

RESEARCH FELLOWSHIP ANNOUNCEMENT (1) one position

Applications open from November 07 to November 20, 2024

Project RA3I (17580) – R&D

A call is now open for the award of (1) one Research Fellowship within the scope of the R&D Business project No. 17580, in Co-promotion, with the operation code in the COMPETE2030-FEDER-00536800 Fund Desk - RA3I - Rock Art Analysis with Artificial Intelligence, under the following conditions:

Scientific Area

Electrical Engineering, Computer Engineering, Computer Science, and related areas.

Admission Requirements

Nationals, foreigners, and stateless persons holding a Bachelor's degree in Electrical Engineering, Computer Engineering, Computer Science, or related scientific areas, are eligible to apply. At the time of signing the contract, the selected applicant must be enrolled in a higher education programme leading to a degree or diploma. If the bachelor's degree was awarded by a foreign higher education institution, it must be recognized under the terms of Decree-Law No. 341/2007, of October 12, or Decree-Law No. 66/2018, of August 16, by the contract signing date.

Good knowledge of programming, data analysis, and machine learning/deep learning techniques are required.

Work Plan

This is a unique opportunity for researchers in the specified scientific area to join an innovative project in Archaeology and Artificial Intelligence. This project aims to revolutionize the study of rock art by applying image processing heuristics and advanced Machine Learning and Deep Learning technologies to automate the identification, classification, and analysis of millions of rock art images. We seek talented and passionate professionals who wish to contribute to the exploration of archaeological data at an unprecedented level, helping to uncover patterns and correlations that were previously beyond our reach. Activities will focus on image processing, pattern recognition, and data analysis, integrating a globally impactful project that promises to redefine our understanding of prehistoric artistic heritage, transform digital archaeology, and bring new perspectives on the cognitive evolution of humanity.

Applicable Legislation and Regulations

The fellowship is based on the Research Fellowship Regulations of the Fundação para a Ciência e Tecnologia (FCT), I.P., in force (<https://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2019DR.pdf>), and the Research Fellow Statute (Law No. 40/2004, of August 18, as amended).

Place of Work

The work will be developed at any of the Instituto Politécnico de Tomar facilities where the activity can be carried out, without prejudice to agreements that may be established between the parties involved in the project, under the scientific guidance of Professor Sandra Vilas Boas Jardim.

Duration of the Fellowship

The fellowship is full-time and lasts for one year, renewable up to a maximum of the same period.

Monthly Maintenance Allowance

The fellowship amount is € 990,98, according to the table of fellowship values directly awarded by the Fundação para a Ciência e Tecnologia (FCT), I.P. in the country (https://www.fct.pt/wp-content/uploads/2024/02/Tabela-de-Valores-SMM_atualizacao-2024.pdf), plus voluntary social security if the candidate opts for it, as well as personal accident insurance. Payments will be made monthly by bank transfer.

Selection Methods

The admissible applications will be scored on a scale of 0 (zero) to 20 (twenty) in each of the following evaluation criteria:

Criterion A – Curriculum Evaluation, considering the project's objectives and the specific nature of the research work to be developed, weighing 50%

Criterion B – Previous experience in scientific projects, weighing 30%

Criterion C – Interview to discuss the candidates' curriculum, weighing 20%

The interview may be conducted in person or electronically, with its classification resulting from the sum of the scores obtained in the following criteria: a) Motivation; b) Autonomy; c) Adaptability; d) Verbal expression and fluency. These criteria will be scored from zero to twenty, with the total interview score being the sum of the criteria divided by four (0 to 20 points).

For the purpose of deciding on the grant of fellowships, candidates will be ranked according to the weighted average of the score obtained in each of the 3 (three) criteria, expressed by the following formula:

$$\text{Final Classification} = (0.50 \times A) + (0.30 \times B) + (0.20 \times C)$$

If no candidates with the necessary profile to perform the tasks outlined in the Work Plan are found, the fellowship will not be awarded. Candidates scoring less than 10 points on a scale of 0 (zero) to 20 (twenty) points in any of the selection methods will be excluded from the selection process.

Selection Committee Composition

Chair: Professor Sandra Vilas Boas Jardim (Instituto Politécnico de Tomar); Effective Members: Professor Luis Oliveira (Instituto Politécnico de Tomar), Professor Luís Merca (Instituto Politécnico de Tomar), and Professor Luís Almeida (Instituto Politécnico de Tomar); Alternate Members: Professor António Manso (Instituto Politécnico de Tomar) and Professor Ana Cristina Lopes (Instituto Politécnico de Tomar).

Form of Notification/Publication of Results

Applications will be evaluated according to the above-mentioned selection criteria. The final evaluation results will be published within 30 (thirty) business days from the application deadline, with the ranked list of candidates, and the approved candidate will be notified by email, as well as the other candidates. In the event of withdrawal of the selected fellow, the

second candidate on the ranked list will automatically be selected, and so on until the candidates are exhausted. Upon notification of results via email, candidates should consider themselves notified and, if they wish, may express their opinions during the pre-hearing period within a maximum of 10 (ten) business days from that date. At the end of this period, the selected candidates should consider themselves called to start the fellowship.

Application Deadline and Submission

The competition is open from November 07 to November 20, 2024. Applications must be formalized by sending a) a detailed Curriculum Vitae, including a breakdown of the grades obtained in the respective course subjects and final grade; b) a copy of the degree certificate; c) identification document details – citizen card/identity card/passport. Applications must be formalized via email to (include in the "Subject" field): Project RA3I – D-FELLOWSIP - 17580, addressed to sandra.jardim@ipt.pt.