EUROPEAN COMMISSION
DIRECTORATE-GENERAL HUMAN RESOURCES AND SECURITY
Directorate HR.AMC –Account management Centre
HR.DDG. AMC 8

2018-IPR-E-000-9684	**Hardware-based anti-spoofing for 2D and 3D face recognition systems**

Position for: Trainee	As the science and knowledge service of the Commission, the mission of Joint Research Centre is to support EU policies with independent evidence throughout the whole policy cycle. The JRC is located in 5 Member States (Belgium, Germany, Italy, the Netherlands and Spain). Further information is available at: http://www.jrc.ec.europa.eu **Short description of activity:** The current vacancy is with the Cyber and Digital Citizens' Security Unit, Space, Security and Migration Directorate, located in Ispra, Italy. The mission of the Unit is to strengthen trust and security of the European Citizen in a sustainable and inclusive ICT-based European society by scientific research on how emerging Information and Communication Technologies will impact on the security and privacy of citizens' daily life. The unit works on risk mitigation, cyber security, cybercrime, data protection, privacy and on the associated legal and regulatory frameworks. Objective of the stay: The selected candidate will assist in the work for the unit's biometrics lab aiming at exploring new technologies supporting the EU agenda on security and its second pillar on fight against organized crime. In particular, the main objective of the stay will be to: carry out research on new hardware sensors that can potentially be used to detect spoofing attacks to face recognition systems and evaluate the performance of the new anti-spoofing solutions. Tasks to be carried out: The tasks to be carried out under supervision of traineeship adviser will include: • Learn to use and evaluate the accuracy of face verification systems • Literature review of works studying "face spoofing and anti-spoofing", focusing specially on "hardware-based anti-spoofing methods";

	• Produce 2D and 3D face spoofing artifacts and build specific databases using the selected hardware sensors. • Assess the overall accuracy of face verification systems with and without the integrated anti-spoofing methods, both in the "normal operation scenario" and on the "spoofing scenario". • Study different approaches to integrate the anti-spoofing methods in a working face verification system. The results may lead to peer-reviewed scientific publication(s). **Qualifications:** **Essential:** • Engineering degree, preferably Electrical Engineering or Computer Science Engineering • Experience in coding with MATLAB and/or Python • Good command of the English language, both oral and written (level B2) **Advantage:** • Be enrolled in a PhD university program. • Some basic knowledge of biometric recognition systems, pattern recognition and machine learning concepts. **For general eligibility requirements, please read the rules governing the traineeship scheme of the JRC:** https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/jrc-trainees
Unit /Directorate	Space, Security and Migration Cyber and Digital Citizens' Security Further information: https://ec.europa.eu/jrc/
Indicative duration **Preferred starting date**	5 months As soon as possible
JRC Site **Country**	Ispra Italy
JRC contact details	**For any technical problems with your application, please contact:** HR-AMC8-RECRUITMENT-TOOLS-SUPPORT@ec.europa.eu