

ANNOUNCEMENT FOR THE AWARD OF A RESEARCH FELLOWSHIP

Title: Research Fellowship; 1 vacancy

Reference: CALG_AMALIA_2026_04 (1)

A call for applications is now open for the attribution of (1) research grant within the scope of the I&D project AMALIA - Criação do Modelo de Linguagem em Grande Escala da Língua Portuguesa de Portugal (Assistente Multimodal Automático de Linguagem com Inteligência Artificial), AMALIA, financed by national funds through RE-C05-i08 of the Recovery and Resilience Programme, through the Foundation for Science and Technology (FCT), under the following conditions:

Scientific Area: Informatic Engineering or related areas.

Recipient category: The open position is for candidates holding a **Bachelor's degree** who, at the time of hiring, can prove enrollment in one of the following courses:

- Master's/Integrated Master's;
- Non-degree granting course.

Requirement for granting the fellowship:

- The applicants may apply without prior registration in the course for which the fellowship is open. The requirement to enroll in a degree course or non-academic degree course will be verified on the date of contracting the fellowship;
- Only fellowships whose selected applicants present a valid proof of enrollment in a degree course or non-academic degree course will be contracted, according to the type of the fellowship, issued by a Higher Education Institution, indicating, respectively, the academic year or its duration (start and term).

Applicants' eligibility: Candidates who meet the conditions set out in Article 9 of the Research Grant Regulations, No. 950/2019, of 16-12-2019, of FCT I.P. are eligible.

Nationals or citizens of other European Union member states, third-country nationals, stateless persons, and citizens with political refugee status are eligible to apply for this competition.

Candidate eligibility requirements: Candidates must hold, at the time of application, a **Bachelor's** degree in Informatics Engineering or related fields. Candidates must also have knowledge in:

i. Deep Learning and LLMs: practical knowledge of deep learning architectures and, in particular, Large Language Models (LLMs). Knowledge is valued both in advanced prompt engineering techniques (e.g. few-shot learning, chain-of-thought prompting) and in fine-tuning and adapting models (e.g. LoRA, PEFT) for specific tasks;

Priority will be given to candidates with consolidated knowledge in:

i. Proven understanding and/or knowledge in areas such as Education and Technology (EdTech), Human-Computer Interaction (HCI), Natural Language Processing (NLP), or Applied Artificial Intelligence. Demonstrable projects (e.g. GitHub repositories, publications, prototypes) that highlight the ability to apply this knowledge in practice will be highly valued;

Workplan and objectives to be achieved:

The work plan will focus on R&D activities aimed at consolidating the research fellow's scientific training through the development of research projects. The scientific work to be carried out consists of:

1. Modelling Interest Profiles and Teaching/Learning Styles

- a. Create mechanisms that do not contravene European legislation to identify and map pupils' passions and hobbies (e.g. sport, pop culture, music, video games) and their cognitive styles, using this data as 'seeds' (prompts) for personalising the material.
- b. Ensure that adaptation to the student's interests does not distort the pedagogical concept (e.g., ensuring that a football metaphor correctly explains the underlying concept).

2. Dynamic Narrative Generation and Content 'Skinning'

- a. Investigate the use of Generative AI to alter not only the text but also the visual aesthetics of the materials. For example, generate slides where the icons and backgrounds reflect the 'Superheroes' theme for Student A, and the 'Football' theme for Student B, whilst retaining the same structural information.
- b. Implement game elements that adapt to the generated narrative (e.g., if the theme is football, 'points' are 'goals'; if it is a comic strip, they are 'missions completed').
- c. Develop metrics and guardrails within LLMs to ensure that, regardless of the thematic 'overlay' applied to the content, the learning objectives defined by the teacher remain unchanged.

3. Documentation and Scientific Dissemination

- a. Document the prompt architectures and agent workflows used for content transformation.
- b. Produce scientific articles focusing on the extreme personalisation of teaching materials via generative AI and on the role of the teacher as a curator of adaptive content.

This research context and methodological approach is appropriate for consolidating the scholarship recipient's scientific training within the scope of the degree-granting course or academic diploma.

Applicable legislation and regulations: Research Fellow Statute (EBI), approved by Law n°. 40/2004 of August 18, in its current wording and FCT Research Fellowship Regulation, approved by Regulation n° 950/2019, published in the Diário da República, 2nd series, of December 16, 2019, in its current wording, and Scientific Research Fellowship Regulation (RBIC) of the University of Minho, approved by order n° 4998/2025, published in the Diário da República, 2nd series, n° 81, of April 28, 2025 Amended and republished through amendment statement no. 634/2025/2, published in the Official Gazette, 2nd series, no. 132, of July 11.

Host/Contracting institution and scientific supervision: The workplan will be carried out in the ISLab (Synthetic Intelligence Group), Department of Informatics, ALGORITMI Center, located in Gualtar Campus, Braga, under the scientific supervision and coordination of Paulo Jorge Freitas de Oliveira Novais, Full Professor at the Department of Informatics of the Engineering School of the University of Minho.

Fellowship duration: The grant will take place for a period of 3 months, with a provisional starting date on the October of 2026. The fellowship grant may, eventually, be renewed up to the maximum limit allowed by the project and/or applicable legislation.

Amount of the research grant: The amount of the grant corresponds to 1090,98€/ month, according to the table of FCT grants in the country (<https://www.fct.pt/wp-content/uploads/2026/03/Tabela-de-Valores-SMM-2026.pdf>) and the table of values of the Scientific Research Scholarships of the University of Minho, updated annually by decision of the Management Board.

Payment is made on the 23rd of each month, through bank transfer to the Bank Identification Number of the fellow identified in the contractualization process.

Other benefits: Reimbursement of Voluntary Social Insurance, if the candidate chooses to receive it, corresponding to the 1st level of discounts (for research grants with a total duration 6 months or higher) and personal accident insurance.

Exclusivity regime: The grantee will perform the activities under exclusivity, as foreseen in article 5° of the Research Fellow Statutes and applicable regulations.

Selection panel:

President, Paulo Jorge Freitas de Novais, Full Professor at the Department of Informatics of the School of Engineering of the University of Minho;

Effective member, José Manuel Ferreira Machado, Full Professor at the Department of Informatics of the School of Engineering of the University of Minho;

Effective member, Francisco Supino Marcondes, Assistant Professor at the Department of Informatics of the School of Engineering of the University of Minho;

Substitute member, Dalila Alves Durães, Assistant Professor at the Department of Informatics of the School of Engineering of the University of Minho;

Substitute member, Manuel Fernando da Silva Rodrigues, Assistant Researcher at the Department of Informatics of the School of Engineering of the University of Minho;

The first effective member will substitute the President of the selection panel in case of impediment, being nominate the first substitute member in the place of the first effective member.

Criteria and procedures for applications assessment and selection: The applications assessment will focus on the candidate's Merit, following evaluation criteria, valued on a scale of 0 to 20 values:

A. Merit of the Candidate - MC (100%)

A.1: Academic path, with a weighting of **50%**;

A.1.1: Grades of academic degree, with a weighting of 50%;

A.1.2: Area of training of the course, with a weighting of 50%;

A.2: Personal curriculum, with a weighting of **40%**;

A.1.1: Research and Innovation Capacity, with a weighting of 25%;

A.1.2: Knowledge of Artificial Intelligence in an educational context, with a weighting of 25%;

A.1.3: Knowledge of educational platforms, with a weighting of 25%;

A.1.4: Knowledge of adaptive tutoring, with a weighting of 25%;

A.3: Motivation letter, with a weighting of **10%**.

The degree field will be evaluated according to the table established in the criteria definition minutes, previously drawn up.

The final classification of the applicant's merit with the achieved through the following formula:

$$MC = (A.1 * 0.5) + (A.2 * 0.4) + (A.3 * 0.1)$$

Since

$$A.1 = (A.1.1 \times 0.5) + (A.1.2 \times 0.5)$$

$$A.2 = (A.2.1 \times 0.25) + (A.2.2 \times 0.25) + (A.2.3 \times 0.25) + (A.2.4 \times 0.25)$$

Candidates who obtain a valuation lower than 9,50 values in the final classification are considered excluded from the final valuation.

The jury reserves the right not to award the research grant if candidates with the appropriate profile are not presented to the competition.

The academic degrees and diplomas documents, or their respective recognition when awarded by foreign higher education institutions are not mandatory in the application phase, being replaced by a declaration of honour of the candidate with the contents of academic results. The documents of academic qualification or respective recognition will be required in the contracting phase and must attest facts that occurred on a date prior to the application. In situations of divergence between the information contained in the declaration and the documentation submitted for contracting the grant, only the information contained in the latter will be considered. If the documents proving the ownership of the academic degree and diploma, or the respective recognition under the terms of Decree-Law No. 66/2018, of August 16, do not correspond to the classifications awarded in the evaluation of the academic path, which can change the candidate's ranking, the fellowship won't be contracted.

The degree recognition must include the respective conversion of the final classification obtained in the foreign qualification, to the Portuguese classification scale. Candidates who do not comply with these terms, when there is a selection method in which the final grade of the course is indicated as an evaluation criterion, the jury will assign a classification of 0 (zero) values in that component.

In the application stage, when a declaration of honor is presented in replacement of degree recognition by a Portuguese higher education institution, and the degree recognition process has not yet been completed, the indication of the final grade of the academic degree will not be admitted as evidence for evaluation, when there is a selection method in which the final course grade is indicated as an evaluation criterion. Thus, in this situation, or when presenting only a certificate of qualifications from a foreign institution, the jury will assign a classification of 0 (zero) values in the aforementioned selection method.

Application deadline and submission: The call for applications is open from 02/09/2026 till 15/09/2026.

Applications must be submitted by email to **recrutamento@algoritmi.uminho.pt**, indicating the reference number of the competition in the subject line. Only applications submitted within the established deadline and accompanied by the following documents will be accepted:

- a) Candidate's updated curriculum vitae;
- b) Certificates of the academic degrees obtained or, if applicable, the candidate's declaration of honor that he/she has completed the degrees required in the notice (requirements and selection criteria) by the application deadline (not applicable to research initiation grants).
- c) Motivation letter or recommendations letter.
- d) Other documents that the candidate considers relevant to the evaluation process.

Form of publication/notification of results: The results of the evaluation are published in a single list by final score obtained, posted in a visible and public place in the host unit, as well as by email to all candidates, attaching, for this purpose, the minutes of the jury's deliberations, within a maximum period of 90 working days from the deadline for submission of applications.

Candidates are informed, at a preliminary hearing, in accordance with Articles 121 and 122 of the Administrative Procedure Code, of the likely outcome of the final decision, and may comment within 10 working days of this notification.

An appeal may be lodged against the final decision within 15 working days, or an appeal may be lodged with the highest executive body of the funding entity within 30 days, both after the respective notification (Article 12(n°6) of the FCT Research Grant Regulations).

Within 10 working days of notification of the grant award, the applicant must declare their acceptance in writing. In case of non-acceptance, the next highest ranked applicant will be notified immediately.

Fellowship contractualization: The scholarship is awarded through the signing of a contract between the University of Minho and the scholarship recipient, in accordance with point 2.4 of the Rules for the Award and Management of Scholarships

https://www.fct.pt/wpcontent/uploads/2022/03/Normas_de_Atribuicao_de_Bolsas_2021.pdf and the draft contract in Annex II of the University of Minho's Scientific Research Scholarship Regulations.

The contract can only be signed after receipt of all the documentation required for the type of scholarship, which must occur within a maximum period of 6 months, including proof of academic degrees or diplomas, as well as enrollment in non-degree study cycles or courses, as applicable.

Once all the documentation has been received, the contracting entity has 60 working days to sign the scholarship contract. Once received by the scholarship holder, the contract must be returned, duly signed, within 15 working days.

Term and cancellation of fellowship contracts: Without prejudice to the other grounds laid down in the University of Minho's Scientific Research Scholarship Regulation and in the Research Fellow Statute, the scholarship will cease on completion of the contracted work plan, as well as on expiry of the period for which it was granted or renewed.

The **final report** must be submitted to the scientific advisor, in accordance with the defined objectives and evaluation criteria, no later than 60 working days after the end of the scholarship and must be drawn up in accordance with Annex I of the Regulations of the University of Minho.

Non-discrimination and equal access policy: Universidade do Minho actively promotes a policy of non-discrimination and equal access, so that no candidate may be privileged, benefited, harmed or deprived of any right or exempt from any duty due, namely, to ancestry, age, sex, sexual orientation, marital status, family status, economic situation, education, social origin or condition, genetic heritage, reduced working capacity, disability, chronic illness, nationality, ethnic origin or race, territory of origin, language, religion, political or ideological convictions and trade union membership.

Declaration of Honor

Academic qualifications

I, (full name), candidate for the vacancy for the award of a (type of scholarship), within the scope of the project (name or reference of the project), published on the Euraxess portal, with the reference (ref. notice), declare on my honor that I have completed the academic degree of (academic degree), qualifying for the type of scholarship in the competition, namely the course (designation), by the (University conferring the degree), on the date XX/XX/XXXX, with a final average of XXXXX values on the YY scale.

As it is not possible for me to present proof of qualifications until the end of the competition, I declare that I undertake to present the aforementioned certificate at the conclusion of the scholarship contract, in the event that I am selected for the vacancy in the competition.

As this is true, I hereby date and sign this declaration.

(Place), (date).

(full name)

NOTE: The declaration may only attest to facts that occurred prior to the application.

In the event of a discrepancy between the information contained in the declaration and the documentation submitted for the purpose of contracting the scholarship, only the information contained in the latter will be taken into account.

Declaration of Honor

I, (full name), bearer of identification document number (XXXX), candidate for a research grant (type of grant), within the scope of the project (name or reference of the project), published on the Euraxess portal, with the reference (ref. call for proposals), declare on my honor that (I have not received any research grants to date / I have received the following research grants) under the Research Grant Holder Statute.

University	Financing Entity	Project	Type of Grant	Duration	Start	Term

As this is true, I hereby date and sign this declaration.

(Place), (date).

(full name)