Notice for International Call to hire a PhD Researcher

Job/Fellowship Reference: Projeto "NeurOxide", PTDC/NAN-MAT/30812/2017 - #NOVAID103

Main research field: Engineering

Job summary:

By decision of the Board of Directors, NOVA.id.FCT - Associação para a Inovação e Desenvolvimento da FCT ("NOVA.id.FCT") opens an international call to hire a PhD Researcher, with the internal reference "#NOVAID103", under a unfixed term employment contract to conduct research activities in the field of Material Engineering or Nanotechnology in the scope of the Project "NeurOxide" PTDC/NAN-MAT/30812/2017, financed by "Fundação para a Ciência e Tecnologia, I.P.".

Job description:

1. Type of contract and applicable legislation

The hiring of the PhD Researcher shall be made by means of an Unfixed Term Employment Contract entered into in accordance with the Portuguese Labour Code approved by the Law no. 7/2009 of February 12th, as amended. The contract should have a forecasted duration of 18 months and should not be extended further than the project duration. The contract should begin in 2020 of March.

The present hiring procedure is further governed inter alia by Decree-law no. 57/2016 of July 19th, as amended by Law no. 57/2017 of August 29th and Regulatory decree no. 11-A/2017 of December 29th.

2. Main attributions and activities and exclusivity

The PhD Researcher shall be responsible for creating a mechanistic understanding of resistive switching in amorphous oxide semiconductors to support the circuit designers in the development of the memristor model. He/she will employ adequate techniques for material characterization to provide the physical fundament to the model. Supervision of other team members is required, which will perform the fabrication and electrical characterization of memristor devices for neuromorphic applications and cross-bar RAMs.

The PhD Researcher shall fully devote the whole of his/her professional activity to NOVA.id.FCT, on an exclusive basis.

3. Place of work

The PhD Researcher's working place shall be at the premises of Departament of Material Sciences using clean room and electrical labs in CENIMAT located in Faculdade de Ciências e Tecnologia da Universidade NOVA de Lisboa (FCT-NOVA), and he/she shall travel, in Portugal or abroad, as required by his/her attributions or as necessary for his/her activity.

4. Monthly remuneration

The PhD Researcher shall earn a monthly remuneration in the gross amount of €2,128,34 by reference to the 1st grade of the salary scale, pursuant to number 2 of Article 15 of Decre-Law no. 57/2016 of 19 July, as amended by Law no. 57/2017 of 29 August, and Regulatory Decre no. 11-A / 2017, of December 29.

5. Admission Requirements

Applicants to this call may be national, foreign or stateless candidates holding a PhD degree in the field of Materials Engineering or Nanotechnology or Physics, legally valid and/or recognized in Portugal and complying with the following specific requirements:
a) Knowledge on defect states of oxide-based semiconductors.

b) Understanding of memristor device physics and working mechanisms (ECM, VCM and PCM).

c) Hands-on experience with material characterization tools, e.g. Thermally stimulated current (TSC) measurements.

d) Experience in working in clean room fabricating thin film transistors and memristors.

e) Experience with electrical measurements.

f) Excellent written and verbal communication skills will be required for technical reporting and problem solving.

6. Evaluation of the Applications and Composition of the Jury

Applications shall be subject to evaluation by a jury that shall follow the procedure established in articles 13 and 14 (by virtue of article 19) of Decree-Law no. 57/2016 of 19 July, as amended by Law no. 57/2017 of 29 August.

Pursuant to Article 13 of Decree-Law no. 57/2016 the jury is composed of the following members:

- Chairwoman: Dr. Asal Kiazadeh;
- Member: Prof. Dr. Pedro Barquinha;
- Member: Prof. Dr. Elvira Fortunato;
- Substitute Member: Prof. Dr. Rita Branquinho;
- Substitute Member: Prof. Dr. Joana Vaz Pinto.

7. Selection criteria

The selection of the successful candidate will be carried out through the evaluation of the scientific and curricular achievements as established by Decree-Law no. 57/2016 of 19 July, as amended by Law no. 57/2017 of 29 August and the selection criteria and their respective weighting shall be as follows:

a) Curricular analysis (40 %);

b) Cover letter include of scientific domains and expertise (50%)

c) Quality of the Interview (10%).

The interview will be done only to the candidates with classification higher than 80 % in the first two criteria.

8. Final Decision

The final deliberation of the jury shall be homologated by the ultimate governing body of NOVA.id.FCT that is also responsible for the decision of hiring.

The list of admitted and excluded candidates and the final list of classification will be publicised on the website of NOVA.id.FCT (www.novaidfct.pt) and sent by electronic mail with receipt of delivery to all candidates.

9. Submission of Applications

Applications must be submitted between 2020/02/06 and 2020/02/19, by email, addressed to cenimat.secretariado@fct.unl.pt, CC: a.kiazaden@fct.unl.pt indicating “Application to NeurOxide project” and containing a single PDF file with the following documents in Portuguese or English languages: Cover letter, Curriculum Vitae, PhD Degree Certificate.

10. Non-discrimination and equal Access policy

NOVA.id.FCT actively promotes a non-discrimination and equal access policy, reason for which no candidate can be benefited, prejudiced or deprived of any duty, namely age, sex, disability, sexual orientation, chronic illness, nationality, ethnic origin or race, religion or political beliefs.

Vacant posts: 1

Type of contract: Information not available

Job country: Portugal

Job city: Caparica

Job company/institute: Nova.id.FCT - Associação para a Inovação e Desenvolvimento da FCT

Application deadline: 19 Fevereiro 2020
(The Application’s deadline must be confirmed on the Job Description)
2. Organization contact data

**Organization/institute:** NOVA.ID.FCT - Associação para a Inovação e Desenvolvimento da FCT

**Address:**
Universidade Nova de Lisboa - Campus de Caparica
Caparica - 2829-516
Portugal

**Email:** coord@novaidfct.pt

**Website:** [http://www.novaid.fct.unl.pt/](http://www.novaid.fct.unl.pt/)

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3. Habilitações académicas
3. Required education Level

Empty

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4. Línguas exigidas
4. Required languages

Empty

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5. Experiência exigida em investigação
5. Required research experience

Empty