



BOM JESUS DO MONTE



GUIMARÃES CASTLE



VIANA DO CASTELO, HISTORICAL CENTRE

The province of Minho, in the northwest of Portugal, is full of scenic and historical sites, being particularly famous for the production of wine. To the North of the region, it is possible to find the National Park of Peneda-Gerês with its rocky mountains, cascades, lakes and abundant wildlife. To the east, the famous Douro river valley, where the Port wine grapes are grown. To the South, it is possible to find the cosmopolitan city of Porto with its international airport, featuring an impressive architecture along the banks of the Douro River, the famous bridges and the Port wine cellars. The entire region is close to the sea, with marvellous beaches located near small fishing towns. Braga, Guimarães, Viana do Castelo and Vila do Conde are all examples of cities with interesting and well preserved historical centres, multiple cultural activities and year-long entertainment. Several outdoor sports like canoeing, rappel, surf, diving, etc. are also common activities.



UNIVERSITY OF MINHO, AZURÉM CAMPUS



UNIVERSITY OF MINHO, GUALTAR CAMPUS

Founded in the year of 1973, the University of Minho (UMinho) welcomed its first students in the academic year of 1975/76. Today, UMinho is recognised for the competence and quality of its academic staff, the excellence of its research activity, its dynamism, its large range of undergraduate and postgraduate degree programmes, its ability for leadership and intervention, and its high degree interaction with other institutions. The UMinho considers itself to be a complete university, offering degrees which span from Medicine, Sciences and Technology, to Arts, Humanities and Law. Located in the North of Portugal, in the province of Minho, the University has two campi, one located in Braga and the other in Guimarães, which are 20 kilometres apart. Both Braga and Guimarães are historical cities, which offer a thousand-year-old cultural heritage alongside a lively modernity with a young population. Braga is a district capital, grown from the ancient roman city of Bracara Augusta. Guimarães, which historical centre is classified by UNESCO as Humanity Cultural Heritage, is known as the "birth place" of the Portuguese nation.

Conference Committees

Organizing Committee
Chairman (UMinho)
Joaquim Barros

Members (UMinho)
José Sena-Cruz
Salvador Dias
Rui Miguel Ferreira
Isabel Valente
Miguel Azenha
Eduardo Pereira

Scientific Committee
In preparation

FRPRCS-11
GUIMARÃES, PORTUGAL
JUNE 26-28, 2013

**11TH INTERNATIONAL SYMPOSIUM
ON FIBER REINFORCED POLYMER
FOR REINFORCED CONCRETE STRUCTURES**

Hosted by the University of Minho and ISISE

Call for Abstracts

www.frprcs11.uminho.pt

Venue

The Conference will be held at Vila Flor Cultural Centre, in Guimarães, Portugal. The Vila Flor Cultural Centre incorporates the 18th century Vila Flor Palace and brings together the rich history of a manor house, its magnificent gardens and lovely architecture, evoking the ideas of ancestral memories with touches of modernity. The theatre wing is a totally new building, in contrast to the manor house with its modern design, recently built to hold all types of cultural events. The new wing has the highest quality facilities for hosting such an event successfully.



VILA FLOR CULTURAL CENTRE

Registration fees

Up to March 31, 2013	Full Registration	650 €
	Students	335 €
	Accompanying persons	200 €
After March 31, 2013	Full Registration	800 €
	Students	400 €
	Accompanying persons	250 €

Full registration fees includes book of proceedings, coffee breaks, lunches, reception and conference dinner.

The students must send a copy of a valid student card or an institutional certification (MSc and PhD students are valid)

together with the registration form. Student fee does not include participation in reception and conference dinner.

Accompanying person's fees includes the participation in the social program, i.e. reception and conference dinner.

Accommodation

Information related to the Hotels and Pousadas available in Guimarães can be found in www.frprcs11.uminho.pt.

Motivation

The use of fiber reinforced polymer (FRP) composites has gained amongst scientists, design engineers and practitioners a relevant role for the reinforcement and strengthening of concrete structures, being in several cases more competitive and constituting better alternatives than the application of conventional reinforcing materials according to traditional methods. However, the use of FRPs is still reduced when taking into account the potentialities of these advanced materials. This is due to the relative lack of knowledge regarding their durability, long term behavior, reinforcement effectiveness, design procedures, reliable tests for the characterization of their properties and the behavior of FRP-concrete reinforcing systems, and quality control.

Some of the deficiencies attributed to the FRP composites, like their susceptibility to high temperatures and their brittle behavior, can be overcome or attenuated if they are correctly combined with other advanced materials. The use of these composites can also be optimized for the development of innovative structural systems of better durability and structural behavior, longer life cycle and smaller maintenance cost.

Cost effective and sound strengthening solutions demand the use of reliable non-destructive techniques that allow the assessment of the material properties and the real behavior of the existing structures. Advanced computer tools capable of simulating with high accuracy the behavior of a strengthened structure, taking into account the damage installed in the existing structure and the intrinsic phase process of a strengthening intervention, are still scarce.

New production technologies of FRPs, capable of installing sensors for long-term and reliable assessment of the reinforcement effectiveness and structural performance represents a new challenge, especially if eco-FRP-constituents and self-powered wireless sensors are used for the new generation of smart-materials. The use of natural fibers and recyclable matrices should be explored for the manufacture of more sustainable FRP reinforcing systems.

In this context, FRPRCS-11 has the purpose of being a forum for the discussion of the potentialities and challenges of FRP for the reinforcement of concrete structures.

Topics

1. Test recommendations for reliable characterization of FRP materials and systems
2. New FRP-based materials, systems and strengthening techniques
3. Bond behavior of FRP systems
4. Durability and long term behavior of FRP materials and systems
5. Reinforcement and strengthening performance of FRP systems
6. Seismic strengthening with FRP systems
7. Advanced numerical models and simulations for FRP based reinforced/strengthened structures
8. Health monitoring through FRP systems and quality control
9. Codes, standards and design guidelines for FRP-based reinforced/strengthened structures
10. Field applications of FRP reinforcement: sound and innovative case studies

Call for abstracts

Abstracts limited to 300 words may be submitted by logging on to www.frprcs11.uminho.pt. The templates for Abstracts, Extended Abstracts and Full Papers are from this website.

Important dates

Deadline for Abstract Submission - March 31, 2012

Approval of Abstracts - June 30, 2012

Submission of Extended Abstracts and Full Papers - November 30, 2012

Approval/Revision of Extended Abstracts and Full Papers - January 31, 2013

Deadline for Revised Version of Full Paper - March 31, 2013

Conference - 26 to 28 June, 2013

Additional information

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