

## **ANNOUNCEMENT FOR THREE (2) POST-DOC RESEARCH GRANTS IN THE SCOPE OF THE PROJECT FACING2**

**APPLICATION opens from 1st till 30<sup>th</sup> June/2022**

Ref.<sup>a</sup> FACING2-1: BI-BOLSA

### **Number of grants: 2**

The Instituto de Sistemas e Robótica (ISR) – Universidade de Coimbra opens call for 2 (two) research grants (BI) for PhD holders. In the scope of the Scientific Research Project - "FACING2", in cooperation with the Portuguese Mint and Official Printing Office (Imprensa Nacional-Casa da Moeda SA).

**Scientific Area:** Electrical and Computers Engineering, Computer Science, Biomedical Engineering, Informatics Engineering and affine areas.

**Application profile:** PhD in Electrical and Computers Engineering, Informatics Engineering, Computer Science, Mathematics, Biomedical Engineering, Physics Engineering or similar. The chosen applications will integrate a multi-disciplinary team with the objective of creating an authentication system of persons based on facial biometrics. The candidates must have skills in programming in C/C++ or python and experience with the library OpenCV. Knowledge in image processing, machine learning and in written and spoken English are valued.

**NOTE:** Candidates with foreign academic diplomas are obliged to present records of the equivalence/recognition of such diplomas and the conversion of the respective final notes to the Portuguese classification scale (whenever a final classification is attributed with the foreign diploma), issued by the Directorate-General for Higher Education or by a Portuguese public higher education establishment (regulated by Decree-Law no. 341/2007, of 12 October) or, in alternative, present the document of equivalence/recognition of such foreign qualifications to the corresponding Portuguese qualifications, issued by a Portuguese public higher education establishment (regulated by Decree-Law no. 283/83, of 21 June).

**Project:** These grants are supported by the FACING2 project.

**Work plan:** The selected candidates will develop tasks in the areas of image processing of faces (facial biometrics) and in the areas of facial recognition, liveness detection, verification of ICAO compliance of portraits, morphing attack detection, biometric template protection, among other areas. The tasks can include the development of modules for face image manipulation or of specific objects, programming convolutional neural networks for face recognition and mobile apps for the demonstration of the results of the project. This project results from the integration of the ISR-UC in the Innovation Network of the INCM and aims at manipulating of photos of faces for identity and travel security documents as the Citizen Card, Passports and others. The work plan will be

adapted for the selected candidates in order to work in the development of high-end technologic products using research methods and algorithms in the area of recognition and machine learning.

**Regime:** The attribution of the grant does not generate or entitle a relation of a legal-labour nature, it is undertaken in an exclusive dedication regime and the fellow is granted with the Fellow Statute of the Instituto de Sistemas e Robótica – Universidade de Coimbra, according to Research Grant Statute or the Regulation of Research Grants of the Fundação para a Ciência e a Tecnologia, I.P., both in its actual wording.

**Location:** The Works will take place at the Instituto de Sistemas e Robótica – Universidade de Coimbra.

**Duration:** The Grants have a duration of 24 months, renewable for periods of 12 months, until the limit of 36 months, depending on the merit evaluation. The beginning of the Grant is expected for July or August of 2022.

**Scientific orientation:** Professor Doutor Nuno Miguel Mendonça da Silva Gonçalves.

**Financial conditions:** The amount of the Grant is **1.686,00€** corresponding to the monthly compensation stipulated in the FCT table (<https://www.fct.pt/apoios/bolsas/valores.phtml.en>), plus social security (Seguro Social Voluntário, first level contributions), if the candidate opt for it, and personal accidents insurance. The payment will be made by check. This amount will not be increased during the entire period of the grant duration.

**Selection method:** Curricular evaluation (50%), and interview (50%) to the best applications at the Curricular Evaluation phase.

#### **Selection and attribution criteria:**

In the curricular evaluation (50%) will be considered the following criteria: global merit of the curriculum vitae (40%) and adequation of the candidate to the project (60%).

In the interview (50%) for the best 3 candidates of the Curricular Evaluation will evaluate the motivation degree and the commitment for the task to develop.

The candidates with a final evaluation of 3.5 in the scale of 5 values will be excluded. The jury reserve the right to don't attribute the Grant in the case of no candidate has the required profile.

**Jury:** President: Professor Dr. Nuno Miguel Mendonça da Silva Gonçalves; Members: Dr. João Sena Marcos and Dr. Luiz Schirmer.

**Publication of the results:** The evaluation results will be announced within 90 days after the end of the applications submission deadline, by notifying the applicants via email. After the announcement of the results, candidates are considered automatically notified to, if they wish to do so, comment on the results on a preliminary hearing period within 10 days after that date. After this, the selected candidates will have to declare in writing their acceptance. Unless a justification worthy of consideration is presented, if the declaration is not submitted within the referred period, it is considered that the candidate waives the grant. In case of resignation or withdrawal of the

selected candidate, the next candidate with the highest evaluation score will be notified immediately.

**Application submission:** The applications shall be sent by email to [nunogon@deec.uc.pt](mailto:nunogon@deec.uc.pt), specifying in the subject: **FACING2-1**. The application must include the following documentation: CV, habilitation certificate including the final scores obtained in the undergraduate subjects and a motivation letter. Recommendation letters are valued but not mandatory.

**Submission of applications:** The application process is open from **1st till 30<sup>th</sup> June/2022**.