

CMMoST 2025

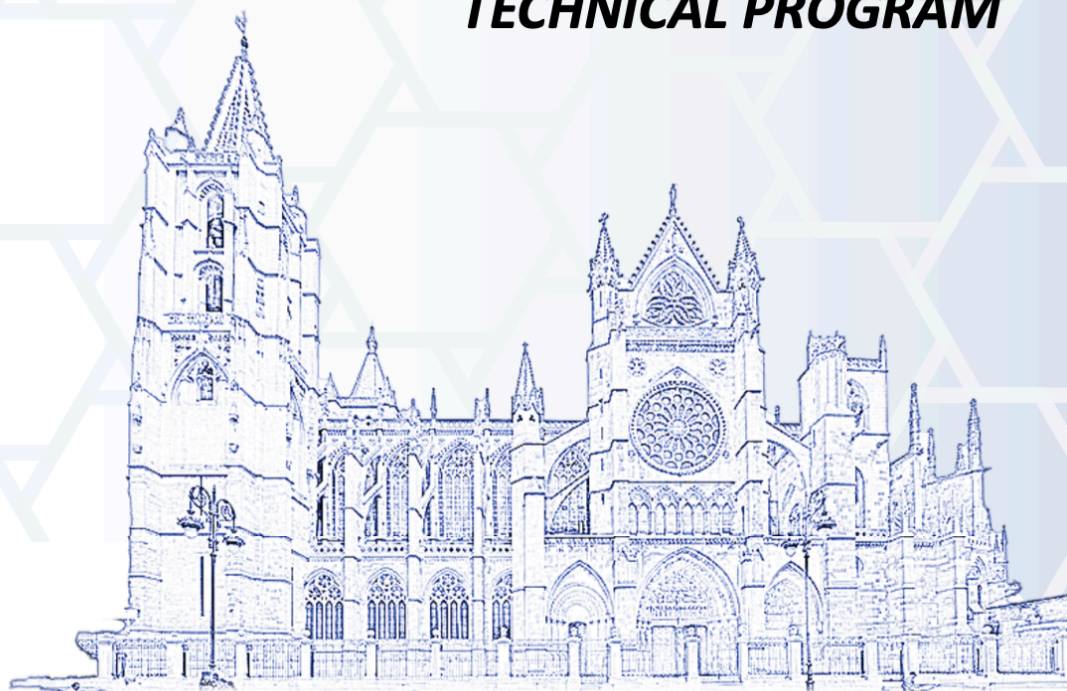
8TH INTERNATIONAL CONFERENCE ON

Mechanical Models in Structural Engineering

26th November - 28th November 2025

Escuela de Ingenierías Industrial,
Informática y Aeroespacial
Universidad de León

TECHNICAL PROGRAM



UNIVERSIDAD
DE GRANADA



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DE MÁLAGA

CMMoST 2025

8TH INTERNATIONAL CONFERENCE ON

Mechanical Models in Structural Engineering

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**Escuela de Ingenierías Industrial,
Informática y Aeroespacial**

Universidad de León

León (Spain)

8th International Conference on Mechanical
Models in Structural Engineering

CMMoST 2025

Technical Program

León, November 2025

Edited by
Iván Ubero Martínez,
Víctor Gutiérrez Posada,
Jaime Cifuentes Rodríguez
and José Vallepuga Espinosa



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CONTENTS

Welcome	1
Organization	3
Plenary lectures	7
Conference information	9
Social program	12
Conference topics	13
Awards	14
Program overview	15
Detailed program	19
Venue plans	28

WELCOME

As a continuation of the initiative started in Granada in 2011 by Prof. Enrique Hernández Montes, the International Conference on Mechanical Models in Structural Engineering (CMMoST) reaches its eighth edition, to be held in León, from November 26th to 28th, 2025, at the *Escuela de Ingenierías Industrial, Informática y Aeroespacial* of the *Universidad de León*.

Over the years, CMMoST has established as a benchmark event for researchers and professionals interested in mechanical modelling applied to structural engineering, with previous editions held in Granada (2011, 2013), Seville (2015), Madrid (2017), Alicante (2019), Valladolid (2021), and Málaga (2023).

On this occasion, a group of people belonging to the *Escuela de Ingenierías Industrial, Informática y Aeroespacial* of the *Universidad de León* are proud to host the conference at our institution. During these three days, we will do our best to make all participants feel at home, sharing experiences, knowledge, culture, and a touch of León's hospitality.

This edition gathers more than 120 researchers, authors of 41 papers, distributed across multiple thematic areas. As in previous editions, the Best Predoctoral Paper Award will be given to the best work presented by a doctoral student or a recently graduated PhD whose paper relates to their thesis.

A total of 10 works have applied for the predoctoral prize and 2 for the one in educative innovation. All of them have been scheduled in the first day of the congress for organizational reasons.

The social programme will include several cultural and gastronomic activities to help participants discover the historical,

artistic, and culinary richness of León and its surroundings from its magnificent Gothic Cathedral and the Romanesque heritage of San Isidoro to the traditional cocido maragato in Castrillo de los Polvazares.

We sincerely hope that you enjoy both the scientific and social programmes, and that you leave León with great memories and the desire to return in the near future.

ORGANIZATION

Organizing committee

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Germán Castillo López	Universidad de Málaga
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Luisa María Gil Martín	Universidad de Granada
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Iván Ubero Martínez	Universidad de León
José Vallepuga Espinosa	Universidad de León

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Oslo Metropolitan University

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Universidad de A Coruña

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Universidad de Valladolid

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Universidad de Las Palmas de Gran Canaria

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Universidad de Valladolid

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Universidad de la Suiza Italiana

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University of Montenegro

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Universidad de Burgos

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University of Bologna

Dimitrios Vamvatsikos

National University of Athens

Chengxiang Yu

Universidade de Castilla La Mancha

PLENARY LECTURES



Professor M. H. Aliabadi is Professor of Aerostructures at Imperial College London, where he also served as Head of the Department of Aeronautics. Prior to joining Imperial, he held academic positions at the University of Southampton and Queen Mary University of London.

He is internationally recognised as one of the leading authorities in advanced numerical methods for structural engineering, with pioneering contributions in fracture mechanics, stability analysis and composite materials. He has published extensively, with more than 800 scientific papers to his name, and has authored or edited several reference books in the field. Throughout his career, Professor Aliabadi has led major international research projects, supervised numerous PhD students, and has been elected Fellow of the Royal Aeronautical Society (FRAeS) and the Institute of Mathematics and its Applications (FIMA). His scientific work has made a decisive contribution to the advancement of computational mechanics and the design of safer and more sustainable structures.

PLENARY LECTURES



Francisco Carro de Lorenzo is a highly qualified professional with a degree in Industrial Engineering from ICAI (1998) and a PhD in Engineering from the University of León, with a doctoral thesis on electric power systems. After beginning his professional career at Unión Fenosa, he founded Tresca Ingeniería S.A. in 2001. This company is based in León (Spain), and he currently serves as CEO and Managing Director.

Under his leadership, Tresca Ingeniería has become a leading company in the industrial and energy engineering sector, with a team of over 100 professionals —mostly engineers— and projects carried out in over 15 countries. The company provides high-value solutions for leading industrial and energy corporations, currently managing projects with an annual volume exceeding 2 billion euros.

Francisco Carro's career combines entrepreneurial vision, technical expertise and innovation, positioning Tresca as a key player in industrial and energy engineering at both the national and international levels.

CONFERENCE INFORMATION

Venue

Escuela de Ingenierías Industrial,
Informática y Aeroespacial.
Campus Vegazana, s/n, 24007 León



It is possible to get the school by city bus. The school is served by bus lines 3, 4 and 12.

On the final day, the conference
will move to the Fundación Sierra Pambley.
Calle Sierra Pambley, 2, 24003, León



Conference rooms

See plans at the end of this document.

Parallel sessions will take place in the *Sala 1 & 2* of the Escuela de Ingenierías Industrial, Informática y Aeroespacial, located on the first floor of the building. Plenary lecture and ceremony acts will be held in the *Salón de Actos*.

On the final day, the sessions, plenary lecture and closing ceremony will be held in Fundación Sierra Pambley.

The congress desk will be located in the hall that gives access to the *Salón de Actos*.

Lunches and coffee breaks will be served in the hall of the Edificio Tecnológico of the Escuela de Ingenierías Industrial, Informática y Aeroespacial.

Registration

Registration (at the congress desk) is mandatory for all congress participants. Upon registration, all attendees will receive a backpack with the complete congress documentation, other documentation about the city and some items that the local committee hopes you will enjoy.

Oral presentations

All parallel sessions have been scheduled considering 20 minutes long presentations, including questions.

The organization encourages participants and chairmen/women to respect the timetable in order to make it easier for other participants to attend the presentations of interest to them.

The two session rooms are equipped with laptops and projectors with a screen ratio of 16:9.

Laptops works with Windows 11 OS and have pdf files reading software and PowerPoint.

Personal computers are NOT permitted.

In order to avoid delays, the speakers must introduce themselves to the chairman/woman of their session and must load the files/s of their presentations with sufficient time in advance.

Wi-Fi network

The *eduroam* wireless network is available for all the attendees coming from any organization participating in the *eduroam* project.

If the attendees cannot access using *eduroam*, Universidad de León has created a specific wireless network for the CMMoST25 called ***MecModel25***. This wireless network will be available in the Escuela de Ingenierías Industrial, Informática y Aeroespacial and in the campus cafeterias.

Steps to connect:

1. Turn on your wireless device.
2. Select the above-mentioned network (***MecModel25***) from the list of available networks.
3. If this is the first time you are connecting to the system, you will be asked to enter the network key.
4. If this is the first time you are connecting, the system will ask you to enter the network password.
5. The password is ***uni25Engi***
6. Once you have entered the password, press connect. If you have already connected previously, you do not need to re-enter the password, just press connect.

SOCIAL PROGRAM

On Wednesday, after the morning session of presentations at the Escuela de Ingenierías Industrial, Informática y Aeroespacial of the Universidad de León, a bus transfer will be organized (13:30 h) to the village of Castrillo de los Polvazares, one of the most unique towns in the Maragatería region. There, participants will enjoy a traditional cocido maragato at Restaurante Cuca la Vaina, considered one of the benchmarks in the preparation of this iconic Leonese dish. The return will be around 17:30–18:00, leaving the afternoon free.



On Thursday afternoon at 19:30 h, a guided tour of the city of León will take place (lasting approximately one hour and a half), visiting its most emblematic monuments such as the Gothic Cathedral, the Basilica of San Isidoro, and the historic quarter.



The day will conclude with the Conference Gala Dinner, held from 21:30 h at the Real Colegiata de San Isidoro, one of the city's most representative historic landmarks.

On the final day, the conference will move to the Fundación Sierra Pambley, a cultural institution with a long-standing tradition in León, where the closing session and final events of the Conference will take place.



The official farewell will be celebrated with a closing lunch at Restaurante Ezequiel (around 14:00 h), renowned for its traditional Leonese cuisine and characteristic atmosphere.

CONFERENCE TOPICS

The contributions of this congress have been classified in one of the following topics

- Case studies
- BIM in the design, construction and management of structures
- Innovative elements in higher education of structures
- Innovative vs. traditional structural models
- Load characterization
- Model updating
- Retrofitting of structures
- Structural analysis
- Structural damage evaluation
- Structural health monitoring
- Structural materials characterization
- Structural rehabilitation
- Vibration control in structures

For the second time, a theme on innovative education has been defined within the scope of the congress, due to the growing interest in everything related to innovative education.

In addition, a generic theme "Others" has been considered for those works that cannot be included in any of them.

As far as possible, each session has been composed of works on the same theme. When this has not been possible (miscellaneous sessions) the theme of each work is indicated.

AWARDS

As in past editions of CMMoST, a recognition to the best work presented by a predoctoral student or recent doctorate has been established. Moreover, as in the previous edition of CMMoST another award has been established for the works presented in the new subject of innovative education.

In order to facilitate the work of the jury for the awarding of these papers, all of them have been concentrated on the second day of the congress

PROGRAM OVERVIEWⁱ

WEDNESDAY 26/11/2025

8:30	Registration opens Salón de Actos's hall
09:45	Informal welcome to participants
10:00	Sala 1
10:00	SESSION 1A Miscellanea Chairman: Iván Ubero Martínez
	SESSION 1B Miscellanea
11:20	Chairman: Víctor Gutiérrez Posada
11:20	Coffee break
12:00	
12:00	SESSION 2A Structural analysis Chairman: Luis Rodríguez de Tembleque
	SESSION 2Bⁱⁱ Miscellanea
13:00	Chairman: Antolín Lorenzana Ibán
13:15	Lunch at Castrillo de los Polvazares
18:00	

ⁱ Sessions #A will take place at Sala 1

Sessions #B will take place at Sala 2

ⁱⁱ Competitive for predoctoral award.

THURSDAY 27/11/2025

8:30	Registration opens Salón de Actos's hall
9:00	Official opening ceremony Salón de Actos
09:40	SESSION 3Aⁱⁱ Structural health monitoring Chairman: Enrique Hernández Montes SESSION 3Bⁱⁱ Structural material characterization
11:20	Chairman: Andrés Sáez Pérez
11:20	Coffee break
12:00	SESSION 4Aⁱⁱ Miscellanea Chairman: Víctor Compán Cardiel SESSION 4B Structural health monitoring
13:20	Chairman: Germán Castillo López
13:30	Lunch at Cafeteria Dani & Jose I
15:45	
16:00	PLENARY SESSION by Dr. Francisco Carro de Lorenzo Chairman: Iván Ubero Martínez
16:45	Salón de Actos

THURSDAY 27/11/2025

17:00 SESSION 5A

Innovate elements in higher education of structures

Chairman: Jaime Cifuentes Rodríguez

SESSION 5B

Structural materials characterization

18:00 Chairman: Iván Ubero Martínez

19:30
21:00 Guided visit to the city of León

21:30 Gala dinner
Real Colegiata San Isidoro

ii Competitive for predoctoral award.

FRIDAY 28/11/2025	
9:30	Registration opens Fundación Sierra Pambley
10:00	SESSION 6A Miscellanea
11:20	Chairman: Enrique García Macías
11:20	Coffee break
12:00	PLENARY SESSION by Prof. Ferri M. H. Aliabadi
12:45	Chairman: Iván Ubero Martínez
13:00	Awards and closing ceremony
13:30	
14:00	Lunch at Restaurante Ezequiel
...	

DETAILED PROGRAM

Wednesday, November 26

SESSION 1A

Sala 1

Topic: Miscellanea

Chairman: Iván Ubero Martínez

Topic: Structural health monitoring

ORTHOTROPIC SMALL-ON-LARGE FRAMEWORK FOR RESIDUAL-STRESS DETECTION IN LIGHT-WEIGHT TIMBER BEAMS USING ACOUSTOELASTICITY AND MODAL ANALYSIS

Roberto Palma, Yaiza Fuentes-García, Carlos Cruz, Francisco J. Rescalvo, Antolino Gallego

Topic: Structural damage evaluation

FATIGUE DAMAGE ON THE MOORING SYSTEM OF A FLOATING BREAKWATER

Alejandro Cebada, Manuel Aenlle, Mario López

Topic: Other

INTERFACIAL MATRIX/INCLUSIONS DAMAGE AND MATRIX EFFECTS ON THE ELECTROMECHANICAL PERFORMANCE OF KNN BASED PIEZOELECTRIC COMPOSITES
Francisco Javier Cañamero, Federico Carlos Buroni, Andrés Sáez, Luis Rodríguez-Tembleque

Topic: Structural rehabilitation

IMPROVEMENT OF RAMMED EARTH SHEAR STRENGTH USING TEXTILE REINFORCED MORTARS

Paula C. Tole, F. Javier Baeza, Luis Estevan, Benjamín Torres, Salvador Ivorra

SESSION 1B

Sala 2

Topic: Miscellanea

Chairman: Víctor Gutiérrez Posada

Topic: Structural damage evaluation

STRUCTURAL HEALTH ANALYSIS OF CONCRETE PILLARS AFFECTED BY FIRES

Carlos Garduño, Víctor Compán, Margarita Cámara, Pablo Pachón

Topic: Structural analysis

COMPARATIVE STUDY OF FIRE STRENGTH OF REINFORCED CONCRETE COLUMNS

F. de Borja Varona Moya, F. Javier Baeza de los Santos, Javier Pereiro Barceló, Salvador Ivorra Chorro

Topic: Structural material characterization

STUDY OF ECO-OPTIMIZED ULTRA-HIGH-PERFORMANCE CONCRETE WITH THE ADDITION OF SLAG AND RECYCLED GLASS

Francisco Pellicer-Martínez, Joaquín Abellán-García, José Antonio López-Juárez, Jorge Pérez-Aracil

Topic: Innovate vs. traditional structural models

SOLUM-HAT: NEW SYSTEM FOR MICROPILE CONNECTION IN CONCRETE ON UNDERPINNING PROJECTS

Francisco Pellicer-Martínez, Joaquín Abellán-García, Salvador Aledo-Sevilla, Vicente Martínez-Lirón, Alejandro Mateo Hernández-Díaz, Pedro Castrillo-Romón, José Antonio López-Juárez

SESSION 2A

Sala 1

Topic: Structural analysis

Chairman: Luis Rodríguez de Tembleque

ON THE COUPLED BEHAVIOR OF TRANSVERSE REINFORCEMENT UNDER CONFINEMENT AND SHEAR

Luisa María Gil-Martín, Enrique Hernández-Montes

SESSION 2A

Sala 1

Topic: Structural analysis

Chairman: Luis Rodríguez de Tembleque

FINITE-ELEMENT MODEL UPDATING OF A PREFABRICATED-CONCRETE BUILDING USING T-MASS AND T-STIFFNESS INDICATORS

Natalia García-Fernández, Berna Istegün, Pelayo Fernández, Manuel Aenlle

EFFECTS OF GEOMETRIC IMPERFECTIONS AND MODEL DISCRETIZATION ON THE CRITICAL BUCKLING LOAD OF COOLING TOWERS

Antonio Tomás, Lorena Yepes-Bellver, Joaquín M. Barquero

SESSION 2B

Sala 2

Topic: Miscellanea

Chairman: Antolín Lorenzana Iban

Topic: Structural material characterization

CHARACTERISATION OF A CLT PANEL USING STATIC AND MODAL TECHNIQUES

Patricia Vallelado-Cordobés, Jose-Antonio Balmori, Roberto Martínez, Milagros Casado, Luis Alfonso Basterra

Topic: Load characterization

PROPOSAL OF A REDUCED STOCHASTIC DATA-DRIVEN MODEL FOR GENERATING VERTICAL WALKING AND RUNNING GROUND REACTION FORCES

Guillermo Fernández, José María García Terán, David Fuentes Jiménez, Álvaro Magdaleno

Topic: Structural health monitoring

TOWARDS A DATA-DRIVEN DEEP LEARNING APPROACH FOR AUTOMATED MODAL IDENTIFICATION OF SLENDER STRUCTURES

Álvaro Iglesias-Pordomingo, Emiliano Pereira, Andrés San-Millán, Su-meet Aphale, Antolín Lorenzana

Thursday, November 27

SESSION 3A

Sala 1

Topic: Structural health monitoring

Chairman: Enrique Hernández-Montes

DYNAMIC IDENTIFICATION OF A STEEL FOOTBRIDGE USING A LOW-COST STRAIN-BASED MONITORING SYSTEM

Antonio S. López-Cuervo, Daniel Triana Camacho, Filippo Ubertini, Juan Chiachío, Enrique García-Macías

PRACTICAL EXAMPLE OF THE INSTALLATION OF A SHM SYSTEM IN A HERITAGE BUILDING

Antolín Lorenzana, Álvaro Magdaleno, Álvaro Iglesias-Pordomingo, Juan José Villacorta, Alberto Izquierdo, Enrique Hernández-Montes

SLS ASSESSMENT OF VERTICAL ACCELERATION IN MULTI-TRACK HIGH-SPEED RAILWAY BRIDGES ACROSS EUROPE: A COMPARATIVE STUDY OF 2D AND 3D APPROACHES

Carlos Rodrigo Villar, Víctor Roda Casanova, Antonio Romero Ordóñez, Pedro, Galvín Barrera, M^a Dolores Martínez-Rodrigo

SPATIAL EVOLUTION OF RAILWAY BRIDGES VIBRATIONAL RESPONSE WITH THE MÁXIMUM SPEED OF INTEREST

Juan Carlos Sánchez-Quesada, Emma Moliner Cabedo, Antonio Romero Ordóñez, Pedro Galvín Barrera, M^a Dolores Martínez-Rodrigo

INFLUENCE OF JOINTS-STIFFNESS ON THE VIBRATION RESPONSE OF TWO REAL HIGH-FREQUENCY CLT FLOORS

Carlos M. C. Renedo, Pedro Herrera Mesa, Belén Vecino, Iván M. Díaz

SESSION 3B

Sala 2

Topic: Structural material characterization

Chairman: Andrés Sáez Pérez

EXPERIMENTAL PERFORMANCE AT HIGH TEMPERATURES OF STAINLESS-STEEL FIBER-REINFORCED CONCRETE

David Hernández-Figueirido, Vicente Albero, Marta Roig-Flores, Carmen Ibáñez, Lucia Reig, Ana Piquer, Ángel M. Pitarch

PERFORMANCE OF CONCRETE COLUMNS IN REALISTIC FIRE CONDITIONS

Carmen Ibáñez, David L. Peña, Vicente Albero, Héctor Saura, Antonio Hospitaler

BIOGENIC SILICA FORMATION IN ARTIFICIAL ENVIRONMENTS AS A PROTECTIVE COATING ON RECYCLED CONCRETE

Daniel Merino-Maldonado, Víctor Baladrón-Blanco, Fernando J. Fraile-Fernández, Covadonga Palencia, Andrés Juan-Valdés, Rebeca Martínez-García

DESIGN OF MOLDS IN 3D PRINTING FOR CONCRETE. STUDY OF THE INFLUENCE OF MOLDS ON MECHANICAL PROPERTIES

Víctor Baladrón-Blanco, Fernando J. Fraile-Fernández, Covadonga Palencia, Daniel Merino-Maldonado, Cesar Diez Gonzalez, Andrés Juan-Valdés, Rebeca Martínez-García

TACK WELDING AND WIRE TIES IN CORRUGATED STEEL REINFORCEMENT: EFFECTS OF WELDING PARAMETERS ON MECHANICAL PERFORMANCE José María David García-Moro, Pablo Bargueño, Luisa María Gil-Martín, Enrique Hernández-Montes

SESSION 4A

Sala 1

Topic: Miscellanea

Chairman: Víctor Compán Cardiel

Topic: Structural analysis

MODELLING SOIL-STRUCTURE INTERACTION IN PORTAL FRAME RAILWAY BRIDGESJosep Chordà-Monsonís, Juan Carlos Sánchez-Quesada, Emma Moliner, Antonio Romero, Pedro Galvín, M^a Dolores Martínez-Rodrigo

Topic: Structural damage evaluation

EXPLORING TRANSFER LEARNING FOR MODEL-DRIVEN DAMAGE ASSESSMENT OF BRIDGE NETWORKS

Elisa Tomassini, Enrique García-Macías, Fillipo Ubertini

Topic: Structural analysis

INFLUENCE OF LOCALIZED BOND LOSS ON SHEAR BEHAVIOR OF REINFORCED CONCRETE BEAMS

Alejandro Frontera, Carlos Ribas, Antoni Cladera

Topic: Structural analysis

EXPLORING THE STRUCTURAL BEHAVIOUR OF WAAM LATTICE ELEMENTS

Mahan Alagheband, Lidiana Arrè, Michele Palermo

SESSION 4B

Sala 2

Topic: Structural health monitoring

Chairman: Germán Castillo López

STRUCTURAL MONITORING: FROM THE SENSOR TO THE CLOUD

Juan J. Villacorta, Lara del Val, Alberto Izquierdo, Luis Alfonso Baserra

AN APPLICATION OF SUPERVISED MACHINE LEARNING TO BIOMECHANICAL ANALYSIS

José María García, Guillermo Fernández, Álvaro Magdaleno

SESSION 4B

Sala 2

Topic: Structural health monitoring

Chairman: Germán Castillo López

ON THE DEVELOPMENT OF A DIGITAL TWIN OF A SLENDER STRUCTURE FOR DATA HYBRIDIZATION

Álvaro Magdaleno, Nuño Lorenzana, César Peláez, Álvaro Iglesias-Pordomingo

MAC AND ROTMAC IN STRUCTURES WITH CLOSELY SPACED MODES

Manuel Aenlle, Natalia García Fernández, Pelayo Fernández

PLENARY SESSION by

Dr. Francisco Carro de Lorenzo

Chairman: Iván Ubero Martínez

Salón de Actos

SESSION 5A

Sala 1

Topic: Innovate elements in higher education of structures

Chairman: Jaime Cifuentes Rodríguez

TEACHING BUCKLING IN STEEL STRUCTURES WITH 3D-PRINTED FLEXIBLE TPU MODELS

Carlos López-Colina, Ismael García, Miguel A. Ruenes, André N. Garcia, Javier Gracia, Miguel Lozano

ARTIFICIAL INTELLIGENCE-FASTTEST PLUGIN (AI-FTP): A HYBRID METHODOLOGY FOR QUESTION GENERATION IN STRUCTURAL ENGINEERING

Milagros Huerta, Juan Francisco Carbonell-Márquez, Manuel Alejandro Fernández-Ruiz

SESSION 5B

Sala 2

Topic: Structural materials characterization

Chairman: Iván Ubero Martínez

LIGHTWEIGHT IMPACTOR PROTOTYPE FOR A DROP TOWER TESTING MACHINE, MADE ON CARBON FIBER COMPOSITE AND ADDITIVE MANUFACTURING

Pablo López-Medina, Germán Castillo-López, José Bernardo Beltrán-Ramos, Felipe García-Sánchez

BI-MATERIAL SECURITY BARRIER BASED ON ELT'S RUBBER FOR REDUCING IMPACT SEVERITY. PROOF OF CONCEPT, PRELIMINARY RESULTS

Joaquín González Vega, Germán Castillo López, Felipe García Sánchez

Friday, November 28

SESSION 6A

Fundación Sierra Pambley

Topic: Miscellanea

Chairman: Enrique García Macías

Topic: Structural damage evaluation

STRUCTURAL ASSESSMENT OF THE RONDA BULLRING USING NON-DESTRUCTIVE TECHNIQUES

Pablo Pachón, Carlos Garduño, Enrique Vázquez, Víctor Compán

Topic: Innovative vs. traditional structural models

DEVELOPMENT OF A TENSEGRITY STRUCTURE PROTOTYPE WITH INTEGRATED PRETENSIONING SYSTEM AND INSTRUMENTATION CAPABILITY

Manuel Alejandro Fernández-Ruiz, Juan Francisco Carbonell-Márquez, Pedro López-Jiménez, Milagros Huerta

SESSION 6A

Fundación Sierra Pambley

Topic: Miscellanea

Chairman: Enrique García Macías

Topic: Structural health monitoring

A COMPARATIVE STUDY OF DIFFERENT AUGMENTED NON-LINEAR FILTERS FOR FORCE IDENTIFICATION IN STRUCTURAL DYNAMICS

María Clotilde Botija Moreno, José Daniel Rodríguez Mariscal, Javier Naranjo Pérez, Javier Fernando Jiménez-Alonso

Topic: Structural health monitoring

FEASIBILITY ANALYSIS OF PIEZOELECTRIC ENERGY HARVESTERS ON TENSIONED CABLES UNDER WIND LOADS

Javier Naranjo-Pérez, Mar Muñoz-Reja, José Reinoso, Javier Fernando Jiménez-Alonso

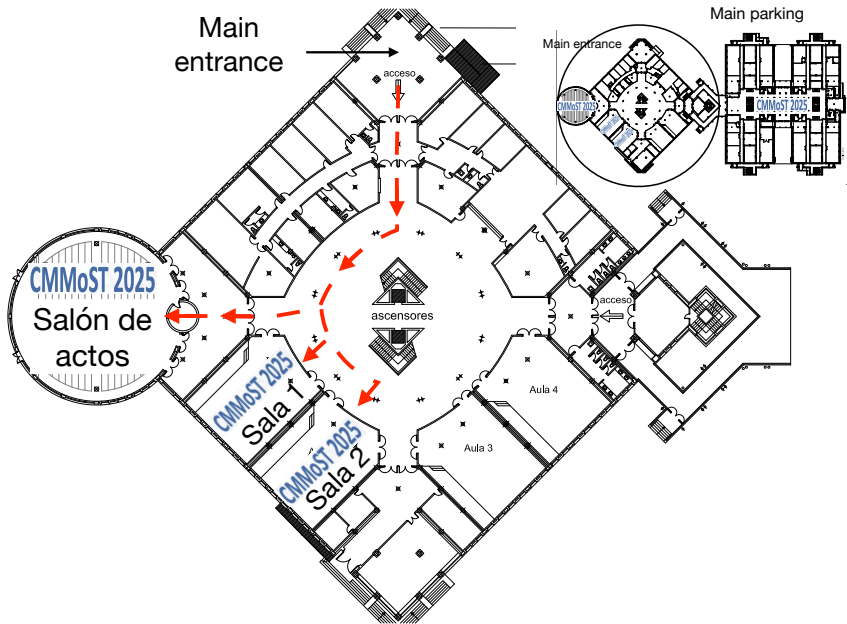
PLENARY SESSION by

Prof. Ferri M. H. Aliabadi

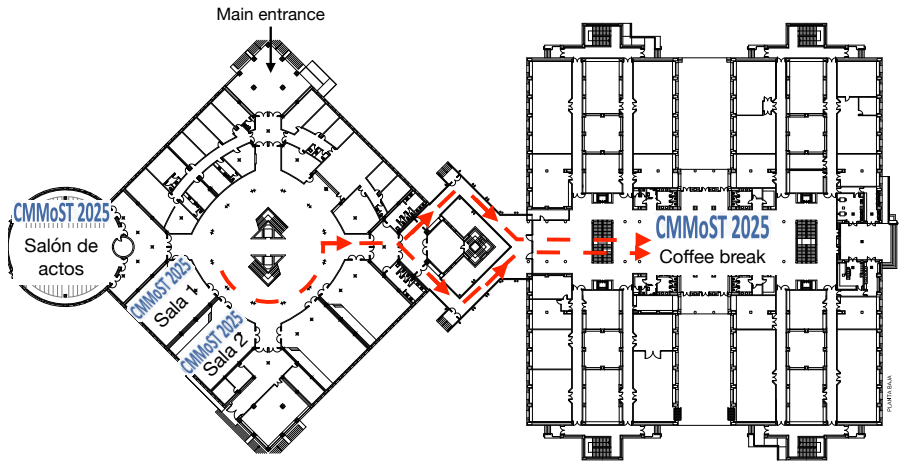
Chairman: Iván Ubero Martínez

Fundación Sierra Pambley

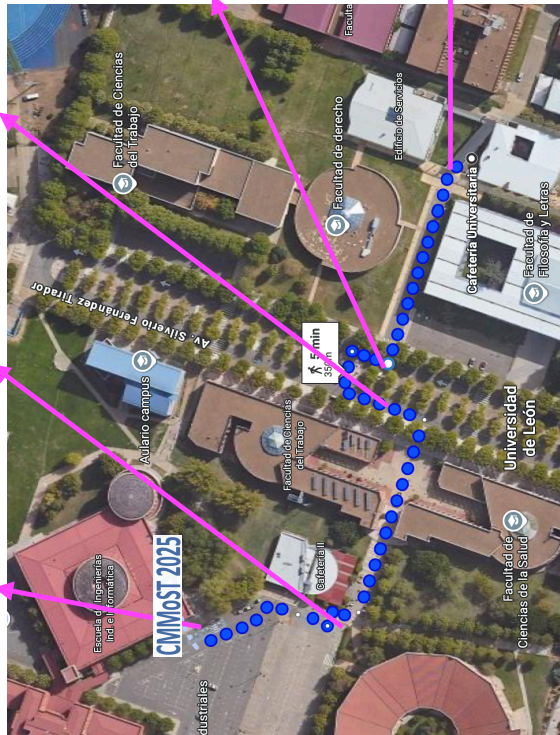
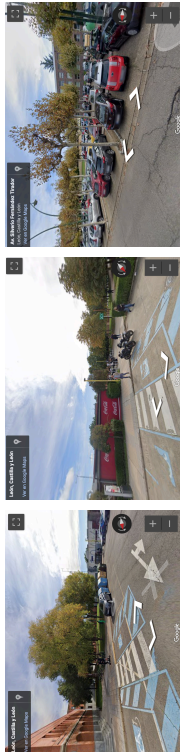
VENUE MAPS



Rooms where all the congress activities will take place.



Coffee break location.



Lunch

Walk from the Escuela de Ingenierías Industrial, Informática y Aeroespacial to the Dani y Jose I cafeteria.



Walk from the Fundación Sierra Pambley to Restaurante Ezequiel.



TRESCA



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