Universidade Nova de Lisboa
Faculdade de Ciências e Tecnologia

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Deadline: 16/04/2024

International competition to recruit 1 Junior Researcher

Under the terms of Order no. 181/2023, of 04 January, by delegation of powers, the Director of the Faculty of Science and Technology of Universidade NOVA de Lisboa, Prof. Dr José Júlio Alves Alferes, hereby announces that, by order of 26/02/2024, an international open competition, with internal reference "Inv.Junior-1-DCM ", is open for a period of 15 working days from the day immediately following the publication of this Notice in the Diário da República, for the recruitment of 1 (one) Junior Researcher, on an uncertain-term employment contract, under the terms of Decree-Law no. 57/2016, of 29 August, amended by Law no. 57/2017, of 19 July, in the scientific area of Advanced Functional Materials for Electronics, Energy and Biosensors, with emphasis on Sustainable Technologies for Healthcare Applications, under the programme contract Stimulus Tender for Institutional Scientific Employment - CEEC INSTITUCIONAL 2021 funded by the Foundation for Science and Technology, I.P., to support the development of R&D activities, signed between FCT, I. P. and UNL, under the terms of the Scientific Employment Regulation (REC), Regulation no. 607-A/2017, of 22 November, with the necessary changes introduced, and other applicable national and Community legislation.

In compliance with paragraph h) of article 9 of the Constitution of the Portuguese Republic, the NOVA University of Lisbon, as an employer, actively promotes a policy of equal opportunities between men and women in access to employment and professional progress, scrupulously taking steps to avoid any form of discrimination.

I - Work Place

Installations of the Faculty of Sciences and Technology of Universidade NOVA, located in the Caparica Campus, at the Department of Materials Science, Materials Research Centre, CENIMAT|I3N.

II - Activities and Functions:

The selected candidate will work as a Junior Researcher and will carry out the following tasks:

a) Implementation of materials and device technologies by direct laser writing processing;

b) Design and architecture of electronic devices, particularly 2D devices for energy and health applications, including biosensors, and their integration;

c) Processing of active devices with transistors and passive devices such as supercapacitors and contacts for photocatalysis for integrated applications in sustainable electronics and bioelectronics;

d) Testing and validation of materials and devices;
e) Support for the training of master’s and doctoral students;

f) Promotion and dissemination.

The aim of this work plan is to contribute to the goals of the 2030 Agenda, in particular goals: 7 (clean and affordable energy); 3 (good health and well-being); 4 (quality of education); 12 (responsible consumption and production).

III - Remuneratory position:

Under the terms of article 2 of Regulatory Decree no. 11-A/2017 of 29 December, the definition of the position is based on remuneration level 33 of the Single Remuneration Table (TRU), which corresponds to €2,294.95.

IV - Modality and duration:

1. The opening of the present tender procedure is intended for the selection of a post of doctoral candidate to carry out scientific research activities under an employment contract for an unspecified fixed term, where the basis for hiring is the execution of a determined, precisely defined and non-lasting service, and the contract must be financed regardless of its origin.

2. The uncertain-term contract will last for as long as is necessary to carry out the project, or for as long as the respective justification persists, but may not exceed the maximum limit set out in Article 6(3) of Decree-Law 57/2016 of 29 August, 6 years.

V - Requirements for admission of candidates

- Hold a doctoral degree in the scientific area of the competition or in related area;
- Have a relevant scientific curriculum in the area of the competition;
- National, foreign and stateless candidates may apply to this competition provided that their doctoral degree is duly registered and/or recognised in Portugal (mandatory requirement).

VI - Instruction of the candidature

1. The application must be completed by filling in the respective application form, which is available at https://www.fct.unl.pt/en/faculdade/concursos/investigadores.

2. The application must be accompanied by the documents in Portuguese or English.

3. The application should be submitted by e-mail, containing the following documents:

   a) Certificate proving the degree of Doctor in the disciplinary area of the competition;

   b) Curriculum vitae of the candidate, organised according to the system in point IX of this Notice, which must include:

      i) The identifications “Researcher ID”, “Scopus Author ID” and “Google Scholar ID”.
ii) Research and development activities and all other activities considered relevant to the present tendering procedure, in accordance with the terms of the present announcement;

iii) Scientific development plan - scientific development plan (max. 2 pages), framed within the disciplinary area of the competition, in accordance with the activities and functions to be carried out, and articulated with the results of your previous scientific activity and professional experience, as well as your academic and professional training.

c) Published works, mentioned in the curriculum vitae, namely the most representative ones, regarding their contribution to the development and evolution of the disciplinary area in which the competition is open;

d) Declaration, under oath, that if the jury chooses to request the documentation indicated in the previous items or any other scientific documentation cited in the candidate's curriculum vitae, it will be delivered within 10 working days;

e) Other documents that the candidates may find relevant for the analysis of their application.

4. If a member of the jury is a non-Portuguese-speaking member, the documents for the candidates' prior hearing and claims to be considered by the jury must be submitted in English.

VII - Submission of the application

1. The application documents must be submitted by the 15th working day after the day following the publication of this Notice in the Official Journal.

2. Candidates will submit their application documents, in PDF format, by e-mail to the following address: div.rh.recrutamento@fct.unl.pt, indicating the internal reference Inv.Junior-1-DCM in the title.

VIII – Interview

1. The Jury shall decide in the first meeting whether it is necessary to interview all the candidates or some of the candidates.

2. The interview has a maximum weight of 10% of the total evaluation.

3. The interview shall aim at clarifying or explaining the elements contained in the candidates’ Curriculum Vitae.

IX - Evaluation parameters

1. The present competition is designed to evaluate candidates’ capacity and performance in the different parameters under the terms of paragraph 1 of article 5 of DL no. 57/2016.

2. The curricular evaluation of the various candidates in each of the strands described below shall take into consideration the scientific area in which the competition is open.

3. The parameters to be taken into consideration in the curricular evaluation of the candidates, in each of the aspects, are the following, referring to the last five years:

   a) Scientific Production and Quality of Scientific and Technological Work (SPQSTW);
b) Applied or Practice-Based Research Activities (APBRA);

c) Extension and Knowledge Dissemination Activities (EKDA);

d) Science, Technology and Innovation Programme Management Activities (STIPMA);


X - Reasons for exclusion

The following are grounds for excluding a candidate from admission to the competition:

a) Incorrect formalization of the application;

b) Failure to fulfil the requirements listed in point V;

c) Failure to submit the documents required in points V(3)(a) to (d), or their submission is illegible or invalid.

XI - Ranking of candidates

1. The jury shall decide on the admissibility of the candidates, by justified roll-call vote, expressed by the formulas Rejected or Approved.

2. Each panel member shall make a justified proposal of rejected or approved for each of the candidates.

3. The candidate who obtains the favorable vote of more than half of the members of the jury shall be considered approved.

XII- Ordering and voting methodology

1. Once the candidates who have passed with absolute merit have been definitively identified, the jury shall proceed to their relative classification.

2. Each member of the jury shall perform a curricular evaluation of the candidates by presenting a written opinion, to be later included in the minutes, in which they propose the ranking of the candidates duly based on the evaluation criteria indicated in this notice, scoring each candidate for each criterion on a numerical scale from 0 to 100 points.

3. The evaluation criteria indicated should be weighted as follows:

a) **Scientific Production and Quality of Scientific and Technological Work (SPQSTW): 50%**

   According to the call for proposals, it will be particularly relevant to the scientific area of Advanced Functional Materials for Electronics, Energy and Biosensors, with an emphasis on sustainable technologies for health applications.

b) **Applied or Practice-Based Research Activities (APBRA): 25%**

   In particular: implementation of materials and device technologies by direct laser writing processing; design and architecture of electronic devices, particularly 2D devices for energy and health applications, namely bio-sensors, and their integration; processing of active devices with transistors and passive devices such
as supercapacitors and contacts for photocatalysis for integrated applications in sustainable electronics and bioelectronics;

c) Extension and Knowledge Dissemination Activities (EKDA): 10%

Extension activities and the dissemination of scientific knowledge, namely the organisation of courses, seminars and national and international conferences.

d) Science, Technology and Innovation Programme Management Activities (STIPMA): 5%

In particular, support for the management of associated research laboratories.

e) Scientific Development Plan (SDP): 10%

Associated with the research to be carried out and the future strategy with an impact on science and technology.

4. The ordering of the Approved candidates is done by vote of the members of the jury, respecting the order presented in the opinion referred to in the previous number, under the following terms:

a) The first vote shall be aimed at determining the candidate to be placed first;

b) In the voting referred to in the previous sub-paragraph, if a candidate obtains more than half of the votes to be placed first, he/she shall be ranked in that position;

c) Should the situation referred to in the previous sub-paragraph not occur, a new vote shall be held, only among the candidates who obtained votes for first place, after withdrawing the candidate who received the least votes for that position in the previous vote;

d) If there is more than one candidate to be withdrawn, due to an equal number of votes, with a minimum of one vote each, a vote shall be held only on those candidates in order to determine the candidate to be withdrawn from the following vote; in that vote, each member shall vote, from among the candidates with equal votes, for the candidate occupying the lowest position in the ranking on his or her report

e) In case of a tie, the tie shall be broken through the tie-breaker vote or the Chairperson's casting vote.

f) Voting shall be repeated until it is determined, by the process previously described, which candidate shall be ranked first. If only two candidates remain and each one obtains half of the votes, the tie-breaker is made through the quality vote of the jury chairperson;

g) Once the candidate for the first place is chosen, he/she is removed from the voting and the entire process is repeated for the second place and so on until the ordered list of all the candidates is obtained.

XIII - Notifications and Hearing of Interested Parties

1. A prior hearing shall be held, under the terms of the Administrative Procedure Code, for candidates who have been rejected, and for candidates who have been placed on the ranking list of candidates who cannot
be filled for the position open for competition. All the candidates shall be notified of the homologation of the jury's final deliberation.

2. Notifications shall be made by e-mail.

3. The tender dossier may be consulted by the candidates, in the Human Resources Division of FCT NOVA, under the terms indicated in the above mentioned notification.

XIV- Composition of the Jury:

Chairman:

Doctor João Paulo Miranda Ribeiro Borges, Full Professor of Faculdade de Ciências e Tecnologia da Universidade NOVA de Lisboa;

Effective Members:

Doctor Rodrigo Ferrão de Paiva Martins, Invited Full Professor of Faculdade de Ciências e Tecnologia da Universidade NOVA de Lisboa;

Doctor Pedro Miguel Cândido Barquinha, Associate Professor of Faculdade de Ciências e Tecnologia da Universidade NOVA de Lisboa;

Doctor Rui Alberto Garção Barreira do Nascimento Igreja, Associate Professor of Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa;

Doctor Rita Maria Mourão Salazar Branquinho, Assistant Professor of Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa

XV - Data Protection

In accordance with the RGPD - General Data Protection Regulation, the data collected will be processed exclusively for the processing of the application.

The Dean, Prof. Doutor José Alferes