

## **ANNOUNCEMENT FOR THE OPENING CALL FOR A SCIENTIFIC GRANT**

**Title:** Research Fellowship for bachelor's degree holder COOLSPOT; 1 vacancy

**Reference:** PTDC/EME-TED/7801/2020\_BI\_02/2024-CMEMS

Opening call for the selection of one (1) Research Fellowship, within the scope of the R&D project “COOLSPOT - Interfacial COOLing Strategies for high POver dissipation conversion Technologies”, reference PTDC/EME-EME/7801/2021, 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:** Mechanical Engineering.

**Recipient category:** Students enrolled in a Master's Degree/Integrated Master's or in a course enrolled in non-academic degree courses integrated into the educational project of the institution, developed in association or cooperation with one or more R&D units.

### **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 the academic services of the Higher Education Institution, indicating, respectively, the academic year or its duration (start and term).
- Enrollment in non-certified courses (without curricular units) will not be considered as proof of enrollment.

### **Candidates profile:**

- a) Candidates must have, at the date of application, a bachelor's degree in Mechanical Engineering. Is required for contractualization, proof of academic qualifications completed at the deadline for applications, including those resulting from academic degree recognition processes;
- b) Candidates enrolled in non-conferring degree courses: cannot benefit from this scholarship candidates who, with the conclusion of the scholarship contract in question, including renewals, exceed a cumulative period of two years followed or interpolated, in this type of scholarship;
- c) Preferential factors: Adequate training in the field of vibrations applied to the automotive sector, and vibration design using CAE technology;

**Applicants eligibility:** Applicants must meet the eligibility conditions established in Article n.º 9 of the research grants regulation of FCT (2019).

**Work plan and objectives to be achieved:**

1. Optimization and development of three-dimensional structures for heat transfer using vibrations, through computer simulation.
2. The scholarship holder is expected to develop a model of three-dimensional structures for heat transfer for cooling systems and to participate in the production of two articles in journals indexed to the ISI.

**Hosting unit and scientific supervision:** The work will be performed in the Center for Microelectromechanical Systems (CMEMS-UMinho) | Engineering School of University of Minho, located in the Azurém Campus in Guimarães, under the supervision of Doctor Óscar Samuel Novais Carvalho and Doctor Francisco Carrusca Pimenta de Brito.

**Applicable legislation and regulations:** Research Fellowship Holder Statutes, approved by Law n.º 40/2004 of August 18, in its current version published by Decree-Law n.º 123/2019 of August 28; Regulation of Scientific Research Fellowships of the University of Minho (RBIC), published in “Diário da República”, 2nd serie, n.º 119, through dispatch n.º 6524/2020 of 22-06-2020, ratified by ratification declaration n.º 447/2021 of 22-06-2021 and Regulation of Research Studentships and Fellowships (RBI) of the Foundation for Science and Technology, I.P. - in force.

**Fellowship duration and renewal terms:** The fellowship will have a duration of 5 months with a provisional starting date in September 2024. The scholarship may, eventually, be renewed up to the maximum period allowed by the project and/or provided for in the legislation and regulations in force for this type of scholarship.

**Monthly maintenance allowance amount:** The value stipend (Monthly Maintenance Allowance) is 990,98 €, according to stipends values published by the Foundation for Science and Technology (FCT I.P.) in the country (Annex I – Monthly Stipends Values for the maintenance allowances of the [FCT Regulation for Research Studentships and Fellowships](#)) and Annex II of the Regulation of Scientific Research Fellowships of the University of Minho (RBIC), published in “Diário da República”, 2nd serie, n.º. 119, through dispatch no. 6524/2020 of 22-06-2020, ratified by ratification declaration n.º 447/2021 of 22-06-2021, according to the applicable regulation.

Payment is made on the 23<sup>st</sup> 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 Security (Social Security contributions), 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 Committee:**

- a) President of Jury: Doctor Óscar Samuel Novais Carvalho, Assistant Professor, Department of Mechanical Engineering of the University of Minho;
- b) Member of the board: Doutora Sara Cristina Soares Madeira, Junior Researcher, Center for Microeletromechanical Systems (CMEMS-UMinho), University of Minho;
- c) Member of the board: Doctor Francisco Carrusca Pimenta de Brito, Assistant Professor, Department of Mechanical Engineering of the University of Minho;
- d) Substitute member of the board: Doctor Vanessa Fernandes Cardoso, Assistant Researcher, Center for Microeletromechanical Systems (CMEMS-UMinho), University of Minho;
- e) Substitute member of the board: Doctor Margarida Maria Macedo Francesko Fernandes, Assistant Researcher, Center for Microeletromechanical Systems (CMEMS-UMinho), University of Minho;

The first effective member will substitute the President of the selection panel in case of impediment, being nominate the first substitute member in the place of the first effective member.

**Evaluation and selection criteria:** Applicants will be assessed on the basis of the evaluation of their merit (CM), in a scale of 1 to 5 values:

Applicant Merit - AM (100%):

- a) Academic path (considering the classifications of academic degrees), with a weighting of 40%;
- b) Personal curriculum (considering professional and scientific background), with a weighting of 50%;
- c) Motivation letter, with a weighting of 10%.

The final classification of the applicant's merit with the achieved through the following formula:

$$MC = (a*0,4) + (b*0,5) + (c*0,1)$$

Positive evaluation is required for the granting of the scholarship.

Documents providing the titularity of academic grades and diplomas, or recognitions obtained in foreign institutions of higher education, may be dispensed during the application period, being substituted by declarations on honor from applicant. The validation of original documents will be made during the hiring phase. The mentioned declarations will refer to facts occurring prior to the application period. In the course of the application period, once the applicant decides to present a declaration on honor as the substitution of degree recognition by a Portuguese higher education institution, for the cases that the recognition of degree has yet in course, the classification attributed to the academic degree won't be admitted as evidence for the purpose of evaluation of the academic background. In these situations, the jury will assign the minimum classification in such method, according to the defined scale of values. Any data referred in the declaration on honor that is not coincident with the original documentation will not be considered. Only facts contained in the documentation presented by the applicant will be considered for evaluation. In cases where the provided documentation testifying the academic grades obtained by the applicant and diplomas, or corresponding terms established by the law no. 66/2018, from the 16<sup>th</sup> August, do not correspond to the results of the academic record, which will be considered for evaluation

in the academic background (referred above in (a)), the human resource service of UMinho will take the decision to suspend the hiring process.

**Disclosure of results:** The provisional results of applications, based in the selection panel minutes, will be send to the applicants by email until 90 working days from the applications deadline.

If case of unfavourable results, the candidates have a period of 10 working days to comment, if desired, in a prior hearing to interested parties, pursuant to articles 121 and 122 of the Code of Administrative Procedure (DL nº. 4 / 2015 of January 7th).

**Complaints and appeal procedure:** The final results will be published as an ordered list (alphabetically, according to the final grade obtained), posted in a visible and public place of the Host Unit, and sent by e-mail to all applicants, attaching for that purpose, the minutes with the jury's deliberations.

The selected candidate should reply in writing the intention to accept the fellowship. In case of non-acceptance, the fellowship will be awarded to the next applicant in the final ranking.

The final decision can be contested within 15 working days, by sending to the President of the jury the corresponding claim. Interested parties may also submit an optional hierarchical appeal, under paragraph 3 of article 13 of the RBIC.

**Constitution of a selection reserve list:** The applicants ranked in the next positions on the ordered list will be included in a selection reserve list, which can be used until December 31, 2024.

**Application deadlines and submission of the applications:** This call is open from July 04<sup>th</sup> till July 17<sup>th</sup> 2024.

Applications must be formalized by sending an application letter with the following documents: curriculum vitae; qualifications certificate or declaration of the applicant; motivation letter; statement proving that meets the conditions for the grant typology, according to the application requirements; other documents important to the evaluation process.

The applications should be sent by e-mail to [oscar.carvalho@dem.uminho.pt](mailto:oscar.carvalho@dem.uminho.pt), referring to the "call for a scientific grant" in the subject field. Applications sent by other means won't be accepted.

The lack of any of the required documents for this application, or shipping to a location other than the one indicated above will imply the application exclusion.

**Fellowship contractualization:** The fellowship will be attributed by signing a fellowship contract between the University of Minho and the fellow, accordingly with the contract minute (annex IV of the Regulation of Research Fellowships of the University of Minho (RBIC), published in Diário da República, 2nd Série, n.º 119, through dispatch no. 6524/2020 of 22-06-2020, ratified by ratification declaration no. 447/2021 of 22-06-2021, as indicated in 2.4 of the FCT document: "[Rules for Granting 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 may only be concluded after all the documentation required is collected, which must take place within a maximum period of 6 months [including evidences of the academic degrees or diplomas and enrolment in degree courses or non-conferring courses, depending on the type of scholarship].

Once all the documentation has been received, the contracting entity has a period of 60 working days to conclude the scholarship contract. Once received, the fellow must return the contract duly signed within 15 working days.

The activities under the fellowship contract can only began after proper authorization by the contracting entity.

**Term and cancellation of fellowship contracts:** Without prejudice to the other causes provided the fellowship regulations (FCT and UMinho) and in the Statute of the Research Fellow, the fellowship ends with the completion of the work plan, as well as with the expiration date for which it was granted or renewed.

At the end of the fellowship, the grantee is obliged to present a Final Report of the work carried out, in accordance with the objectives and evaluation criteria defined with the scientific advisor, within 30 days after the end of the scholarship.

The **final report** must be prepared in accordance with Annex I of the Scientific Research Fellowships Regulation of the University of Minho (RBIC), published in Diário da República, 2nd Série, nº 119, through dispatch nº 6524/2020 of 22-06-2020, ratified by ratification declaration n.º 447/2021 of 22-06-2021.

## **Declaration of Honor**

### **Academic habilitations**

(name), applicant to the research fellowship vacancy under the I&D project (title or reference), published in the EURAXESS portal, reference **xxxx**, hereby declares to have a degree on **XXXX** (name of the course), concluded in the University of **XXXX**, on the **XX/XX/XXXX**, with the final grade of **XX**.

I have submit my diploma for recognition in the University of **XXXX**, according to the Decree-Law nº 66/2018 of August 16<sup>th</sup><sup>1</sup>, concluded In the **XX/XX/XXXX**, with the final grade of **XX**.

I further declare that I undertake to present proof of my diploma recognition obtained under the Portuguese Law, until the date of the conclusion of the fellowship contract, in case of being selected for the vacancy in this competition.

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

(Place), (date).

---

(name)

---

<sup>1</sup> DGES (Foreign Degrees and Diplomas): <https://www.dges.gov.pt/en/pagina/degree-and-diploma-recognition?plid=1536>; University of Minho: Recognition of foreign degrees and diplomas: <https://www.uminho.pt/EN/education/Pages/recognition-of-foreign-qualifications.aspx>

## Declaration of Honor Requirements Grant Typology

**(name)**, applicant to the research fellowship vacancy under the I&D project (title or reference), published in the Euraxess portal, reference **(fellowship Reference)**, hereby declares that complies with the conditions for the type of scholarship of the referred call, reference above, in accordance with the application requirements, legislation and regulations indicated in the notice.

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

(Place), (date).

---

(name)