



NOTICE OF APPLICATION PROCEDURE

The International Iberian Nanotechnology Laboratory (INL) has opened a call for 19 Doctoral Fellowships in the field of Quantum Science and Technology

1. IDENTIFICATION OF FELLOWSHIPS OFFERED

The International Iberian Nanotechnology Laboratory (INL) hereby opens an application procedure for selection of applicants for Doctoral Fellowships, under the Scientific Research Fellowship Statute (RFS), approved by Law 40/2004 of 18 August, as subsequently amended, and the Research Fellowships Regulation of Fundação para a Ciência e a Tecnologia, I.P. (RFR).

The Doctoral Fellowships (DFs) to be awarded, subject to an upper limit of 19 DFs, shall be contracted and funded directly by Fundação para a Ciência e a Tecnologia, I.P. (FCT, I.P.) and, when eligible, by allocations from the European Social Fund through Portugal 2020 Operational Programmes.

As a rule, the DFs shall have a duration of one year, renewable for a maximum number of months as requested in the application; fellowships shall not be awarded for a period of less than three consecutive months or more than forty-eight months.

The Application Procedure is open from the 23rd of June to the 22nd of October of 2020, until 23h00m, Lisbon time.

2. SCIENTIFIC AREA

Quantum Science and Technology.

3. RESEARCH PLAN, HOST INSTITUTION AND DEGREE, AND SUPERVISORS

Doctoral fellowships shall be awarded to applicants who meet the requirements established in item 4 of this Notice and who seek to conduct research through which they obtain the academic degree of PhD, in the following areas:

- 1) Quantum communication;
- 2) Quantum computing;
- 3) Quantum information science;
- 4) Quantum materials for quantum science and technology;
- 5) Sensors and imaging for quantum metrology;
- 6) Quantum simulation.

INL shall be the host institution for the PhD students.

The research work may be conducted at INL. If so, free access to all INL resources are offered provided that an INL researcher is involved in the project.

The academic degree of PhD may be awarded by any Portuguese higher education institution qualified for this purpose in an accredited doctoral programme.

INL shall establish partnerships with the higher education institutions that will award the academic degree of PhD to the selected applicants, with a view to the successful execution of the research work involved in the fellowships funded.



In the applications, applicants must identify:

- The Portuguese higher education institution and doctoral programme in which they intend to enrol in order to obtain the degree of PhD;
- The [INL researcher](#) who will act as co-supervisor if there will be research work conducted at the host institution;
- The researcher at the higher education institution awarding the degree of PhD who will act as supervisor of the research work.
- The research plan must be drawn up so as to take into account the contributions of the supervisor and co-supervisor.

4. APPLICANTS

Applicants must comply with the following requirements:

- Be a Portuguese citizen, a European Union citizen or a non-European Union Citizen that can be eligible to obtain permit to reside in Portugal;
- Hold a Master Degree (or an equivalent degree) ideally in the field of Physics, Chemistry, Chemical Engineering, Physical Engineering, Physical Chemistry, Mathematics, Computer Science, Computer Engineering, Information Technology, Quantum Materials Science, Modelling, Simulation or a closely related discipline;
- Fluency in English is required;
- Not have benefited from a doctoral fellowship or in-company doctoral fellowship directly funded by FCT, irrespective of its duration.

5. SUBMISSION OF APPLICATIONS

5.1. Applications are submitted online, accompanied by the relevant documents, within the respective submission deadline.

For the application to be valid, applicants must complete all the necessary sections of the online application form, and also send all the documents identified as required.

5.2. Candidates must enclose the following supporting documents in pdf format, failing which the application will not be considered for evaluation:

- Motivation letter (1 page);
- Applicant's detailed CV, signed and dated ([Template](#));
- Research programme, detailing the prospective research work ([Template](#));
- List of publications, patents, posters and awards won by applicant (when applicable);
- Certificates of academic degrees;
- Registration of the recognition of academic degrees awarded by foreign higher education institutions*;
- At least two letters of recommendation;
- CV of supervisor and co-supervisor ([CV Template](#)), highlighting proven evidence of supervisory capacity, experience, list of projects and research work undertaken, highlighting those conducted in the past five years, list of publications, patents, awards, etc.

Note: The documents must be submitted through the online platform Jobvite, in the "additional files" section using the "add portfolio" icon that appears in the application form.

*In the case of academic degrees awarded by foreign higher education institutions, and to guarantee the application of the principle of equal treatment to candidates who hold foreign national degrees, it is mandatory to recognise those degrees.



The recognition of foreign academic degrees and diplomas can be required in any public higher education institution, or in the Directorate-General for Higher Education (DGES, only in case of automatic recognition). Regarding this matter, it is suggested to consult the DGES portal through the following link: <http://www.dges.gov.pt>.

If the candidates do not yet have the certificate of recognition of the degree, a declaration of honour from the candidates (**Template**) will be accepted mentioning the requirement of the necessary recognition of the qualifications for the competition by the end of the application deadline. The starting of the scholarship will always depend on the presentation of the proof of recognition of the academic qualifications required to grant the scholarships. The failure to demonstrate, at the contracting phase, the proof of recognition of the Master's degree, implies the candidate's non-eligibility, due to an error regarding the facts assumptions.

6. HOST INSTITUTION

INL - Laboratório Ibérico Internacional de Nanotecnologia with registered office at Av. Mestre José Veiga S/N – 4715 – 330 Braga.

7. SELECTION AND SCORING METHODS

7.1. Applicants will be selected in two stages following the evaluation criteria below:

- Merits of the Applicant, the Research Plan and the Hosting Conditions (**A**), which will be done in a 1st stage and will have a weight in the final classification of 90%;
- Interview (**B**), which will be done in a 2nd stage and will have a weight in the final classification of 10%.

Therefore, the final classification will be translated in the following formula:

$$\text{Final Classification} = (0,9 * A) + (0.1 * B)$$

Each evaluation criterion will be scored from 0 to 100.

7.2. Stage 1: Assessment of the Merits of the Applicant, the Research Plan and Hosting Conditions (A).

At this stage, applicants will be evaluated in accordance with the following sub criteria:

- Merit of the applicant (A1), assessed through the Curriculum Vitae assessment, motivation letter and letters of recommendation, on the basis of academic training, professional experience, scientific output and motivation. This sub criteria will be scored from 0 to 40;
- Merit of the research plan (A2), assessed on the basis of: relevance of topic, scientific quality of state of the art, methodology and feasibility of research programme. This sub criterion will be scored from 0 to 40;
- Merit of hosting conditions (A3), assessed on the basis of: scientific merit and experience of co-supervisor and resources made available by INL and higher education institutions for implementation of the proposed research plan. This sub criterion will be scored from 0 to 20.

Therefore, classification of the criterion A will be obtained by applying the following formula:

$$\text{Criterion} = A1 + A2 + A3$$



7.3. In the interview (B), an assessment is made of the applicant's knowledge, technical skills, motivation and availability. Interviews will be conducted through web conference or face-to-face meetings, as may be deemed appropriate.

7.4. The criterion A will be eliminatory for candidates who obtain a score below 70 points. Therefore, only applicants with a score of 70 points or more in the criterion A shall be selected for stage 2 (B - Interview). Applicants will be selected for interview by e-mail, sent no less than 5 working days prior to the date set for the interview.

7.5. The criterion B will be eliminatory for candidates who do not attend the interview or obtain a score below 50 points. Therefore, only applications with a score of 50 points or more will be considered for the final ranking.

7.6. Applicants who successfully complete the selection process are ranked in accordance with the quantitative scores obtained in each selection phase.

7.7. The final classification of each candidate is assigned by the Selection Committee in the following terms:

- **Individual Evaluation:** each evaluator fills out an evaluation report for each of the eligible applications, scoring the criteria and respective sub-criteria evaluation separately, assigning a quantitative classification and corresponding comments, in order to clearly justify the classification obtained;
- **Collective Evaluation:** all the members of the Selection Committee must meet, in person or by electronic means, in order to discuss collectively all applications submitted to the Selection Committee, taking into account the individual evaluation reports. The final classification of the applications will be expressed through a final evaluation report by the Selection Committee, and there must be a correspondence between the final ratings attributed and the comments that support them. The Selection Committee will also draw up a single provisional list of candidates.

7.8. The candidates have access to the jury minutes, which contain the evaluation parameters and respective weighting, the classification grid and the method's final valuation system, as long as they request them.

8. SELECTION PANEL

INL shall appoint a selection panel comprising no less than three experts of recognised experience and scientific merit selected from academe and/or industry, chaired by one of the panel members. The membership of the panel that will evaluate the applications is made public on the INL official website. The membership of the panel will be announced shortly after the application submission period is finished and before the start of the evaluation process.

9. PUBLICATION AND NOTIFICATION OF RESULTS

All notices to applicants, namely on the final decision and its justification, shall be made by e-mail to the address stated on the application form over the R&S online platform, and the results of the selection process shall also be announced to all applicants by the same means.

10. DURATION OF FELLOWSHIP



In accordance with the RFR, fellowships have a duration of one year, renewable for up to a maximum of four years, and it is foreseeable that they will commence in January 2021. The selected applicants shall perform the duties of research fellow on an exclusive basis in accordance with the RFS.

11. FELLOWSHIP GRANT REQUIREMENTS

The research fellowship contracts are signed directly with FCT.

The following documents must be sent to INL, upon granting the fellowship, for the purposes of contracting:

- a) Copy of the ID, tax and, when applicable, social security identification documents¹;
- b) Copy of academic qualifications' certificates;
- c) Proof of foreign qualifications recognition, when applicable;
- d) Proof of registration and enrolment in one of the Doctoral Fellowships;
- e) Supervisor(s) declarations taking responsibility for the supervision of the work plan, in accordance to article 5-A of the Research Fellowship Holder Statute (declaration's minute to be made available);
- f) Proof of candidate's acceptance by the institution where the research activities will take place, guaranteeing the necessary conditions for its good development, as well as the fulfilment of the duties provided for in the article 13 of the Research Fellowship Holder Statute (declaration's minute to be made available);
- g) Updated document of proof of compliance with the exclusive dedication regime (declaration's minute to be made available).

The grant of the fellowship is still dependent on:

- the compliance with the expected requirements present on the Opening Call;
- the result of the scientific evaluation;
- the nonexistence of the noncompliance unjustified of the fellow duties within the scope of previous funded fellowship contract, directly or indirectly, by FCT;
- the financial availability of FCT.

Failing to deliver any of the necessary documents for the completion of the process of granting the fellowship, within 6 months from the date the decision of the conditional grant of the fellowship is communicated, implies the expiry of said grant and the termination of the process.

12. FINANCING

The payment of the fellowship will begin after the return, by the candidates, of the fellowship contract drawn up directly by FCT, duly signed, and that should occur within the maximum period of 15 working days from the date it was received.

The fellowships awarded within the scope of the present call will be financed by FCT with fund from the State Budget and, when eligible, with funds from the European Social Fund, to be made

¹ Delivery the documents can be replace, at the option of the candidate, by the presentation in person at the financing entity, which shall keep the elements contained therein that are relevant for the validity and execution of the contract, including the ID, tax and social security identification numbers, as well as the validation date of the respective documents.



available under PORTUGAL2020, through namely, the *Programa Operacional Regional do Norte (NORTE2020)*, the *Programa Operacional Regional do Centro (Centro 2020)* and the

Programa Operacional Regional do Alentejo (Alentejo 2020), in accordance with the regulatory provisions established for that purpose.

13. FELLOWSHIP COMPONENTS

A monthly maintenance allowance is awarded to the selected candidates, according to the table in the Annex I of RBI.

The fellowship may include other components, under the terms set out in article 18 of the RBI and by the values set out in its Annex II.

All the selected candidates will benefit from a personal accident insurance related to the research activities, supported by FCT.

All the selected candidates who are not covered by any social protection regime can ensure the right to social security by joining the voluntary social insurance regime, under the terms set out in *Código dos Regimes Contributivos do Sistema Previdencial de Segurança Social*, with FCT ensuring the charges resulting from the contributions under the terms and with the limits provided for in article 10 do EBI.

14. FELLOWSHIP COMPONENTS' PAYMENT

The payments are made through bank transfer to the account identified by the selected candidate. The payment of the monthly maintenance allowance is made on the first working day of each month by FCT.

The payments of the enrolments or fees are made by FCT directly to the national institution where the selected candidate is enrolled in the PhD.

15. FELLOWSHIP RENEWAL TERMS AND CONDITIONS

The fellowship's renewal always depends on the request submitted by the candidate to FCT, within 60 working days prior to the renewal start date, with the following documents:

- a) opinions issued by the supervisor(s) and by the host institution(s) on the monitoring of the candidate's works and his/her activities evaluation;
- b) updated document of proof of compliance with the exclusive dedication regime;
- c) proof of enrolment renewal in the cycle of studies leading to the PhD.

16. INFORMATION AND PUBLICITY OF THE FINANCING GRANTED

In all R&D activities financed by the fellowship directly or indirectly, namely, in all communications, publications and scientific creations, as well as thesis, carried out with the support provided for in the fellowship, must mention the financial support of FCT and the European Social Fund, through namely, the *Programa Operacional Regional do Norte (NORTE2020)*, the *Programa Operacional Regional do Centro (Centro 2020)* and the *Programa Operacional do Alentejo (Alentejo 2020)*. For this purpose, the FCT, MCTES, ESF and EU *insignias* must be inscribed in the documents referring to this actions, according to the graphic norms of each operational programme.

The dissemination of the research results funded under the RBI must comply with the rules for open access to data, publications and other research results in force at FCT.

In all fellowships, and in particular in cases of actions funded by community financing, namely from



ESF, monitoring and control actions may be carried out by national and community bodies according to the applicable legislation in this matter, with the fellows having the obligation to collaborate and provide requested information, which includes conducting surveys and evaluation studies in this area, even if the fellowship has already ceased.

17. NON-DISCRIMINATION AND EQUAL ACCESS POLICY

INL promotes a non-discrimination and equal access policy, wherefore no candidate can be privileged, benefited, impaired or deprived of any rights whatsoever, or be exempt of any duties based on their ancestry, age, sex, sexual preference, marital status, family and economic conditions, instruction, origin or social conditions, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic origin or race, origin territory, language, religion, political or ideological convictions and union membership.

18. APPLICABLE LEGISLATION AND REGULATIONS

Law 40/2004, of 18 August, as subsequently amended, approving the Research Fellowship Statute: <http://www.fct.pt/apoios/bolsas/estatutobolseiro.phtml.pt>.

FCT I.P. Research Fellowship Regulation, Regulation 950/2019, as subsequently amended, available at: <http://www.fct.pt/apoios/bolsas/regulamento.phtml.pt>, and other rules and procedures in force defined by FCT.

Enquiries should be made to: hr.services@inl.int.