



Universidade do Minho

UNIVERSIDADE DO MINHO
Centro de Física (CFUM)

ANNOUNCEMENT FOR THE AWARD OF A POST-DOCTORAL RESEARCH FELLOWSHIP

Ref.: 16/ECUM/CFUM/2024-DRIVOLUTION (1 vacancy)

A call for applications is now open for the attribution of one grant of Post-Doctoral research fellowship within the scope of the R&D project **Drivolution**, financed by European Union (Next Generation EU), through the Recovering Portugal Programme - Recovery and Resilience Plan, under the following conditions:

Scientific Area: Physics or related scientific areas

Recipient category: The BIPD are intended for doctorates in the area of Physics or related scientific areas, who cumulatively meet the following requirements:

- Holders of a PhD degree obtained in the three years prior to the date of submission of the fellowship application***;
- Have carried out the research work that led to the attribution of a PhD degree in an entity other than the host unit Centre of Physics **;
- Do not exceed, with the conclusion of the contract in question, including possible renewals, a cumulative period of three years in this type of fellowship, consecutive or interpolated.

Candidates who do not cumulatively meet the requirements described will be excluded.

Other requirements: We are looking for researchers with a PhD in Physics or related scientific areas, preferably with knowledge in the area of thin film deposition using physical vapour deposition techniques, PVD, namely magnetron sputtering.

Proven experience in the scientific area of the competition, specifically in the development of thin films by PVD, will be relevant.

** Different R&D Units are included, even if located in the same Organic Unit (UOEI) of UMinho (no. 4 and 5 of article 7 of the FCT I.P Research Grant Regulation, in force)

***Documents proving the ownership of academic degrees and diplomas, or their respective recognition when they have been awarded by foreign higher education institutions, when applicable for the type of scholarship in the call for applications, may be waived at the application stage, being replaced by declaration of honor of the candidate, with the verification of this condition occurring only in the phase of contracting the scholarship. This statement must attest facts that occurred on a date prior to the application. In situations of divergence between the information contained in the declaration and the documentation submitted for the purpose of contracting the grant, only the information contained in the latter will be considered. If it is verified that the documents proving the ownership of the academic degree and diploma, or the respective recognition under the terms of Decree-Law No. 66/2018, of August 16, do not correspond to the classifications awarded in the

evaluation of the academic path and may, consequently, change the candidate's ranking, the fellowship contracting will not be done.

Applicants eligibility: Applicants must comply with the eligibility conditions laid down in article 9 of the Research Grants Regulation of the Portuguese Foundation for Science and Technology (2019).

Workplan and objectives to be achieved:

Development of nanostructured thin films using physical vapor deposition (PVD) techniques, in particular magnetron sputtering;

- Development of thin film sensors based on the thermo and piezoresistive effect.
- Integration and testing of thin film sensor matrices in polymer injection and stamping molds.

Applicable legislation and regulations: Research Fellowship Holder Statutes, approved by Law no. 40/2004 of August 18, in its current version published by Decree-Law no. 123/2019 of August 28; Regulation of Scientific Research Fellowships of the University of Minho (RBIC), published in “Diário da República”, 2nd series, no. 119, through dispatch no. 6524/2020 of 22-06-2020, ratified by ratification declaration no. 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.

Host institution and scientific supervision: The work plan will be carried out at the University of Minho's Physics Centre, located on the Azurém Campus in Guimarães, under the scientific supervision of Doctor Armando Ferreira, a researcher at the Physics Centre.

Fellowship duration: The grant will take place for a period of **18** months and is expected to start in June 2024. The fellowship grant may eventually be renewed, according to project execution and applicable legislation.

Amount of the research grant: The value stipend (Monthly Maintenance Allowance) is **1.801,00** euros, per month, in accordance with the 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 series, no. 119, through dispatch no. 6524/2020 of 22-06-2020, ratified by ratification declaration no. 447/2021 of 22-06-2021, according to the applicable regulation.

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 components of the research grant: (define the other components of the research grants, in accordance with the no. 5 of the article 18º of the FCT Regulation for Research Studentships and Fellowships, no. 950/2019 of 16-12-2019 or article 21º of the Regulation of Research Fellowships of the University of Minho (RBIC), accordingly with the regulations applicable).

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 panel:

President:

Doutor Armando José Barros Ferreira, Investigador, Centro de Física, Escola de Ciências, Universidade do Minho.

Effective members:

- **Doutor José Filipe Vilela Vaz Professor Associado com Agregação,** Centro de Física, Escola de Ciências, Universidade do Minho;
- **Doutor Martin Andritschky, Professor Catedrático,** Centro de Física, Escola de Ciências, Universidade do Minho.

Substitute Members

- **Doutor Carlos José Macedo Tavares, Professor Associado com Agregação,** Centro de Física, Escola de Ciências, Universidade do Minho;
- **Doutor Luís António Carvalho Gachineiro da Cunha, Professor Auxiliar,** Centro de Física, Escola de Ciências, Universidade do 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.

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 1 to 5 values.

A. Applicant Merit - AM (90%):

A.1: Academic path (considering the classifications of academic degrees), with a weighting of 60%;

A.2: Personal curriculum (considering professional and scientific background), with a weighting of 30%;

A.3: Motivation letter, and two recommendation letters by recognized mathematicians, with a weighting of 10%.

The merit classification (AM) of the applicant's merit with the achieved through the following formula:

$$AM = (A1 \times 0,6) + (A2 \times 0,3) + (A3 \times 0,1)$$

Candidates classified in the first 3 (three) positions, who obtain a minimum classification of 4 in the **AM** criterion, will be admitted to the Interview phase, the Jury proceeding to the evaluation of the

following sub-criteria.

B. Interview – INT (10%):

B.1: interpersonal skills (10%);

B.2: Demonstrated knowledge in the area (50%);

B.3: Motivation, commitment and interest in the work plan (30%);

B.4: Linguistic competences (10%).

The Jury also decided to proceed with the evaluation of the Interview, according to the following levels:

- High – 5 values;
- Good – 4 values;
- Sufficient – 3 values;
- Reduced – 2 values;
- Insufficient – 1 value.

The Interview classification (INT) will be obtained by applying the following formula:

$$\text{INT}=(\text{B1}\times 0,1) + (\text{B2}\times 0,5) + (\text{B3}\times 0,3) + (\text{B4}\times 0,1)$$

The final classification (FC) of Applicant Merit (AM) and Interview (INT) will be obtained by applying the following formula:

$$\text{FC}=(\text{AM}\times 0,9) + (\text{INT}\times 0,1)$$

The academic degrees and diplomas documents, or their respective recognition when awarded by foreign higher education institutions are not mandatory in the application phase, being replaced by a declaration of honor of the candidate with the contents of academic results. The documents of academic qualification or respective recognition will be required in the contracting phase and must attest facts that occurred on a date prior to the application. In situations of divergence between the information contained in the declaration and the documentation submitted for contracting the grant, only the information contained in the latter will be considered. If the documents proving the ownership of the academic degree and diploma, or the respective recognition under the terms of Decree-Law No. 66/2018, of August 16, do not correspond to the classifications awarded in the evaluation of the academic path, which can change the candidate's ranking, the fellowship won't be contracted.

Disclosure of results: The provisional results of applications, based in the selection panel minutes, will be sent 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).

Complaint and appeal procedures: The final results of the evaluation will be published through an ordered list (*alphabetically, by final grade obtained*), posted in a visible and public place of the host unit, as well as by email to all applicants, enclosing for that purpose, the minutes of the jury deliberations.

The selected candidate must inform its willingness to accept the grant, in writing. In case of rejection, the fellowship will be awarded to the next candidate in the ordered list of applicants.

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, addressed to the Pro-Rector for Research and Projects, Professor Sandra Paiva.

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 31 of december of 2024.

Application deadline and submission: The tender is open for a period of **10 working days**, counting from the date of publication of the advertisement on the Euraxess portal.

Applications must be formalized, mandatorily, by sending an application letter accompanied by the following documents:

- curriculum vitae;
- certificate of qualifications;
- motivation letter;
- other documents considered relevant to the assessment of the scientific and professional background.

Applications must be sent by email to **bolsas@ecum.uminho.pt**, indicating the reference of the call for applications in the subject line, which is **16/ECUM/CFUM/2024-Drivolution**. Applications submitted by other means will not be accepted.

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, no. 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 doctoral degree or its recognition in Portugal, under Decree-law no. 66/2018 of August 16th].

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 begin 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 no. 447/2021 of 22-06-2021.