

NOTICE NO. 73/2026

COMPETITION FOR THE AWARD OF A GRANT, IN ACCORDANCE WITH THE PROVISIONS OF THE RESEARCH GRANT REGULATIONS OF UALG

Title: 1 Research Grant position for a Master's or Bachelor's degree holder to develop Multimodal Translation and Natural Language Processing (NLP) models within the scope of the SIGNFLOW project. .

A call is open for the award of one Research Grant under the project SIGNFLOW: Intelligent Communication and Learning Ecosystem for Sign Language, hosted by the Visual Computing Lab, NOVA LINC – University of Algarve, project reference ALGARVE-FEDER-03682900 – SIGNFLOW – 27702, funded under PT2030-SIID – Business R&D Co-Promotion, under the following terms and conditions:

1. Scientific Area: Computer Engineering.

2. Admission Requirements:

- a) **Academic qualifications:** Applicants holding a Master's degree in Computer Engineering, Electrical and Computer Engineering, Computer Science, Computational Linguistics, Artificial Intelligence, Data Science, or related scientific fields are eligible to apply, provided they are enrolled in a doctoral programme at the University of Algarve in a relevant area, or undertake to submit proof of enrolment and registration before the grant agreement is signed. Alternatively, applicants holding a Bachelor's degree in Computer Engineering, Electrical and Computer Engineering, Computer Science, Artificial Intelligence, or related fields are eligible, provided they are enrolled in a Master's programme at the University of Algarve in a relevant area, or undertake to submit proof of enrolment and registration before the grant agreement is formalized. For admission and curriculum assessment purposes, particular consideration will be given to demonstrated expertise in Natural Language Processing (NLP) and machine translation, including sequence-to-sequence modelling, Neural Machine Translation (NMT), and gloss processing; deep learning, Transformers, and multimodal modelling, including multimodal fusion, cross-attention mechanisms, transfer learning, and fine-tuning; large language models (LLMs) and linguistic contextualization, including Retrieval-Augmented Generation (RAG), embeddings, gloss-to-text and text-to-gloss approaches; system integration and software engineering for R&D, including microservices, APIs, gRPC, Protocol Buffers, Git, and experimental pipelines; technical documentation and reproducible artefacts; scientific publications or reproducible research outputs; as well as analytical skills, autonomy, and effective communication within an R&D team environment.
- b) Technical-scientific oral and written proficiency in English is mandatory, with a minimum proficiency level of B2 according to the Common European Framework of Reference for Languages (CEFR), or an equivalent qualification. A C1 level or documented experience in producing technical documentation, reports, software documentation, or scientific publications in English will be considered an asset. This requirement stems from the need to read and prepare technical documentation, communicate effectively with the project team and international partners, and participate in R&D meetings. Failure to provide adequate evidence of technical English proficiency, or to demonstrate the required level of competence, will constitute grounds for exclusion from the selection process.

- c) Taking into account paragraphs 1 and 2 of Article 6 of the Research Grants Regulations of the Foundation for Science and Technology or paragraphs 1 and 2 of Article 5 of the University of the Algarve's Research Fellowship Regulations: "1. Research grants, hereinafter referred to as BI, are intended for R&D activities by students enrolled in an integrated master's degree, a master's degree or a doctorate, with a view to consolidating their scientific training through the development of research work leading to the award of the respective academic degree, whether or not integrated into R&D projects. 2. The scholarships referred to in this article may also be intended for the performance of R&D activities by graduates or masters enrolled in non-degree courses integrated into the educational project of a higher education institution, developed in association or cooperation with one or more R&D units."
- d) **Preference and Selection Condition:** Preference will be given to applicants holding a Master's degree who are enrolled, or who undertake to enroll, in a doctoral programme under the conditions specified above. Applicants holding a Bachelor's degree may be selected only if no Master's degree holders who meet the admission requirements apply, or, where such applicants do apply, if they do not possess the required academic background and/or the experience corresponding to the requirements established in this call for applications.

3. Project Objectives: The research activities will focus on the development of multimodal translation and Natural Language Processing (NLP) models for sign languages, including: (i) sequence-to-sequence machine translation and gloss modelling, incorporating temporal and visual encoders, multimodal fusion, cross-attention mechanisms, and hybrid CTC/cross-entropy loss functions; (ii) linguistic contextualization using Large Language Models (LLMs), particularly through fine-tuning for gloss-to-text and text-to-gloss tasks; and (iii) system integration and software engineering for R&D, including the deployment of models within a microservices architecture, with validation of the developed models and systems using sign language datasets.

4. Applicable Legislation and Regulations: Research Fellow Statute, approved by Law No. 40/2004 of August 18, as amended by Decree-Law No. 65/2024 of October 1, and the University of Algarve Research Grant Regulations (<https://files.dre.pt/2s/2021/10/210000000/0013700149.pdf>).

5. Workplace: The work will be carried out on-site, under an exclusive dedication regime, at the Visual Computing Lab, UAlg, Building 32, Room 1.50, Instituto Superior de Engenharia of Universidade do Algarve, Penha Campus, Faro, Portugal, under the scientific supervision of Professor Pedro J. S. Cardoso.

6. Duration of grant(s): The grant will last 12 months, with the start date scheduled for September of 2026. The grant contract may be renewed until the end of the project, taking into account the University of Algarve Research Grant Regulations (<https://files.dre.pt/2s/2021/10/210000000/0013700149.pdf>).

7. Monthly maintenance allowance amount: The monthly maintenance allowance depends on the type of research grant applicable to the selected candidate, in accordance with the FCT grant value table in force for 2026: €1,359.64 for the Research Grant category applicable to Master's degree holders enrolled in a doctoral programme, or €1,090.98 for the Research Grant category applicable to Bachelor's degree holders

enrolled in a Master's programme. The maintenance allowance will be paid monthly by bank transfer. <https://www.fct.pt/wp-content/uploads/2026/03/Tabela-de-Valores-SMM-2026.pdf>).

- 8. Candidate evaluation:** In accordance with the provisions of Article 11.2 of the Foundation for Science and Technology Research Grant Regulations in the Science and Technology field, candidates will be assessed on the basis of Curriculum Evaluation (CE, 0–20 points) and Interview (I, 0–20 points). The curriculum evaluation considers the candidate's merit, the relevance of their academic and scientific background, research experience and relevant technical development work, programming and software engineering skills, quality of technical documentation and scientific or technical outputs, and proficiency in technical English. The interview is intended to clarify or confirm curricular, technical, or linguistic aspects. The Final Classification (FC) will be calculated using the formula $FC = 0.80 \times CE + 0.20 \times I$, on a scale of 0 to 20 points, rounded to two decimal places. The following constitute mandatory cumulative requirements, which must be evidenced through the candidate's curriculum vitae, technical portfolio, supporting documentation, and interview, demonstrating effective and verifiable experience rather than merely declared experience in all of the following areas: (a) Natural Language Processing (NLP) and machine translation, including the design, implementation, training, adaptation, and evaluation of machine translation models, sequence-to-sequence architectures, gloss processing, and the computational representation of linguistic phenomena; (b) Deep learning, multimodal modelling, and Transformer-based architectures, including the use and training of Transformer models, attention mechanisms, transfer learning, fine-tuning, the integration of linguistic and non-linguistic modalities, and the evaluation of AI model performance; (c) Large Language Models (LLMs) and linguistic contextualization, including the use, adaptation, and integration of foundation models, prompt engineering, Retrieval-Augmented Generation (RAG), embeddings, semantic representation, contextual processing, and support for natural language generation, translation, and understanding tasks; (d) System integration and software engineering for research and development, including the development and integration of AI components within distributed architectures, the use of microservices, APIs, gRPC, Protocol Buffers (Protobuf), version control with Git, containerization, pipeline automation, and interoperability between software modules and artificial intelligence models; (e) Experience in the implementation of experimental pipelines for the training, validation, and monitoring of machine learning models, including the definition of evaluation metrics, performance analysis, reproduction of experimental results, and technical-scientific documentation. Failure to provide sufficient evidence in any of these areas will result in the candidate's exclusion from the selection process. Candidates must demonstrate, through their curriculum vitae, supporting documentation, and interview, proven experience and technical competencies in the relevant areas specified above. The mandatory requirement of oral and written technical-scientific proficiency in English, at a minimum level of B2 according to the Common European Framework of Reference for Languages (CEFR), or an equivalent qualification, with C1 proficiency considered an asset, will be assessed during the admission stage and, where applicable, during the interview. Failure to provide adequate evidence or to demonstrate the required level of proficiency will result in the candidate's exclusion from the competition.
- 9. Evaluation Process:** The ranking of applicants and the proposal for recruitment shall comply with the preference condition established in the admission and evaluation requirements. Where the recruitment of a candidate holding a Bachelor's degree is proposed, the evaluation committee's ranking report must explicitly justify either the absence of eligible candidates holding a Master's degree or their unsuitability in terms of the required academic background and/or the experience demanded by this call. The Evaluation

Panel reserves the right not to recommend the award of the research grant to any candidate obtaining a final score below 14 (fourteen) points on the 0–20 scale.

10. Composition of the Application Evaluation Board: The Application Evaluation Board is composed of three full members and two alternate (all PhDs):

- Pedro Jorge Sequeira Cardoso (Chair) (Professor Coordenador; Instituto Superior de Engenharia);
- João Miguel Fernandes Rodrigues (1st full member) (Professor Coordenador Principal; Instituto Superior de Engenharia);
- Jaime Afonso do Nascimento Carvalho Martins (2nd full member) (Professor Adjunto; Instituto Superior de Engenharia);
- Roberto Célio Lau Lam (1st Alternate Member) (Professor Adjunto; Instituto Superior de Engenharia);
- Pedro Miguel Mendes Guerreiro (2nd Alternate Member) (Professor Adjunto; Instituto Superior de Engenharia).

11. Publication/Notification of Results: The final evaluation results will be published on the UALg website, in a list ordered by the final grade obtained, and the successful candidate will be notified via email.

12. Application Deadline and Submission Method: The competition is open from **14/07/2026 to 27/07/2026**.

13. Applications must be accompanied by the following documents:

- Official identification document (simple copy or legal equivalent). Applicants of non-Portuguese nationality must present a residence permit, permanent residence certificate, or long-term resident status, valid on the scholarship start date. Any of these may be replaced, in its absence, by a declaration of honor by the candidate. However, this must be submitted during the scholarship contracting phase, under penalty of forfeiture of the scholarship award;
 - Curriculum Vitae and supporting documents proving technical and scientific experience and skills relevant to the track;
 - Copy of the qualification certificates for the academic degrees held, specifying the final grade and, if possible, the grades obtained in all courses taken;
 - Proof of technical-scientific proficiency in English, with a minimum level of B2 according to the Common European Framework of Reference for Languages (CEFR), or an equivalent qualification, or, in its absence, a declaration on honour by the candidate attesting to such proficiency, without prejudice to the Evaluation Panel's right to require an oral and/or written demonstration of these skills.
 - Other documents deemed relevant due to the type and modality of the scholarship.
- e) The Application for Application to the Competition, dated and signed, must be addressed to the President of the Competition Evaluation Panel, <https://www.ualg.pt/sites/default/files/documentos/2022-12/anexo-iii-requerimento-para-candidatura-bolsa-pt.pdf>, by email to **pcardoso@ualg.pt**, Reference: **SignFlow-PhD2**. In the aforementioned application, you must expressly consent to all notifications related to the bidding process being sent to the indicated email address.

14. Documents to be submitted for the scholarship agreement:

- a. Individual Taxpayer Registry (INV) information, if the applicant is a nationality other than Portuguese, must be submitted during the scholarship agreement process, under penalty of forfeiture of the scholarship award;
- b. Documents proving that the candidate meets the eligibility requirements for the respective type of research grant, namely evidence of enrolment and registration in a doctoral programme, Master's degree programme, integrated Master's programme, or non-degree course eligible under the applicable regulations at the University of Algarve, or, where no relevant programme is offered by the University of Algarve in the field covered by this call, at another higher education institution. Applicants must also provide proof of possession of the academic qualifications required for the relevant type of grant, where applicable.
- c. Declaration of the advisor(s) assuming responsibility for supervising the work plan, in accordance with Article 5-A of the Research Scholarship Statute, as well as guaranteeing the necessary conditions for the successful development of the work and compliance with the duties set forth in Article 13 of the Research Scholarship Statute;
- d. Declaration of Commitment to the Exclusive Dedication Regime.

15. Deadlines and Procedures for Complaints and Appeals:

Candidates may, if they so wish, comment on the draft decision to award the requested scholarship, at a hearing for interested parties within 10 business days, under the terms and for the purposes set forth in Article 121 of the Code of Administrative Procedure.

Candidates have the right to complain to the evaluation panel within 10 business days regarding the commission or omission of any act.

An appeal may be filed against the final decision of the application evaluation panel to the Rector within 10 business days of notification.

16. Scholarship Contract:

After receiving all required documentation, a scholarship contract will be signed with the selected candidate(s) in accordance with the attached template.

17. Evaluation of Fellow(s):

At the end of each fellowship contract period, the advisor will evaluate the fellow(s)' work by applying the following criteria, in accordance with the attached template:

- (a) Compliance with the established working hours, attendance requirements, and the exclusive dedication regime;
- b) Fulfilment of the work plan, specifically the development of multimodal translation models and Natural Language Processing (NLP) solutions;
- c) Validation of the sign-to-text and text-to-sign translation pipelines using sign language data.

The University of Algarve reserves the right to cancel the fellowship award process, within the scope of the Project in question, whenever funding is not awarded or the scholarship duration exceeds the project completion date.

University of Algarve, 10 July 2026.

The Principal Investigator

Professor Pedro Jorge Sequeira Cardoso