

AWARD OF A RESEARCH FELLOWSHIP

Title: (Research Fellowship; 1 vacancy)

Reference: Huawei-NPU_BI_2025_02_CALG

A call for applications is now open for the attribution of 1 grant within the scope of the I&D project Huawei-NPU “High-performance Runtime Integrity Checker for NPUs” , reference Huawei-NPU, a direct project funded by the company Huawei, under the following conditions:

Scientific Area: Electronic Engineering

Recipient category: master

- a) **Degree courses:** students enrolled in a PhD.
- b) **Non-conferring degrees courses:** masters in an enrolled in non-academic degree courses integrated into the educational project of a higher education institution.

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 8 of the University of Minho's Scientific Research Grant Regulations 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:

- Applicants must hold, at the time of application, a Master's degree in Industrial Electronics and Computers Engineering, or related areas. At the contracting stage, proof of academic qualifications completed by the application deadline will be required, including those resulting from academic degree recognition processes.

- Applicants enrolled in a non-degree-granting course: Candidates who, by entering into the present fellowship contract, including the renewals provided for in the notice, exceed a cumulative period of two years in this type of fellowship, whether consecutive or interrupted, are not eligible.
- Preferred factors: Solid knowledge in embedded systems, computer architectures, and Trusted Execution Environments (TEE).

Workplan and objectives to be achieved:

The work plan is part of Work Packages WP1 and WP2, to be included in potential renewals, in a dedicated document (work plan).

This plan consists of exploring research directions related to NPU architectures (WP1), as well as identifying the limitations and security risks associated with NPUs (WP2). The evaluation of the work carried out will be verified through the results reported in the activity report to be prepared by the fellow.

This research context and methodological approach are appropriate for the development of the doctoral thesis of candidates enrolled in PhD programs.

Applicable legislation and regulations: Research Grant Holder Statute (EBI), approved by Law nº. 40/2004 of August 18, in its current wording, and the University of Minho Scientific Research Grant Regulations (hereinafter referred to as the Regulations (RBIC)), approved by Order nº. 4998/2025, published in the Official Gazette, 2nd series, nº. 81, of April 28, rectified and republished through Rectification 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 ALGORITMI Research Centre, of the School of Engineering, University of Minho, located in the Campus de Azurém – Guimarães, under the scientific supervision of Dr. Sandro Pinto.

Fellowship duration: The grant will take place for a period of 3 months (not less than 3 months), with a provisional starting date on the October of 2025. The fellowship grant may, eventually, be renewed up to the maximum limit allowed by the project.

Amount of the research grant: The amount of the grant corresponds to 2118,65 €/month, according to the table of values of the Research scholarship of the University of Minho, updated annually, as decided by 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 5º of the Research Fellow Statutes and applicable regulations.

Selection panel:

President: Doctor Sandro Pinto (Principal Investigator at the ALGORITMI Center, School of Engineering, University of Minho)

Effective Members: Doctor Tiago Manuel Ribeiro Gomes (Assistant Professor, Department of Industrial Electronics, School of Engineering, University of Minho) and Doctor David Martins Cerdeira (Researcher at the ALGORITMI Center, School of Engineering, University of Minho)

Substitute Members: Doctor Jorge Miguel Nunes Santos Cabral (Associate Professor, Department of Industrial Electronics, School of Engineering, University of Minho) and Doctor Paulo Francisco Silva Cardoso (Assistant Professor, Department of Industrial Electronics, School of Engineering, University of Minho)

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:

Applicant Merit - AM (100%):

A.1: Academic background, which reflects the area of study of the course and the classifications of the academic degrees (using tables A.1.1. and A.1.2. established in the minutes of defining criteria), with a weighting of 60%;

A.1.1: Classifications of the academic degrees, with a weighting of 50%;

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

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

A.2.1: Design and Implementation of embedded systems, with a weighting of 50%

A.2.2: Solid knowledge in computer architectures, virtualization and RISC-V, with a weighting of 50%

The final classification of the candidate's merit will be obtained by applying the following formula:

$$MC = (A.1 \times 0.6) + (A.2 \times 0.4)$$

$$\text{Where } A.1 = (A.1.1 \times 0.5) + (A.1.2 \times 0.5)$$

$$\text{Where } A.2 = (A.2.1 \times 0.5) + (A.2.2 \times 0.5)$$

Note: Applicants with degrees obtained abroad must present proof of recognition of qualifications in Portugal and conversion of the final classification obtained in them to the Portuguese classification scale or declaration under the terms indicated in the previous point. Candidates who do not comply with one of these provisions, the selection panel will assign “0” in the grade of the graduation and/or master course. Candidates will be evaluated on the remaining parameters.

Application deadline and submission: The call for applications is open from 17/09/2025 till 01/10/2025 or is open for a period of 10 working days from the date of publication on the Euraxess portal.

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 by the application deadline (not applicable to research initiation grants).

For degrees obtained abroad, the record of recognition of the academic degrees and record of the conversion of the respective final classification to the Portuguese classification scale must be presented, or, alternatively, a declaration of honor from the candidate.

This declaration must 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 purposes of contracting the scholarship, only the information contained in the latter will be considered. If it is found that the documents proving the academic degree and diploma, or their recognition under the terms of Decree-Law n.º 66/2018, of August 16, do not correspond to the classifications awarded in the assessment of the academic career and may consequently alter the candidate's ranking, the scholarship will not be contracted;

Form of publication/notification of results: The results of the evaluation are announced in a single list (in alphabetical order or by final score obtained 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(nº6) 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 the draft contract in Annex II of the University of Minho Regulations (RBIC).

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, in accordance with nº3 of the Article 14º the University of Minho Regulations (RBIC).

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



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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)