

September 12, 2024							
Time	Room "Hall"	Room "Salón de Grados"	Speaker	Chairperson	Room "Juan Larrañeta"	Speaker	Chairperson
9:00	Registration						
9:30		Opening ceremony	Andrés Sáez (Dean of the ETSi)	Galvín			
10:00		Vibration based structural health monitoring: strengths and weaknesses	Guido De Roeck				
10:45	Coffee break						
11:15		Simplified railroad track models with periodically variable parameters for MBD simulation of railway vehicles	Brazales	Martínez-Rodrigo	Robust timber-to-timber connections for buildings to avoid disproportionate collapse	Buitrago	Cifuentes-Bulté
11:30		Vibrations of multi-span structures like floors, rail and road bridges	Auersch		Physical properties tracking of a laboratory-scaled two-story building model	Magdaleno	
11:45		InBridge4EU project for bridge dynamics: towards interoperability in the European railway network	Martínez-Rodrigo		Modulus of elasticity of concrete at different temperatures by means of modal analysis	Cifuentes	
12:00		A study of the contribution of bending, torsion and distortion for the dynamic response of current structural types in high-speed railway bridges	Goicolea		Mechanical behaviour of precast concrete pavers curing in CO2 environment	MERINO	
12:15		Influence of the soil-structure coupling on the dynamic behaviour of a portal frame railway bridge	CHORDÀ		Damping of laminated glass plates. Comparison of numerical model and experimental results	Aenlle	
12:30	Break						
12:45		Investigation of different methodologies for simulating the ground-borne vibration response of buildings due to underground railway traffic	Arcos	Arcos	Vibratory analytical-computational model of a neonatal incubator	LARRODÉ	García-Vallejo
13:00		Application of the moving modes method to the dynamics of infinitely long flexible tracks with discrete supports	Escalona		A combined CFD-FEM approach to study wind-induced vibrations in a real cable stayed bridge	Macías	
13:15		Optical data collection device for predicting wear on rigid catenary with results on Málaga metro infrastructures	LUQUE		Advanced numerical modelling for nonlinear dynamic soil-structure interaction	Torres	
13:30		Effectiveness of acoustic barriers for mitigating train traffic noise	VELÁZQUEZ		Steady-State oscillation analysis: nonlinear solutions for a rotating cantilever beam	García	
13:45		Assessing the dynamic response of skewed railway bridges through detailed modelling	SÁNCHEZ-QUESADA		Current challenges on vibration-based NDT and continuous monitoring of external post-tensioning tendons in bridges	Martín de la Concha	
14:00	Lunch break						
15:30		Dynamics and vibroacoustics of the monopile foundations for offshore wind turbines	Andrei Metrikine	Padrón			
16:15		Modelling railway-induced vibrations using a 2.5D hybrid SBM-MFS methodology	Clot		Simplified procedure to track the tension force: numerical validation	VECINO	Solís
16:30		Influence of deep foundations in a deck slab high-speed railway bridge: a theoretical study	Martínez		A simple and efficient 3D finite element for dynamic analysis of shell structures	Martínez	
16:45		Experimental methodology for monitoring physical magnitudes of slender structures using wearable devices	Fernández		Dynamic mode decomposition method for model order reduction of a non-linear elastic beam	MERINO-OLAGÜE	
17:00		Detecting structural damage in slender constructions using a hybrid system of supervised learning algorithms and model updating for analyzing raw dynamic data	Peláez		Analytical and numerical modelling of non-linear dynamic behaviour of a flexible cable subject to motion	Sánchez	
17:15	Coffee break						
17:45		Application of T-mass and T-stiffness correlation techniques on real structures	GARCÍA	Galvín	Predicting collapse mechanisms in masonry buildings through the use of rigid body dynamics	Tarque	Romero
18:00		Modelling and design optimisation of a magnetoelastic vibration energy harvester for railway bridges	CÁMARA		MultiFEBE: open-source package for mixed-dimensional boundary element – finite element models for coupled linear mechanics	Bordón	
18:15		A model updating method based on t-mass and t-stiffness correlation techniques	GARCÍA		Kinematic interaction factors for bucket foundations in homogeneous soils using multiFEBE	Padrón	
18:30		Thermal digital twin for monitoring an asphalt road based on a physics	ÁLVAREZ		Experimental investigation of pile installation settings under coupled axial-torsional excitation	Sánchez	
18:45		Visit to 1:10-Scale Track Installation		Escalona			
21:00	Gala dinner: Hotel Los Seises https://maps.app.goo.gl/FNkoLjimHEdTg7Gg6						

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9:15		Dynamic evaluation of a scaled-down bridge subjected to sudden member losses	REYES	Aenlle	A multi-task learning approach for dynamic stiffness of foundations in poroelastic layered media	Martínez-Castro	Martínez de la Concha
9:30		Dynamic characterization and vibration serviceability assessment of an ultra-high strength concrete footbridge using numerical and experimental techniques	RODRIGO		Post-seismic dynamic properties study and damage validation of a steel arch bridge with an intermediate deck	Ordóñez	
9:45		The concept of ROTMAC in structural dynamics.	Aenlle		Dynamic structural response of four-legged jacket-supported offshore wind turbine considering the effect of wind and seismic ground motion directionality	Romero	
10:00		Approaches for damage detection and quantification in beams from wavelet analysis of incremental mode shapes	Solís		Seismic vulnerability of a 1950s-1960s representative social housing type in Málaga (Spain)	Zapico	
10:15		Fatigue damage on a floating breakwater - a case study	Cebada		Seismic vulnerability assessment of social housing units in Ayamonte (southern Spain)	Zapico	
10:30		Validation of CFD simulation with fluid-structure interaction by means of aeroelastic tests in physical wind tunnels	VIDAL		Select. Fc: methodology, calibration, app and database to assess and select fragility curves for seismic risk studies	Jiménez-Martínez (Navas)	
10:45	Coffee break						
11:15		Dynamic behaviour of transmission towers through experimental testing and numerical modelling	Baldomir	Lorenzana	Dynamic analysis of a 6th floor concrete prefabricated building	Fernández	Zapico
11:30		Operation of an interactive vibration monitoring system ad-hoc designed for tracking historic façades during conservation works	Lorenzana		Seismic assessment of a UNESCO world heritage site. The great mosque in Córdoba.	Torres	
11:45		Fatigue monitoring of structures as a SHM technique	Fernández		Experimental and numerical seismic evaluation of connection systems between reduced-section beams and steel-concrete composite columns	Romera	
12:00		Autonomous monitoring systems for long-term predictive maintenance of a metro bridge	Romero		Seismic vulnerability preliminary assessment of social housing in Cádiz (Spain)	Francisco	
12:15		Developing a modal identification technique to perform an experimental modal analysis based on CNN and deep learning	Iglesias		Seismic vulnerability assessment of the arch-structure in the historical city of Medina Azahara	Zapico	
12:30		Operational modal analysis of an entire wind farm	Iriarte		Seismic analysis of the access viaducts in the fourth bridge over the panamá canal project	Hernández-Carrillo	
12:45		Fatigue life cycle assessment of external post-tensioning systems considering corrosion effects	Naranjo		Seismic aspects in the project of lines 2 and 4 of the Lima metro	Martin	
13:00		Structural assessments after the earthquakes in Türkiye	Patricio García	Zapico			
13:45		Award and Closing ceremony					
14:00	Lunch break						

capital letters: award candidate