# PhyCS 2014

# INTERNATIONAL CONFERENCE ON PHYSIOLOGICAL COMPUTING SYSTEMS

7 - 9 JANUARY, 2014 . LISBON, PORTUGAL



Physiological data in its different dimensions, either bioelectrical, biomechanical, biochemical or biophysical, and collected through specialized biomedical devices, video and image capture or other sources, is opening new boundaries in the field of human-computer interaction into what can be defined as Physiological Computing. PhyCS is the annual meeting of the physiological interaction and computing community, and serves as the main international forum for engineers, computer scientists and health professionals, interested in outstanding research and development that bridges the gap between physiological data handling and human-computer interaction.

REGULAR PAPER SUBMISSION: JULY 30, 2013

#### CONFERENCE AREAS

- 1. Devices
- 2. Methodologies and Methods
  - 3. Human Factors
    - 4. Applications

# KEYNOTE SPEAKERS



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Physiological Computing for Human -Computer Interaction





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#### **CONFERENCE AREAS**

#### **AREA 1: DEVICES**

- . Biomedical Devices for Computer Interaction
- . Haptic Devices
- . Brain-Computer Interfaces
- . Health Monitoring Devices

- . Physiology-driven Robotics
- . Wearable Sensors and Systems
- . Cybernetics and User Interface Technologies

#### AREA 2: METHODOLOGIES AND METHODS

- . Biosignal Acquisition, Analysis and Processing
- . Pattern Recognition
- . Neural Networks
- . Processing of Multimodal Input
- . Observation, Modeling and Prediction of User Behavior
- . Computer Graphics and Visualization of Physiological Data
- . Video and Image Analysis for Physiological Computing
- . Motion and Tracking

#### **AREA 3: HUMAN FACTORS**

- . User Experience
- . Usability
- . Adaptive Interfaces
- . Human Factors in Physiological Computing
- Learning and Adaptive Control of Action Patterns
- . Speech and Voice Data Processing

#### **AREA 4: APPLICATIONS**

- . Physiology-driven Computer Interaction
- . Biofeedback Technologies
- . Affective Computing

. Pervasive Technologies

- . Augmentative Communication
- . Assistive Technologies
- . Interactive Physiological Systems
- . Physiological Computing in Mobile Devices

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# VENUE

Lisbon is known as the white city, thanks to its unique light. The luminous environment and the kind climate allow for marvelous walks through the old town. The city has a beauty that extends beyond its famed monuments, an atmosphere that is best experienced directly in its quaint streets and alleys. The culture, architecture and people found in the city's historical neighborhoods are fundamental aspects of Lisbon's identity, and those who explore them will discover their own personal map in this extremely lively city.