

CALL FOR AWARDING RESEARCH FELLOWSHIPS WITHIN PROJECT GRANTS AND R&D INSTITUTIONS

1 Research Fellowship (BI) for MSc Students

One Research Fellowship (BI) is open at the **FCiências.ID – Associação para a Investigação e Desenvolvimento de Ciências**, for the project Vortex, PTDC/PSI-GER/28184/2017, funded by the Fundação para a Ciência e a Tecnologia, I.P./MCTES through national funds (PIDDAC) and co-funded by the Fundo Europeu de Desenvolvimento Regional (FEDER) of the European Union, through the Lisbon Regional Operational Program of Portugal 2020 or other programs that may succeed, under the following conditions:

1. **Scientific Area:** Computer Science
2. **Requirements for admission:** BSc in Computer Science or related area
3. **Additional optional skills and qualifications:** Frequency of a MSc in Cognitive Science; experience in computational models for data mining
4. **Contracting requirements:** Presentation of the academic qualifications and/or diplomas. Enrolment in MSc in Cognitive Science
5. **Work plan:** The work aims to build a deep artificial neural network (RN) that can identify letters and non-letter graphic forms in different contexts. The objective is to test models that replicate results verified in literate and illiterate people, in particular in the diversity of errors committed. The ability of the artificial neural network to model illiterates when subjected to a later learning phase in order to become literate will also be evaluated. The purpose is to verify the type of interference of this learning phase in the performance of the task of the 1st phase. Also, in this aspect, the results will be compared with those observed in the performance of humans. Plan detail:
 - Survey of the state of the art and preparation of training and test sets
 - To survey the state of the art of deep neural networks suitable for a problem of identifying similar characters and symbols, in different contexts (not isolated) and choosing appropriate model libraries.
 - Produce a set of images that should be used to train and test the neural network to be developed in the following phases. The objectives of testing the ability to generalise and the interference of knowledge between the two learning phases will be taken into account.
 - Implementation of the neural network structure and respective tests
 - Carrying out identification and generalisation tests and relearning. Comparison of results with those obtained by humans.
 - Writing a report and a scientific article based on the work developed.
6. **Legislation framework:** Research Fellowship Holder Statute, in accordance with Law 40/2004, of 18 August, in its current version and the FCT Regulation for Research Studentships and Fellowships, in its current version (Reg. 950/2019 published in DR on 16th December: <https://dre.pt/application/file/a/127230968>, or at the FCT website: <https://www.fct.pt/apoios/bolsas/regulamento.phtml.pt>), and FCiências.ID Fellowship Regulation, as approved on 12th May 2020 (available at [Regulamento de Bolsas de Investigação Científica da FCiências.ID](#)).
7. **Place of work:** The work will be developed at the LASIGE, FCUL under the scientific supervision of Professor Luís Correia and Professor Tânia Fernandes.

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8. **Fellowship duration:** This position is initially opened for 4 months due to start in March/2022.
9. **Monthly allowance:** The fellowship amounts to € 875,98, according to [table values](#) of the fellowships awarded directly by the FCT, IP. The fellowship holder will have a personal accident insurance and can ensure the right to social security through adherence to the voluntary social insurance scheme, if not covered by any other social protection scheme, pursuant to *Código dos Regimes Contributivos do Sistema Previdencial de Segurança Social*. The fellowship will be paid monthly by bank transfer.
10. **Evaluation and selection process:** Candidates will be assessed by the quality of their CV - 80% and Interview - 20%.
11. **Selection Committee:** Luís Correia (President); Tânia Fernandes (full); Nuno Garcia (full); Helena Aidos (alternate)
12. **Publication/notification of results:** All the candidates will be notified by e-mail, sent by the call holder, with the selection meeting minutes enclosed.
13. **Deadlines:** This call for applications is open from 15/February/2022 to 28/February/2022.
14. **Application:** Applications should be sent via e-mail to Luis.Correia@ciencias.ulisboa.pt, by attaching the following documents:
- Curriculum vitae - **CV may be provided in PDF or through the [CIÊNCIAVITAE](#) system;**
 - Certificate of completion of previous degree;
 - Training certificates considered relevant by the candidates, within the scope of this call
15. **Time limits for the appeal procedure:** In case of negative decision, the candidates have 10 business days, after the date of announcement of the results of the candidates evaluation, to pronounce their disagreement in accordance with the *Código do Procedimento Administrativo*. Appeals against the final decision may be submitted to the Administration Board of FCIências.ID (fciencias.id@fciencias-id.pt) within 15 business days after the notification date

Note 1: The documents that prove the entitlement of the academic qualifications and diplomas, or the proof of registration in the academic degree or diploma requested on the call, can be dismissed during the application period and replaced by a declaration on their honour from the applicant. Their delivery is mandatory for the fellowship contractualization.

Note 2: Please note that - higher education degrees and diplomas awarded by foreign higher education institutions need to be recognized by a Portuguese higher education institution, pursuant to the [Decree-Law nr. 66/2018](#) (August 16) and the [Ministerial Order nr. 33/2019](#) (January 25). The presentation of the recognition certificate is mandatory for contract signature. More information can be obtained at: <https://www.dges.gov.pt/en/pagina/degree-and-diploma-recognition>.