOATING PLATFORMS FOR OFFSHORE WIND ENERGY PLANTS .....</b>	<b>3194</b>
<i>Alessandro Giusti, Giovanni Stabile, Enzo Marino, Claudio Borri</i>	
<b>ON THE STRUCTURAL RESPONSE OF A TALL HYBRID ONSHORE WIND TURBINE TOWER.....</b>	<b>3200</b>
<i>M. Gkantou, P. Martinez-Vazquez, C. Baniotopoulos</i>	
<b>MULTI-HAZARD RESPONSE ANALYSIS OF A 5MW OFFSHORE WIND TURBINE .....</b>	<b>3206</b>
<i>Evangelos I. Katsanos, A. Arrospide Sanz, Christos T. Georgakis, Sebastian Thöns</i>	
<b>STRENGTH DEMANDS OF TALL WIND TURBINES SUBJECT TO EARTHQUAKES AND WIND LOAD .....</b>	<b>3212</b>
<i>P. Martinez-Vazquez, M. Gkantou, C. Baniotopoulos</i>	
<b>THE INFLUENCE OF SOIL-STRUCTURE-INTERACTION ON THE FATIGUE ANALYSIS IN THE FOUNDATION DESIGN OF ONSHORE WIND TURBINES.....</b>	<b>3218</b>
<i>Michel, Klein, Butenweg, Klinkel</i>	
<b>COMPARISON OF HYDRODYNAMIC LOADING MODELS FOR VERTICAL CYLINDERS IN NONLINEAR WAVES .....</b>	<b>3224</b>
<i>Agota Mockute, Enzo Marino, Claudio Lugni, Claudio Borri</i>	
<b>OBSERVATIONS ON THE INFLUENCE OF SOIL PROFILE ON THE SEISMIC KINEMATIC BENDING MOMENTS OF OFFSHORE WIND TURBINE MONOPILES .....</b>	<b>3230</b>
<i>Javier Herrera, Juan J. Aznárez, Luis A. Padrón, Orlando Maeso</i>	
<b>NEW LATTICE-TUBULAR TOWER FOR ONSHORE WEC – PART 1: STRUCTURAL OPTIMIZATION .....</b>	<b>3236</b>
<i>Slobodanka Jovašević, Mohammad Reza Shah Mohammadi, Carlos Rebelo, Marko Pavlovic, Milan Veljkovic</i>	
<b>VALIDATED MODEL BASED DEVELOPMENT OF DAMAGE INDEX FOR STRUCTURAL HEALTH MONITORING OF OFFSHORE WIND TURBINE SUPPORT STRUCTURES .....</b>	<b>3242</b>
<i>S. Tewolde, R. Höffer, H. Haardt</i>	
<b>EFFECTIVE STIFFNESS METHOD FOR RIGID MONOPILE FOUNDATIONS OF OFFSHORE WIND TURBINES AND IN-SITU VALIDATION .....</b>	<b>3248</b>
<i>W. G. Versteijlen, F. W. Renting, P. L. C. Van Der Valk, J. Bongers, K. N. Van Dalen, A. V. Metrikine</i>	
<b>COUPLED-MODE FLUTTER OF WIND TURBINES AND ITS SUPPRESSION USING TORSIONAL VISCOUS DAMPER .....</b>	<b>3254</b>
<i>Zili Zhang, Bei Chen, Søren R. K. Nielsen</i>	
<b>ON THE INFLUENCE OF MULTIPLE CONTACT CONDITIONS ON BRAKE SQUEAL.....</b>	<b>3260</b>
<i>E. Denimal, S. Nacivet, L. Nechak, J-J. Sinou</i>	
<b>CONTROLLABILITY OF THE POWERSLIDE MOTION OF VEHICLES WITH DIFFERENT DRIVE CONCEPTS.....</b>	<b>3266</b>
<i>Johannes Edelmann, Manfred Plöchl</i>	
<b>AN EFFICIENT CONTACT ANALYSIS METHOD BETWEEN THE CARBODY AND THE RAILWAY STRUCTURES USING A MULTI BODY DYNAMICS .....</b>	<b>3272</b>
<i>Keiichi Goto, Masamichi Sogabe, Makoto Tanabe, Tsutomu Watanabe</i>	
<b>VERTICAL-LONGITUDINAL DYNAMICS OF VEHICLE ON ROAD WITH UNEVENNESS.....</b>	<b>3278</b>
<i>I. Blekhman, E. Kremer</i>	
<b>REDUCING THE CORNERING RESISTANCE BY TORQUE VECTORING .....</b>	<b>3284</b>
<i>Georg Rill</i>	
<b>COMPARISON OF REAL-TIME MODELS FOR HIGH-FIDELITY HARDWARE-IN-THE-LOOP CATENARY EMULATION IN A HIGH-DYNAMIC PANTOGRAPH TEST RIG .....</b>	<b>3290</b>
<i>Alexander Schirrer, Guilherme Aschauer, Stefan Jakubek</i>	
<b>ROAD NOISE INPUT IDENTIFICATION FOR VEHICLE INTERIOR NOISE BY MULTI-REFERENCE TRANSFER PATH ANALYSIS .....</b>	<b>3296</b>
<i>James Tatlow, Marco Ballatore</i>	
<b>REMOTE AND WIRELESS LONG-TERM VIBRATION MONITORING OF HISTORIC MONUMENTS .....</b>	<b>3302</b>
<i>Josiah Hester, Saurabh Prabhu, Sez Atamturktur, Jacob Sorber</i>	
<b>DYNAMIC EVALUATION OF A HISTORIC FOUNTAIN UNDER BLAST LOADING.....</b>	<b>3308</b>
<i>F. Javier Baeza, Salvador Ivorra, David Bru, F. Borja Varona</i>	
<b>A NOVEL NATURAL FREQUENCY-BASED TECHNIQUE TO DETECT STRUCTURAL CHANGES USING COMPUTATIONAL INTELLIGENCE .....</b>	<b>3314</b>
<i>Rafaella Piazzaroli Finotti, Flávio De Souza Barbosa, Alexandre Abrahão Cury, Carmelo Gentile</i>	

<b>AN OVERVIEW ON NATURE-INSPIRED OPTIMIZATION ALGORITHMS FOR STRUCTURAL HEALTH MONITORING OF HISTORICAL BUILDINGS</b> .....	3320
<i>Alberto Barontini, Maria-Giovanna Masciotta, Luis F. Ramos, Paulo Amado-Mendes, Paulo B. Lourenço</i>	
<b>MODAL TESTING OF OFFSHORE ROCK LIGHTHOUSES AROUND THE BRITISH ISLES</b> .....	3326
<i>James Brownjohn, Alison Raby, James Bassitt, Emma Hudson, Alessandro Antonini</i>	
<b>DYNAMIC CHARACTERIZATION OF THE EIFFEL TOWER</b> .....	3332
<i>Silvia Castellaro, Luigi Perricone, Marco Bartolomei, Stefano Isani</i>	
<b>AMBIENT VIBRATION TESTING OF A MONUMENTAL FOUNTAIN BY CONTACT AND NON-CONTACT SENSING TECHNIQUES</b> .....	3338
<i>Gabriele Comanducci, Nicola Cavalagli, Massimiliano Gioffrè, Mauro Trequatrini, Filippo Ubertini</i>	
<b>ISSUES ON THE MODAL CHARACTERIZATION OF LARGE MONUMENTAL STRUCTURES WITH COMPLEX DYNAMIC INTERACTIONS</b> .....	3344
<i>Rosario Ceravolo, Giulia De Lucia, Marica L. Pecorelli</i>	
<b>NUMERICAL AND EXPERIMENTAL ANALYSIS OF THE LEANING TOWER OF PISA UNDER EARTHQUAKE</b> .....	3350
<i>Gabriele Fiorentino, Davide Lavorato, Giuseppe Quaranta, Alessandro Pagliaroli, Giorgia Carlucci, Camillo Nuti, Fabio Sabetta, Giuseppe Della Monica, Maurizio Piersanti, Giuseppe Lanzo, Giuseppe Carlo Marano, Giorgio Monti, Nunziante Squeglia, Raffaello Bartelletti</i>	
<b>STATIC AND DYNAMIC MONITORING OF A CULTURAL HERITAGE BELL-TOWER IN MONZA, ITALY</b> .....	3356
<i>Antonella Saisi, Carmelo Gentile, Antonello Ruccolo</i>	
<b>DYNAMIC ASSESSMENT OF THE AXIAL FORCE IN THE TIE-RODS OF THE MILAN CATHEDRAL</b> .....	3362
<i>Carmelo Gentile, Carlo Poggi, Antonello Ruccolo, Mira Vasic</i>	
<b>CALIBRATION OF THE DYNAMIC BEHAVIOUR OF INCOMPLETE STRUCTURES IN ARCHEOLOGICAL SITES: THE CASE OF VILLA DIOMEDE PORTICO IN POMPEII</b> .....	3368
<i>F. Lorenzoni, M. R. Valluzzi, A. Minello, M. Salvalaggio, C. Modena</i>	
<b>OPERATIONAL MODAL ANALYSIS FOR THE CHARACTERIZATION OF ANCIENT WATER TOWERS IN POMPEII</b> .....	3374
<i>F. Lorenzoni, M. R. Valluzzi, M. Salvalaggio, A. Minello, C. Modena</i>	
<b>NON-DESTRUCTIVE ASSESSMENT OF THE AXIAL STRESS STATE IN IRON AND STEEL TRUSS STRUCTURES BY DYNAMIC MEASUREMENTS</b> .....	3380
<i>Hoa T. M. Luong, Volkmar Zabel, Werner Lorenz, Rolf G. Rohrmann</i>	
<b>SHAKING TABLE TEST OF SCALED MODEL OF PROTIRON DRY STONE MASONRY STRUCTURE</b> .....	3386
<i>Željana Nikolic, Lidija Krstevska, Pavao Marovic, Hrvoje Smoljanovic</i>	
<b>AMBIENT VIBRATION TESTING AND DYNAMIC IDENTIFICATION OF A HISTORICAL BUILDING. BASILICA OF THE FOURTEEN HOLY HELPERS (GERMANY)</b> .....	3392
<i>V. Compan, P. Pachón, M. Cámara</i>	
<b>DYNAMIC CHARACTERIZATION OF A SEVERELY DAMAGED HISTORIC MASONRY BRIDGE</b> .....	3398
<i>Chiara Pepi, Massimiliano Gioffrè, Gabriele Comanducci, Nicola Cavalagli, Andrea Bonaca, Filippo Ubertini</i>	
<b>THE ROLE OF THE MODAL ASSURANCE CRITERION IN THE INTERPRETATION AND VALIDATION OF MODELS FOR SEISMIC ANALYSIS OF ARCHITECTURAL COMPLEXES</b> .....	3404
<i>Daniele Brigante, Carlo Rainieri, Giovanni Fabbrocino</i>	
<b>DYNAMIC IDENTIFICATION AND CONDITION ASSESSMENT OF AN OLD MASONRY CHIMNEY BY USING MODAL TESTING</b> .....	3410
<i>R. Sancibrian, I. Lombillo, E. G. Sarabia, Y. Boffill, H. Wong, L. Villegas</i>	
<b>DETECTING EARTHQUAKE-INDUCED DAMAGE IN HISTORIC MASONRY TOWERS USING CONTINUOUSLY MONITORED DYNAMIC RESPONSE-ONLY DATA</b> .....	3416
<i>Nicola Cavalagli, Gabriele Comanducci, Carmelo Gentile, Marco Guidobaldi, Antonella Saisi, Filippo Ubertini</i>	
<b>ON ADJUSTING THE ROTARY INERTIA OF A CANTILEVER-TYPE ENERGY HARVESTER FOR WIDEBAND OPERATION</b> .....	3422
<i>Peter Ibrahim, Omar Nassar, Mustafa Arafa, Yasser Anis</i>	
<b>FLUTTERING ENERGY HARVESTER FOR AUTONOMOUS POWERING (FLEHAP): A SYNERGY BETWEEN EMC AND DIELECTRIC ELASTOMERS GENERATORS</b> .....	3428
<i>G. Boccalero, C. Boragno, S. Olivieri, A. Mazzino</i>	
<b>NUMERICAL INVESTIGATIONS ON THE OPERATIONAL REGIMES OF A TORSIONAL-FLUTTER-BASED WIND HARVESTER</b> .....	3434
<i>Luca Caracoglia</i>	

<b>INTERNAL RESONANCES AND DYNAMIC RESPONSES IN EQUIVALENT MECHANICAL MODEL OF PARTIALLY LIQUID-FILLED VESSEL</b> .....	3440
<i>Maor Farid, Oleg Gendelman</i>	
<b>PIEZOELECTRIC VIBRATION ENERGY HARVESTING FROM AIRFLOW IN HVAC (HEATING VENTILATION AND AIR CONDITIONING) SYSTEMS</b> .....	3444
<i>Konstantinos Gkoumas, Francesco Petrini, Franco Bontempi</i>	
<b>INVESTIGATION OF OSCILLATING-FOIL POWER GENERATION IN CONSTRAINED FLOW</b> .....	3450
<i>C. M. Hoke, J. Young, J. C. S. Lai, F. Karakas, B. Zaloglu, I. Fenercioglu</i>	
<b>NONLINEAR MEMS PIEZOELECTRIC HARVESTERS IN THE PRESENCE OF GEOMETRIC AND STRUCTURAL VARIABILITIES</b> .....	3456
<i>H. Madinei, H. Haddad Khodaparast, M. I. Friswell, S. Adhikari, A. D. Shaw</i>	
<b>OSCILLATOR WITH A PENDULUM-ROTATOR: STATIONARY SYNCHRONOUS REGIMES, STABILITY, VIBRATION MITIGATION</b> .....	3462
<i>Arkadiy I. Manevich</i>	
<b>ENERGY HARVESTING USING POROUS PIEZOELECTRIC BEAM WITH IMPACTS</b> .....	3468
<i>Germán Martínez-Ayuso, Michael I. Friswell, Sondipon Adhikari, Hamed Haddad Khodaparast, Carol A. Featherston</i>	
<b>FLUTTERING ENERGY HARVESTER FOR AUTONOMOUS POWERING (FLEHAP): AEROELASTIC CHARACTERISATION AND PRELIMINARY PERFORMANCE EVALUATION</b> .....	3474
<i>Stefano Olivieri, Gregorio Boccalero, Andrea Mazzino, Corrado Boragno</i>	
<b>WIND-TUNNEL TESTS ON THE POST-CRITICAL RESPONSE OF CLASSICAL-FLUTTER-BASED GENERATORS</b> .....	3480
<i>Luca Pigolotti, Claudio Mannini, Gianni Bartoli</i>	
<b>EFFECT OF UNCERTAINTIES IN THE DYNAMICAL BEHAVIOR OF PIEZOELECTRIC ENERGY HARVESTERS</b> .....	3486
<i>Rafael O. Ruiz, Viviana Meruane</i>	
<b>ADAPTIVE INERTIA TUNING OF AN ENERGY HARVESTER FOR INCREASING ITS OPERATIONAL BANDWIDTH</b> .....	3492
<i>Mohamed Moshrefi-Torbati, Mehdi Hendijanizadeh, Suleiman M. Sharkh</i>	
<b>A NOVEL HYBRID ENERGY HARVESTER WITH INCREASED POWER DENSITY</b> .....	3498
<i>M. Moshrefi-Torbati, T. V. Lang, M. Hendijanizadeh, T. B. Le, S. M. Sharkh</i>	
<b>PERFORMANCE BASED ASSESSMENT OF REINFORCED CONCRETE FRAMES DESIGNED USING EIGENFREQUENCY OPTIMIZATION</b> .....	3504
<i>Orlando Arroyo, Abbie Liel, Sergio Gutiérrez</i>	
<b>INFLUENCE OF MODELLING ASSUMPTIONS IN THE EXPECTED LOSS EVALUATION OF A PRECAST INDUSTRIAL BUILDING</b> .....	3510
<i>Fabrizio Cornali, Andrea Belleri, Alessandra Marini, Paolo Riva</i>	
<b>PERFORMANCE-BASED SEISMIC DESIGN OF AN INNOVATIVE HCW SYSTEM WITH SHEAR LINKS BASED ON IDA</b> .....	3516
<i>Rajarshi Das, Alessandro Zona, Bram Vandoren, Hervé Degée</i>	
<b>LINEAR TIME-HISTORY ANALYSIS FOR EC8 DESIGN OF CBF STRUCTURES</b> .....	3522
<i>Alessia Di Cuia, Luca Lombardi, Flavia De Luca, Raffaele De Risi, Silvia Caprili, Walter Salvatore</i>	
<b>MULTI-CRITERIA SELECTION AND SCALING OF GROUND MOTION RECORDS USING EVOLUTIONARY ALGORITHMS</b> .....	3528
<i>M. Georgioudakis, M. Fragiadakis, M. Papadrakakis</i>	
<b>SEISMIC RISK ASSESSMENT OF ROCKING BUILDING CONTENTS OF MULTISTOREY BUILDINGS</b> .....	3534
<i>M. Fragiadakis, M. Kolokytha, S. Diamantopoulos</i>	
<b>SEISMIC PERFORMANCE FACTORS FOR PRECAST BUILDINGS WITH HYBRID BEAM-COLUMN CONNECTIONS</b> .....	3540
<i>Sadik Can Girgin, Ibrahim Serkan Misir, Serap Kahraman</i>	
<b>PERFORMANCE-BASED SEISMIC DESIGN FRAMEWORK FOR RC FLOOR DIAPHRAGMS IN DUAL SYSTEMS</b> .....	3546
<i>Alfredo Gonzalez, Enrico Spacone, Roberto Nascimbene</i>	
<b>SPECTRUM-TO-SPECTRUM METHODS FOR THE GENERATION OF ELASTIC FLOOR ACCELERATION SPECTRA</b> .....	3552
<i>Andrea Lucchini, Paolo Franchin, Fabrizio Mollaioli</i>	
<b>SEISMIC PERFORMANCE OF 3-D INFILLED AND BARE FRAME RC BUILDING MODELS USING AVERAGE SPECTRAL ACCELERATION</b> .....	3558
<i>Amirhossein Orumiyehi, Mohsen Kohrangi, Paolo Bazzurro</i>	
<b>PERFORMANCE-BASED SEISMIC DESIGN OF A MODULAR PIPE-RACK</b> .....	3564
<i>Alessandro De Luca Di Roseto, Alessandro Palmeri, Alistair G. Gibb</i>	

<b>AN EQUIVALENT LINEAR PROCEDURE FOR PROBABILISTIC DISPLACEMENT-BASED DESIGN OF RC STRUCTURES UNDER EARTHQUAKE</b> .....	3570
<i>Paolo Franchin, Fabrizio Mollaioli, Francesco Petrini</i>	
<b>A FRAMEWORK FOR EARTHQUAKE RISK ENGINEERING</b> .....	3576
<i>Alin Radu</i>	
<b>BEHAVIOR OF REINFORCED CONCRETE SHEAR WALL BUILDINGS SUBJECTED TO LARGE EARTHQUAKES</b> .....	3582
<i>David Ugalde, Diego Lopez-Garcia</i>	
<b>Author Index</b>	