

NOTICE N.º 033/2025 (1 BI-M)

OPEN CALL FOR RESEARCH GRANT APPLICATION WITHIN THE TERMS LAID DOWN OF THE REGULATIONS FOR RESEARCH SCHOLARSHIPS OF THE UNIVERSITY OF ALGARVE

TITLE: 1 Research Grant for Master

It is now open a call for 1 Research Grant within the project *Concurso para Seleção e Qualificação de Temas para Atribuição de Bolsas de Doutoramento IDT UAlg TEC 2024* with the following conditions:

Research Field: Computer Science

Admission Requirements: Master's degree in computer engineering, Electrical Engineering, Applied Mathematics, or related fields, and eligibility to enroll in the PhD program in Informatics Engineering at the University of Algarve. Preference will be given to candidates with experience and knowledge in Artificial Intelligence and Machine Learning (preferably in Generative AI), Data Science, Wearable Device Technologies and IoT, Communication Systems and Data Visualization, Affective Computing as well as proficiency in programming languages and libraries such as Python, PyTorch, TensorFlow, or similar.

Work Plan: The work to be carried out involves research on obtaining and communicating vital user information (e.g., vulnerable individuals requiring healthcare or elderly people) using Generative Artificial Intelligence. The objectives of this study are: (a) Develop AI models for analyzing biometric data from wearable devices, enabling the detection of risk patterns and the prediction of critical health events; (b) Develop an efficient communication system to personalize and transform technical insights into automatic reports and accessible visualizations for users with different levels of digital literacy; (c) Support research and development of a data analysis platform, including the integration of biometric sensors, implementation of predictive algorithms, and the creation of a proactive alert system for users, caregivers, healthcare professionals, etc

Applicable legislation and regulations: Statute of the Scientific Research Fellow, approved by Law nº 40/2004, of August 18, in the current wording conferred by Decree-Law nº 123/2019, of August 28 and the Regulation of Research Grants of the University of Algarve (<https://files.dre.pt/2s/2021/10/210000000/0013700149.pdf>)

Working place: The work will be conducted at the Visual Computing Laboratory - NOVA LINCS – UAlg (Room 163), Institute of Engineering, University of Algarve, Campus da Penha, Faro, under the scientific supervision of Professors Dr. Pedro J. S. Cardoso and Jaime A. Martins. Additionally, the candidate will have access to the facilities of Eviden (Atos Group) at the Tec Campus of the University of Algarve, where they will also work closely with the SWIFT project team.

Duration of the grant: The grant will have a first contract of 12 months duration, beginning on July, 2025. The contract may be renewed until a total of 36 months, considering UAlg's Research Grants Regulation. (<https://files.dre.pt/2s/2021/10/210000000/0013700149.pdf>).

Value of monthly maintenance allowance: The monthly maintenance allowance corresponds to 1.309,64 euros. The maintenance allowance will be paid monthly by bank transfer.

Selection criteria will be as follows: In accordance with the provisions of paragraph 2 of article 11 of the University of Algarve Research Grants Regulation, the evaluation of candidates is based on the following criteria: (a) Academic and curricular merit of the candidate (scored between 0-20, with a weighting of 35%); (b) Demonstrated experience or motivation in the fields of Artificial Intelligence, Data Science, Internet of Things, Cybersecurity and Affective Computing (scored between 0-20, with a weighting of 45%); (c) Interview (scored between 0-20, with a weighting of 20%). The selection committee reserves the right not to award the grant to candidates who do not present a signed declaration committing to enrolling for the first time in a doctoral program at the University of Algarve in the field of Computer Engineering or Electrical Engineering. Candidates with an academic and curricular merit score below 10 will not be admitted to the interview stage. Additionally, the committee will not award the grant to candidates with a final score equal to or lower than 13 (on a 0-20 scale).

The tender jury shall comprise the following members:

- Pedro Cardoso (President), Professor Coordenador, Instituto Superior de Engenharia;
- Jaime Martins (Effective member), Professor Adjunto, Instituto Superior de Engenharia;
- Roberto Lam (Effective member), Professor Adjunto, Instituto Superior de Engenharia;
- Joel Guerreiro (Substitute member), Professor Adjunto, Instituto Superior de Engenharia.

Publication and notification of the results: Final results will be publicized through an ordered list according to the final grade and posted in a conspicuous and public local of the Instituto Superior de Engenharia Building, Universidade do Algarve, and communicated to the applicants by e-mail to the addresses indicated by each candidate.

Deadline for applications and submission forms: the call is open from **11/06/2025 to 25/06/2025**.

Applications must be accompanied by the following documents:

- Official identification document (simple copy or legal equivalent). If you have a nationality other than Portuguese, you should present a residence permit, permanent residence certificate or long-term resident status, valid on the scholarship start date, any of which may be replaced, in its absence, by a declaration of commitment. However, one of the previous must be delivered at the contracting phase, under penalty of forfeiture of the granting of the scholarship;
- Copy of the qualification certificates of the academic degrees held, specifying the final classification and, if possible, the classifications obtained in all subjects taken;
- If the doctorate has been awarded by a foreign higher education institution, it must conform to the rules established in Decree-Law no. 66/2018 of August 16, and all required formalities must be complied with up to the date of termination deadline for submission of the application. If the completed process is not found until the end of the application deadline, the candidate must prove that he / she has requested the recognition of the degree.
- Curriculum Vitae;
- Passport or identification card for European applicants (copy);
- Taxpayer Identification Number (NIF), if you have a nationality other than Portuguese, it must be submitted during the scholarship contracting phase, under penalty of forfeiture of the scholarship award;
- Other documents considered important
- The Application Request, dated and signed, must be addressed to the President of the Evaluation Panel (<https://www.ualg.pt/sites/default/files/documentos/2022-12/anexo-iii-requerimento-para-candidatura-bolsa-en.pdf>) for the following address: A/C Prof. Pedro Cardoso, Universidade do Algarve, Instituto Superior de Engenharia, Campus de Penha, 8005-139 Faro, Portugal, Reference (NOTICE N.º 022/2025) or by email to the Scientific Coordinator (pcardoso@ualg.pt). If the Application Request is sent by email, the applicant must duly express his/her consent that all notifications regarding this application are sent to the email address given.

Documents to be submitted for contracting the grant

-Supporting documents stating that the applicant gathers all the requirements for this grant, namely the enrolment certificate in an awarding degree study cycle or in a postgraduate course;

-Supervisor Declaration taking the responsibility for the Work plan supervision, according to article 5º-A of the Statute of Scientific Research Fellow, as well as assuring the necessary conditions for the development of the work plan and in compliance with article 13 º of the Statute of Scientific Research Fellow;

-Declaration of the Grant acceptance;

-Declaration of commitment stating the exclusivity regime

Complaints and Appeal Deadlines and procedures

On the decision for granting the Research Grant, candidates may, if they wish, comment on the hearing of interested parties, within 10 working days, under the terms provided for in the Administrative Procedure Code.

From the practice or omission of any act of the evaluation panel, candidates can complain to the body, within 10 working days.

The final decision of the evaluation panel can be appealed to the Rector within 15 working days after the respective notification.

Scholarship contract

With the applicant(s) selected, and after receiving all the required documentation, a scholarship contract will be signed in accordance with the attached model.

Assessment of the scholarship holder(s)

At the end of each period of duration of the scholarship contract, the activity developed by the scholarship holder(s) is evaluated by the supervisor, by applying the following criteria, in accordance with the attached model:

- (a) Adherence to working hours and attendance;
- (b) Compliance with the work plan, particularly in the development of artificial intelligence models for the analysis of biometric data;
- (c) Completion of the development of a dataset for training and validating the generative AI models;
- (d) Fulfillment of research activities and software development for the efficient communication of generated insights, including the creation of automatic reports and accessible visualizations;
- (e) Scientific publications in high-impact publication outlets.

University of the Algarve reserves the right to cancel this application procedure if by any means the contract celebration with the funding entity is not established.

University of Algarve, 03/06/2025

Scientific Coordinator

Doutor Pedro Jorge Sequeira Cardoso