

DRAFT ANNOUNCEMENT FOR THE AWARD OF A RESEARCH FELLOWSHIP

Title: Research Fellowship *for Master degree holder* - BrainStimap _ 1 vacancy

Reference: PTDC/EME-EME/1681/2021_BI_01/2025

A call for applications is now open for the attribution of (1) one Research Fellowship *for Master degree holder* within the scope of the R&D project “BrainStimap -Mapping and modelling the transmission profile of optomechanical waves in the brain to optimize transcranial stimulation against brain disorders”, reference PTDC/EME-EME/1681/2021, in the Center for Microelectromechanical Systems (CMEMS-UMinho), financed by national funds through the Foundation for Science and Technology, I.P. (FCT), under the programme Scientific Research and Technological Development Projects in all Scientific Domains - IC&DT2020, under the following conditions:

Scientific Area: Physical Engineering.

Target audience: Students enrolled in a doctorate or master's degree enrolled in a course that does not award an academic degree and is part of the educational project of a higher education institution, developed in association or cooperation with one or more R&D units.

Requirements for granting the scholarship:

- a) Candidates may apply without prior registration for the course for which the scholarship is open. The requirement to enroll in a course that awards or does not award a degree will be verified on the date of the grant award.
- b) Only those scholarships will be awarded for which the selected candidates present valid proof of enrolment in a degree-granting or non-degree-granting course, according to the type of scholarship in question, issued by the academic services of the Higher Education Institution, indicating the current academic year or its duration (start and end), respectively.
- c) Enrollment in non-degree-granting courses that are not credited will not be considered as proof of enrolment.

Profile:

The following may apply for this competition:

- Portuguese citizens or citizens of other Member States of the European Union;
- Citizens of third countries;
- Stateless persons;
- Citizens who are beneficiaries of political refugee status.

Candidate eligibility requirements:

- a) Candidates must hold, at the time of application, a Master's degree in Physical Engineering. Proof of academic qualifications completed by the deadline for applications, including those resulting from recognition processes for academic degrees, are required at the contracting stage;

b) Candidates enrolled in a course that does not award a degree: candidates who have completed more than two years of this type of scholarship, consecutive or interpolated, at the time of signing the scholarship contract in question, including renewals as provided for in the notice, are not eligible for the scholarship;

c) Preferential factors: skills in computer simulation in acoustics via COMSOL Multiphysics and skills in ANSYS, CAD and MATLAB software. Skills in hardware development related to acoustics.

Application eligibility requirements:

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

- Candidate's CV;
- Certificates of qualification of the academic degrees obtained or, if applicable, the candidate's declaration of honour stating that he/she has completed the degrees required in the notice by the end of the application deadline;
- For degrees obtained abroad, the registration of recognition of academic degrees and registration of the conversion of the respective final grade to the Portuguese grading scale must be presented, or, alternatively, a declaration of honor by the candidate;
- Motivation letter.

Eligibility of candidates: Candidates must meet the eligibility conditions set out in article 9 of the FCT I.P Research Grants Regulation (2019).

Work plan and objectives to be achieved:

Task 1: Development of computational models to simulate the attenuation profile of acoustic waves in biological tissues.

Task 2: Hardware development for acoustic signal generation and reception.

Applicable legislation and regulations: Research Grant Holder Statute (EBI), approved by Law No. 40/2004 of August 18, in the current wording published by Decree-Law No. 123/2019 of August 28; Regulation of Research Grants of the University of Minho, published in the Official Gazette, 2nd series, no. 119, dispatch no. 6524/2020 of 22-06-2020, rectified by rectification statement no. 447/2021 of 22-06-2021 and Regulation of Research Grants, no. 950/2019 of 16-12-2019, of the Foundation for Science and Technology, I.P. - in force.

Host/contracting entity and scientific supervision: The activities will be developed at the Center for Electromechanical Microsystems (CMEMS-UMinho) | School of Engineering of the University of Minho, located on the Azurém Campus, under the scientific supervision of Doctor Óscar Samuel Novais Carvalho.

Duration of the grant(s): The grant will last for 6 months, starting in March 2025. The grant may be renewed up to the maximum period permitted by the project and/or provided for in the legislation and regulations in force for this type of grant, provided that the candidate obtains approval from the supervisor.

Value of the monthly maintenance allowance: The amount of the SMM corresponds to €1,259.64, according to the table of values of the FCT, I.P. grants. in the country (Annex I – Table of monthly maintenance allowances of the FCT I.P. Research Grants Regulation) and Annex II of the University of Minho Research Grants Regulation, published in the Official Gazette, 2nd series, no. 119, dispatch no. 6524/2020 of 22-06-2020, rectified by rectification statement no. 447/2021 of 22-06-2021, in accordance with the applicable regulations.

Payment is made by the 23rd of each month, by transfer to the NIB of the scholarship holder indicated in the contracting process.

Other benefits: Reimbursement of Voluntary Social Security, corresponding to the 1st Level of the contributory incidence base (for scholarships lasting 6 months or more) and Personal Accident Insurance.

Exclusivity regime: The performance of duties as a fellow is carried out on an exclusive basis, under the terms set forth in article 5 of the Research Fellow Statute and applicable research grant regulations.

Composition of the Selection Jury:

In the event of the President of the Jury being unable to attend, he/she will be replaced by the first effective member, and a substitute member will be appointed to replace the effective member.

- a) President of the Jury: Doctor Oscar Samuel Novais Carvalho, Associate Professor, Department of Mechanical Engineering, University of Minho;
- b) Effective member: Doctor Pedro Filipe Lima Marques, Assistant Professor of the Department of Mechanical Engineering, University of Minho;
- c) Effective member: Doctor Diana Margarida Domingues Pinho, Junior Researcher, Center for Electromechanical Microsystems (CMEMS-UMinho), University of Minho;
- d) Alternate member: Doctor Margarida Maria Macedo Francesko Fernandes, Assistant Researcher, Center for Electromechanical Microsystems (CMEMS-UMinho), University of Minho;
- e) Alternate member: Doctor Sara Cristina Soares Madeira, Junior Researcher, Center for Electromechanical Microsystems (CMEMS-UMinho), University of Minho;

In case of the President of the Jury being unable to attend, he/she will be replaced by the first effective member, and the alternate member will be appointed to replace the effective member.

Evaluation and selection criteria and procedures: The evaluation of applications will focus on the candidate's merit, applying the following evaluation criteria, valued on a scale of 1 to 5 (or another scale):

Candidate's merit - MC (100%)¹:

- a) Academic background (which reflects the grades of academic degrees), with a weighting of 30%

- b) Personal curriculum (which reflects the scientific and professional background), with a weighting of 50%
- c) Motivation letter, with a weighting of 20%.

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

$$MC=(a*0.3) +(b*0.5) +(c*0.2)$$

Documents proving the holding of academic degrees and diplomas, or their recognition when they have been awarded by foreign higher education institutions, may be waived at the application stage and replaced by a declaration of honour by the candidate, with this condition only being verified at the grant contracting stage. This declaration must attest to facts that occurred prior to the application. In cases of discrepancy between the information contained in the declaration and the documentation submitted for the purposes of grant contracting, 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 No. 66/2018, of August 16, do not correspond to the grades awarded in the assessment of the academic path and may, consequently, alter the candidate's ranking, the scholarship contract will not be concluded.

Note: Candidates with degrees obtained abroad must present proof of recognition of their qualifications in Portugal and conversion of the final grade obtained in them to the Portuguese grading scale or a declaration under the terms indicated in the previous point. Candidates who do not comply with any of these provisions will be awarded a grade of "0" for their undergraduate and/or master's degree. Candidates will be assessed on the remaining parameters.

Disclosure of results: The draft assessment results, supported by minutes, will be sent to candidates by email, in accordance with article 12 of the FCT RBI (FCT funding) | article 13 of the UMinho RBIC (other funding subject to the UMinho regulations).

If the result is unfavorable to the granting of the requested scholarship, candidates have a period of 10 working days to respond, if they wish, in a prior hearing of interested parties, in accordance with articles 121 and 122 of the Code of Administrative Procedure (DL no. 4/2015 of January 7).

Complaint and appeal procedures: The final assessment results will be published in an ordered list (alphabetically, by final grade obtained), posted in a visible and public place in the host unit, as well as by email to all candidates, attaching, for this purpose, the minutes with the jury's deliberations.

The selected candidate must express in writing their intention to accept the scholarship. In the event of non-acceptance, the scholarship will be awarded to the candidate in order of final ranking.

A complaint may be filed against the final decision within 15 working days, addressed to the President of the Jury. Interested parties may also submit an optional hierarchical appeal, in accordance with paragraph 2 of article 15 of the UMinho RBIC, addressed to the Pro-Rector with delegation of powers in this area.

Formation of a selection reserve list: Candidates ranked in the following positions on the final ranking list of the competition will be included in a selection reserve list, which may be used until 01/06/2025.

Application deadline and form of submission of applications: Applications will be accepted for a minimum period of 10 working days after the publication of the notice on the European Scientific Mobility Portal Euraxess.

Applications must be formalized by sending a letter of application accompanied by the following documents: curriculum vitae; certificate of qualifications or declaration by the candidate; letter of motivation; declaration proving that the candidate meets the conditions for the type of scholarship, in accordance with the application requirements; other documents relevant to the evaluation process.

Applications must be sent by email to oscar.carvalho@dem.uminho.pt, indicating the reference of the competition in the Subject. Applications sent by other means will not be accepted.

Grant contracting: The granting of the grant is made through the signing of a contract between the University of Minho and the grantee, in accordance with the draft contract (annex IV of the Regulation for Scientific Research Grants of the University of Minho – dispatch no. 6524/2020 of 22-06-2020, rectified by rectification statement no. 447/2021 of 22-06-2021) in its updated version in accordance with point 2.4 of the “Rules for the Allocation and Management of Grants within the scope of R&D Projects, including infrastructure projects, the multi-annual financing program for R&D units and other FCT financing instruments (Version 2021)”.

The contract can only be concluded after receipt of all required documentation depending on the type of grant, which must occur within a maximum period of 6 months.

Once all documentation has been received, the contracting entity has 60 working days to sign the grant contract. Once the grantee has received the document, the grantee must return the duly signed contract within 15 working days.

Grant contracts can only begin after due authorization from the contracting entity.

Termination and cancellation of grant contracts: Without prejudice to other causes provided for in the applicable grant regulations (FCT and UMinho) and in the Research Grant Holder Statute, the grant ends upon completion of the contracted work plan, as well as upon the end of the period for which it was granted or renewed.

Upon termination of the grant, the grantee is required to submit the Final Report of the work carried out, in accordance with the objectives and evaluation criteria defined with the scientific supervisor, within 30 days after the end of the grant.

The **final report** must be prepared in accordance with Annex I of the Regulation for Scientific Research Grants of the University of Minho – dispatch no. 6524/2020 of 22-06-2020, rectified by rectification statement no. 447/2021 of 22-06-2021.

Declaration of Honour

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 under oath that I completed the academic degree of (academic degree), qualifying for the type of scholarship in the competition, namely the course (designation), from the (University awarding the degree), on the date XX/XX/XXXX, with a final average of XXXXX points on the YY scale.

As I am unable to present proof of qualifications by the end of the competition, I declare that I undertake to present the aforementioned certificate when signing the scholarship contract, if I am selected for the vacancy in the competition.

As this is true, this declaration will be dated and signed by me.

(Place), (date).

(full name)

NOTE: The declaration can 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 purposes of contracting the grant, only the information contained in the latter will be taken into account.

Declaration of Honour

I, (full name), holder of identification document number (XXXX), candidate for the vacancy for the award of 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. announcement), declare under oath that (I do not currently receive any research grant/I receive the following research grants) under the Research Grant Holder Statute.

As this is true, this declaration will be dated and signed by me.

(Place), (date).

(full name)