

08/04/2022

# 18/ECUM/CFUM/2022 – CVTwithNN

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## Where to apply

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Application Deadline: 26/04/2022 23:00 - Europe/London

## Contact Details

### Where to send your application.

#### COMPANY

Universidade do Minho

#### E-MAIL

jlinhares@fisica.uminho.pt

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## Hiring/Funding Organisation/Institute

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#### ORGANISATION/COMPANY

Universidade do Minho

#### COUNTRY

Portugal

#### DEPARTMENT

Escola de Ciências

#### CITY

Braga

#### ORGANISATION TYPE

Higher Education Institute

#### STATE/PROVINCE

Braga

#### WEBSITE

#### POSTAL CODE

<https://www.uminho.pt>

4710-057

**E-MAIL**

centrodefisica@fisica.uminho.pt

**STREET**

Campus de Gualtar

**PHONE**

253601560

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**ORGANISATION/COMPANY**

Universidade do Minho

**LOCATION**

Portugal › Braga

**RESEARCH FIELD**

Physics › Optics

**RESEARCHER PROFILE**

First Stage Researcher (R1)

**APPLICATION DEADLINE**

26/04/2022 23:00 - Europe/London

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# OFFER DESCRIPTION

## ANNOUNCEMENT FOR THE AWARD OF A RESEARCH FELLOWSHIP

Research Fellowship; 2 vacancies

A call for applications is now open for the attribution of 2 (two) research grants (BI) within the scope of the R&D project “CVTwithNN - Color Vision Test supported by neural networks”, with the ref EXPL/FIS-OUT/0398/2021, financed by national funds through FCT observing the following conditions:

Scientific Area: Optometry and Vision Sciences.

Recipient category: The research grants (BI) are meant to be used for research activities of R&D by:

1. – Students enrolled in a Master's degree or integrated Master;
2. Bachelors enrolled in a course not meant for an academic degree, but integrated in the educational project of the UMinho.

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 (star and term).

Enrollment in non-certified courses (without curricular units) will not be considered as proof of enrollment.

Candidates profile:

1. Mandatory requirements: Students of Master in Physics; Physics Engineering, Bioinformatics, Systems Engineering, Informatics Engineering, Biomedics Engineering or any related area.
2. Not being enrolled in a research grant that do not confer an academic degree for a cumulative period of more than 2 years, either consecutive or interpolated;
3. All the necessary documents that prove the academic degrees finished at the time of the application, including the documents that may result from the process of the recognition of academic degrees.
4. Preferential factors: Experience in programing in Python, MatLab and Neural Networks, and experience in using already implemented neural networks. Experience in the integration and combination of hardware and software, using programs already available.

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: to build a neural network capable of accepting as input colored images, eye movement data and reaction times. Data for setting, adjusting and training the neural network will be generated from experiments performed in controlled environment. After training, it is expected that the neural network is capable of independently classify the type of observer viewing the images, using as inputs the observer's answers, eye movement data and reaction times. The impact of eyewear frames and contact lenses will be assessed during the acquisition of the training dataset which will include typical answers, and the automated analysis performed by the neural network. The final assessment of the research grant will be done by submitting a detailed final report, which may provide a research publication.

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 serie, 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) n.º 950/2019 de 16-12-2019, of the Foundation for Science and Technology, I.P. - in force.

Host/Contracting institution and scientific supervision: The work plan will be fulfilled at the Color Science Laboratory (<https://sites.google.com/view/csl-uminho/>), Centro de Física das Universidades do Minho e do Porto (CF-UM-UP), Gualtar Campus, Braga, under the scientific supervision of Professor João M.M. Linhares and Professor Sérgio M.C. Nascimento.

Fellowship duration: Each scholarship will last for 9 months, starting in May 2022. The scholarship is non-renewable.

Amount of the research grant: The value stipend (Monthly Maintenance Allowance) is 875,98 euros/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 serie, 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, to the bank account (with the Bank Identification Number ) provided by the grant holder at the time of the acceptance of the work contract.

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 research grants regulations.

Selection panel:

President: João Manuel Maciel Linhares, Auxiliary Professor at the Department of Physics, School of Sciences from the University of Minho

Effective member: Sérgio Miguel Cardoso Nascimento Associate Professor With Aggregation, Department of Physics, School of Science of the Minho University and Maria Madalena da Cunha Faria Lira, Auxiliary Professor at the Department of Physics, School of Sciences from the University of Minho

Substitute Member: Sandra Maria de Braga Franco, Auxiliary Professor at the Department of Physics, School of Sciences from the 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.

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:

1. Candidate's Merit - MC (70%):

A.1: Academic path (considering the classifications of academic degrees, in observance of the table of reference), with a weighting of 50%;

A.2: Personal curriculum (considering professional and scientific background), with a weighting of 40%;

A.3: Motivation or recommendation letters, with a weighting of 10%.

C. Interview with a weighting of 30%:

C1: Interpersonal skills, with a weighting of 30%;

C2: Proven knowledge in the area of the project, with a weighting of 30%;

C3: Motivation with a weighting of 30%;

C4: Language skills, with a weighting of 10%.

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

$$MC = [(A1 \times 0,5) + (A2 \times 0,4) + (A3 \times 0,1)] \times 0,7 + [(C1 \times 0,3) + (C2 \times 0,3) + (C3 \times 0,3) + (C4 \times 0,1)] \times 0,3$$

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 honour 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.

The selection panel may not assign the research grant if the candidates that answer this call do not have the necessary profile for the project.

Notes: 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.

Disclosure of results: The provisional results of applications, based in the selection panel minutes, will be sent to the applicants by email, observing the terms in the article 12.º of the RBI of the FCT and the article 13.º of the RBIC from UMinho.

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 Cristina Almeida 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 30/09/2022.

Application deadline and submission: Applications are welcome for a period of 10 working days, after data of publication of this notice in the Euraxess portal

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).

Applications must be sent by email to [jlinhares@fisica.uminho.pt](mailto:jlinhares@fisica.uminho.pt) and to [bolsas@ecum.uminho.pt](mailto:bolsas@ecum.uminho.pt), indicating the reference of the call for applications (18/ECUM/CFUM/2022 – CVTwithNN) in the Subject line. 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 all proof of holding of academic degrees or certificates, and proof of registration in courses that will not award an academic degree, depending on the type of the research grant].

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

## More Information

ADDITIONAL INFORMATION

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## Benefits

Please you can find the information in the Offer Description section

## Eligibility criteria

Please you can find the information in the Offer Description section

## Selection process

Please you can find the information in the Offer Description section

## Web site for additional job details

<https://www.ecum.uminho.pt/pt/Investigacao/Paginas/Emprego-Cientifico.aspx>

REQUIREMENTS

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### Offer Requirements

## Skills/Qualifications

Please you can find the information in the Offer Description section

## Specific Requirements



Please you can find the information in the Offer Description section

# Map Information



Job Work Location



Personal Assistance locations

## WORK LOCATION(S)

2 position(s) available at  
Universidade do Minho  
Portugal  
Braga  
Braga  
4710 - 057  
Campus de Gualtar

EURAXESS offer ID: 769821

## Disclaimer:

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