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Special Session Call for Papers

SMC2014 Special Session on **Perception and its Applications**

Special Session organizer**Dr. Carlos Mello**

Centro de Informática
Universidade Federal de
Pernambuco
Recife, Brazil
cabm@cin.ufpe.br

Co-organizers:**Dr. Claudia Mello-Thoms**

University of Sydney
Sydney, Australia
cmellothoms@magee.edu

Dr. Ángel Sánchez

Computing Department
Rey Juan Carlos University
Madrid, Spain
angel.sanchez@urjc.es

Our brain receives constantly a huge amount of information to process. There are many different kinds of stimuli that reach our sensorial mechanisms and each one of them has some specific type of response that can lead to an action by the brain. The capture of information is called perception, while its interpretation is mediated by higher-level cognitive processes. From what we perceive, we can represent and understand the environment that surrounds us. Perception is a low-level subconscious process that does not allow the user to interpret or modify the information. The information is captured in a bottom-up or top-down way. If by bottom-up, it is complete perceptual control, so signals are detected according to their perceptual saliency; if by top-down, a cognitive guidance is used, overriding perceptual saliency. From the stimuli captured by the auditory system, we recognize sounds that can be characterized as speech, music, a known sound (the honk of a car) or even just noise. This recognition can also lead to further classification (such as a specific song or a beloved's voice). Smells activate the olfactory system. From the haptic signals we can recognize objects by touch. Visual information is the most important element for environmental recognition for most humans; we are considered visual beings. Images captured by the retina are processed by the human visual system which depends on several aspects as segmentation, constancy (of color, form, size), distance perception, brightness, stereoscopy, and so on. This special session will provide a forum discuss the state-of-the-art issues on perception and to exchange ideas, experiences, and the latest results in this field.

Topics of interest to this special session include, but are not limited to the following: Visual Perception Models, Color Constancy, Speech and Music Perception, Visual Attention, Perceptual Quality, Human Perception of Objects, Faces and Scenes, Image Understanding, Symbolic and Non-Symbolic Processing, Visual Search and Motion Perception.

Important Dates (the deadlines are the same of the SMC main conference)

April 7, 2014: Deadline for submission of full-length papers to special sessions.

May 25, 2014: Acceptance/Rejection Notification.

July 9, 2014: Final camera-ready papers due in electronic form.

Submission

Manuscripts for a Special Session should **NOT** be submitted in duplication to any other regular or special sessions and should be submitted to SMC 2014 main conference online submission system on SMC 2014 conference website.

All submitted papers of Special Sessions have to undergo the same review process (three completed reviews per paper). The technical reviewers for each Special Session paper will be members of the SMC 2014 Program Committee and qualified peer-reviewers to be nominated by the Special Session organizers.

**Organized by IEEE SMC TC on Technical Committee on Human Perception
Multimedia Computing**