

Research Studentships for PhD students

Public announcement

The Polytechnic University of Porto (P.PORTO), through the *Research Unit CIETI – Centre for Innovation in Industrial Engineering and Technology*, (UIDB/04730/2020), of the Higher Institute of Engineering of Porto (ISEP), opens a competition for the allocation of 1 (one) research scholarship, hereinafter referred to as the **PhD Research Scholarship, in the field of Applied Physics**, under the Regulations for Research Scholarships of the FCT (RBI) and the Research Fellow Statute (EBI).

The scholarship will be funded by the Foundation for Science and Technology (FCT) under the Collaboration Agreement for the Financing of Research Scholarships for PhD Students, signed between the FCT and the IPP within the scope of the ATHENA European University.

1. APPLICATION SUBMISSION

The competition is open during 10 working days, from **November 10 until 11:59 p.m. (Lisbon time) on November 23, 2023**.

Applications and the supporting documents specified in this Call for Applications must be submitted via: <https://www.ipp.pt/concursos/pessoal>

Providing false declarations or engaging in acts of plagiarism by applicants will result in the cancellation of the application, without prejudice to the adoption of other punitive measures.

2. TYPE AND DURATION OF SCHOLARSHIPS

2.1. The PhD research scholarships are intended to finance the research activities leading to the attainment of a doctoral degree by the scholarship holder at one of the higher education institutions belonging to the ATHENA European University, in the scientific fields covered by this consortium, in particular those identified in point 2.3 below.

2.2. The research activities leading to the attainment of the doctoral degree will take place at the [Unit CIETI](#), the host institution of the scholarship holder, without prejudice to the possibility of collaboration between more than one institution, particularly the higher education institution awarding the doctoral degree.

2.3. The research activities leading to the attainment of the doctoral degree by the selected scholarship holder must be aligned with the activities and strategy plan [Unit CIETI](#), and must be developed within the following Doctoral Programs:

- [PhD Program in Physics Engineering, Faculty of Engineering, University of Porto](#)

2.4. The work plan may take place fully or partially in a national institution (in-country fellowship or mixed fellowship, respectively).

The duration of the fellowships is, as a rule, annual, renewable up to a maximum of four years (48 months), and no fellowship may be awarded for a period of less than 3 consecutive months.

In the case of a mixed fellowship, the period of the work plan that takes place in a foreign institution cannot exceed 24 months.

3. SCHOLARSHIP BENEFICIARIES

The PhD Research Scholarships are intended for candidates enrolled or candidates who meet the necessary conditions to enroll in the Doctoral Programs listed in point 2.3 of this Notice and who intend to carry out research activities leading to the attainment of a doctoral degree at the [Unit CIETI](#), or its associated care institutions.

4. ELIGIBILITY

4.1 Candidate Eligibility Requirements of the Candidates

4.1.1. Who may apply to this competition:

- a) Portuguese nationals or citizens of other European Union member states;
- b) Citizens of third countries;

- c) Stateless persons;
- d) Citizens benefiting from political refugee status.

4.1.2. To apply for a PhD Research Scholarship, it is necessary to:

- a) Hold a master's degree in the field of **Engineering Physics or in areas considered related**)
- b) **To be permanently and habitually resident in Portugal at the start date of the period of the work plan abroad, if the work plan proposed for the scholarship includes a period in foreign institutions (mixed scholarships), a requirement applicable to both national and foreign citizens**
- c) Have not benefited from a doctoral scholarship or a company-funded doctoral program directly financed by the FCT, regardless of its duration
- d) Not hold a doctoral degree.

4.2 Admissibility Requirements of the Application

It is mandatory, under penalty of non-admission to the Competition, to attach the following documents to the application:

- a) Identification document (identity card/citizen card/passport)
- b) Candidate's curriculum vitae, referring to the CiênciaVitae and the candidate's ORCID
- c) Certificates of academic degrees held, specifying the final grade and, if possible, the grades obtained in all completed curricular units, or alternatively, a sworn statement from the candidate that they will complete the master's degree by the end of the application deadline
- d) Recognition record of academic degrees awarded by foreign higher education institutions and conversion of the final grade to the Portuguese grading scale, or alternatively, a sworn statement from the candidate that they will obtain recognition of the foreign degree equivalent to a bachelor's or master's degree by the end of the application deadline

- e) Motivation letter;
- f) Recommendation letters (**two**);
- g) Work plan and respective timeline;
- h) Declaration from each supervisor confirming their availability for supervision;
- i) Any other documents that are deemed relevant for the evaluation of the candidate's merit;
- j) The application and all associated documents, including the motivation and recommendation letters, must be written in English or Portuguese.

Regarding the aforementioned eligibility requirements, please note the following:

- In the case of academic degrees awarded by foreign higher education institutions, and to ensure the application of the principle of equal treatment to candidates holding foreign and national academic degrees, it is mandatory to recognize these degrees and convert the respective final grade to the Portuguese grading scale.

The recognition of academic degrees and diplomas from foreign institutions, as well as the conversion of the final grade to the Portuguese grading scale, can be requested at any public higher education institution or at the Directorate-General for Higher Education (DGES, only for automatic recognition). For further information on this matter, we suggest consulting the DGES portal at the following address: <http://www.dges.gov.pt>

- Only candidates who have completed the study cycle leading to master's degree by the end of the application deadline will be admitted. If they do not yet have the certificate of completion, a sworn statement from the candidates will be accepted, confirming that they have completed the necessary qualifications for the competition by the end of the application deadline. The granting of the scholarship is always subject to the submission of evidence of the ownership of the necessary academic qualifications for the scholarship.

5. WORK PLANS AND SCIENTIFIC SUPERVISION OF THE SCHOLARSHIPS

Candidates must present a work plan that contributes to the mission and objectives of the CIETI R&D Unit, namely in activities in the areas of Engineering Physics or in areas considered related, more information can be found on the Research Unit's website ([CIETI - NBIN - Núcleo de Biomateriais e Nanotecnologias \(ipp.pt\)](http://cieti-nbin-ipp.pt)), as well as for the pursuit of its strategic plan.

The work plan must be presented in accordance with the structure set out in the annex to this announcement.

6. EVALUATION CRITERIA AND OTHER FACTORS

6.1. Evaluation Criteria

The evaluation takes into account the merit of the candidate and the work plan.

Admissible applications will be scored on a scale of 1 to 20 for each of the following evaluation criteria:

Criterion A – Merit of the candidate, with a weight of 60%

Sub-criterion A1 – Academic Track Record (reflecting the grades of the academic degrees), with a weighting of 50% of the applicant's merit

Sub-criterion A2 – Personal Curriculum (reflecting the scientific and professional background, and academic, when applicable), with a weighting of 40% of the candidate's merit;

Sub-criterion A3 – Motivation letters, with a weighting of 10% of the candidate's merit

The score for criterion A will be calculated using the following formula:

$$\text{Criterion A Score} = (50\% \times A1) + (40\% \times A2) + (10\% \times A3)$$

Criterion B – Merit of the work plan, with a weight of 40%

Sub-criterion B1 – Substantiated relevance of the object of study; 40%.

Sub-criterion B2 – Scientific quality of the state of the art and methodology of the work plan; 30%.

Sub-criterion B2 – Feasibility of the work plan. 30%

The score for criterion B will be calculated using the following formula:

$$\text{Criterion B Score} = (40\% \times B1) + (30\% \times B2) + (30\% \times B3)$$

For the purpose of deciding on the awarding of scholarships, candidates will be ranked based on the weighted average of the scores obtained for each of the two criteria, using the following formula, using the following formula:

$$\text{Final Score} = (60\% \times A) + (40\% \times B)$$

6.2. Tie criteria

In the event of a tie, candidates will be ranked in the following order of precedence:

- a) criterion A – have a master's degree in the scientific field of Physics,
- b) criterion B – have a higher classification in sub-criterion B2,
- c) criterion C – have a higher classification in sub-criterion A1
- d) If the tie still remains, the tie will be broken by vote of the jury members, with the jury president having the casting vote in the event of a new tie.

6.3. Important notice for candidates with diplomas issued by foreign higher education institutions:

- Candidates with diplomas issued by foreign higher education institutions can apply and will be evaluated using the same criteria as candidates with diplomas issued by Portuguese institutions, provided they submit proof of recognition of their academic degrees and the conversion of their final grades to the Portuguese grading scale, in accordance with applicable legislation.
- Candidates with recognized foreign diplomas who do not provide proof of the conversion of their final grades to the Portuguese grading scale will be evaluated with the minimum score **10 points** in sub-criterion A1.
- In any case, scholarship contracts with candidates with diplomas issued by foreign institutions will only be signed upon the presentation of proof of recognition of their academic degrees and the conversion of their final grades, as mentioned above.

Candidates whose final score is lower than **10 points out of 20** will not be eligible for the scholarship.

7. EVALUATION

The panel responsible for evaluating the candidates is composed of the following members:

7.1. Effective elements:

- Prof. Dr. Gustavo Ribeiro da Costa Alves, Coordinating Professor of the Electrical Engineering department at the Instituto Superior de Engenharia do Porto, of the Polytechnic of Porto, and coordinator of the CIETI R&D unit, as President/coordinator of the Jury;
- Prof. Dr. Luís Miguel Rino Cerveira da Silva, Assistant Professor at the Physics department at the University of Aveiro and Researcher at I3N – Institute of Nanostructures, Nanomodelling and Nanofabrication, at the Physics department at the University of Aveiro;
- Prof. Dr. Teresa Pérez Iglesias, professor in the Department of Physics at the University of Vigo, and researcher at the Center for Research in Nanomaterials and Biomedicine (CINBIO) at the University of Vigo, Spain.

7.2. Substitute members:

- Prof^a. Dr^a. Gina Maria Oliveira Vilão de Ramos, Adjunct Professor of the Physics department at the Instituto Superior de Engenharia do Porto of the Polytechnic of Porto, and coordinator of the nucleus of the R&D unit CIETI-NBIN, replaces the president/coordinator in his/her absences or impediments;
- Prof. Dr. Jorge Mendes, Adjunct Professor of the Physics department at the Instituto Superior de Engenharia do Porto of the Polytechnic of Porto;
- Prof. Dr. Maria Helena Sousa Soares de Oliveira Braga, Associate Professor in the Physics Engineering department of the Faculty of Engineering of the University of Porto, and researcher in the Materials for Energy research group of the Physics Engineering department of the Faculty of Engineering of the University of Porto.

The evaluation panel will assess the applications according to the evaluation criteria specified in this Call for Applications, taking into account the weighting of each criterion.

All panel members, including the coordinator, commit to fulfilling a set of essential responsibilities in the evaluation process, such as impartiality, disclosure of any potential conflicts of interest, and confidentiality. Confidentiality is fully protected and ensured at all stages of the evaluation process to guarantee the independence of all opinions produced. Panel members, including the coordinator, cannot act as supervisors or co-supervisors for candidates who have submitted applications to the competition.

For each application, the panel will produce a final evaluation form clearly and consistently presenting the arguments that led to the scores assigned to each evaluation criterion and sub-criterion.

Meeting minutes will be recorded, under the responsibility of all panel members. The minutes and their attachments must include the following information.

The minutes and their attachments must include the following information:

- a) Name and affiliation of all panel members;
- b) Identification of all excluded applications and the respective justifications, if applicable;
- c) Methodology adopted by the panel for specific cases, if applicable;
- d) Final evaluation forms for each candidate;
- e) Provisional list of rankings of candidates, in descending order of the final scores, for all applications evaluated by the panel;
- f) Declaration of independence from all panel members;
- g) Any voting and delegation of voting rights or competencies in case of justified absence, if applicable.

8. RESULTS DISCLOSURE

The evaluation results will be communicated via email to the address provided by the candidate during the application submission.

9. DEADLINES AND PROCEDURES FOR PRE-HEARING, COMPLAINT, AND APPEAL

The results will be communicated to candidates electronically, via email the declared in the application, and the minutes meeting will be archived by the panel members on the platform supporting this competition: <https://www.ipp.pt/concursos/pessoal>

After the provisional list of evaluation results is communicated, candidates have a period of 10 working days to submit any comments or pre-hearing statements, as provided for in articles 121 and following of the Administrative Procedure Code.

The final decision will be made after the analysis of the statements presented during the pre-hearing of interested parties. A complaint may be filed within 15 working days from the notification of the final decision, or alternatively, an appeal may be filed within 30 working days, both counted from the respective notification. Candidates who choose to submit a complaint should address their statement to the member of the FCT Executive Board with delegated authority. Candidates who choose to file an appeal should address it to the FCT Executive Board.

10. SCHOLARSHIP AWARD REQUIREMENTS

Research scholarship contracts are directly entered into with the FCT.

10.1. The following documents must be submitted, upon the eventual granting of the scholarship, for the purpose of contractualization:

- a) Copy of identification documents, including civil, tax, and, when applicable, social security documents ¹;
- b) Copies of academic degree certificates held;
- c) Presentation of the recognition of foreign academic degrees and conversion of their final grades to the Portuguese grading scale, if applicable;
- d) Work plan;

¹ The availability of the documents may be replaced, at the option of the applicant, by the presentation in person at the financing entity, which will keep the elements contained therein that are relevant to the validity and execution of the contract, including civil, tax and social security identification numbers, as well as the validity of the respective documents.

- e) Document proving enrollment in and registration for the identified Doctoral Program in this Notice;
- f) Declaration from the supervisor(s) assuming responsibility for supervising the work plan, in accordance with Article 5-A of the Research Fellow Statute (declaration template provided by the FCT);
- g) Document proving the candidate's acceptance by the institution where the research activities will take place, ensuring the necessary conditions for its successful development, as well as compliance with the duties set forth in Article 13 of the Research Fellow Statute (declaration template provided by the FCT);
- h) Updated document proving compliance with the exclusive dedication regime (declaration template provided by the FCT);
- i) Updated document proving permanent and habitual residence in Portugal, if the work plan of the requested scholarship takes place, in whole or in part, in foreign institutions (mixed scholarships), a requirement applicable to both nationals and foreign citizens, in the scholarship contracting phase.

10.2. The granting of the scholarship is also subject to:

- Compliance with the requirements set forth in this Opening Notice;
- The result of the scientific evaluation;
- The absence of unjustified non-compliance with the fellow's duties under a previous scholarship contract funded, directly or indirectly, by the FCT;
- The budget availability of the FCT.

Failure to submit any of the necessary documents to complete the scholarship contractualization process within 6 months from the date of communication of the conditional granting decision of the scholarship will result in the expiration of the aforementioned grant and the closure of the process.

11. FUNDING

The payment of scholarships will commence after the candidates return the duly signed scholarship contract, which must be done within a maximum period of 15 working days from the date of its receipt.

The scholarships awarded under this competition will be funded by the FCT with funds from the State Budget and, when eligible, with funds from the European Social Fund, through the Demography, Qualifications, and Inclusion Program (PDQI), in accordance with the regulations established for this purpose).

12. SCHOLARSHIP COMPONENTS

Fellows are granted a monthly maintenance allowance in accordance with the table in Annex I of the RBI: [click here to consult the values](#).

The scholarship may also include other components, under the terms set out in Article 18 of the RBI and for the amounts set out in its Annex II: [click here to consult the values](#).

All fellows are covered by personal accident insurance for research activities, funded by the FCT.

All fellows who are not covered by any social protection scheme can ensure the exercise of their social security rights by joining the voluntary social security scheme, in accordance with the Code of Contributory Regimes of the Social Security Previdencial System, with the FCT bearing the costs resulting from the contributions, under the terms and within the limits provided for in Article 10 of the EBI.

13. PAYMENT OF SCHOLARSHIP COMPONENTS

Payments due to the fellow are made by bank transfer to the account identified by the fellow. The monthly maintenance allowance is paid on the first working day of each month.

Payments for registration, enrollment, or tuition fees are made by the FCT directly to the institution where the fellow is enrolled or registered in the doctoral program.

14. TERMS AND CONDITIONS FOR SCHOLARSHIP RENEWAL

The renewal of the scholarship always depends on a request submitted by the fellow, within 60 working days prior to the renewal start date, accompanied by the following documents:

- a) Opinions issued by the supervisor(s) and the hosting entity(ies) regarding the supervision of the fellow's work and the evaluation of their activities;
- b) Updated document proving compliance with the exclusive dedication regime;
- c) Document proving the renewal of enrollment in the doctoral degree program.

15. INFORMATION AND PUBLICITY OF THE GRANTED FUNDING

All research and development activities directly or indirectly funded by the grant, namely all communications, publications and scientific creations, as well as theses, carried out with the support provided by the grant, must mention the financial support of the FCT and the European Social Fund, namely through the Demography, Qualifications and Inclusion Program (PDQI). For this purpose, the insignia of the Foundation for Science and Technology (FCT), the Ministry of Science, Technology and Higher Education (MCTES), the European Social Fund (ESF) and the European Union (EU) must be inscribed on the documents relating to these actions, in accordance with the graphic standards of the community support program.

The dissemination of research results funded under the RBI must comply with the open access rules for data, publications and other research results in force at the FCT.

In all scholarships, and particularly in the case of actions supported by EU funding, namely from the ESF, monitoring and control actions may be carried out by national and EU authorities in accordance with the applicable legislation in this area, with the supported scholarship holders being obliged to collaborate and provide the information requested, which includes carrying out surveys and evaluation studies in this area, even if the scholarship has already ended.

16. NON-DISCRIMINATION AND EQUAL ACCESS POLICY

The FCT and the P.PORTO promotes a policy of non-discrimination and equal access, and no candidate can be privileged, favored, disadvantaged, or deprived of any right or exempt from any duty based on, among other factors, ancestry, age, sex, sexual orientation, marital status, family situation, economic situation, education, origin or social condition, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic or racial origin, territory of origin, language, religion, political or ideological beliefs, and union membership.

17. APPLICABLE LEGISLATION AND REGULATIONS

The competition is governed by this Opening Notice, the FCT Research Fellowships Regulation, approved by Regulation No. 950/2019, published in Series II of the Official Gazette on December 16, 2019, in its current version,; the Research Fellow Statute approved by Law No. 40/2004, of August 18, in its current version, and other applicable national (including internal rules and regulations of the P.PORTO) and community legislation.

This notice will be published on the website of P.PORTO and EURAXES.

The President of the Polytechnic University of Porto, Paulo Pereira

ANNEX – COMPULSORY STRUCTURE OF THE WORK PLAN

PROJECT OVERVIEW

The proposed work plan must present an overview of the research project, allowing for a clear analysis of each component of the work plan. The components of the work plan are described in the following points and correspond to mandatory data.

A. THE TITLE OF THE WORK PLAN

B. FOUR TO SIX KEYWORDS THAT BEST IDENTIFY THE CONTENT OF THE WORK PLAN

C. SUMMARY OF THE WORK PLAN TO BE DEVELOPED (maximum 150 words)

The summary is a synthesis of the candidate's work plan. The summary should be clear and well-structured, so as to demonstrate the candidate's ability to summarize and present the object of study, the objectives and the main contributions expected from the research work.

D. SUSTAINABLE DEVELOPMENT GOALS (maximum 150 words)

In this section entitled "Sustainable Development Goals (SDGs)", you must identify one, or up to a maximum of three, of the 17 SDGs of the United Nations 2030 Agenda that will fit in with the work plan you propose to develop. If the work plan does not fit in with those goals, you must state "Does not fit in with any of the goals". The information selected will only be used for statistical purposes and will not be evaluated, so there is no need to justify your choice.

Information on the 17 SDGs of the United Nations 2030 Agenda [can be found here](#).

E. STATE OF THE ART (maximum 500 words)

The state of the art, or literature review, gathers, analyzes and discusses published information on the subject of the work plan. Its purpose is to provide a theoretical basis for the research object, referring to previous studies, which should be interrelated and confronted, especially if they are contradictory, as well as pointing out the originality of your proposal.

F. DETAILED DESCRIPTION (maximum 1000 words)

In this section you should present in detail the work plan to be developed and demonstrate how the proposed objectives will be achieved, highlighting the relevance and originality of the scientific issues raised and the respective contribution of the proposed plan to the area in which it falls. This description must provide all the fundamental elements to allow analysis and evaluation by the evaluation panel (jury), in particular the methodological approach, the description of the tasks to be carried out, their interdependence and interconnection, as well as the corresponding deadlines.

G. CHRONOGRAMME AND OTHER ATTACHMENTS

The timetable is a mandatory document and is intended to allow the evaluation panel to analyze the feasibility of the proposed work plan. You should attach a legible table with a detailed schedule of the different tasks proposed. You should also indicate the estimated time for the thesis or work leading to the doctorate to be submitted to the university.

To generate a chronogram, you can use appropriate software tools or an Excel file, which in this case should be converted into a PDF document.

H. BIBLIOGRAPHICAL REFERENCES (maximum 30 references and 8000 characters)

Use this section to indicate, up to a maximum of 30, the bibliographical references that support your work plan, providing the necessary elements for the panel (jury) to identify them. You should format your bibliographic list consistently and in accordance with an approved scientific referencing style, such as the APA (American Psychological Association) standard. This section should be no longer than 8000 characters.