

# Conference - Temporary Program

## 25th November 2021

**09:00**

Login

Auditorium

**09:05**

Opening Session

Auditorium

09:05

Open Session

Prof. Luís Simões da Silva; Prof. António Lamas

09:15

Intervenção do Exmo. Sr. Secretário de Estado Adjunto e da Economia

Dr. João Neves

**09:30**

Economy Session

Auditorium

09:30

Moderator

Cristina Esteves

09:35

Portuguese Economy Post-Covid

Professor João Duque

10:00

The new Bauhaus in Portugal

Eng. José Teixeira

10:25

The new Bauhaus in Europe

Dr. Luís Viegas Cardoso

10:50

Debate

**11:00**

Morning Break

Auditorium

**11:15**

Workshop Digital Steel

Auditorium

11:15

Moderator

Cristina Esteves

11:20

Project presentation

Professor Luís Simões da Silva

11:30

The potential of BIM-enabled digital twins for steel structures in design, construction and maintenance

Professor Rolando Chacón

11:50

Hybrid manufacturing of steel elements in construction; exploring the use of metal 3D printing in combination with standard elements

Gijs van der Velden

12:10

Decarbonization of steel and digitalization

Professor Olivier Vassart

12:30

Benefits of Mixed Reality in Construction Process

Luke Bottomley

12:50

Debate

**13:05**

Lunch Break

Auditorium

**14:30**

A1 Session

Room 1

14:30

EUROPEAN REGULATORY HARMONIZATION AND THE UNITED KINGDOM

Joana Gomes

14:40

AGROPARISTECH PROJECT

Hugo Marques

14:50

BERKELEY HOTEL - STRUCTURE AND FACADE AS ARCHITECTURAL ELEMENT

Tiago Silva

15:00

CYCLO-PEDESTRIAN VIADUCT OVER AV. CALOUSTE GULBENKIAN - CONCEPTION, DESIGN AND DETAILING

Manuel Pera Fernandes

15:10

Questions

15:22

DESIGN OF STRUCTURES TO EXTREME ACTIONS

Aldina Santiago

15:32

COMET - SALLE SPORTIVE DESIGN AND EXECUTION

Maria Sarmiento

15:42

COMPLEXE SPORTIVE DE MEUDON – STRUCTURAL DESIGN AND CONSTRUCTION

João Faria de Sousa

15:52

ANALYSIS, OPTIMIZATION AND DESIGN OF THE STRUCTURE OF A HANGAR WITH 80M SPAN AND 20M HEIGHT IN SOR BRIDGE.

Hugo Augusto

16:02

Questions

**14:30**

B1 Session

Room 2

14:30

PERFORMANCE OF THERMAL CUTTING STRIPS ON WALLS WITH LIGHT STEEL STRUCTURE (LSF)

Paulo Santos

14:40

NUMERICAL INVESTIGATIONS OF STEEL-LVL TIMBER COMPOSITE BEAMS

Alfredo Romero

14:50

STUDY OF THE MANUFACTURE OF WELDED SECTION BEAMS OF HIGH SLENDERNESS

Isabel Brás

15:00

WELDING IN COLD FORMED ZONES FOR ANGLES BELOW 90° - MECHANICAL PROPERTIES ANALYSIS

Patrícia Marques

15:10

Questions

15:22

PREDICTIVE MODELS OF THE STRENGTH OF METALLIC BEAMS BASED ON ARTIFICIAL INTELLIGENCE

Carlos Couto

15:32

PROBLEMS ARISING FROM PROJECT AMENDMENT

Gustavo Daumas

15:42

BEAMS COMPOSED OF HIGH STRENGTH STEEL: EXPERIMENTAL AND NUMERICAL RESEARCH

Filipe Rodrigues

15:52

FATIGUE ANALYSIS OF A STEEL-CONCRETE COMPOSITE RAILWAY VIADUCT BASED ON THE S-N MASTER CURVE METHOD

Guilherme Alencar

16:02

Questions

**14:30**

Guest Country - France

Auditorium

14:30

Moderation

Fernanda Pedro

14:35

French market. Opportunities for Portuguese companies.

Dr. Eduardo Henriques (Director of AICEP in France)

14:55

The French and Portuguese markets approach

Laurent Marionnet (CCILF)

15:15

Entrepreneurship and attracting investment in the Municipality of Coimbra

Prof. Miguel Fonseca (CMC)

15:30

Internationalization and its paths

Eng.ª Alexandra Feliz (O FELIZ)

15:45

Debate

**16:15**

Afternoon Break

Auditorium

**16:30**

A2 Session

Room 1

16:30

DIGITALIZATION IN THE REHABILITATION OF THE TITAN CRANE

Alexandre Fonseca

16:40

CRITICAL BEHAVIOR OF DIAGONALLY REINFORCED WEB PANELS

João Pedro Martins

16:50

STRUCTURAL BEHAVIOR OF INTERCONNECTED STAINLESS STEEL ANGLES IN CRUCIFORM CONFIGURATION UNDER AXIAL COMPRESSION

Pedro Vellasco

17:00

NUMERICAL STUDY OF DUPLEX STAINLESS STEEL CRUCIFORM CROSS-SECTION COLUMNS SUBJECTED TO AXIAL COMPRESSION

Luciano Lima

17:10

Questions

17:22

STRUCTURAL BEHAVIOR OF COMPOSITE COLD-FORMED STEEL COLUMNS CONNECTED BY TIES UNDER COMPRESSION

Helder Craveiro

17:32

OPTIMIZED DESIGN OF TELECOMMUNICATION TOWERS

Anton Taigildin

17:42

NEW PROPOSAL FOR THE N-M-V DESIGN INTERACTION OF STEEL PLATE GIRDERS – APPLICATION TO S690 HIGH-STRENGTH STEEL

André Biscaya

17:52

NUMERICAL ANALYSIS OF HIGH-STRENGTH S690 LONGITUDINAL STIFFENED PLATE GIRDERS LOADED UNDER COMBINED BENDING, SHEAR AND COMPRESSION

Filipa Baguinho

18:02

Questions

**16:30**

## B2 Session

### Room 2

16:30

ANALYSIS OF THE GLOBAL DYNAMIC BEHAVIOR OF METALLIC STRUCTURES OF ADJACENT BUILDINGS WITH NON-LINEAR BEHAVIOR SUBJECT TO STRUCTURAL IMPACTS INDUCED BY SEISMIC EXCITATIONS

Pedro Folhento

16:40

ON THE APPLICABILITY OF CONVENTIONAL SEISMIC DESIGN METHODOLOGIES TO HYBRID RC-STEEL SYSTEMS

Rodrigo Moreira

16:50

PERFORMANCE-BASED ANALYSIS OF THE BEHAVIOR OF INDUSTRIAL BUILDINGS SUBJECTED TO THE ACTION OF FIRE AT THE URBAN-FOREST INTERFACE

Cesare Fiorini

17:00

INVESTIGATION ON THE HUMAN COMFORT OF COMPOSITE FLOORS (STEEL-CONCRETE) SUBJECTED TO RHYTHMIC DYNAMIC ACTIONS

José Guilherme Santos da Silva

17:10

Questions

17:22

DYNAMIC NONLINEAR STRUCTURAL ANALYSIS OF BUILDINGS CONSIDERING THE NONDETERMINISTIC ACTION OF WIND

Jean Silva

17:32

DEVELOPMENT OF A GENETIC ALGORITHM ADAPTED TO THE STUDY OF THE OPTIMAL LOCATION OF COLUMNS IN REGULAR BUILDING STRUCTURES

Jorge Teixeira

17:42

ADDITIVE MANUFACTURING FOR STEEL CONSTRUCTION: CASE STUDY

Carlos Zhu

17:52

"INNO3DJOINTS" MODULAR CONSTRUCTION SYSTEM - EXPERIMENTAL BEHAVIOUR

Nemanja Milovanovic

18:02

Questions

**16:30**

## C2 Session

### Room 3

16:30

CRACKS IN METALLIC SECTIONS SUBJECT TO FATIGUE: CAUSES AND RECOVERY

Gustavo Daumas

16:40

AXIAL AND LATERAL BUCKLING LOAD ANALYSIS OF TAPERED STEEL TOWERS

Anelise Dick

16:50

CALCULATION OF EFFECTIVE REINFORCEMENT SECTIONS IN COLD FORMED STEEL PROFILES USING ALTERNATIVE METHODOLOGY OF THE EN1993-1-3 STANDARD

Carlos Carvalho

17:00

BARRASIM4P – A DIGITAL PLATFORM TO SUPPORT THE STRUCTURAL DESIGN OF COLD FORMED STEEL ELEMENTS OF THE COMPANY "BARRAFERROS"

Ana Simões

17:10

Questions

17:22

EXPERIMENTAL AND ANALYTICAL EVALUATION OF STAPLED TEMPERED LAMINATED GLASS PANELS

Afonso Mesquita

17:32

EMBODIED CARBON STUDY FOR MULTI-STOREY STEEL FRAMED RESIDENTIAL BUILDINGS: COMPARISON BETWEEN DIFFERENT FLOOR STRUCTURAL SOLUTIONS

Vitor Carvalho

17:42

NUMERICAL ANALYSIS OF LAMINATED GLASS PANELS WITH ARTICULATED BOLTED POINT FIXINGS

Eliana Cabrera

17:52

NUMERICAL ANALYSIS OF PERFOBOND TUBULAR TYPE CUTTING CONNECTORS

José Henriques

18:02

Questions

**18:15**

Awards Ceremony

Auditorium

**18:30**

Closing Session

Auditorium

18:30

Closing Session

Prof. Luís Simões da Silva

**26th November 2021**

**09:00**

Technical Session

Auditorium

09:00

Moderator

Cristina Esteves

09:05

Use less, build more: technologies for the future of steel construction

Professor Andreas Taras

09:25

Towards implementing connections in advanced analysis

Professor Kim Rasmussen

09:45

Hybrid Structures

Professor Jiri Strasky

10:05

Advancing the seismic resistance of steel moment resisting frames

Professor Dimitrios Lignos

10:25

A general overview of the new Eurocode 9 for aluminium structures

Professor Davor Skejic

10:45

Questions

Cristina Esteves

**11:00**

Morning Break

Auditorium

**11:15**

International Steel

Auditorium

11:15

Moderator

Cristina Esteves

11:20

Intervention of the Secretary of State for Internationalization

Prof. Eurico Brilhante Dias

11:35

Video intervention by the President of AICEP

Dr. Luís Castro Henriques

11:40

Project Presentation

Professor Luís Simões da Silva

11:55

Steel Construction in Portugal

Professor José Gomes Mendes

12:10

Russian Market

Alexander Bibin (Head of steel structures design, EVRAZ)

Alexander Deineko (Russian Association of Metal and Steel Traders)

12:20

Canadian Market

Alex Martyniak (European Union Chamber of Commerce in Canada – West)

12:30

Round Table

Moderator: Cristina Esteves

Eng. Carlos Costa (Martifer); Eng. António Pedro (Metalgalva); Dr. Paulo Carapuça (Grupo Casais)

**13:00**

Lunch Break

Auditorium

**14:30**

A3 Session

Room 1

14:30

FIRE BEHAVIOR OF COMPOSITE COLUMNS CONSISTING OF CLOSED COLD-FORMED STEEL SECTIONS FILLED WITH

CONCRETE

Rohola Rahnavard

14:40

EXPERIMENTAL CHARACTERIZATION OF THE FIRE RESISTANCE OF STAINLESS STEEL RHS BEAMS

Paulo Piloto

14:50

FIRE RESISTANCE OF STEEL COLUMNS - OPTIMAL THICKNESS OF COATING GROUT

Luís Laím

15:00

THERMAL BUCKLING OF RAILWAYS

Paulo Piloto

15:10

Questions

15:22

INTEGRATED COMPARISON OF VARIOUS FIRE PROTECTION SOLUTIONS FOR METAL FRAMED STRUCTURES

Hugo Augusto

15:32

DEVELOPMENT OF FIRE PROTECTION GROUT WITH NANO AND MICRO SILICA PARTICLES

Hugo Caetano

15:42

FIRE RESISTANCE OF COLD-FORMED STAINLESS STEEL COLUMN BEAMS

Flávio Arrais

15:52

THE INFLUENCE OF THE TYPE OF LOADING ON THE FIRE CALCULATION OF STAINLESS STEEL BEAMS WITH LATERAL BUCKLING

Nuno Lopes

16:02

Questions

**14:30**

**B3 Session**

**Room 2**

14:30

SLIP-RESISTANT CONNECTIONS SUBJECTED TO FREEZE-THAW CYCLES

Alfonso Fuente García

14:40

STEEL SPATIAL STRUCTURES IN BULGARIA

Doncho Partov

14:50

USE OF COLD FORMED PROFILES OF TYPE C IN STEEL AND COMPOSITE BEAMS

Talita de Lima Silva

15:00

Questions

15:10

DEMOUNTABLE STEEL-CLT COMPOSITE FLOORS FOR NET-ZERO CARBON BUILDINGS: STATE OF THE ART AND DESIGN PRINCIPLES



Ricardo Pimentel

15:20

DEMOUNTABLE STEEL-CONCRETE COMPOSITE FLOORS SOLUTIONS FOR CIRCULAR ECONOMY: STATE OF THE ART AND DESIGN PRINCIPLES

Ricardo Pimentel

15:30

STEEL BALL REINFORCED RESIN FOR INJECTED SCREWS: BEHAVIOR UNDER LATERAL CONFINEMENT CONDITIONS

Bruno Pedrosa

15:40

Questions

### **14:30**

Workshop - Assessment of the sustainability of construction and building products - European Context for Standardization and Opportunities for the Construction Market

Auditorium

14:30

CONTRIBUTION OF CT 171 'SUSTAINABILITY OF BUILDINGS' TO THE STANDARDIZATION OF ASSESSMENT PROCESSES

Prof. Helena Gervásio

15:00

STRATEGIC IMPORTANCE OF ENVIRONMENTAL PRODUCT DECLARATIONS (DAP) IN THE CONSTRUCTION MARKET

Eng. Marisa Almeida

15:20

THE DAPHABITAT SYSTEM AND THE VALORIZATION OF ECODSIGN

Prof. Victor Ferreira

15:40

ROUND TABLE - DISCUSSION

Prof. Manuel Pinheiro (Moderator)

### **16:30**

A4 Session

Room 1

16:30

OPTIMIZATION OF STEEL-TO-CONCRETE CONNECTIONS DESIGN IN THE CONTEXT OF THE EUROCODES

Daphne Rocha

16:40

NUMERICAL SIMULATIONS OF I BEAM – SHS COLUMN JOINTS TESTED WITH HOLLO-BOLTS

Afonso Mesquita

16:50

EVALUATION OF THE EXPERIMENTAL AND NUMERICAL BEHAVIOR OF AN INNOVATIVE "PLUG-AND-PLAY" HYBRID CONNECTION FOR MODULAR APPLICATIONS

Luís Silva

17:00

ARTIFICIAL INTELLIGENCE FOR THE DESIGN OF STEEL CONNECTIONS

Trayana Tankova

17:10

Questions

17:22

CENTER D'EXPLOITATION AULNAY - DESIGN AND EXECUTION

Tiago Soares

17:32

ADDITIVE MANUFACTURING FOR STEEL CONSTRUCTION: OPPORTUNITIES AND CHALLENGES

Trayana Tankova

17:42

CORGE BRIDGE - CONCEPTION, DESIGN AND DETAILING

Manuel Pera Fernandes

17:52

Questions

**16:30**

B4 Session

Room 2

16:30

EXPERIMENTAL INVESTIGATION ON LOCAL-DISTORTIONAL INTERACTION IN COLD-FORMED C-STEEL BEAMS

André Martins

16:40

CUSTOMIZED MONITORING SYSTEM FOR THE STRUCTURAL INTEGRITY OF STEEL STRUCTURES

João Zeferino

16:50

ON THE POSTBENDING BEHAVIOR AND LATERAL BUCKLING RESISTANCE OF BEAMS WITH C-SECTION

Rodrigo Gonçalves

17:00

ANALYSIS OF INNOVATIVE COMPOSITE COLUMNS CONSISTING OF COLD-FORMED STEEL CLOSED COMPOSITE SECTIONS FILLED WITH LIGHTWEIGHT CONCRETE

Rohola Rahnavard

17:10

Questions

17:22

EXPERIMENTAL EVALUATION OF T-STUBS UNDER CYCLIC LOADING

Sara Oliveira

17:32

NUMERICAL EVALUATION OF BUCKLING OF HIGH STRENGTH STEEL COLUMNS

José Filho

17:42

FINITE ELEMENT CALCULATION OF JOINTS, COMPARISON OF RESULTS WITH THE COMPONENT METHOD ACCORDING TO EN 1993-1-8:2005

Pablo Gómez

17:52

CHARACTERIZATION OF THE WEB PANEL COMPONENTS OF WELDED AND HIGH-STRENGTH STEEL BEAM-COLUMN JOINTS

Fernando Freire Ribeiro

18:02

STRUCTURAL PERFORMANCE OF COLD-FORMED STEEL MOMENT-RESISTING FRAME ASSEMBLED BY BOLTS

Atsushi Sato

18:12

Questions

**16:30**

## C4 Session

### Room 3

16:30

EVALUATION OF INDIRECT CARBONIZATION IN WOOD CONNECTIONS WITH FIRE-RETARDANT STEEL PLATES AND FASTENERS

Elza Fonseca

16:40

OPTIMIZATION OF FIRE PROTECTION IN INDUSTRIAL AND COMMERCIAL PAVILIONS BASED ON PERFORMANCE

Pedro Pereira

16:50

SAFETY VERIFICATION OF VARIABLE INERTIA COLUMN BEAMS IN A FIRE SITUATION

Élio Maia

17:00

NUMERICAL MODELING OF THE FIRE RESISTANCE OF STAINLESS STEEL STRUCTURAL ELEMENTS

Nuno Lopes

17:10

Questions

17:22

A NOVEL OPTIMISED INTER-LOCKING CONNECTION FOR STEEL MODULAR BUILDING SYSTEMS TO ENABLE REUSE

Dan-Adrian Corfar

17:32

A REUSABLE STRUCTURAL SYSTEM FIT FOR GEOMETRICAL STANDARDISATION AND SERIAL PRODUCTION

Christoph Odenbreit

17:42

DEVELOPMENT OF A COMPUTATIONAL PROGRAM FOR THE DESIGN OF COMPOSITE SLABS

Mariana Bertolde Martins

17:52

OPEN BIM WORKFLOW FOR THE DEVELOPMENT OF STEEL STRUCTURE PROJECTS

Paula Assis

18:02

MECHANICAL PERFORMANCE OF 17-4PH STAINLESS STEEL PRODUCED VIA SELECTIVE LASER MELTING

Francesca Romana Andreacola

18:12

Questions

**18:30**

Closing Session

Auditorium

18:30

Closing Session

Professor Luís Simões da Silva; Professor Paulo Vila Real