

PUBLIC NOTICE

Call for allocation of a Scientist Scholarship

Reference: BI/FhP-25/04

The call for allocation of a *Research Grant* for a Student attending a Master's degree is open and subject to the following conditions:

- 1. General scientific field:** Engineering.
 - 2. Specific scientific field:** Biomedical Engineering.
 - 3. Admission Requirements:**
 - i) Student attending an academic Master's degree in the field of Biomedical Engineering.
 - ii) Programming proficiency in Python; familiarity with ML frameworks such as PyTorch or TensorFlow.
 - iii) Solid understanding of core concepts in Machine Learning, particularly in data-efficient and data-centric methodologies (e.g., coreset selection, dataset distillation).
 - iv) Knowledge of data quality metrics for assessing subsets and synthetic datasets
 - v) Experience in data processing and analysis of biomedical datasets.
 - vi) Proficiency in English and excellent communication skills and teamwork.
 - 4. Work Plan:** The selected candidate will join the Intelligent Systems Group at Fraunhofer Portugal AICOS and contribute to ongoing research in data-efficient and Responsible Artificial Intelligence (AI).
 - 4.1. Tasks:**
 - Develop and refine methods for dataset summarization and distillation, combining coreset selection, data quality metrics, and generative augmentation strategies.
 - Contribute to the creation of an integrated experimental framework for the automatic evaluation of data-efficient AI pipelines.
 - Design and evaluate data-efficient deep learning architectures for biomechanical data, including models that integrate wearable sensor or movement data for musculoskeletal analysis.
 - Assist in scientific dissemination through technical documentation, internal reports, and contributions to research publications and conference submissions.
- These research activities are planned to be developed within the framework of the following projects:
- ACHILLES – Human-centred Machine Learning: Lighter, Clearer, Safer, with Notice No. HORIZON-CL4-2024-DATA-01-01 and Project Reference No. 101189689 - Horizon Europe Framework Programme (HORIZON).

- NextGenAI – Center for Responsible AI, with Notice No. 01/C05-i01/2021 and Project Reference No. 62 - NextGenerationEU (PRR) Copromoção.

5. Applicable law and regulation: Portuguese Statute of the Scientific Research Scholarship Holder [*“Estatuto do Bolseiro de Investigação Científica”*], approved by Law no. 40/2004, of August 18, amended by Decree Law no. 202/2012, of August 27, Law no. 12/2013, of January 29, Decree Law no. 89/2013, of July 9 (hereinafter referred to as the “Statute”), Law no. 123/2019, of August 28 and the Research Scholarships’ Regulation of Associação Fraunhofer Portugal Research (hereinafter referred to as the “Regulation”).

6. Place of work: Fraunhofer Portugal AICOS, Lisbon, Portugal, under the scientific supervision of PhD Duarte Folgado.

7. Scholarship’s Duration and Regime: The scholarship shall have a duration of 6 months, eventually renewable for equal periods of time or until the term of the project, with an estimated starting date on November 2025, according to article 13 of the Regulation and article 3 of the Statute, under exclusivity regime, except for the exceptions expressly set out in nos. 3 and 4 of article 5 of the referred Statute.

(https://www.fraunhofer.pt/content/dam/portugal/fhp/careers/grants/Regulamento_Bolsas_Fraunhofer_Portugal_Research_2021.pdf)

8. Amount of the monthly maintenance allowance: The amount of the scholarship corresponds to €1.040,98 as per table of amounts of the scholarships of Associação Fraunhofer Portugal Research.

(https://www.fraunhofer.pt/content/dam/portugal/fhp/careers/grants/regulamento_bolsas.pdf).

The payment of the scholarship shall be made on a monthly basis by wire transfer.

9. Selection Procedures: The selection procedures to be used shall be made based on the following parameters:

- A. Current average in the Master’s degree.
- B. Alignment of academic choices with the work to perform.
- C. Curriculum evaluation in accordance with the objectives of the project.

The following percentage weighting shall be given to the selection parameters: $0,2 \times A + 0,3 \times B + 0,5 \times C$.

10. Composition of the selection panel: Chairman: Doctor Inês Nunes de Sousa Soares; Permanent Members: Doctor Duarte Miguel dos Santos Nunes Folgado and Doctor André Valério Raposo Carreiro.

11. Publication/notification of the results: The final evaluation results shall be published in a list ordered by final score, posted in a visible and public place at Fraunhofer Portugal. The approved applicant shall be notified by e-mail.

12. Opening period of the call: The call is open from 14-10-2025 to 27-10-2025.

13. Documents and deadlines for application: Applications must be submitted by means of an application email with the following documents: *Curriculum Vitae*, required qualifications' certificate and other evidencing documents deemed relevant.

Applications should be delivered during the call's opening period, sent by e-mail with acknowledgement receipt to jobs@fraunhofer.pt, in *pdf* format, until 11:59 p.m. of October the 27th 2025.