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It should be known that, before this Instituto Superior Técnico, Universidade de Lisboa (hereinafter referred to as Instituto), and within 30 working days following the day after the publication of this notice in "Diário da República" (the Portuguese Official Gazette), it is open an international documental recruitment competition, in the form of an employment contract in public functions, of one Assistant Researcher in the scientific field of Nuclear Technologies and Radiological Protection from the Department of Nuclear Sciences and Engineering of Instituto Superior Técnico, University of Lisbon, under articles 9, 10 and 15 of *Estatuto da Carreira de Investigação Científica* (ECIC), hereinafter designated by ECIC, published by Decree-Law no. 124/99, from 20th April, amended by Law No. 157/99, of September 14.

The joint order no. 373/2000, of March 31, of the Minister of State Reform and Public Administration and the Minister for Equality made compulsory the inclusion of the following reference in all civil service recruitment procedure notices:

"In compliance with paragraph h) of article 9 of the Constitution, the Public Administration, as the employing entity, actively promotes a policy of equality of opportunities between men and women in access to employment and professional development, scrupulously providing for the prevention of any type of discrimination."

In this sense, the terms 'candidate', 'recruited', 'researcher' and other similar terms are not used in this notice to refer to people's gender. Likewise, no candidate may be privileged, benefited, harmed or deprived of any right or exempt from any duty due to, in particular, ancestry, age, sexual orientation, marital status, family situation, economic situation, education, origin or condition social status, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic origin or race, territory of origin, language, religion, political or ideological beliefs and trade union membership.

This position was opened under the FCT TENURE program – 1st edition, according to the IPFN's strategic goals, Research Unit that the researcher will be an integrated member, and the support financing line that establishes a legal public employment relationship of indefinite duration to hiring individuals with a doctoral degree (additional financing Program from State Budget Law for 2024 to stimulate the hiring of researchers).

The present competition complies to what is stated in Article 6, no. 5, Decree-Law no. 57/2016, of August 29, in its version in Law no. 57/2017, of July 19,

relating to the employment contract, reference IST/538/2018, according with the Decree-Law no. 57/2019, of August 29.

In compliance with articles 16 to 27 from ECIC and other applicable law, the following terms and conditions must hold:

I – Rector’s Order Authorization

This recruitment procedure follows the Universidade de Lisboa Rector’s Order 4179/2024, no. 2, paragraph a), dated April 16, 2024 , issued after the confirmation of budget provision and after the confirmation that the position, for which this recruitment procedure is open, is foreseen in the Instituto staff list, in which the functions to be carried out are defined as research activities that constitute the set of duties of an Assistant Researcher in the scientific field above referred, of Department of Nuclear Sciences and Engineering. The provisions of the State Budget Law for 2024 were also observed.

II – Approval of the present notice

This notice has been approved in accordance with no. 1 of Article 24 of the ECIC, by the jury at its meeting on April 30, 2024, according to the minutes of the meeting then approved in draft.

III – Scientific field, Position, Career and Institution

III.1 The scientific field of the present call is Nuclear Technologies and Radiological Protection.

III.2 The scientific council of Instituto didn’t consider any related fields.

III.3 The present call is open in the form of an employment contract in public functions, by the Instituto, of one Assistant Researcher, position of the Research Career according paragraph a) of article 4 of ECIC.

IV – Admission requirements

IV.1 General Requirements – as defined in Article 17 of the General Labour Law on Public Functions (LTFP), approved by Law No. 35/2014 of June 20.

IV.2 Particular Requirements – as defined in Article 10 of ECIC and taking into account the fact that the Scientific Council have not identified any related scientific fields, only can be admitted:

IV.2.1 Individuals who have a doctoral degree in the area of the competition, or even those who, although doctorates in a different area, have a relevant scientific curriculum in the area of the competition;

IV.2.2 Assistant researchers from other institutions, from the scientific field of the competition, or those who, although in a different area, have a relevant scientific curriculum in the area of the competition.

V –Salary. Work conditions

V.1 The salary corresponds to the index 195 of the 1st level of the category of Assistant Researcher, as mentioned in Annex I of ECIC unless the candidate declared as the winner of this contest, having been hired in public functions in this category by another institution earns a higher salary.

V.2 The working conditions are regulated in ECIC and the legislation governing the employment contract in public functions and the regulations of the Instituto applied to researchers employed by it.

VI –Functional content

The functional content of the position to be filled is described in Article 5 of ECIC.

VII – Workplace. Competition type. Number of positions to be filled. Contest validity period

VII.1 The workplace of the Assistant Researcher to contract as a result of this competition will be in the Department of Nuclear Sciences and Engineering, located at Estrada Nacional 10, Bobadela, but without prejudice to the provision the work can also take place by decision of the competent bodies of the Instituto, in the premises of Campus da Alameda and Taguspark, at Av. Rovisco Pais, Lisboa, and Taguspark in Oeiras, respectively.

VII.2 This contest is, under paragraph a) of Article 9 and no. 2 of Article 10 of ECIC, a competition which consist on the assessment of curriculum vitae and scientific work of the candidates.

VII.3 The assessment mentioned in point VII.2 of this notice may be complemented by an interview with all candidates whenever the jury so decides.

VII.3.1 The interview does not constitute a selection method and is not classified, it aims to obtain clarifications or explanations of elements contained in the candidates' CVs.

VII.4 The number of positions to be filled is one.

VII.5 The contest is valid until it is hired in public functions by the Instituto the candidate declared as the winner.

VIII — **Composition of the Jury.**

The present Jury, chaired by the President of Instituto Superior Técnico, Professor Doctor Rogério Anacleto Cordeiro Colaço, in accordance with the order of delegation of powers no. 913/2023 by the Rector of the University of Lisbon, published in *2nd series of Diário da República* no. 13, dated January 18, will have as members the following Full Professors and Coordinator Researchers:

Doutor José António de Carvalho Paixão, Professor Catedrático, Departamento de Física, Faculdade de Ciências e Tecnologia, Universidade de Coimbra;

Doutor Vitor Brás de Sequeira Amaral, Professor Catedrático, Departamento de Física, Universidade de Aveiro;

Doctor Flyura Djurabekova, Professor, Head of Division of Materials Physics, Faculty of Sciences, University of Helsinki, Finland;

Doutora Katharina Lorenz, Investigadora Coordenadora, Departamento de Engenharia e Ciências Nucleares, Instituto Superior Técnico, Universidade de Lisboa

Doutor Bruno Miguel Soares Gonçalves, Investigador Coordenador, Departamento de Física, Instituto Superior Técnico, Universidade de Lisboa

IX — **List of candidates admitted and excluded and the final classification**

The list of admitted and excluded candidates and the final report will be posted on the Human Resources office of Instituto, Campus Alameda, Av. Rovisco Pais, 1, 1049-001 Lisboa, Portugal and notified to all applicants by registered letter.

X — **Entity to submit the application for admission to the competition**

X.1 The application for admission to this competition, accompanied by the appropriate application process should be addressed to the President of the

Instituto Superior Técnico, by the 30th working day following the day of publication in the Official Gazette.

X.2 The application and its application process should be delivered electronically to the home address related to this notice indicated on the Internet website of the Human Resources of Instituto Superior Técnico: <http://drh.tecnico.ulisboa.pt/job-opportunities/> without embargo, until the date fixed at the end of the previous paragraph, also be possible the personal delivery or mail, by registered letter with acknowledgment of receipt, to the Human Resources of the Instituto Superior Técnico Av. Rovisco Pais, n.1, 1049-001 Lisboa.

X.3 The application must be accompanied by their respective application form related to this notice, which is available at the webpage of Human Resources of Instituto Superior Técnico: <http://drh.tecnico.ulisboa.pt/investigadores/formularios/>. Whether the applications were delivered electronically, delivered personally or by registered letter, with acknowledgment of receipt to the applicant and, under penalty of exclusion, the candidate must indicate an e-mail address to which will be sent with acknowledgment of reading all communications and notifications that have to be made to the candidate under this call and in accordance with the ECIC and this notice.

X.4 The application shall be accompanied by the following documents:

X.4.1 Curriculum vitae in electronic format (pdf), indicating the scientific work which, in accordance with no. 3 of Article 16 of ECIC, refer:

- i. Research activities, experience and professional training, provision of services to the community and technology transfer, scientific supervision and management that are considered relevant for the competition, in particular, identifying the activities in the different aspects that, in accordance with Article 5 of the ECIC, constitute the set of duties to be performed by an Assistant Researcher, taking into account the topics and evaluation parameters set out in point XII.2 of this notice and which are considered relevant to the scientific field of the position; the applicant must structure the curriculum vitae in order to facilitate the rapid and complete identification of its contribution in each of the sub-paragraphs of point XII.2;
- ii. indication of "ResearcherID" identifying the list of publications, the number of their citations, and H-index according to the sources: Clarivate Analytics Web of Science;

X.4.2 Electronic version (pdf) of scientific articles published in international journals mentioned in the curriculum vitae and other works that the candidate considers relevant to the assessment of the jury;

X.4.3 In the curriculum vitae should be marked up to 10 (ten) works that the candidate considers more representative, in particular as regards its contribution to the development and evolution of the scientific field in which the

competition is open. This selection must be accompanied by a brief and grounded description in which the candidate details his/her contribution.

X.4.4 In the curriculum vitae the candidate must present a section with a summary of the important results of the scientific activity and previous work experience, as well as the academic and professional training, highlighting their importance to the scientific field of the competition and showing how they could contribute for an innovative project supporting the strategic development of the Department of Nuclear Sciences and Engineering and the Instituto research unit where he/she wants to develop their work.

X.4.5 Declaration on honor, which is annexed to this notice;

X.4.6 Aside from scientific papers, documents that accompany the application must be submitted in Portuguese or English.

X.4.7 The instructions and support files for the submission of applications in digital format are available on the website of the Human Resources at: <http://drh.tecnico.ulisboa.pt/job-opportunities/>.

X.4.8 The candidate placed in 1st place in the final ranking list must submit, in the Human Resources, as is clear from the declaration on honor referred to in X.4.5, of the supporting documents that meets the legally required conditions to the establishment of a legal public employment relationship of indefinite duration with the Instituto, within the non-extendable period of 10 days from the date of the notification to proceed with the submission.

XI – Grounds for exclusion of candidates

XI.1 The candidates who, by the end of the period and conditions set out in this notice do not deliver all documents required, or if delivered the applicants do not prove that meets the general and special requirements of section IV will be excluded.

XI.2 Are also excluded from the contest the candidates, even if approved and ordered in the final ranking list in place that allows the occupation of the open position, which, when required, unjustifiably fail to present the supporting documents that they meet the legal conditions necessary for the constitution of a legal public employment relationship of indefinite duration with the Instituto within the period fixed or having submitted them, the documents prove to be inadequate, false or invalid.

XI.3 A candidate being excluded by order of the Rector of the Universidade de Lisboa, based on the reasons referred to above, will be asked to the candidate that immediately succeeds in the list of final ordering the delivery of a certificate that he/she meets the legally required conditions to the

establishment of a legal public employment relationship of indefinite duration with the Instituto.

XI.4 There is prior hearing of the candidates that may be excluded under the previous paragraphs, and given a ten-day period for comments.

XII –Jury operating rules

XII.1 The jury, in its functioning, will respect all the ECIC procedures.

XII.2 The jury, at its 1st meeting on April 30, 2024, approved the circumstances in which an unfavorable vote must be based on the approval on absolute merit of the candidates, the criteria for ranking those approved on absolute merit, and the process that the justified roll call vote will follow, which are referred to below.

XII.2.1 - A vote against the approval in absolute merit of a candidate must be based on one or more of the following circumstances:

- a) the relevance, quality and timeliness of the candidate's curriculum vitae, and the most relevant and impactful academic contributions selected by the candidate, prove to be clearly insufficient for the minimally adequate exercise of the functions of Assistant Researcher in the scientific field of the competition; and/or
- b) the list of 10 (ten) works that the candidate considers most representative referred to in X.4.3, particularly with regard to their contribution to the development and evolution of the scientific field for which the competition is open, needs to show that the candidate has the necessary capacity to carry out the minimally adequate role of Assistant Researcher in the scientific field of the competition; and/or
- c) the candidate has not published, in the last 5 (five) years, at least 5 (five) or more publications classified as Q1 or Q2 of impact factor in the areas of Clarivate Analytics Web of Science relevant to the scientific field of the competition; and/or
- d) of, in the scientific field for which the competition was opened, having an H-index lower than 10, obtained through Clarivate Analytics Web of Science.

XII.2.2 Once the candidates approved on absolute merit have been definitively identified, on the basis of the provisions of the previous point, the jury will rank these candidates in accordance with the procedure laid down in Article 16(3) of the ECIC, and this ranking may take into account the parameters identified and listed in the following points for each of the assessment aspects, weighted with the preferential parameters indicated in XII.3;

XII.2.2.1 Quality of scientific and technical work of the candidates, which was given a weighting factor of 65% considering;

i) Scientific publications: parameter that takes into account books, book chapters, articles in scientific journals and proceedings of international conferences that the candidate is author or co-author, with respect to:

- their nature;
- the impact factor and the number of citations;
- scientific / technological level and innovation;
- diversity and multidisciplinary approach;
- international collaboration;
- the importance of contributions to the improvement of the state of knowledge.
- the relevance of the works selected by the candidate as the most representative, in particular as regards its contribution to the development and evolution of the subject area for which the competition is open.

ii) Coordination and participation in scientific projects: parameter that takes into account the participation and coordination of scientific projects by the applicant, subject to competitive tendering, considering:

- territorial scope and its size;
- the technological level and the importance of contributions;
- innovation and diversity.

iii) Establishing and strengthening laboratory facilities: parameter that takes into account the participation and coordination by the candidate of activities that resulted in the creation or strengthening of laboratory infrastructures and / or computational research support.

iv) Scientific activity development: parameter that takes into account the capacity for coordination and leadership of research teams demonstrated by the applicant.

v) Recognition by the international scientific community: parameter that takes into account:

- scientific societies prizes;
- editorial activities in scientific journals;
- participation in editorial boards of scientific journals;
- Coordination and participation in scientific events program committees;
- invited lectures at scientific meetings or other institutions;
- participation as a member of scientific societies with competitive admission and other similar distinctions.

XII.2.2.2 Providing service to the community and technology transfer, which was given a weighting factor 10% considering;

i) Industrial and intellectual property, Authorship and co-authorship of patents, industrial designs, taking into account their nature, territorial scope, technological level and the results obtained.;

ii) Legislation and technical norms: parameter that takes into account the participation in the elaboration of bills and norms considering their nature, territorial scope and technological level.

iii) Scientific and technological publications: parameter that takes into account the articles in national journals and conferences and other scientific and technological disclosure publications, according to their professional and social impact.

iv) Provision of services and integrated consultancy in the institutional mission: parameter that takes into account the participation in activities involving the business community and the public sector, taking into consideration the type of participation, dimension, diversity, the technological intensity and innovation.

v) Development, design and production of scientific achievements: parameter that takes into account the value for the Institute's activities of relevant professional experience.

vi) Services to the scientific community and society: parameter that takes into account the participation and coordination of scientific and technological disclosure and taking into account the nature and results achieved by them, aimed at:

- the scientific community, in particular by the organization of congresses and conferences;
- the media;
- enterprises and the public sector.

XII.2.2.3 Experience and professional training that was given a weighting factor 10% considering;

Level and adequacy of degrees and academic titles or professional qualifications and professional experience of the applicant to be Assistant Researcher in the scientific field of the competition including the parameters and / or preferential subjects and its relevance for development of this scientific field in the Department of Nuclear Sciences and Engineering. These aspects must be clearly presented in the curriculum vitae.

XII.2.2.4 Contributions in scientific orientation activities, which was given a weighting factor 10% considering:

i) Supervision and monitoring of students, trainees and research fellows: parameter that takes into account the supervision of PhD students, students of master's and undergraduate students, trainees and research fellows considering the number, quality, scope and scientific / technological impact of publications, theses, dissertations and final resulting course, specially the prizes awarded and international recognition.

ii) Training programs: parameter that takes into account the participation and coordination of technological training aimed at businesses and the public sector, taking into account their nature, technological intensity and the results achieved.

iii) Pedagogic material: parameter related to publications, computer applications and pedagogically relevant experimental prototypes that the candidate held or in cooperation, taking into account its nature and its impact on the national and international community.

iv) Teaching activity: parameter related to the curricular units coordinated or taught by the candidate taking into account the diversity, pedagogic practice and the student range.

XII.2.2.5 Participation in management bodies, which was given a weighting factor 5% considering;

i) Participation in university and school bodies: parameter that takes into account the nature and responsibility of the position.

ii) Participation in units and coordinating courses: parameter that takes into account the position, the scope of action and the results obtained by the candidate in the performance of management functions in departments and research units, coordination of courses, scientific fields or sections.

iii) Temporary positions and assignments: parameter that takes into account the nature, the universe of action and the results achieved by the candidate when he took part in publishing activities of international journals, evaluation of scientific programs, on juries for academic examinations, in selection boards and temporary positions and tasks that have been assigned by the management bodies, among others.

iv) Other duties: parameter that takes into account the performance of duties mentioned in Article 49 of ECIC and positions in national and international scientific organizations.

XII.3 Preferential parameters

It is a preferential parameter that the candidate is a recent PhD degree holder with high research potential and capacity that wish to start a research career at its initial level, having a curriculum vitae that is adequate to the scientific field of this competition, where special emphasis is given to the candidate's scientific production over the last 5 (five) years in Nuclear Technologies and Radiological Protection, subarea Nuclear Instrumentation and Techniques, with emphasis on materials characterization using ion beams and X-rays.

XII.4 The voting process to be used to decide on the final ranking of candidates will be as follows:

XII.4.1 During the meeting and before the start of the voting process, each jury member presents in a written document, which will then be attached to the minutes, their ranking of candidates, duly substantiated, particularly in consideration of the parameters and criteria that have been approved.

XII.4.2 In the various polls, each jury member must comply with the order presented in writing, no abstentions permitted.

XII.4.2.1 The first vote is to determine the candidate to be placed first.

XII.4.2.2 If a candidate receives more than half of the votes, it is placed in 1st place. If not, the vote is repeated after withdrawal of the candidate least voted on the first ballot.

XII.4.2.3 In case there is a tie of two or more candidates in the least voted position and there is at least one that was not in that position, there is a vote only on those who ranked last, to break the tie, if after this restricted voting the tie persists, the President of the Jury decides which candidate to eliminate.

XII.4.2.4 If all candidates have been tied on the first ballot, the vote is repeated, after a period of discussion among the members of the jury. If a tie still exists, it is the President of the Jury who decide which candidate to eliminate.

XII.4.2.5 The process is repeated until a candidate receives more than half of the votes for the first place. Once such a candidate is found, the process repeats for the second, and so on until a sorted list of all candidates is found.

Annex

Declaration on honor

I (Name), candidate to the recruitment procedure open to fulfill xx Assistant Researcher position available at the staff list of Instituto Superior Técnico, Universidade de Lisboa, hereby declare on my word of honour that I fulfil the requisites present in article 17º from the "Lei Geral do Trabalho em Funções Públicas" (General Law for Labour Work on Public Functions), approved by the Law n.º 35/2014 from 20th of June, as well as the requisites present in chapter IV of the "Estatuto da Carreira de Investigação Científica, published in the Decree-Law n.º 124/99, from 20th April, fulfil all the requisites for admission to this recruitment procedure that are predicted by the Law and in this notice.

I also declare that all statements herein were made with the knowledge that wilful false statements will result in my exclusion from this recruitment procedure, notwithstanding the communication of such statements to the competent authorities for criminal procedures.

I further declare that I understand that, in case I am placed in an eligible position within the final ranking list of the candidates, I must comply with the deadline of ten days as of the date of notification of the final ranking list to provide Instituto Superior Técnico, Universidade de Lisboa, with the supporting documents that make proof of the fact that I fulfil the admission requirements defined for this recruitment procedure.

I further declare that I understand that the failure to provide the supporting documents referred to in the previous paragraph, for reasons within my control, will result in my exclusion from this recruitment procedure.

_____ (place), _____ (date).

(signature)

Instituto Superior Técnico, 20th of May 2024, The President, Professor Doctor Rogério Anacleto Cordeiro Colaço