

## CONGRESS VENUE

The congress will be held at the Congress Center of Instituto Superior Técnico (IST), University of Lisbon.

**GPS Coordinates:** 38°44'13.90" N, 9°08'24.09" W



## IMPORTANT DATES

- **Abstract submission:** November 30, 2014
- **Abstract acceptance:** January 31, 2015
- **Early registration:** March 31, 2015
- **Paper submission (optional):** March 31, 2015
- **Paper acceptance:** April 15, 2015
- **Payment deadline (abstract included in proceedings):** April 30, 2015

## ABSTRACT AND PAPER SUBMISSION

Authors are invited to submit their abstracts and papers on any topic or thematic session of **CMN2015**.

Submission of abstracts and papers, as well as registration, are made **only** through the website conference:

<http://www.dem.ist.utl.pt/cm2015>

Abstracts will be published in a Book of Abstracts with ISSN. Papers are optional and will be gathered in a CD-ROM to be distributed to the participants together with the Book of Abstracts.

## REGISTRATION FEES

	Before 31 <sup>st</sup> March 2015	After 31 <sup>st</sup> March 2015
APMTAC / SEMNI Member	470 €	570 €
Regular	570 €	670 €
Student	300 €	330 €
Accompanying Person	120 €	140 €

- Regular and Student registration include participation in the sessions, Book of Abstracts, CD, and participation in social events.
- Students must submit a signed declaration proving their status. Please see complete information in the conference web site.
- Registration of accompanying persons includes the participation on the Social Events listed below.

## SOCIAL EVENTS

The social program includes a welcome reception and the conference banquet.



## SECRETARIAT

**Ms. Paula Jorge**

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# cmn 2015

## Congresso de Métodos Numéricos em Engenharia

## Congreso de Métodos Numéricos en Ingeniería

## Congress on Numerical Methods in Engineering



**29 de junho a 2 de julho de 2015**

29 de junio a 2 de julio 2015

June 29 to July 2, 2015

Instituto Superior Técnico • Universidade de Lisboa  
LISBOA • PORTUGAL

<http://www.dem.ist.utl.pt/cm2015>

Supported by:

APMTAC

SEMNI

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## INTRODUCTION

The **Congress on Numerical Methods in Engineering (CMN 2015)** aims to be a forum for the discussion of relevant scientific and technical developments in computational mechanics, numerical methods and engineering applications. **CMN 2015** is jointly organized by the Portuguese (**APMTAC**) and Spanish (**SEMNI**) associations for numerical methods, and follows the previous congress editions of Madrid (2002), Lisbon (2004), Granada (2005), Porto (2007), Barcelona (2009), Coimbra (2011) and Bilbao (2013). The scientific program will comprise plenary lectures from internationally known researchers and will be structured in thematic sessions in different research fields. It is expected that the addressed topics and presentations will be a reference for future research directions and developments, as well as an ideal media to promote the collaboration between researchers, engineers, experts and students from Portugal, Spain, Latin American and African communities.

## THEMATIC SESSIONS

- Biomechanics and Biomechatronics
- Computational Biomechanics and Applications
- Computational Fluid Dynamics
- Computational Fracture Mechanics for Polymer Composites
- Computational Methods in Acoustics and Vibrations
- Compt. Modeling in Mechanobiology and Tissue Engineering
- Coupled Problems and Parallel Computing in Engineering
- Derivative-Free Methods for Engineering Optimization
- Dynamic Effects in High-Speed Railway Tracks
- Evolutionary Algorithms and Metaheuristics
- Fracture, Collapse, Nonlinear Behaviour in Concrete Structures
- Geotechnics and Geoengineering
- Heat and Mass Transfer
- Higher-Order Finite Volume Methods
- Image Processing and Visualization
- Inverse Problems
- Isogeometric Analysis
- Lightweight Materials' Fatigue Mechanical Behaviour
- Meshless Methods
- Model Order Reduction Techniques
- Non-Newtonian Fluids and Glaciology
- Numerical Methods for Building Energy Simulation
- Physics and Mechanics at Nanoscale
- Stability, Nonlinear Behaviour and Design of Steel Structures
- Steel and Composite Structures
- Topology Optimization

## GENERAL TOPICS

- Acoustics and Vibration
- Aerodynamics
- Biomechanics
- Boundary Elements
- Chemical Engineering
- Coastal & Marine Engineering
- Composite Materials
- Computational Biology
- Computational Geometry
- Concrete Structures
- Contact Mechanics
- Decision Support Systems
- Earthquake Engineering
- Electromagnetism
- Environmental Engineering
- Estimation Error
- Finite Elements
- Fluid Mechanics
- Frictional Materials
- Genetic Algorithms
- Geotechnics
- Heat & Mass Transfer
- Historical Constructions
- Image Processing/Visualization
- Material Fracture & Collapse
- Mechanics of Soils and Rocks
- Medical Informatics
- Mesh Generation/Refinement
- Meshless Methods
- Micromechanics
- Multibody Dynamics
- Multi-Scale Methods
- Nanomechanics
- Non-Newtonian Fluids
- Object Oriented Programming
- Optimization
- Parallel Computing
- Plastic Forming
- Plasticity & Viscoplasticity
- Probabilistic/Stochastic Meth.
- Signal Processing/Analysis
- Simulation of Fireworks
- Soft Computing
- Solid Mechanics
- Steel & Composite Structures
- Structural Dynamics
- Structural Identification
- Structural Stability

## PLENARY SESSIONS

Six plenary lectures will be delivered by international renown researchers.

Complementary and up-to-date information on this topic can be found in the Congress webpage.

## ORGANIZING COMMITTEE

**José M. Guedes**, APMTAC  
**Nuno Silvestre**, APMTAC  
**Miguel Silva**, APMTAC

**Jesús María Blanco**, SEMNI  
**Irene Arias**, SEMNI  
**Manuel Tur Valiente**, SEMNI

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