# PORTO (PORTUGAL)

Located along the Douro river estuary in Northern Portugal, Porto is one of the oldest European centres, and its historical core was proclaimed a World Heritage Site by UNESCO in 1996. Porto is a lively city with intense cultural and business activity, good connections to the main European cities. The course location is at the Faculty of Sciences at the University of Porto (www.fc.up.pt), which is within walking distance from the city centre.



# Reasons for attending ASCOS 2015

- · ASCOS has become a leading international course for training on optochemical (bio)sensors and (bio)sensor arrays.
- ASCOS is more than a conference meeting. It brings together young scientists and renown tutors in a relaxed atmosphere that favours learning and creativity.
- Many of ASCOS contacts last beyond the course forming a European "optical sensor network".
- Special sessions on nanotechnology at the International Nanotechnology Laboratory, INL, in Braga, Portugal.

# REGISTRATION

### **ASCOS**

ASCOS 2015 aims at providing an education and networking platform to young scientists (PhD students, Post-Docs and outstanding M.Sc. students). To ensure high standards, the number of participants is limited and the minimum education requirement is an M.Sc. degree (or similar) in a field related to optical and/or chemical sensors. Applications from outstanding M.Sc. students will be considered if space is available.

The registration fee covers admission to the course, accommodation (seven nights) with full board, conference materials, coffee breaks, welcome reception and social program.

Registration fee is €660.

Students may apply for a discounted registration fee (€440), which will be provided to a limited number of participants.

Further details and the application form can be found at: www.ascos.org and www.facebook.com/ascos2015

#### Contact details

Dr. Pedro A.S. Jorge

**Centre of Applied Photonics INESC TEC** 

**Physics and Astronomy Department** 

**Faculty of Sciences of University of Porto** 

Rua do Campo Alegre, 687

Porto, Portugal

Email: pedro.jorge@fc.up.pt / ascos.porto@gmail.com

#### Course Office

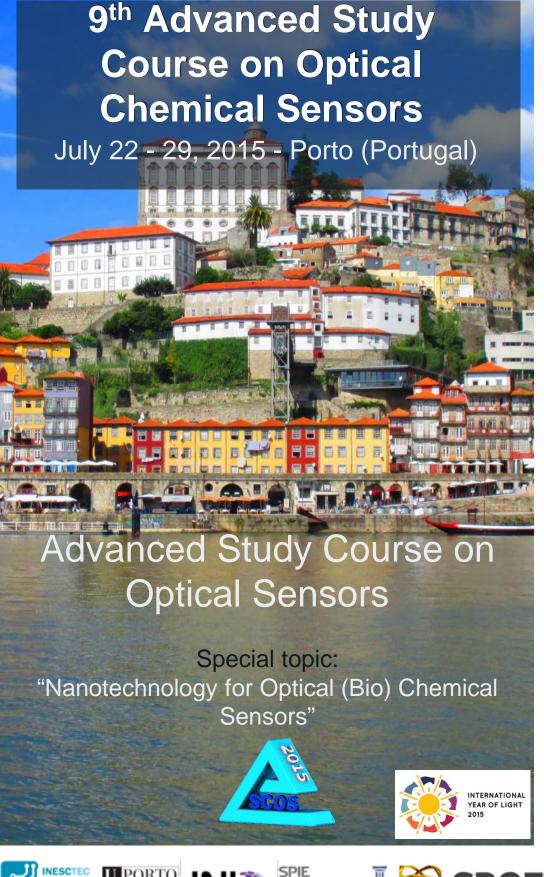
Rua do Campo Alegre, s/n, 4169-007 PORTO, PORTUGAL

Email: ascos.porto@gmail.com

Tel.: +351 22 040 2301

Fax: +351 22 209 4050















# **GENERAL INFORMATION**

## **ASCOS**

The Advanced Study Course on Optical Sensors is an ECTS accredited European initiative to establish an education, discussion and contact platform for young researchers working in the rapidly growing field of optochemical sensors and biosensors. ASCOS is a biennial event held each time in a different European country. To guarantee the most efficient study, ASCOS combines tutorial lectures on basic principles of different optical (bio)sensor techniques and student's work in groups on a number of (bio)analytical problems or sensor systems provided at the start of the course.

# **TOPICS**

#### Fundamentals of sensing techniques and bioassays

- Absorbance and fluorescence
- Chemi- and bio-luminescence
- IR & Raman methods
- Fibre-optics and optoelectronic components
- SPR and other label-free detection techniques
- DNA- and protein array technology
- Microfluidics & lab-on-a-chip systems
- Supramolecular sensors & bio-mimetic receptors
- Probes and sensors for cellular parameters

#### Special topics on nanotechnology for sensing

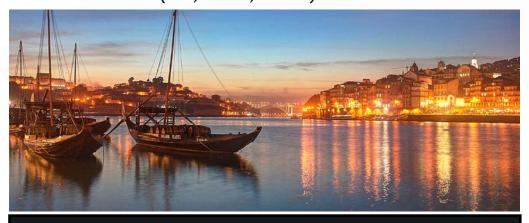
- Nanoparticle sensor materials
- Micro and nanofabrication
- Nanoplasmonics

#### **Practical applications**

- Environmental monitoring and biodefense
- System integration
- Commercial sensors

### CONFIRMED TUTORIAL SPEAKERS

- Francesco Baldini (CNR-IFAC, Firenze, Italy)
- Jirí Homola (IPE, Acad. Sciences, Prague, CZ)
- Laura M. Lechuga (CIN2: CSIC-ICN, Barcelona, Spain)
- Robert Lieberman (Lumoptix, Los Angeles, CA, USA )
- **Gerhard Mohr** (Joanneum Research, Weiz, Austria)
- Maria C. Moreno-Bondi (Univ. Complutense, Madrid, Spain)
- Paulo Freitas (INL, Braga, Portugal)
- Guillermo Orellana (Univ. Complutense, Madrid, Spain)
- Dmitri Papkovsky (Univ. College Cork, Ireland)
- Otto Wolfbeis (Univ. Regensburg, Germany)
- Frances Ligler (UNC-Chapel Hill and NC State University, NC, USA)
- Pedro Jorge (INESC TEC, Porto, Portugal)
- Loic Blum (University of Lyon, France)
- Martin Kraft (CTR, Villach, Austria)



# Important Dates

- Registration & grant application: March 25th, 2011
- Notification of acceptance: May 1st, 2011
- Final registration: June 1st, 2011
- Payment: June 15th, 2011
- Registration details at <a href="http://ascos.org/">http://ascos.org/</a> and www.facebook.com/ascos2015

# ASCOS COMMITTEE

#### **Executive Committee**

Francesco Baldini (CNR-IFAC, Firenze, Italy)

Otto S. Wolfbeis (Univ. Regensburg, Germany)

Jirí Homola (IPE, Acad. Sciences, Prague, CZ)
Martin Kraft (CTR, Villach, Austria)

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## **Advisory Board**

Francesco Baldini (CNR-IFAC, Firenze, Italy)

Loic Blum (Univ. Lyon, France)

Caspar Demuth (ZHAW, Winterthur, Switzerland)

AP de Silva (Univ. Belfast, UK)

Artur Dybko (Warsaw Univ. of Technology, Poland)

Jirí Homola (IPE, Acad. Sciences, Prague, CZ)

Barna Kovacs (Univ. Pecs, Hungary)

Martin Kraft (CTR, Villach, Austria)

Laura M. Lechuga (CIN2: CSIC-ICN, Barcelona, Spain)

Aleksandra Lobnik (Univ. Maribor, Slovenia)

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Boris Mizaikoff (Univ. Ulm, Germany)

**Gerhard J. Mohr** (Joanneum Research, Weiz, Austria)

Maria C. Moreno-Bondi (Univ. Complutense, Madrid, Spain)

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Sabeth Verpoorte (Univ. Groningen, The Netherlands)

Otto Wolfbeis (Univ. Regensburg, Germany)

### **Organizing Committee**

Pedro Jorge (INESC TEC, Portugal)
Luis Coelho (INESC TEC, Portugal)
Rita Ribeiro (INESC TEC, Portugal)
Ariel Guerreiro (INESC TEC, Portugal)

Carlos Gouveia (INESC TEC, Portugal)

Carla Rosa (INESC TEC, Portugal)

Ireneu Dias (INESC TEC, Portugal)
Luísa Mendonça (INESC TEC, Portugal)





Included in the Year of Light Activities of the Portuguese Society of Optics and Photonics