Job Description: PhD on forensic combination of biometric evidences

The FP7 Marie Curie Initial Training Network (ITN) “BBfor2” (Bayesian Biometrics for Forensics) provides an opportunity for young researchers to study several biometric technologies in a forensic context (http://bbfor2.net/). The Network consists of 9 European research institutes and 3 associated partners. The Network will provide regular workshops and Summer Schools, so that the 15 PhD students (Early Stage Researchers - ESRs) and PostDocs (Experienced Researchers - ERs) and senior researchers can exchange research experience, insights and ideas. The main areas of research are Speaker Recognition, Face Recognition, Fingerprint Recognition, but also combinations of these techniques are studied. The challenge of applying biometric techniques in a forensic context is to be able to deal with the uncontrolled quality of the evidence, and to provide calibrated likelihood scores. The researchers in this Network will have the opportunity during their assignment to stay for some period at another Network institute and to get experience in an industrial or forensic laboratory.

Within BBfor2, the present job offer for an ESR is oriented to obtain a PhD degree at Universidad Autonoma de Madrid focused on the combination of different types of evidence for forensic evaluation purposes using biometric systems. A thorough analysis of the relationship between different degrees of evidence in simulated casework with realistic systems and databases will be conducted. Then, algorithms for combining evidence for their evaluation in a Bayesian context will be developed and validated. Different approaches to the extraction of information from biometric samples will be used as sources of evidence (e.g., automatic speaker recognition, human-assisted phonetic-acoustic speaker recognition, automatic latent fingerprint matching, human-assisted latent fingerprint matching, etc.). For additional details, see also http://atvs.ii.uam.es/files/BBfor2_JobOffer_ESR11.pdf.

The PhD student will be working at the ATVS – Biometric Recognition Group, Universidad Autonoma de Madrid (ATVS-UAM, http://atvs.ii.uam.es), and they will be also collaborating with institutions such as the Spanish Guardia Civil (one of the two nationwide police forces in Spain), the UAM Institute for Forensic Sciences and Security and the FORSTAT research group on forensic statistics (a sub-group of the European Academy of Forensic Sciences). In particular, the PhD fellow will benefit from a close contact with University of York (United Kingdom), which will act as secondary advisor for the PhD project (main contact: Phil Harrison, pth (at) jpfrench.com).

The starting date of the PhD project is still to be determined, but will be during the period from October 2010 to December 2010.

Eligibility Requirements

According to the BBFor2 Network rules, there are some requirements that the applicants must satisfy:

- Applicants shall not be a national of Spain, except in case of more than one nationality including Spain, in which case the candidate must have not been residing in Spain for the last 5 years.
- Applicants shall not have resided or performed their main research activity in Spain for more than 12 months in the 3 year period immediately prior to the start date.
- Applicants shall be willing to work temporarily in at least one other country in the BBfor2 network.
- Applicants shall not hold a PhD degree.
- Applicants shall be in the first 4 years (full-time equivalent) of their research careers, including the period of research training, starting at the date of obtaining the degree which would formally entitle them to embark on a doctorate.

Conditions of Employment

The duration of the contract is 3 years. The ESR will receive an initial contract for the duration of one year, with the possibility of prolongation for another 2 years. The salary is according to EU standards for Early Stage Researchers, which for Spain after social security charges and taxes results in a net salary up to 2300€ per month (depending on family charges). Further, travel allowances and career exploratory allowances are foreseen according to generous Marie Curie ITN provisions.

Application Submission

Letters of application, including a detailed CV, are to be sent by e-mail to Dr. Daniel Ramos, daniel.ramos (at) uam.es, indicating the vacancy number (Subject: BBFor2 ESR 11).