E W O F S 2010

[FOURTH]
EUROPEAN WORKSHOP
ON OPTICAL FIBRE SENSORS
PORTO 08 - 10 SEPTEMBER 2010

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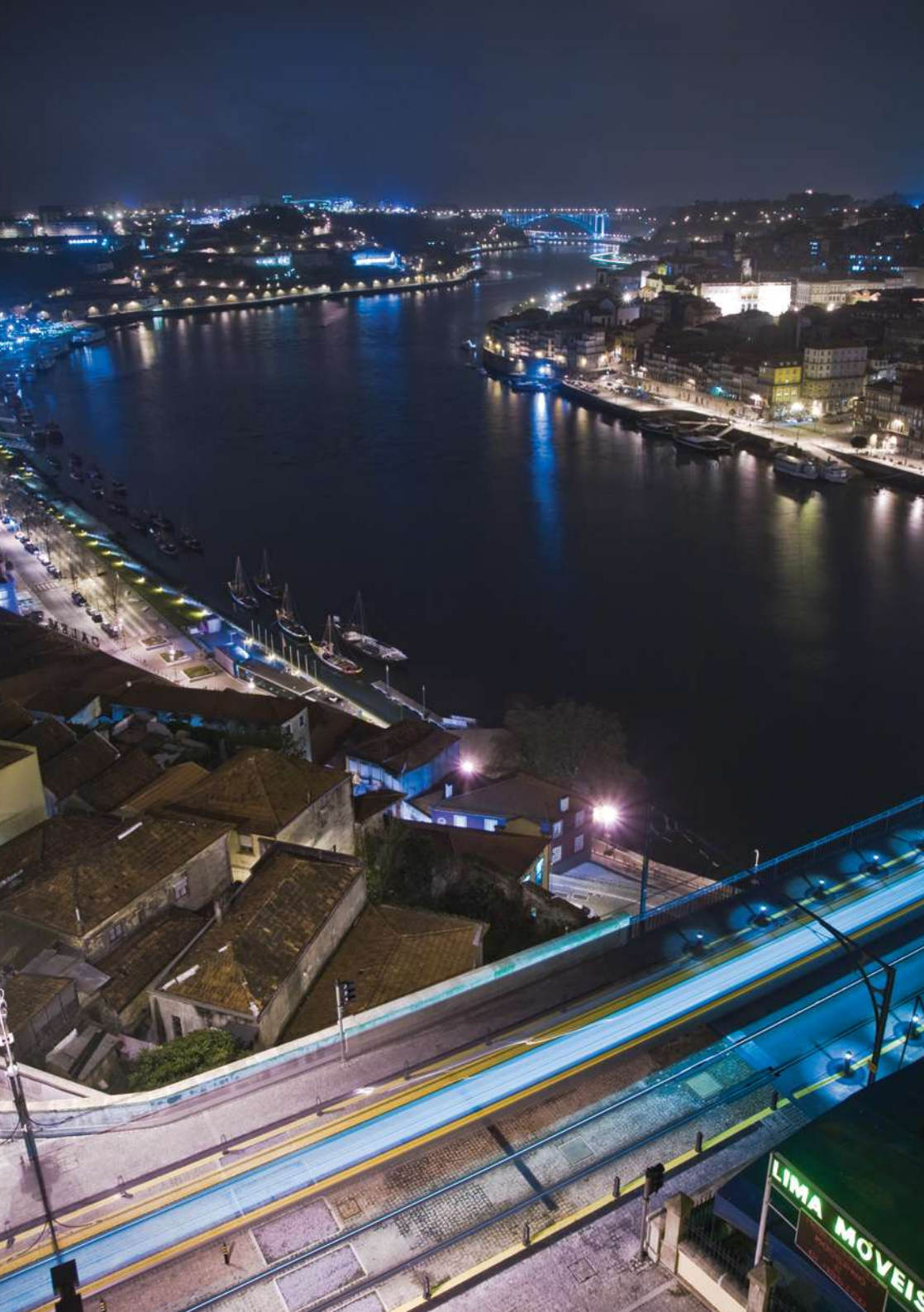
LIMA MOVEI

WELCOME

Following the successful editions in Peebles (1998), Santander (2004) and Napoli (2007) we at Porto have the privilege to organise the fourth edition of the European Workshop on Optical Fibre Sensors, EWOFS'2010. This initiative is aimed at promoting a scientific meeting with a high level of participants interaction that will enable the open debate and the assessment of new concepts, technologies and applications in the domain of optical fibre sensors, as well as the establishment of new collaborations and networks. EWOFS'2010 intends also to complement in time and geographical location the international conferences in this area, particularly the International Conference on Optical Fibre Sensors.

Addressing scientific achievements, technological applications and commercial exploitation, our goal is to create a programme that will be attractive to both academics and professionals working in this area. We intend to assure a set of high-level invited talks that will consider, not only topics related to optical fibre sensors, but also other scientific domains that may cause impact on their future development. Also, we will seek to strengthen the Workshops' unique features, including the discussion of technical contributions between young researchers and experienced scientists, identifying and highlighting the most significant contributions. At the same time, a special session will be organised to promote a group reflection on the main developments in this area in the last decade and yielding a vision of what may happen in the next 10 years. Because everyone's active participation is important, we propose to organise a Workshop with an invigorating and appealing Social Programme that will encourage a true scientific socialisation.

Since past and future meet in the present, we intend to make EWOFS'2010 an opportunity to promote the productive interaction of young scientists and engineers with mature practitioners in this scientific and technological adventure around the subject of optical fibre sensors. At the same time, we want to honour pioneers who have significantly contributed to its development and encourage young researchers who chose to work in this field.

EWOFS'2010 will take place a decade after the beginning of this new century, of this new millennium. Mankind is currently facing great challenges in the search for a future characterised by global justice, fair and sustainable progress as well as economic and social wealth. This is a demanding, yet necessary purpose, and Science and Technology create opportunities so that society may evolve in that sense. In its specific domain, EWOFS'2010 should encourage scientific and technological advances, and provide a forum where young and experienced researchers and entrepreneurs may interact in a mutually profitable relationship that is oriented to the development of optical fibre sensors and its impact in the society. Aiming this central objective, we commit ourselves to do our best to create the proper atmosphere. In this scenario, we would like to invite you to participate in this meeting that will take place in the metropolitan area of Porto, Portugal, in September 2010.

OPTICAL FIBRE SENSORS

The design and implementation of complex systems with advanced functionalities, adapted to variable conditions of the surrounding environment, is a major trend of current technological development. The feasibility of such systems assumes the existence of sensing structures that are capable of providing information on a wide range of parameters and interactions.

As a consequence, several aspects related to the sensing sciences, such as new measuring concepts, transducer materials, multiplexing schemes, signal processing and integration, are considered to be fundamental pillars for a sustainable technological progress.

There is a wide variety of physical principles and technologies that have increasingly been used in sensing. Optical sensors, particularly the ones based on fibre optics, are becoming an important reference, when the goal is to achieve high performance, remote operation and large-scale monitoring, not to mention the fact that they are frequently the only measurement technology in situations of great environmental hazard. Therefore, it is natural that R&D activities around this measuring concept are growing at a fast pace, enabling increasing opportunities of dissemination and exploitation.

The main goal established for EWOFS'2010 is to be a forum to assess recent progresses in the optical fibre sensing field, as well as to debate future trends in the scientific, technological and entrepreneurship domains. At the same time, we want the meeting to be a rewarding socialising event for the community that is devoted to the development of this area.

FEATURES OF THE WORKSHOP

The Workshop programme will include:

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Invited oral contributions given by recognised authorities in the domain of optical sensing and other related R&D fields.

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Submitted contributions all undergoing a peer review process on the basis of a full length manuscript, with acceptance conditioned on quality, relevance and originality.

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Contributions from the funding authorities and the research and development planning organisations.

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Evaluation and prospective assessment of the exploitation and commercialization of optic/fibre optic sensing technology.

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Technical Exhibition.

Optical fibre sensors will represent the core of the EWOFS'2010 meeting. Contributions would cover new sensing principles, new transducers based on micro and nano technologies, new subsystems, signal processing and sensor multiplexing, as well as new applications and exploitation of this sensing technology.

WORKSHOP PROCEEDINGS

Accepted contributions will be compiled into Workshop Proceedings.

SPECIAL ISSUE

In addition to the Workshop Proceedings, the authors are invited to submit an extended version of the accepted papers in a Special Issue of a prestigious scientific journal.

WORKSHOP ORGANIZERS

GENERAL CHAIR

José Luís Santos

UNIVERSITY OF PORTO, PORTUGAL

TECHNICAL PROGRAM CHAIRS

Brian Culshaw

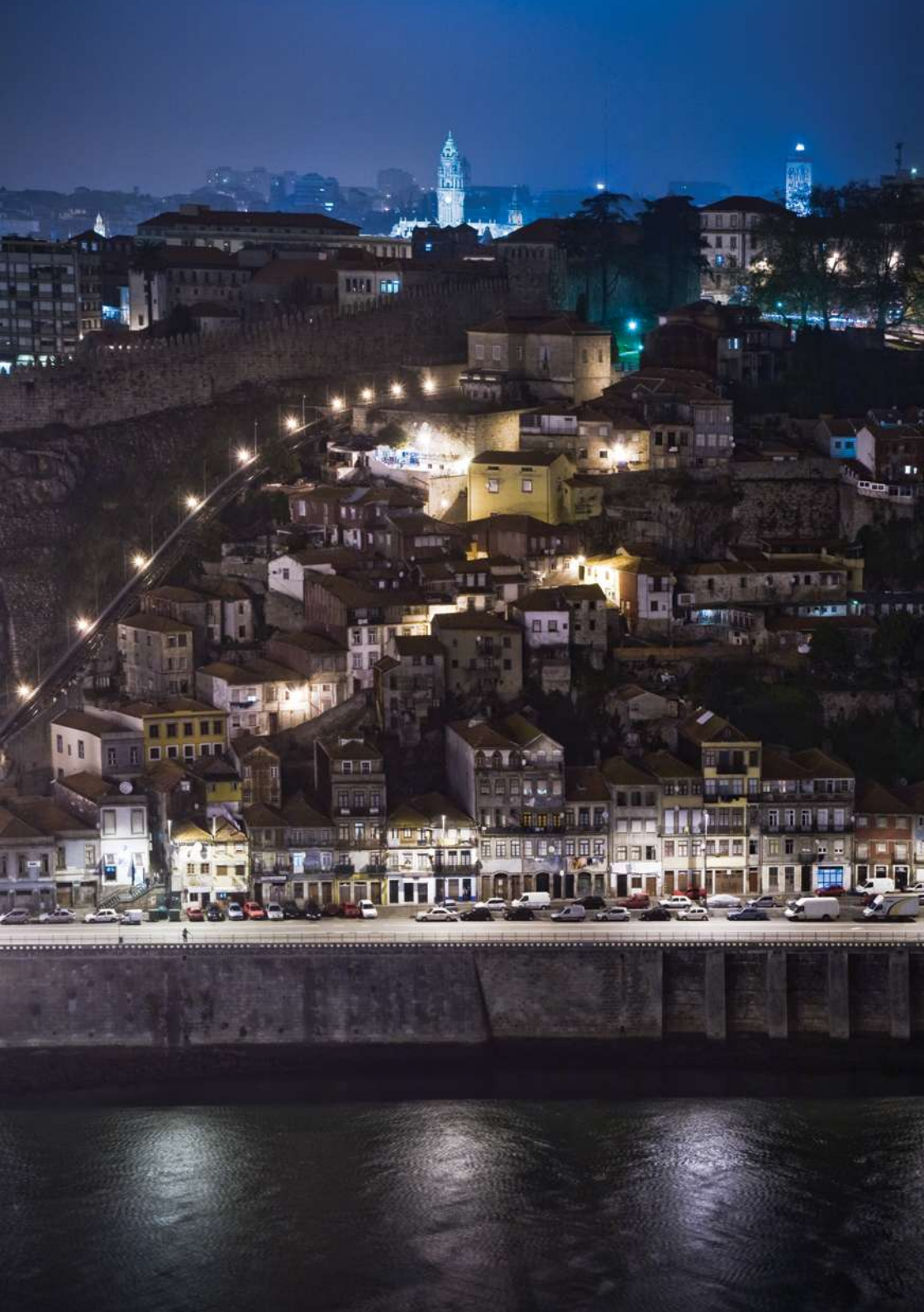
UNIVERSITY OF STRATHCLYDE, SCOTLAND

José Miguel López-Higuera

UNIVERSITY OF CANTABRIA, SPAIN

Bill McPherson

UNIVERSITY OF HERRIOT WATT, SCOTLAND



PORTO . PORTUGAL

Portugal's second largest city, Porto has a strong beauty all its own. Built on granite bluffs above the Rio Douro, its heart is a tangle of World Heritage-listed lanes tumbling steeply down to a medieval waterfront. It's hard not to become fascinated with Porto's riverside, dotted with old port-wine boats (*barcos Rabelo*), narrow streets and shadowy archways.

In a city where the most obvious sights are its six bridges (four modern, two nineteenth-century, all spectacular), the fascination of Porto lies more in its day-to-day life.

Porto was known in Roman times as *Portus Cale* (the "sheltered port"). In fact, this is the origin of the Country's name. Porto's status as European City of Culture in 2001 was the signal for a massive urban redevelopment, and Porto's streets and squares have subsequently been turned upside-down in a flurry of construction work, including the provision of a new metro system and tram lines. Many of the city's historic buildings are being restored, particularly in the riverside *Bairro* of Ribeira – now a UNESCO World Heritage Site.

WORKSHOP LOCATION

HOTEL SOLVERDE SPA & WELLNESS CENTER

A five star Deluxe Resort Hotel, is located in front of the Granja Beach, near the city of Porto. Surrounded by a wide garden area, the Hotel offers a pleasant and quiet stay as well as modern infrastructures for Congresses and Events. The Hotel has a private car park, a garage, a heliport and shops, and nearby you can also find golf courses, horse riding routes, kart tracks and tennis courts.

TO PROMOTE THE PRODUCTIVE INTER ACTION OF GENERATIONS IN THIS SCIENTIFIC AND TECHNOLOGICAL ADVENTURE AROUND THE SUBJECT OF OPTICAL FIBRE SENSORS. NEW SENSING PRINCIPLES. NEW TRANS DUCERS BASED ON MICRO AND NANO TECHNOLOGIES. NEW SUBSYSTEMS SIGNAL PROCESSING AND SENSOR MULTIPLEXING. NEW APPLICATIONS AND EXPLOITATION OF THIS SENSING TECHNOLOGY. ›› EWOFS 2010 PORTO

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INESCPORTO LABORATÓRIO ASSOCIADO

U.PORTO

INESC PORTO
PHYSICS DEPARTMENT
FACULTY OF SCIENCES OF UNIVERSITY OF PORTO
R CAMPO ALEGRE 687 . 4150-179 PORTO . PORTUGAL
T +351 220 402 301 . F +351 220 402 437
EWOFS@INESCPORTO.PT