

New University of Lisbon

NOVA School of Science and Technology

Notice no. 3495/2024 published in *Diário da República*, 2nd series, no. 30, 12/02/2024

Deadline: 04/03/2024

Opening of an international selection procedure for the recruitment of 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 NOVA University of Lisbon, Prof. Dr José Júlio Alves Alferes, hereby announces that, by order of 02/02/2024, an international call for applications is open for a period of 15 working days from the day following the publication of this Notice in the *Diário da República*, with internal reference **CT-PRR-01-2024-DCM-GAS**, for the recruitment of 1 Junior Researcher under an unfixed-term contract for the maximum period of execution of the projects " R2U Technologies | modular systems", Ref.^a C644876810-00000019, and "Agenda Be.Neutral", Ref.^a C625244769-00462300" within the scope of the Financing Contract-Program for the Recovery and Resilience Plan (PRR), under No. 1 of Order No. 11888-B/2021, of 30 November, signed between the New University of Lisbon and the Directorate-General for Higher Education, under the terms. Decree-Law no. 57/2016, of 29 August, amended by Law no. 57/2017, of 19 July, in the scientific area of Materials Engineering, Nanotechnology and related areas, with emphasis on the development of gas sensors with low temperature operation based on thin films and nanostructures.

In compliance with paragraph h) of Article 9 of the Constitution of the Portuguese Republic, the New University of Lisbon, as an employer, actively promotes a policy of equal opportunities between men and women in access to employment and professional advancement, taking scrupulous care to avoid any form of discrimination.

I - Workplace

Nova School of Science and Technology of NOVA University of Lisbon, in *Caparica* Campus, Department of Materials Science, Materials Research Centre (CENIMAT|3N).

II - Activities and function

A atividade a desenvolver insere-se nos WP2 e WP3 do projeto "R2U Technologies | modular systems" e no WP6 do projeto "Agenda Be.Neutral", pretendendo-se que o candidato lidere o desenvolvimento de soluções de sensorização de gases para ambientes indoor e outdoor em substratos flexíveis para integração em painéis de construção de edifícios e no interior de veículos de baixo custo. Mais especificamente, as funções incluem:

a) Levantamento de estado da arte sobre soluções de sensorização de gases em substratos flexíveis;

- b) Desenvolvimento de sensores de gases em substratos flexíveis e baixa temperatura de operação para monitorização de qualidade do ar indoor e outdoor, preferencialmente por processos de solução (e.g., spin-coating, spray-coating, printing), incluindo seleção de materiais, processos, fabrico e caracterização, visando a otimização de desempenho e estabilidade para utilização em veículos automóveis e em soluções de construção modular;
- c) Implementação de equipamento para caracterização dos sensores acima referidos no CENIMAT|3N;
- d) Support for project partners in migrating manufacturing processes to large-area equipment;
- e) Integration of sensors into building construction elements (e.g. glass, textiles) and parts inside vehicles;
- f) (Co-)supervising master's and/or bachelor's students in research projects related to the topics described above;
- g) Participation in regular consortium meetings and preparation of periodic technical-scientific reports and presentations related to the topics described above;
- h) Dissemination of the work carried out in articles and technical-scientific conferences.

III - Remuneration positioning:

The definition of the position is based on the remuneration levels of the categories in Annex I of the Statute of the Career of Scientific Research, approved by Decree-Law No. 124/99, of April 20th, as amended, and Regulatory Decree No. 11-A/2017, of 29 December, corresponding to the 3st salary position, salary level 44, which corresponds to the value of 2.893,81€.

IV - Modality and duration

1. The opening of the present tender procedure is intended for the selection of a PhD position for carrying out scientific research activities under an unfixed-term employment contract. The basis of the hiring is the execution of a service that is precisely defined and non-lasting, being obligatorily financed, whatever its origin;
2. The unfixed-term employment contract has the duration of the project task (approximately 23 months) or while the funding lasts but cannot exceed the maximum limit of 72 months

V - Candidates Admission Criteria

1. Under the terms of article 12.º Decree-Law no. 57/2016, of 29 August, the candidate should:
 - Hold a PhD degree in the area of the call or in related areas;
 - To have a relevant scientific curriculum in the area of the call;

- Have practical experience in the manufacture and characterisation of gas sensors using nanomaterials, preferably semiconductor oxides;
2. Preference will be given to candidates with the availability and logistical capacity to start the duties listed in point II of this notice as soon as possible.

VI - Application Instruction

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 process must be instructed with the documentation in Portuguese or English.
3. The application should be submitted by e-mail, containing the following documents:
 - a) Curriculum vitae of the candidate, which must include:
 - i) “Researcher ID”, “Scopus Author ID” and “Google Scholar ID” identifications
 - ii) Research and development activities and other activities relevant for the present tender procedure, in concordance with the terms of the call.
 - b) Certificate attesting to a PhD degree in disciplinary area or similar areas related to the procedure;
 - c) Published works, mentioned in the curriculum vitae, namely the most representative ones, as regards their contribution to the development and evolution of the disciplinary area in which the procedure 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 not fluent in Portuguese, the documents for the candidates' prior hearing and complaints are necessarily presented in English that will be assessed by the jury.

VII - Presentation of the application

1. The application documents must be submitted by the 15th working day counted from the day following the publication of this Notice in the *Diário da República*.
2. Candidates must submit their application documents, in a single file in PDF format, by e-mail to the following address: div.rh.recrutamento@fct.unl.pt.

VIII - Interview

1. The Jury will deliberate at its first meeting whether an interview is necessary and whether to interview all or some of the candidates;
2. The interview if held, has a maximum weight of 10% of the total evaluation;

3. The interview aims at obtaining clarifications or clarifying the elements contained in the candidates Curriculum vitae, in case of need.

IX- Evaluation Criteria

1. The present procedure is designed to evaluate the candidate's capacity and performance in the different parameters under the terms of no. 1 of article 5 of DL no. 57/2016;
2. The curricular evaluation of the various candidates in each of the areas described below must take into consideration the scientific area in which the call is open;
3. The parameters to be taken into account when assessing candidates' curricula, in each of the areas, are those listed below, referring to the last 5 years, always taking into account their relevance, quality and updating:
 - a) Scientific, technological production (STP);
 - b) Applied, or practice-based, research activities (APBRA);
 - c) Extension and knowledge dissemination activities (EKDA);
 - d) Science, technology and innovation program management activities (STIPMA);

X - Grounds for exclusion

The following are grounds for exclusion from admission to the call:

- a) Incorrectly formalizing the application;
- b) Failure to submit the documents required in point VI number 3 paragraph a) to (d), or submitting them in an illegible or invalid format.

XI - Classification of candidates

1. The jury will deliberate on the admissibility of the candidates, by justified roll call vote, expressed by the formulas Rejected or Approved;
2. Each member of the jury presents 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 jury members is considered approved.

XII - Sorting and voting methodology

1. Once the approved candidates have been definitively identified in absolute merit, the jury proceed to their classification in relative merit;
2. Each member of the jury will perform a curricular evaluation of the candidates by presenting a written statement, which will later be included in the minute, in which it proposes the ranking of the

candidates duly based on the evaluation criteria indicated in this notice, scoring each candidate against each criterion on a numerical scale from 0 to 100 points;

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

Scientific and Technological Production (**STP**): **40%**

Applied or Practice-Based Research Activities (**APBRA**): **50%**

Extension and Knowledge Dissemination Activities (**EKDA**): **5%**

Science, Technology and Innovation Program Management Activities (**STIPMA**): **5%**

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

- a) The first vote is intended to determine the candidate to be placed in first place;
- b) In the voting referred to in the previous paragraph, if a candidate obtains more than half of the votes to be placed in first, he is ordained in this position;
- c) If the situation referred to in the previous paragraph is not verified, a new vote is held, only among the candidates who obtained votes for 1st place, after withdrawing the lesser candidate voted for that seat in the previous voting;
- 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 is held only on these to determine the candidate for withdraw from the next vote; in this vote, each member will vote, from among the candidates equally of votes, for the candidate occupying the lowest position in the ranking in his opinion;
- e) If there is a tie, the tiebreaker is done through the tiebreaker vote or vote of quality of the president of the jury;
- f) Voting shall be repeated until it is determined, by the process described above, which candidate is to be ranked first. If only two candidates remain and each of them obtains half of the votes, the tie shall be broken through the quality vote of the President of the jury;
- 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.

XIII - Notifications and Hearing of Interested Parties

1. A prior hearing shall be held, under the terms of the Administrative Procedure Code, for those candidates who have been rejected, and of candidates who have been placed on the ranking list of the candidates who cannot be filled for the position in the competition. All candidates shall be notified of the ratification of the jury's final decision;
2. Notifications shall be made by email;

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 - Jury Composition

President:

Doctor Pedro Miguel Cândido Barquinha, Associate Professor, Nova School of Science and Technology of NOVA University of Lisbon;

Effective Members:

Doctor Rui Alberto Garção Barreira do Nascimento Igreja, Associate Professor, Nova School of Science and Technology of NOVA University of Lisbon;

Doctor Rodrigo Ferrão de Paiva Martins, Invited Full Professor Nova School of Science and Technology of NOVA University of Lisbon;

Substitute members

Doctor Joana Maria Dória Vaz Pinto Morais Sarmiento, Assistant Professor, Nova School of Science and Technology of NOVA University of Lisbon;

Doctor Emanuel Abreu Antunes Gameiro Carlos, Assistant Researcher, Nova School of Science and Technology of NOVA University of Lisbon.

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.

And for the record, this notice is published.

NOVA School of Sciences and Technology, Prof. Doctor José Alferes, Dean