27/01/2022

RESEARCH FELLOWSHIP (BI-Licenciado)

Where to apply

Application Deadline: 10/02/2022 17:00 - Europe/London

Contact Details

Where to send your application.

COMPANY
LIP - Laboratório de Instrumentação e Física Experimental de Partículas

E-MAIL
bolsas@coimbra.lip.pt

Hiring/Funding Organisation/Institute

ORGANISATION/COMPANY
LIP - Laboratório de Instrumentação e Física Experimental de Partículas

DEPARTMENT
Coimbra

ORGANISATION TYPE
Research Laboratory

WEBSITE
http://www.coimbra.lip.pt

E-MAIL
seclip@coimbra.lip.pt

COUNTRY
Portugal

CITY
Coimbra

POSTAL CODE
3004-516

STREET
Departamento de Física da Universidade de Coimbra, Rua Larga

PHONE
+351.239.833.465

ORGANISATION/COMPANY
LIP - Laboratório de Instrumentação e Física Experimental de Partículas

RESEARCH FIELD
Engineering

RESEARCHER PROFILE
First Stage Researcher (R1)

APPLICATION DEADLINE
10/02/2022 17:00 - Europe/London

LOCATION
Portugal › Coimbra

TYPE OF CONTRACT
Temporary

JOB STATUS
Full-time

HOURS PER WEEK
35

OFFER STARTING DATE
01/03/2022

REFERENCE NUMBER
EXPL/FIS-PAR/0333/2021

OFFER DESCRIPTION

LIP opens a call for selection of fellows for one Research Fellowship (BI-Licenciado) for participation in the project “Terrestrial Gamma-ray Flash Science and Monitoring for Aviation Safety” – refª. EXPL/FIS-PAR/0333/2021 funded by Fundação para a Ciência e Tecnologia, I.P./MCTES through national funds (State Budget – OE).

Work plan:

Herein we propose a CdTe TGF monitor solution on board aircrafts to alert the occurrence and to characterize the magnitude of the TGFs' emissions, benefiting from the know-how of our team on CdTe gamma-ray semiconductor detectors’ development. The potential performances of this TGF monitor will be assessed both by Monte Carlo simulations and prototype experimental testing. A simulation model of a TGF monitor on board a commercial aircraft will be developed and its required performances estimated, in order to define its optimal design and operation modes. A TGF monitor prototype will be developed and tested at LIP’s facilities by setting partial analogue conditions to its operation on board an aircraft, by irradiating the monitor prototype with the suitable radiation beam energy band, flux and irradiation configuration (including typical passive materials of the detector shielding box and of the cabin fuselage), to allow the validation of the CdTe TGF monitor concept.

Scientific orientation: Rui Curado da Silva

Legislation:

A fellowship contract will be established according to the “Regulations for Research Grants of the Foundation for Science andTechnology” (https://dre.pt/application/conteudo/127238533) and to the Status of Scientific Research Fellow (Law nº 40/2004 de 18 de Agosto, and its successive amendments).

Duration:

The fellowship has a duration of 12 months, with a foreseen starting date on march 1st, 2022.

Application:

Applicants should submit a curriculum vitae, diploma and a list and grades of university courses and other relevant documents, for the evaluation to bolsas@coimbra.lip.pt

More Information

ADDITIONAL INFORMATION

Benefits

The monthly amount of 835,98€, is in accordance with the values stipulated in the “FCT Regulation for Research Studentships and Fellowships”:
https://www.fct.pt/apoios/bolsas/docs/Tabela_Valores_SMM_LOE_2021.pdf
This amount will be paid on a monthly basis through a bank transfer to the grant holder's bank account.

Eligibility criteria

Applicants should fulfil the requirements to join a course granting a higher academic degree (degree or master) or in a non-academic degree course, as stipulated in the “Regulations for Research Grants of the Foundation for Science and Technology” (Article 6).

When contracting, it will also be necessary the candidate present a proof of enrollment in the course granting or not, a higher academic degree.
In the event of the degree was awarded by a foreign higher education institution, the degree must comply with the provisions of the Decree-Law nº. 66/2018, of 16 august (https://www.dges.gov.pt/en/pagina/degree-and-diploma-recognition?plid=1536). The selected candidate must provide the recognition of the degree when signing the contract.

Selection process

Evaluation:
The members of the jury will take into consideration the CV (50%) and its relevance to project needs (50%).
If none of the candidates fulfills the appropriate profile, the scholarship will not be awarded.

Members of the Jury:
Rui Curado da Silva, Filomena Pinto dos Santos, Ricardo Gonçalo

Advertising / notification of results:
The results of the evaluation will be communicated by email; in case of disagreement, the candidates have a period of 10 working days to contest the decision, as provided for in the Code of Administrative Procedure in a preliminary hearing. At the end of this period, the arguments presented will be analysed by the jury committee, who

will simultaneously communicate the final decision to all the candidates who submitted allegations. The final results of the shortlisted applicants will be communicated by e-mail. In case of disagreement, the candidates have a period of 15 working days to contest the decision.

Web site for additional job details

https://www.lip.pt/?section=about&page=recruitment

REQUIREMENTS

Offer Requirements

REQUIRED EDUCATION LEVEL
Engineering: Bachelor Degree or equivalent

REQUIRED LANGUAGES
ENGLISH: Good

Skills/Qualifications

Requirements:
Degree in Electrotechnical Engineering or equivalent
Preference criteria:
FPGAs' and radiation detectors' experience.
Fluent in English.

The candidate must have a degree in Electrotechnical Engineering and must be enrolled in a course granting a higher academic degree or in a non-academic degree course as mentioned in "Regulations for Research Grants of the Foundation for Science and Technology".
Must also have a good level of knowledge in FPGA for high-energy radiation detectors (X- and gamma-rays) development and testing.

Specific Requirements

Required Research Experience: FPGA's development and testing

Map Information

Job Work Location Personal Assistance locations

WORK LOCATION(S)

1 position(s) available at
LIP - Laboratório de Instrumentação
e Física Experimental de Partículas
Portugal
Coimbra
3004-516
Departamento de Física da
Universidade de Coimbra, Rua
Larga

EURAXESS offer ID: 734921

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