

Joint PhD fellowship on “**Understanding the effect of evoked emotions in long-term memory**” at the [Department of Information Technologies and Communications DTIC-UPF](#)

DESCRIPTION

Human visual perception emerges from complex information processing taking place in the brain. Nonetheless, since our perceptual experience arises with apparent ease, we are often unaware of such complexity. Vision is an active process in that detailed representations of our visual world are only built from actively scanning our eyes with a series of saccades and fixations. The process of actively scanning a visual scene while looking for something in a cluttered environment is known as visual search. The study of visual search processes by means of eye-tracking and EEG recordings not only offers a unique opportunity to gain fundamental insights into visual information processing in the human brain, but also opens new avenues to assess cognitive function and its relation to normal aging and age-related cognitive pathologies.

This successful applicant will study novel «cognitive signatures» derived from eye-tracking methods and EEG recordings, and will investigate the role of evoked-emotions in such signatures. The simultaneous acquisition of both eye-tracking and EEG recordings will allow the PhD candidate to investigate the effect of evoked emotions in long-term memory by linking brain activity with behavioral results. Throughout the project, music-evoked emotions will be considered. The opening is for a joint position from the [Computational Neuroscience Group](#) and the [Music Technology Group](#) at DTIC-UPF.

The PhD project will be closely related and supported by the funded research projects: TIN2013-40630-R, ComputVis@Cogn- Visual Search as a Hallmark of Cognitive Function: An Interdisciplinary Computational Approach.

Starting date: Fall 2014

Duration: 3 years

REQUIREMENTS

Students with a strong background in mathematics, computer science, or physical sciences are particularly encouraged to apply. The applicants must hold an MSc degree in Computer Science, Physics, Applied Math, Cognitive Science, Psychology or related discipline. Proficiency in both written and spoken English is required.

HOW TO APPLY?

Interested people should send a resume as well as an introduction letter to laura.dempere@upf.edu and rafael.ramirez@upf.edu

Deadline for applications is **September 15th 2014**. Interested candidates are welcome to contact laura.dempere@upf.edu and rafael.ramirez@upf.edu for further details.

MORE INFORMATION

<http://www.upf.edu/dtic/>

http://www.upf.edu/dtic_doctorate/phd_fellowships.html