

## PUBLIC NOTICE

### Call for allocation of a Scientist Scholarship

Reference: BII/FhP-25/05

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

1. **General scientific field:** Engineering.
2. **Specific scientific field:** Informatics and Computing Engineering or Electrical and Computer Engineering.
3. **Admission Requirements:** Student enrolled in a Bachelor's degree in Informatics and Computing Engineering, or Electrical and Computer Engineering; ii) Solid knowledge of relational databases (e.g., SQL with PostgreSQL or MySQL); iii) Strong programming skills in Python, particularly for backend and/or data-centric applications; iv) Basic understanding of frontend development (e.g., HTML/CSS or Python-based frameworks); v) Familiarity with virtualized environments (e.g., virtual machines); vi) Interest in wireless systems and embedded technologies; vii) Good communication skills and ability to work in a collaborative team setting.
4. **Work Plan:** The student will integrate the *Connected Things (Cyber-Physical Systems)* research group and contribute to the development of a Python-based infrastructure for estimating and analyzing indoor localization using data collected from wireless anchors. Tasks will include the design and implementation of a backend service to receive, process, and store location-relevant metrics, originated from embedded radio anchors based on Nordic SDK. The student will also develop a lightweight frontend interface for visualization and system interaction. The complete solution will be deployed and tested in a virtual machine environment, supporting SQL-based databases and featuring a modular design for seamless integration with embedded systems. All developments should follow best practices in modularity, documentation, and security.
  - 4.1. **Tasks:**
    - Familiarisation with the currently ongoing project(s) and codebase.
    - Understand the service architecture and workflow.
    - Enhance existing solutions and implementations.
    - Contribute to the ongoing project by developing new features.
    - Design and manage an SQL database to store localization metrics and data.
    - Conduct performance improvements, tuning, and testing to optimize system performance.
    - Keep up-to-date documentation of all new developments and fixes.

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, Porto, Portugal, under the scientific supervision of Doctor Filipe Sousa.
7. **Scholarship’s Duration and Regime:** The scholarship shall have a duration of 3 months, eventually renewable for equal periods of time or until the term of the project, with an estimated starting date on July 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](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 €651,12 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](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 Bachelor’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 Filipe Miguel Monteiro da Silva e Sousa; Permanent Members: Doctor Waldir Aranha Moreira Júnior and Doctor Luís Filipe Caeiro Margalho Guerra Rosado.
11. **Publication/notification of the results:** The final evaluation results shall be published in a list ordered by the final score and posted in a visible and public place at Fraunhofer, Portugal. The approved applicant shall be notified by email.
12. **The opening period of the call:** The call is open from 09-06-2025 to 20-06-2025.
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 email with acknowledgment receipt to [jobs@fraunhofer.pt](mailto:jobs@fraunhofer.pt), in *pdf* format, by 11:59 p.m. June the 20<sup>th</sup> 2025.