

XIII International Conference on
Motion and Vibration Control

XII International Conference on
Recent Advances in Structural
Dynamics

**FINAL TECHNICAL
PROGRAMME**

Conference Outline

Sunday 3 July

17:00 – 19:00 Early Registration

Monday 4 July

08:00 – 10:00 Registration
08:45 – 09:00 Opening Ceremony
09:00 – 10:00 Plenary Session 1
10:00 – 10:30 *Morning Refreshments*
10:30 – 12:30 Technical Sessions
12:30 – 13:30 *Lunch*
13:30 – 14:30 Plenary Session 2
14:30 – 15:30 Technical Sessions
15:30 – 16:00 *Afternoon Refreshments*
16:00 – 18:00 Technical Sessions
19:00 – 20:00 *Reception and Barbecue*

Tuesday 5 July

09:00 – 10:00 Plenary Session 3
10:00 – 10:30 *Morning Refreshments*
10:30 – 12:30 Technical Sessions
12:30 – 14:00 *Lunch and Poster Exhibition*
14:00 – 15:00 Plenary Session 4
15:00 – 16:00 Technical Sessions
16:00 – 16:30 *Afternoon Refreshments*
16:30 – 18:00 Technical Sessions
18:00 *Coaches depart from the Highfield Interchange*
19:00 – 23:00 *Dinner at Beaulieu National Motor Museum*

Wednesday 6 July

09:00 – 10:00 Plenary Session 5
10:00 – 10:30 *Morning Refreshments*
10:30 – 12:30 Technical Sessions
12:30 – 13:30 *Lunch*
13:30 – 15:00 Technical Sessions
15:00 – 15:15 Closure Session and Best Presentation Award
15:15 – 15:45 *Afternoon Refreshments*

MONDAY 4 JULY 2016

08:45	Opening Ceremony Physics Lecture Theatre A (46/3001)	Professor P R White , <i>Director of the Institute of Sound and Vibration Research, University of Southampton</i>			
09:00	Plenary Session 1 Physics Lecture Theatre A (46/3001)	Professor K W Wang , “From Muscles to Plants – Nature-Inspired Adaptive Metastructures for Structural Dynamics Enhancement”, <i>University of Michigan, USA</i>			
10:00	Morning Refreshments				
	Physics Lecture Theatre A (46/3001)	Physics Lecture Theatre B (46/2003)	Physics Lecture Theatre C (46/2005)	Shackleton Lecture Theatre A (44/1041)	Shackleton Lecture Theatre B (44/1057)
	Active Vibration Control I	Vehicle Dynamics and Control I	Vibroacoustics	Damage Detection and Structural Health Monitoring I	Biomechanics and Human-Machine Interface
10:30	Model-based active control of a continuous structure subjected to moving loads (2204) D Stancioiu	Dynamically Substructured System Testing for Railway Vehicle Pantographs (2119) D P Stoten	Prediction of noise transmission through infinite panels using a wave and finite element method (2126) Y Yang	The Parameter Identification Method of Blade Asynchronous Vibration under Sweep Speed Excitation (2198) L Yue	Frontal Plane Modelling of Human Dynamics during Standing in Narrow-Stance (2304) M Sonobe
10:45	Comparison of adaptive algorithms for the control of tonal disturbances in mechanical systems (2215) M Zilletti	Synthesised H_{∞}/μ Control Design for Dynamically Substructured Systems (2124) T Yamaguchi	Dynamic response analysis of an aircraft structure under thermal-acoustic loads (2491) H Cheng	The influences of soil and nearby structures on dispersion characteristics of wave propagating along buried plastic pipes (2221) S Liu	Reduced-order models for vertical human-structure interaction (2440) K Van Nimmen
11:00	Active vibration control of a plate using vibration gradients (2247) T Kaizuka	Fundamental study of subharmonic vibration of order 1/2 in automatic transmissions for cars (2151) T Ryu	Modelling of high-frequency structure-borne sound transmission on FEM grids using the Discrete Flow Mapping technique (2497) G Tanner	Application of the wave finite element method to reinforced concrete structures with damage (2252) E E Masri	Human-structure interaction effects on the maximum dynamic response based on an equivalent spectral model for pedestrian-induced loading (2494) E Bassoli
11:15	Ground test for vibration control demonstrator (2270) C Meyer	A New Approach for NOx Soft Sensors for the Aftertreatment of Diesel Engines (2153) S Ishizuka	Application of FE-SEA hybrid method in vibro-acoustic environment prediction of complex structure (2554) Z H Qi	Damage Identification Dependence on Number of Vibration Modes Using Mode Shape Curvature Squares (2269) R Janeliukstis	A study of a steering system algorithm for pleasure boats based on stability analysis of a human-machine system model (2349) F Ikeda
11:30	Lateral Vibration Attenuation by the Dynamic Adjustment of Bias Currents in Magnetic Suspension System (2275) T Mizuno	Optimal Design of Spring Characteristics of Damper for Subharmonic Vibration in Automatic Transmission Powertrain (2154) T Nakae		Remote pipeline assessment and condition monitoring using low-frequency axisymmetric waves: a theoretical study of torsional wave motion (2416) J M Muggleton	Sports Training Support Method by Self-Coaching with Humanoid Robot (2366) S Toyama
11:45	Active vibration isolation through a Stewart platform with piezoelectric actuators (2295) C Wang	Optimization of vehicle-trailer connection systems (2159) F Sorge		A novel method for the remote condition assessment of buried pipelines using low-frequency axisymmetric waves (2418) J M Muggleton	
12:00	Vibration attenuation of conductive beams by inducing eddy currents (2317) L Irazu	Multibody simulation of vehicles equipped with an automatic transmission (2219) B Olivier			
12:15	Active partial eigenvalue assignment for friction-induced vibration using receptance method (2664) Y Liang	Design and implementation of a personal mobility of single spherical drive (2356) T Hoshino			
12:30	Lunch (B40 Garden Court)				

MONDAY 4 JULY 2016

13:30	Plenary Session 2 Physics Lecture Theatre A (46/3001)		Professor K Murphy , “Dynamics of Passive Balancing Rings for Rotating Systems”, <i>University of Louisville, USA</i>		
	Physics Lecture Theatre A (46/3001)	Physics Lecture Theatre B (46/2003)	Physics Lecture Theatre C (46/2005)	Shackleton Lecture Theatre A (44/1041)	Shackleton Lecture Theatre B (44/1057)
	Active Vibration Control II	Vehicle Dynamics and Control II	Structural Acoustics and Noise Control I	Damage Detection and Structural Health Monitoring II	Impulse Loading and Impact Dynamics
14:30	Passive Micro Vibration Isolator Utilizing Flux Pinning Effect for Satellites (2330) T Shibata	Study on Vibration Reduction Design of Suspended Equipment of High Speed Railway Vehicles (2397) Y Sun	Target spectrum matrix definition for multiple-input-multiple-output control strategies applied on direct-field-acoustic-excitation tests (2232) M A Blanco	Dynamic behaviour of a rotating cracked beam (2480) A Yashar	Rebound Vibration of Two-Plates Bonded Model for an Internal Mirror of SLR Camera (2314) H Matsumoto
14:45	Test rig with active damping control for the simultaneous evaluation of vibration control and energy harvesting via piezoelectric transducers (2342) S Perfetto	Pneumatic tyres interacting with deformable terrains (2442) C A Bekakos	Optimization of natural frequencies of large-scale two-stage raft system (2260) L V Zhiqiang	Structural Dynamic Response Compressing Technique in Bridges using a Cochlea-inspired Artificial Filter Bank (CAFB) (2611) G Heo	Impact analyses for negative flexural responses (hogging) in railway prestressed concrete sleepers (2548) S Kaewunruen
15:00	Suppressing self-excited vibrations of mechanical systems by impulsive force excitation (2348) T Pumphössel	Characterisation of vibration input to flywheel used on urban bus (2454) L Wang	A study on calculation method for mechanical impedance of air spring (2283) S Changgeng	The Detection of Vertical Cracks in Asphalt Using Seismic Surface Wave Methods (2434) M Iodice	Research of hail impact on aircraft wheel door with lattice hybrid structure (2630) S Li
15:15	Time-varying shunted electro-magnetic tuneable vibration absorber (2362) E Turco	Study on the precision of the guide control system of independent wheel (2463) Y Ji	A numerical method for seeking the relationship between structural modes and acoustic radiation modes of complicated structures (2213) C W Su		
15:30	Afternoon Refreshments				

MONDAY 4 JULY 2016

	Physics Lecture Theatre A (46/3001)	Physics Lecture Theatre B (46/2003)	Physics Lecture Theatre C (46/2005)	Shackleton Lecture Theatre A (44/1041)	Shackleton Lecture Theatre B (44/1057)
	Active Vibration Control III	Vehicle Dynamics and Control III	Structural Acoustics and Noise Control II	Rotor Dynamics and Control	Fluid-Structure Interaction
16:00	Vibration Control by a Shear Type Semi-active Damper Using Magnetorheological Grease (2377) T Shiraishi	A Study on Automatic Passenger Mover Envelope Gauge (2474) Y Ji	Noise Control for a Moving Evaluation Point Using Neural Networks (2395) T Maeda	Enhancing stability of industrial turbines using adjustable partial arc bearings (2515) A Chasalevris	Dynamic strain measurements of marine propellers under non-uniform inflow (2155) J Tian
16:15	Wave absorption of an orthotropic rectangular panel based on direct feedback (2378) H Iwamoto	Study on coupled shock absorber system using four electromagnetic dampers (2510) H Okano	Active structural acoustic control using the remote sensor method (2447) J Cheer	Preventing the oil film instability in rotor-dynamics (2161) F Sorge	Vibro-acoustics of porous materials – waveguide modelling approach (2162) R Darula
16:30	Experimental investigation on a colloidal damper rendered controllable under the variable magnetic field generated by moving permanent magnets (2410) B Suciu	Steering Dynamics of Tilting Narrow Track Vehicle with Passive Front Wheel Design (2514) J T C Tan	Active Structural Acoustic Control in an Original A400M Aircraft Structure (2483) C Koehne	Vibration attenuation of rotating machines by application of magnetorheological dampers to minimize energy losses in the rotor support (2185) J Zapoměl	Development of Overflow-Prevention Valve with Trigger Mechanism (2325) Y Ishino
16:45	Development of simple operation crane system for the real application (2472) M Wada	Integrated navigation of aerial robot for GPS and GPS-denied environment (2556) S Suzuki	Theoretical investigation into tunable band gaps of an Euler-Bernoulli beam with 2DOF LR structures (2579) Z Xingqian	Predicting Critical Speeds in Rotordynamics: A New Method (2094) J D Knight	Discrete Flow Mapping in coupled two and three dimensional domains: a global interface problem (2529) J Bajars
17:00	Hybrid Fluid-borne Noise Control in Fluid-filled Pipelines (2481) M Pan	Model Predictive Control considering Reachable Range of Wheels for Leg / Wheel Mobile Robots (2564) N Suzuki	Response of a shell structure subject to distributed harmonic excitation (2599) R Cao	Modal interaction and vibration suppression in industrial turbines using adjustable journal bearings (2516) A Chasalevris	Suppression of two-dimensional vortex-induced vibration with active velocity feedback controller (2202) B Ma
17:15	Development of sensorless easy-to-use overhead crane system via simulation based control (2487) Y Tagawa	Design and Experimental Verification of Vibration Suppression Device on the Lift of Wheelchair-accessible Vehicles (2577) Y Hatano	Enhanced acoustic transmission into dissipative solid materials through the use of inhomogeneous plane waves (2600) D C Woods	Mathematic study of the rotor motion with a pendulum self-balancing device (2627) O P Ivkina	Hydrodynamic and hydrostatic modelling of hydraulic journal bearings considering small displacement condition (2359) C Y Chen
17:30	Application of a load-bearing passive and active vibration isolation system in hydraulic drives (2527) O Unruh	A Hierarchical Model Predictive Tracking Control for Independent Four-Wheel Driving/Steering Vehicles with Coaxial Steering Mechanism (2582) M Itoh	Active Noise Control for Dishwasher noise (2643) N Lee	Dynamic analysis on rotor-bearing system with coupling faults of crack and rub-impact (2631) Z Huang	Methodology for Dynamic Analysis of Nuclear Reactor Vessel and Reactor Internals (2748) J B Park
17:45	Acceleration control system for semi-active in-car crib with joint application of regular and inverted pendulum mechanisms (2288) T Kawashima	Automated Driving System Architecture to Ensure Safe Delegation of Driving Authority (2587) S Yun	Nonlinear Microstructured Material to Reduce Noise and Vibrations at Low Frequencies (2263) D Lavazec		
19:00	Reception and Barbecue (B38 Arlott)				

	Session Title	Session Chair
09:00 - 10:00	Plenary Session 1	Michael Brennan
10:30 - 12:30	Active Vibration Control I	Michael Brennan Zhiyi Zhang
	Vehicle Dynamics and Control I	Kimihiko Nakano Dao Gong
	Vibroacoustics	Radoslav Darula Gregor Tanner
	Damage Detection and Structural Health Monitoring I	Chaoping Zang Timothy Waters
	Biomechanics and Human-Machine Interface	Paola Forte Stephen Elliott
13:30 - 14:30	Plenary Session 2	Lawrie Virgin
14:30 - 15:30	Active Vibration Control II	Michele Zilletti
	Vehicle Dynamics and Control II	Teruya Yamaguchi
	Structural Acoustics and Noise Control I	Stuart Bolton
	Damage Detection and Structural Health Monitoring II	Timothy Waters
	Impulse Loading and Impact Dynamics	Sakdirat Kaewunruen
16:00 - 18:00	Active Vibration Control III	Stephen Elliott Jordan Cheer
	Vehicle Dynamics and Control III	Kimihiko Nakano Satoshi Suzuki
	Structural Acoustics and Noise Control II	Changgeng Shuai Michael Kingan
	Rotor Dynamics and Control	Jaroslav Zapomel Athanasios Chasalevris
	Fluid-Structure Interaction	Zhiyi Zhang No-Cheol Park

TUESDAY 5 JULY 2016

09:00	Plenary Session 3 Physics Lecture Theatre A (46/3001)	Professor T Mizuno , “Recent advances in magnetic suspension technology”, <i>Saitama University, Japan</i>			
10:00	Morning Refreshments				
	Physics Lecture Theatre A (46/3001)	Physics Lecture Theatre B (46/2003)	Physics Lecture Theatre C (46/2005)	Shackleton Lecture Theatre A (44/1041)	Shackleton Lecture Theatre B (44/1057)
	Nonlinear Vibrations I	Railway Induced Noise and Vibration I	Stochastic Dynamics and Random Vibrations	Vibration Control Devices I	Control of Civil Infrastructures
10:30	The Characteristics of Vibration Isolation System with Damping and Stiffness Geometrically Nonlinear (2131) Z Q Lu	Vibration analysis of concrete bridges during a train pass-by using various models (2167) Q Li	Multiaxis Rainflow Fatigue Methods for Nonstationary Vibration (2136) T Irvine	Analysis of a vibration isolation table comprising post-buckled Γ -shaped beam isolators (2196) T Sasaki	Application of the nonlinear substructuring control method to nonlinear 2-degree-of-freedom systems (2272) R Enokida
10:45	Chaotic motions of a tethered satellite system in circular orbit (2150) D P Jin	Sound transmission loss of windows on high speed trains (2191) Y Zhang	Response moments of dynamic systems under non-Gaussian random excitation by the equivalent non-Gaussian excitation method (2168) T Tsuchida	On the undamped vibration absorber with cubic stiffness characteristics (2331) G Gatti	Experimental evaluation of a control system for active mass dampers consisting of a position controller and neural oscillator (2301) T Sasaki
11:00	Periodic response of an axially high-speed moving beam under 3:1 internal resonance (2192) H Ding	Experimental investigation on the dissipative and elastic characteristics of a yaw colloidal damper destined to carbody suspension of a bullet train (2409) B Suci	Stability of a nonlinear second order equation under parametric bounded noise excitation (2177) R Wiebe	Dynamics of a passive micro-vibration isolator based on a pretensioned plane cable net structure and fluid damper (2337) Y Chen	Accelerometer-based estimation and modal velocity feedback vibration control of a stress-ribbon bridge with pneumatic muscles (2444) X Liu
11:15	Robust simulation of buckled structures using reduced order modeling (2176) R Perez	Study of the shadow effect caused by a railway tunnel (2256) Q Jin	A simplified method for random vibration analysis of structures with random parameters (2200) M Ghienne	Prediction of peak response values of structures with and without TMD subjected to random pedestrian flows (2443) K Lievens	Seismic Vibration Control of Elevated Water Tank by TLD and Validation of Full-Scale TLD Model through Real-Time-Hybrid-Testing (2594) A Roy
11:30	A Method for Stable Deployment of an Electrodynamics Tethered Satellite in Three-Dimensional Space (2183) B S Yu	Prediction of radiation ratio and sound transmission of complex extruded panel using wavenumber domain FE and BE methods (2360) H Kim	CR-Calculus and adaptive array theory applied to MIMO random vibration control tests (2249) U Musella	Design of an Active Bumper with a Series Elastic Actuator for Pedestrian Protection of Small Unmanned Vehicles (2504) N Terumasa	Research on Hybrid Seismic Response Control System for Motion Control of Two Span Bridge (2610) G Heo
11:45	Exploration of nonlinearly shunted piezoelectrics as vibration absorbers (2253) B Zhou	The response of a high-speed train wheel to a harmonic wheelrail force (2408) X Sheng	Dynamic Modeling and Very Short-term Prediction of Wind Power Output Using Box-Cox Transformation (2299) K Urata	The effect of beam inclination on the performance of a passive vibration isolator using buckled beams (2165) H Mori	Passive vibration suppression using inerters for a multi-storey building structure (2233) S Y Zhang
12:00	Effect of asymmetry in the restoring force of the “click” mechanism in insect flight (2255) A Abolfathi	Effects of rail dynamics and friction characteristics on curve squeal (2415) B Ding	Exact statistical energy analysis of systems excited by time correlated random excitations (2603) C Lecomte	An energy approach for the active vibration control of an oscillator with two translational degrees of freedom using two auxiliary rotating masses (2403) R Bäumer	Experimental Study on a Tuned-Mass Damper of Offshore for Vibration Reduction (2452) Q Wu
12:15		Rail roughness and rolling noise in tramways (2417) L Chiacchiari	Multi-dimensional Fokker-Planck equation analysis using the modified finite element method (2171) J Náprstek	Development of optimal design theory for series multiple tuned mass dampers considering stroke and multiple structural modes (2406) J F Wang	Damping Performance of Taut Cables with Passive Absorbers Incorporating Inerters (2399) J Luo

TUESDAY 5 JULY 2016

12:30	Lunch with Poster Exhibition (B40 Garden Court)		<p>A novel test rig for the dynamic characterization of large size tilting pad journal bearings (2186) P Forte Finite element parametric study of the influence of friction pad material and morphological characteristics on disc brake vibration phenomena (2188) P Forte Experimental and numerical investigations on the dynamic response of turbine blades with tip pin dampers (2324) S Zucca Modeling and feedforward controller design in 2-dimensional shaking table systems (2344) K Seki Study on Walking Training System using High-Performance Shoes constructed with Rubber Elements (2428) Y Hayakawa Vibration Reduction of Wind Turbines Using Tuned Liquid Column Damper Using Stochastic Analysis (2502) M H Alkmin Research on damping properties optimization of variable-stiffness plate (2566) Q W Kai Model updating in flexible-link multibody systems (2589) R Belotti Vibration control using nonlinear damped coupling (2618) M G Tehrani Application of the Wave and Finite Element Method to Calculate Sound Transmission Through Cylindrical Structures (2128) M J Kingan On the synchronization of two metronomes and their related dynamics (2404) J C Carranza</p>		
14:00	Plenary Session 4 Physics Lecture Theatre A (46/3001)		Professor R Goodall , "Motion and vibration control for railway vehicles", <i>Loughborough University, UK</i>		
	Physics Lecture Theatre A (46/3001)	Physics Lecture Theatre B (46/2003)	Physics Lecture Theatre C (46/2005)	Shackleton Lecture Theatre A (44/1041)	Shackleton Lecture Theatre B (44/1057)
	Nonlinear Vibrations II	Railway Induced Noise and Vibration II	Control Theory	Vibration Control Devices II	Civil Engineering Structures
15:00	Insight into the dynamic behaviour of the Van der Pol/Raleigh oscillator using the internal stiffness and damping forces (2388) M J Brennan	Development of a model to assess acoustic treatments to reduce railway noise (2426) H Jeong	Linear Matrix Inequality Method for a Quadratic Performance Index Minimization Problem with a class of Bilinear Matrix Inequality Conditions (2277) M Tanemura	Characterization and performance evaluation of a vertical seismic isolator using link and crank mechanism (2511) N Tsujiuchi	Bidirectional Connected Control Method Applied to an Experimental Structural Model Split into Four Substructures (2334) T Watanabe
15:15	Nonlinear Dynamics of Structures with Material Degradation (2607) P Soltani	Analysis of dynamic stiffness effect of primary suspension helical springs on railway vehicle vibration (2453) W Sun	Experimental Verification of a Vehicle Localization based on Moving Horizon Estimation Integrating LRS and Odometry (2522) K Sakaeta	A simple levitation system using wireless power supply system and Lorentz force (2624) K Oka	Wave propagation in rods with an exponentially varying cross-section - modelling and experiments (2547) M K Kalkowski
15:30	A model identification technique to characterize the low frequency behaviour of surrogate explosive materials (2619) J Paripovic	Transient wave propagation analysis of a pantograph-catenary system (2596) K Nagao	Moving Horizon Estimation for Vehicle Robots using Partial Marker Information of Motion Capture System (2576) M Takahashi	Force transmissibility and vibration power flow behaviour of inerter-based vibration isolators (2650) J Yang	Ambient modal testing of a double-arch dam: the experimental campaign and model updating (2622) J H G Palacios
15:45		Contact force control of an active pantograph for high speed trains (2557) M T Ko	Improving active eigenvector assignment through passive modifications (2588) R Belotti		Numerical and experimental investigation on the effects of non-structural components on the elastic fundamental period of buildings (2625) R Ditommaso
16:00	Afternoon Refreshments				

TUESDAY 5 JULY 2016

	Physics Lecture Theatre A (46/3001)	Physics Lecture Theatre B (46/2003)	Physics Lecture Theatre C (46/2005)	Shackleton Lecture Theatre A (44/1041)	Shackleton Lecture Theatre B (44/1057)
	Nonlinear Vibrations III	ANTARES-EMVEM	Innovative Combustion Technology	Modal Analysis and Structural Modification	Sensors and Actuators
16:30	Dynamic response of a nonlinear parametrically excited system subject to harmonic base excitation (2412) B Zaghari	Flywheel proof mass actuator for velocity feedback control (2218) A Kras	Study on Model Based Combustion Control of Diesel Engine with Multi Fuel Injection (2567) R Ikemura	A Structured Model Reduction Method for Linear Interconnected Systems (2250) R Sato	The Development of an Intelligent Hybrid Active-passive Vibration Isolator (2264) C Shuai
16:45	Studies of parametrically excited non-linear MDOF systems at parametric resonances (2424) T J Kniffka	Sweeping piezoelectric patch vibration absorbers (2363) D Casagrande	Combustion Control System Design of Diesel Engine via ASPR based Output Feedback Control Strategy with a PFC (2461) I Mizumoto,	Dynamic similarity design method for an aero-engine dual-rotor test rig (2286) H Miao	Steering Law Controlling the Constant Speeds of Control Moment Gyros (2291) Y Koyasako
17:00	Vibration suppression of a flywheel system using a novel nonlinear vibration absorber with an Euler buckled beam (2496) L Haiping	Active control of turbulent boundary layer sound transmission into a vehicle interior (2433) A Caiazzo	H_{∞} control of combustion in diesel engines using a discrete dynamics model (2460) M Hirata	Understanding the effect of hammering process on the vibration characteristics of cymbals (2290) F Kuratani	An application review of dielectric electroactive polymer actuators in acoustics and vibration control (2323) Z Zhao
17:15	Exploiting modal interaction during run-up of a magnetically supported Jeffcott rotor (2545) F Dohnal	Dynamic analysis of nonlinear behaviour in inertial actuators (2467) M Dal Borgo	Control of the low-load region in partially premixed combustion (2568) G Ingesson	Optimization of a tuned vibration absorber in a multibody system by operational analysis (2347) F Infante	
17:30	Complex Dynamics of Delay-Coupled Neural Networks (2281) X Mao	Active vibration control of an inertial actuator subject to broadband excitation (2492) S Camperi	Combustion Control of Diesel Engine using Feedback Error Learning with Kernel Online Learning Approach (2456) E S Widayaka	Static and dynamic behaviours of helical spring in MR fluid (2549) S Kaewunruen	
17:45	Force, displacement and strain nonlinear transfer function estimation (2451) K A Sweitzer	Plate Metamaterial for broad-band vibration control (2693) M. Zientek		Error localization of finite element updating model based on element strain energy (2375) Z Huang	
18:00	Coaches depart from the Highfield Interchange				
19:00	Conference Dinner at National Motor Museum				

	Session Title	Session Chair
09:00 - 10:00	Plenary Session 3	Timothy Waters
10:30 - 12:30	Nonlinear Vibrations I	Lawrie Virgin Horst Ecker
	Railway Induced Noise and Vibration I	David Thompson Xiaozhen Sheng
	Stochastic Dynamics and Random Vibrations	Karl Sweitzer Tom Irvine
	Vibration Control Devices I	Jiong Tang Paola Forte
	Control of Civil Infrastructures	Jennifer Muggleton Ryuta Enokida
14:00 - 15:00	Plenary Session 4	David Thompson
15:00 - 16:00	Nonlinear Vibrations II	Giabluca Gatti
	Sensors and Actuators	Andrew Plummer
	Control Theory	Maryam Ghandchi Tehrani
	Vibration Control Devices II	Brian Mace
	Civil Engineering Structures	Jennifer Muggleton
16:30 - 18:00	Nonlinear Vibrations III	Thomas Pumhossel
	Railway Induced Noise and Vibration II	Giacomo Squicciarini
	Innovative Combustion Technology	Ikuro Mizumoto
	Modal Analysis and Structural Modification	Brian Mace Christophe Lecomte
	ANTARES-EMVEM	Maryam Ghandchi Tehrani

WEDNESDAY 6 JULY 2016

09:00	Plenary Session 5 Physics Lecture Theatre A (46/3001)	Professor D J Wagg , "Reducing vibrations in structures using structural control", <i>University of Sheffield, UK</i>			
10:00	Morning Refreshments				
	Physics Lecture Theatre A (46/3001)	Physics Lecture Theatre B (46/2003)	Physics Lecture Theatre C (46/2005)	Shackleton Lecture Theatre A (44/1041)	Shackleton Lecture Theatre B (44/1057)
	Energy Harvesting I	Smart Structures	Dynamics and Control of Multibody Systems I	Uncertain Dynamical Systems	Experimental techniques
10:30	On The Dynamics and Design of a Two-body Wave Energy Converter (2405) C Liang	Advanced design of integrated vibration control systems for adjacent buildings under seismic excit. (2230) F P Quiñero	Dynamics and control of robotic spacecrafts for the transportation of flexible elements (2148) H Wen	A framework for the analysis of vibrations of structures with uncertain attachments (2152) S Li	A pseudodynamic testing algorithm for obtaining seismic responses of structures (2174) S Y Chang
10:45	Inverse design of nonlinearity in energy harvesters for optimum damping (2170) M G Tehrani	Vibration reduction of a woven composite fan blade by piezoelectric shunted devices (2538) O Thierry	Stochastic stability assessment of a semi-free piston engine generator concept (2310) T N Kigezi	Quantifying the variability in stiffness and damping of an automotive vehicle's trim-structure mounts (2169) A Abolfathi	Vibration Prediction Method of Electric Machines by using Experimental Transfer Function and Magnetostatic FEA (2254) A Saito
11:00	Broadband vibratory energy harvesting via bubble shaped response curves (2237) Z Q Lu	Active buckling control of an imperfect beam-column with circular cross-section using piezo-elastic supports and integral LQR control (2265) M Schaeffner	Active control of multi-input hydraulic journal bearing system (2365) J Chuang	Flexural Wave Propagation in Slowly Varying Random Waveguides Using a Finite Element Approach (2401) A T Fabro	Fatigue Damage Spectrum calculation in a Mission Synthesis procedure for Sine-on-Random excitations (2379) A Angeli
11:15	Application review of dielectric electroactive polymers (DEAPs) and piezoelectric materials for vibration energy harvesting (2280) X Yuan	Parameter identification for active mass damper controlled systems (2313) C C Chang	Design of passive interconnections in tall buildings subject to earthquake disturbances to suppress inter-storey drifts (2429) K Yamamoto	Random seismic response and sensitivity analysis of uncertain multi-span continuous beams subjected to spatially varying ground motions (2336) Y Y Li	Inferring unstable equilibrium configurations from experimental data (2385) L N Virgin
11:30	On the influence of nonlinearities on vibrational energy transduction under band-limited noise excitations (2320) K Nakano	A broadband frequency-tunable dynamic absorber for the vibration control of structures (2319) T Komatsuzaki	Numerical and experimental comparison of the energy transfer in a parametrically excited system (2446) A Fichtinger	Experimental investigation of the variability in the dynamics of connected structures (2352) M R Souza	Sound power and vibration levels for two different piano soundboards (2414) G Squicciarini
11:45	Adjustable Nonlinear Mechanism System for Wideband Energy Harvesting in Rotational Circumstances (2345) Y Zhang	Active load path adaption in a simple kinematic load-bearing structure due to stiffness change in the structure's supports (2384) C M Gehb	Stabilization and set-point regulation of underactuated mechanical systems (2533) M Loccufier	Uncertainties Quantification and Propagation of Multiple Correlated Variables with Limited Samples (2382) Z Shen	Experimental investigation on dynamic response of aircraft panels excited by high-intensity acoustic loads in thermal environment (2575) Z Q Wu
12:00	Energy harvesting from the vibrations of a passing train: effect of speed variability (2357) M Brennan	Parallel kinematic mechanisms for distributed actuation of future structures (2551) G Lai	Optimisation of shimmy suppression device in an aircraft main landing gear (2535) Y Li	Vibration analysis of structure with uncertainty using two-level Gaussian processes and Bayesian inference (2389) K Zhou	Synchronization of dynamic response measurements for the purpose of structural health monitoring (2422) K Maes
12:15	A numerical analysis of the electrical output response of a nonlinear piezoelectric oscillator subjected to a harmonic and random excitation (2141) T L Pereira	Exploring vibration control strategies for a footbridge with time-varying modal parameters (2621) J M Soria		Variability analysis on the structural elastic properties of adhesively joined cylinders (2326) K Van Massenhove	

WEDNESDAY 6 JULY 2016

12:30	Lunch (B40 Garden Court)				
	Physics Lecture Theatre A (46/3001)	Physics Lecture Theatre B (46/2003)	Physics Lecture Theatre C (46/2005)	Shackleton Lecture Theatre A (44/1041)	Shackleton Lecture Theatre B (44/1057)
	Energy Harvesting II	Numerical methods	Dynamics and Control of Multibody Systems II	System Identification and Inverse Problems	Analytical methods
13:30	Impulsive parametric damping in energy harvesting (2466) M G Tehrani	Reduced Order Models for Dynamic Behavior of Elastomer Damping Devices (2231) B Morin	Digging Soil Experiments for Micro Hydraulic Excavators based on Model Predictive Tracking Control (2580) T Tomatsu	On a space-frequency regularization for source reconstruction (2087) M Aucejo	Vibration analysis and optimization of sandwich composite with curvilinear fibers (2289) S Honda
13:45	Concept study of a novel energy harvesting-enabled tuned mass-damper-inerter (EH-TMDI) device for vibration control of harmonically-excited structures (2495) J Salvi	Optimization of an installation angle of a root-cutting blade for an automatic spinach harvester (2338) A Fujisawa	The dynamic research and position estimation of the towed array during the U-turn process (2581) J X Yang	Wind load Identification of a guyed mast inversely from full-scale response measurement (2229) A K Amiri	Governing equations of multi-component rigid body-spring discrete element models of reinforced concrete columns (2593) P B Guan
14:00	A simulation of the performance of a self-tuning energy harvesting cantilever beam (2543) J L Kaplan	A hybrid approach for modelling dynamic behaviours of a rotor-foundation system (2350) Z G Zhang	Control of vibrations for a parallel manipulator with flexible links - concepts and experimental results (2591) M Morlock	Inverse characterisation of frequency-dependent properties of adhesives (2259) L Rouleau	Integration simulation method concerning speed control of ultrasonic motor (2340) R Miyauchi
14:15	Design of an electromagnetic-transducer energy harvester (2697) L Simeone	FEM Techniques for High Stress Detection in Accelerated Fatigue Simulation (2394) M Veltri	Fast trajectory planning by design of initial trajectory in overhead traveling crane with considering obstacle avoidance and load vibration suppression (2146) A Inomata	Vibration characteristics and optimization for panel elastically supported in mobile phone (2341) Y Kaito	A multiple-scales asymptotic approach for dynamic response analysis of piezoelectric laminated composites (2398) G Kondagunta
14:30	Global stabilization of high-energy response of a nonlinear wideband electromagnetic energy harvester (2609) T Sato	Local modes analysis of a rotating marine ship propeller with higher order harmonic elements (2670) C Feng	Modeling and control of a cable-suspended robot for inspection of vertical structures (2605) N Barry	A new method for the identification of the parameters of the Dahl model (2309) I G Baños	Milling Stability Analysis Based on Chebyshev Segmentation (2311) J Huang
14:45	Design, modelling and experimental characterization of a novel regenerative shock absorber with a ball-screw-based mechanical motion rectifier (2592) Y Liu	Dynamic finite element model validation of an assembled aero-engine casing (2729) Z Huang			A nonlinear cointegration approach with applications to structural health monitoring (2537) H Shi
15:00	Closure Session and Best Presentation Award Physics Lecture Theatre A (46/3001)				
15:15	Afternoon Refreshments				

	Session Title	Session Chair
09:00 - 10:00	Plenary Session 5	Neil Ferguson
10:30 - 12:30	Energy Harvesting I	Philip Bonello Elvio Bonisoli
	Smart Structures	Michele Zilletti Jordan Cheer
	Dynamics and Control of Multibody Systems I	Jiong Tang Teresa Maria Berruti
	Uncertain Dynamical systems	Adriano Fabro Christophe Lecomte
	Experimental Techniques	Iván Munoz Díaz Michał Kalkowski
13:30 - 15:00	Energy Harvesting II	Jonathan Salvi
	Numerical Methods	Michał Kalkowski
	Dynamics and Control of Multibody Systems II	Giacomo Squicciarini
	System Identification and Inverse Problems	Evangelos Ntotsios
	Analytical Methods	Keith Worden