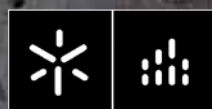ICSA **2013**
Second International Conference

Structures and Architecture
24-26 July 2013 Guimarães
PORTUGAL

University of Minho
School of Architecture

Cover
Photographer: Luis Ferreira Alves
Location: Braga, Portugal
Title: Souto Moura, football stadium in Braga
Date: 2004

The 2nd International Conference on Structures & Architecture – ICSA2013 – provides a unique forum to disseminate the knowledge of the most advanced technologies, promoting the comprehension of complex architectural and structural applications and exploring the historical and ontological aspects of the relationship between architecture and structural engineering.

Conference Chair
Paulo J. S. Cruz
University of Minho
School of Architecture
Guimarães, Portugal

ORGANIZED BY

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Aim of the Conference

There is a need to stimulate the inventive and creative design of architectural structures and to persuade architects and structural engineers to collaborate in this process, exploiting together new concepts, applications and challenges.
The aim of ICSA2013 is to present research and developments on the merging of architecture and structural engineering.
The conference will facilitate the meeting of international participants interested in the recent advances in the art, practice and theory of designing and building infrastructures in which the structural and architectonic values are consciously combined and the contribution of each other is mutually enhanced.

Delegates

The conference is intended for an audience of researchers and practitioners world-wide with a background in architecture and in structural engineering. It includes architects, structural and construction engineers, builders and building consultants, construction industry persons, academics, researchers, students, product manufacturers, material suppliers, project managers and contract administrators, asset managers, government authorities of infrastructure development and others.

Venue

The Conference will be held at the Convention Centre of the Campus of Azurém of the University of Minho in Guimarães, Portugal.
The city of Guimarães is like no other city in Portugal. Its past is so intimately intertwined with the History of Portugal that it is commonly and proudly referred to as the Cradle of the Nation.
The Historic Centre of Guimarães has remained basically unchanged since the 15th century and was declared a World Heritage Site in 2001 by UNESCO, due to its Middle Age historical monuments. Guimarães was chosen by the Portuguese government to be the European Capital of Culture in 2012.

How to Access Guimarães

Guimarães is located in north-western Portugal, approximately 350 km north of the capital, Lisbon, and about 50 km from the second largest city, Porto (also known as Oporto).
The nearest airport is Francisco Sá Carneiro International Airport, located in the suburbs of Porto, about 50km from Guimarães.
(http://www.ana.pt/portal/page/portal/ANA/AEROPORTO_PORTO/)
The airport is connected with the Porto railway central station - Campanhã - by metro line E - violet line (www.metrodoporto.pt). The travel takes 25 minutes, with trains departing every 20 minutes. Tickets can be purchased at the automatic ticket machines located in the Metro station or in the Airport information desk. Tickets must be validated before travel by scanning them in front of the yellow machines located in stations.
Airport Station is located just in front of the arrivals zone of the International Francisco Sá Carneiro Airport, in parallel with the two existing road ways. Nevertheless, the person's circulation between both facilities is guaranteed by a proper underground passage. When arriving at the Airport Station, people only needs to go down a floor and, in little less than 50 meters walking, they are inside of the Airport. Equally, the access to the Station from the interior of the Airport is extremely simple and practical, being fully signalled.
Guimarães is part of the modern network of trains that link the main cities in Portugal (www.cp.pt). All-stop service between Guimarães and Porto takes approximately 60 minutes and costs around 2 euros.
Using the highway the airport can be reached in approximately 35 minutes.

SCIENTIFIC COMMITTEE (as of September 26 2011)

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Technical University of Madrid, Spain
Baldassini, Niccolo
RFR, France
Belis, Jan
Ghent University – LMO, Belgium
Bos, Freek
(Witteveen+Bos, Netherlands)
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(University of Navarra, Spain)
Caetano, Elsa
(FEUP, Portugal)
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(Technical University of Lisbon, Portugal)
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Cruz, Paulo
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ICOM – EPFL, Switzerland
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Mendonça, Paulo
University of Minho School of Architecture, Portugal
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University of Perugia, Italy

Molins, Climent
Universitat Politècnica de Catalunya, Spain
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Yale University, United States of America
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University of Applied Sciences, Austria
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Technical University Delft, Netherlands
Nussbaumer, Alain
ICOM/EPFL, Switzerland
Oakley,   Deborah
University of Nevada, Las Vegas, School of Architecture, United States of America
Off, Robert
IMS-Institute for Membrane and Shell Technologies, Germany (West and East)
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Universidad de A Coruña, Spain
Pérez-Herreras, Javier
University of Zaragoza, Spain
Piazza, Maurizio
University of Trento, Italy
Rinke, Mario
ETH Zurich, Switzerland
Riso, Vincenzo
University of Minho, Portugal
Rodrigues, Ana Luisa
University of Minho, Portugal
Rouillard, Domnique
École Nationale Supérieure d'Architecture Paris-Malaquais, France
Saliklis, Edmond
(California Polytechnic State University, United States of America)
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(Sapienza, University of Rome, Italy
Sandaker, Bjorn Normann
The Oslo School of Architecture and Design, Norway
Sassone, Mario
Politecnico di Torino, Italy
Schneider, Jens
TU Darmstadt,Germany (West and East)
Simões da Silva, Luís
University of Coimbra, Portugal
Smith, Ian
University of New Brunswick, Canada
Songel, Juan María
Universidad Politécnica de Valencia, Spain
Stahl, Jochen
Fast + Epp GmbH, Germany (West and East)
Tarczewski, Romuald
Wroclaw University of Technology, Faculty of Architecture, Poland
Trovalusci, Patrizia
Sapienza - University of Rome, Italy
Varum, Humberto
University of Aveiro, Portugal
Wang, Wei
Tongji University, China
Weinand,Yves
EPFL ENAC IIC IBOIS, Switzerland

LOCAL ORGANIZING COMMITTEE

Accommodation
The organizers have arranged block reservations with several hotels offering special prices for the participants of this event. More detailed information is presented in the web site (www.icsa2013.com).

Language
The official language of the Conference is English.

Conference themes
Building envelopes
Comprehension of complex forms
Computer and experimental methods
Concrete and masonry structures
Emerging technologies
Glass structures
Innovative architectural and structural design
Lightweight and membrane structures
Special structures
Steel and composite structures
The borderline between architecture and structural engineering
The history of the relationship between architects and structual engineers
The tectonic of architectural solutions
The use of new materials
Timber structures

Call for Abstracts
Prospective authors are invited to submit one page abstract, of no more than 500 words, before 15 February 2012. The abstracts should be submitted to the restricted area of ICSA2013 webpage in electronic form.
The abstracts will be subjected to a review process by at least two members of the conference scientific committee. The preliminary acceptance of abstracts will be notified to the corresponding authors by 15 May 2012.
The proceedings will be published by Balkema (Taylor & Francis Group), including a book of extended two-page abstracts and a CD-ROM containing the full eight-page papers. These documents must be submitted due to 15 November, 2012 and will be reviewed by the organizing committee. Acceptance will be notified before 15 February 2013.
Author instructions to prepare the extended abstracts and the full papers and the copyright transfer form can be found in: http://www.balkema.nl

Deadlines
Abstract submission – February 15 2012
Abstract acceptance – May 15 2012
Paper submission – November 15 2012
Paper acceptance - February 15 2013

Conference Fees
It is expected that for every accepted paper at least one author is attending ICSA2013. The registration fee will be collected in euros only.
Authors and participants* 600
Students   300**
Accompanying persons* 300**
* Fee includes technical documentation, reception, lunches, coffee-breaks and conference gala dinner.
** Institutional certification required. Student fee does not include participation in the conference gala dinner.
*** Including reception, social program tours & gala dinner.

Registration
The registration form will be downloadable from the website (www.icsa2013.com). Please print, fill and send it to:
VIAGENS ABREU SA - ICSA 2010
Abreu PCO - Oporto Office
Av. dos Aliados, 207, 4000-067 Porto - Portugal
tel.: +351 22 204 3570
Fax: +351 22 204 3693
E-mail: congresses.porto@viagensabreu.pt

Sponsors
We encourage and welcome the sponsorship of your company for the ICSA2013 Conference. Increase your exposure by becoming a sponsor. All sponsors will be listed in the Conference program. In addition, the benefits of each specific sponsorship category are outlined in the web site.

Keynote Lectures
The conference will feature a number of stimulating keynote lectures by prominent experts.

List of Keynote Speakers as of September 26 2011

ANDREA DEPLAZES
Chair for Architecture + Construction D-ARCH, ETH Zurich, Switzerland
Bearth & Deplazes Architekten AG Chur, Switzerland

EDUARDO SOUTO DE MOURA
Souto de Moura – Arquitectos Porto, Portugal

ULRICH KNAACK
Technical University Delft Faculty Architecture Delft, The Netherlands
Detmolder Schule für Architektur und Innenarchitektur Hochschule OWL Detmold, Germany

Special Sessions
The conference encourages the submission of special session proposals. Each proposal should have a focused topic related to "structures and architecture" (further information can be found at www.icsa2013.com).

Associated Events
The conference accepts proposals for associated events, including awards, exhibitions, poster sessions, short courses, workshops, debates, mini-symposia and panel discussions. The proposed activities should be directly relevant to practitioners, researchers and educators in the area of "structures and architecture".
The conference organizers will review the various proposal submissions and contact proposers about the status of their contributions before 30 June 2012.

Technical Exhibitions
In parallel to the Scientific Program, ICSA2013 conference is organizing a Technical Exhibition to allow companies and organizations to demonstrate new techniques or newly developed projects relevant to the conference theme. This exhibition will be a good opportunity to share the latest research and the most cutting-edge technologies.
More detailed information is presented in the web site (www.icsa2013.com).

Social Program
The social program includes the welcome reception and gala dinner for the participants (registration as 'Student' does not include the gala dinner). The registration as accompanying persons also includes the participation in several tours. Registration in one or more tours can also be made by persons not registered as accompanying persons.

The Welcome Reception
The welcome reception will take place in Guimarães, at the Palace of the Dukes of Bragança (Paço dos Duques de Bragança), in the 23rd of July, at 20h00.
The welcome reception will start with a visit to the Castle of Guimarães.

The Castle was built in the 10th century by the Countess Mumadona Dias to protect the local population, and soon afterward the town sprang up around these defenses. The history of the castle is intimately linked with the origins of the Portuguese Nation. Within its walls lived generations of ancestors to the first King of Portugal, Dom Afonso Henriques, whom tradition says was born there as well. The Field of São Mamede, located adjacent to the castle, is said to be the spot of the famous Battle of São Mamede, which took place on June 24, 1128.

The Gala Dinner
The gala dinner will take place in Porto, at the Casa da Música, in the 25th of July, at 20h00.

The Casa da Música (House of Music) designed by the world famous Dutch architect Rem Koolhaas. Constructed from top to bottom for the presentation of various and different entertainment projects, this building camouflages the traditional "shoe-box" musical room (the rectangular form that remains the best guarantee of perfect acoustics), in the shape of a concrete diamond that challenges gravity and open itself emphasizing the relation between interior and exterior public space. With an outside plaza full of travertine marble waves, Casa da Música, is also known as a perfect spot for young skaters.