

Instituto Superior Técnico

(Public Notice of Job Opening for a Principal Researcher)

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, for one position of Principal 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, 11 and 15 of the Estatuto da Carreira de Investigação Científica (Scientific Research Career Statute), hereinafter designated by ECIC, published by Decree-Law n. 124/99, of 20 April, amended by Law n. 157/99, of 14 September.

The Joint Order (Despacho Conjunto) n. 373/2000, of 31 March, of the Minister of State Reform and Public Administration and the Minister for Equality made compulsory the inclusion of the following reference in any 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 the gender of people. Similarly, no candidate may be privileged, benefited, disadvantaged or deprived of any right or exempted from any duty on the grounds of, namely, ancestry, age, sexual orientation, marital status, family situation, economic situation, education, origin or social condition, genetic heritage, reduced working 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 C2TN’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).

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 (Despacho) n. 4116/2024, dated 21st of March, published in 2nd series of Diário da República n. 74 of 15th of April, issued, under proposal of the Scientific Council of Instituto, 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 a Principal Researcher in

the scientific field above referred of the 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 paragraph 1 of Article 24 of the ECIC, by the jury at its meeting held on April 30th 2024, according to the minutes of the meeting then approved.

III — Scientific field, Position, Career and Institution

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

III.2 The Scientific Council of Instituto did not identify any related fields.

III.3 The present competition is open in the form of an employment contract in public functions by the Instituto of a Principal Researcher, position considered in the Scientific Research Career according with paragraph b) of Article 4 of the ECIC.

IV — Admission requirements

IV.1 General Requirements – those defined in article 17 of the General Labour Law on Public Functions (LTFP), approved by Law n. 35/2014 of 20th June.

IV.2 Particular Requirements – as defined in article 11 of the ECIC and taking into account that the Scientific Council of Instituto has not identified any related scientific fields, it can be admitted to this competition:

IV.2.1 Assistant Researchers in the same or another institution in the same scientific field of the competition, or those from a different scientific field but having a significant scientific curriculum in the scientific field of the competition and, in either case, having a minimum of three years of service in that position or have been approved in a public examination of habilitation or aggregation;

IV.2.2 Principal Researchers from other institutions in the scientific field of the competition, or those who, although from a different scientific field have a relevant scientific curriculum in the scientific field of the competition;

IV.2.3 Individuals who have a doctoral degree in the field of the competition, or those who, although doctorates in a different scientific field, have a relevant scientific curriculum in the scientific field of the competition and who, in either case, have a minimum of three years of professional experience in that scientific field after obtaining the doctorate or have been approved in a public examination of habilitation or aggregation.

V —Salary and working conditions

V.1 The salary corresponds to the index 220 of the 1st level of the position of Principal Researcher, as mentioned in the Annex I of ECIC, unless the candidate declared as the winner of this competition is already hired in public functions at the same position at a different institution earning a higher salary.

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

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. Type of the contract

VII.1 The workplace of the Principal Researcher to be hired as a result of this competition is at the Department of Nuclear Sciences and Engineering, located at Estrada Nacional 10, Bobadela, although it could also be, if decided by the competent bodies of the Instituto, in the Campus da Alameda and Taguspark, at Av. Rovisco Pais, Lisboa, and Taguspark in Oeiras, respectively.

VII.2 This contest is, under paragraph a) article 9 and paragraph 2 of article 11 of the ECIC, a competition which consist on the assessment of the curriculum vitae, the scientific work of the candidates and the report of the activities developed by the candidates.

VII.3 The number of positions to be filled is one.

VII.4 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 Jury of this competition, chaired by the Vice-President of the Scientific Council of Instituto Superior Técnico, Professor Doutor Miguel Afonso Dias de Ayala Botto, using competences subdelegated by the President of the Instituto Superior Técnico, under Order (Despacho) n. 4563/2024, published in the 2nd series of the Diário da República n. 82, of 26th of April, will have as board members the following Full Professors and Coordinator Researchers:

- Doutora Maria Constança Mendes Pinheiro da Providência Santarém e Costa, Professora Catedrática, Departamento de Física, Faculdade de Ciências e Tecnologia, Universidade de Coimbra;
- Doutor Tobias Frederico, Professor Titular, Divisão de Ciências Fundamentais, Instituto Tecnológico de Aeronáutica (ITA), São Paulo, Brasil;
- Doktor Reinhard Alkofer, Professor, Institut für Physik, University of Graz, Austria;

- Doutora Maria Teresa Haderer de la Peña Stadler, Professora Catedrática, Departamento de Engenharia e Ciências Nucleares e Departamento de Física, Instituto Superior Técnico, Universidade de Lisboa;

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

IX — Notification of the lists of admitted and excluded candidates and final ranking

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

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

X.1 The admission's request to this competition, together with by the 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 Diário da República.

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

X.3 The application process must be accompanied by their respective application form related to this public notice, which is available at the webpage of Human Resources Office of Instituto Superior Técnico: <http://drh.tecnico.ulisboa.pt/investigadores/formularios/>. Whether submitted electronically, in person or by registered mail with acknowledgment of receipt, the candidate must indicate, under penalty of exclusion, an e-mail address to which all communications and notifications within the scope of this competition shall be made, under the terms of the ECIC and of this public notice.

X.4 The application process must be completed with the following documents:

X.4.1 Curriculum vitae in electronic format (pdf) indicating the scientific work which, in accordance with paragraph 3 of article 16 of the ECIC, presents:

i. The 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 a Principal 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 candidate must structure the curriculum vitae in order to facilitate a clear and complete identification of its contribution in each of the sub-paragraphs of point XII.2;

ii. indication of the "ResearcherID" identifying the list of scientific publications, the respective number of citations, and the H-index according to the sources: Clarivate Analytics Web of Science;

X.4.2 Electronic version (pdf) of the scientific publications 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 A selection of up to 5 (five) most relevant contributions considered most representatives to the development and evolution of the scientific field of the competition. This selection must be accompanied by a detailed description of the candidate's contribution.

X.4.4 A separate report (in PDF format) with a summary of the relevant results of previous scientific activity and professional experience, as well as other academic and professional background, demonstrating the importance of these results for the scientific field of the competition, highlighting how they fit into a current and innovative scientific project for the strategic development of both the Department of Nuclear Sciences and Engineering and the research unit of the Institute where the work should be carried out. This report should comply with the following format: a maximum of 12 (twelve) A4 pages, with a font size of at least 11pt. Any page beyond the twelfth page will not be considered for evaluation.

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

X.4.6 Aside from scientific publications, documents submitted in the application must be written in Portuguese or English.

X.4.6.1 Considering the participation of one or more jury members who do not have proficiency in the Portuguese language, the application documents as well as the documentation related to the pronunciation during the preliminary hearing of candidates and complaints to be reviewed by the Jury must be necessarily written in English.

X.4.7 The instructions and supporting files for submitting the application in digital format are available at the Human Resources Office website of the Institute, at the following address: <http://drh.tecnico.ulisboa/job-opportunities/>.

X.4.8 The candidate ranked first in the final ranking list must submit to the Human Resources Office of the Institute, as stipulated in the declaration under oath referred to in X.4.5, the supporting documents proving that the legally required conditions for the establishment of an indefinite public employment contract with the Institute are met, within a 10 days period from the date of notification to proceed with said submission.

XI —Grounds for exclusion of candidates

XI.1 Candidates will be excluded if by the end of the period and conditions set out in this public notice are not able to deliver all documents required or, if delivered, it is not possible to demonstrate that the general and special requirements of section IV are met.

XI.2 Candidates will also be excluded even if approved and ranked in the final ranking list in a position that allows the fulfillment of the open position, if unjustifiably fail to present the

supporting documents that prove to meet the legal conditions necessary for the constitution of a legal public employment relationship of indefinite duration with the Instituto or the documents prove to be inadequate, false or invalid.

XI.3 If a candidate is excluded by the Universidade de Lisboa Rector's order, based on the reasons referred to above, the candidate that immediately succeeds in the final ranking list will be asked to deliver a certificate that demonstrates that the legally required conditions to the establishment of a legal public employment relationship of indefinite duration with the Instituto are met.

XI.4 Candidates excluded under the reasons referred in the previous paragraphs are given a prior hearing for a ten-day period.

XII — Jury operating rules

XII.1 The jury will respect all the ECIC procedures.

XII.2 The jury, at its 1st meeting on April 30th 2024 approved the conditions on which the vote against the approval of the candidates on absolute merit should be based, the criteria for ranking those approved on absolute merit, and the process which will apply to the justified nominal voting, as undermentioned.

XII.2.1- The unfavourable vote for absolute merit approval must be based on one or more of the following conditions:

a) The relevance, quality, and timeliness of the candidate's curriculum vitae, and the most relevant and impactful academic contributions selected by the candidate, are clearly insufficient for the minimally adequate performance of the duties as Principal Researcher in the scientific field of the competition; and/or

b) The list of 5 (five) contributions that the candidate considers most representative, as referred to in X.4.3, particularly those regarding the contribution to the development and evolution of the scientific field of the competition, lacks evidence that the candidate possesses the necessary capacity for an adequate performance of the duties as Principal Researcher in the scientific field of the competition; and/or

c) The candidate has not published, in the last 10 (ten) years, at least 10 (ten) or more publications classified as Q1 or Q2 impact factor in the areas of Clarivate Analytics Web of Science relevant to the scientific field of the competition; and/or

d) The candidate has an H-index, obtained through Clarivate Analytics Web of Science, in the scientific field of the competition that is lower than 10 (ten).

XII.2.2 Once identified the candidates approved in absolute merit, based on the previous conditions expressed in the preceding paragraph, the jury will proceed to the final valuation and ranking of the candidates, following the procedure established in n. 3 of article 16 of the ECIC, considering the evaluation parameters and respective weights indicated in the following points, where the preferential parameters indicated in XII.3 can be used as qualification criteria for each of the evaluation parameters:

XII.2.2.1 Quality of scientific and technical work of the candidates, which is given a weighting factor of 55% considering:

i) Scientific publications: parameter that takes into account books, book chapters, publications 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 publications selected by the candidate as the most representative, in particular as regards to its contribution to the development and evolution of the subject area of the competition.

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

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

iii) Creation and reinforcement of 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 demonstrated ability of the candidate to coordinate and be a leadership of research teams.

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

- prizes awarded by scientific societies;
- editorial activities in scientific journals;
- participation in editorial committees of international scientific journals;
- coordination and participation in program committees of scientific events;
- participation as invited speaker in scientific meetings or at 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 is given a weighting factor of 10% considering:

i) Industrial and intellectual property, considering 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 publication 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 taking into account the nature and results achieved, namely aimed at:

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

XII.2.2.3 Experience and professional training that is given a weighting factor of 15% considering:

Level and adequacy of the degrees and academic titles or professional qualifications and professional experience of the candidate to be a Principal Researcher in the scientific field of the competition including the parameters and/or preferential subjects and its relevance for development of the scientific field in the Department of Nuclear Sciences and Engineering. These aspects should be clear in the report mentioned in X4.4.

XII.2.2.4 Contributions in scientific supervision activities, which is given a weighting factor of 10% considering:

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

ii) Training programs: parameter that takes into account the participation and coordination of technological training programs 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 produced, 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 is given a weighting factor of 10% considering:

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

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 areas or sections.

iii) Temporary duties and tasks: parameter that takes into account the nature, the universe of action and the results achieved by the candidate when taking part in publishing activities of international journals, evaluation of scientific programs, on academic examination boards, in competition boards and temporary duties and tasks assigned by the competent bodies, among others.

iv) Other duties: parameter related to the performance of duties defined in article 49 of ECIC and other duties within national and international scientific organizations.

XII.3 Preferential parameters

It is a preferential parameter that the candidate has a curriculum vitae adequate to the scientific field of the competition, where special emphasis is given to the candidate's scientific production over the last 10 (ten) years.

It is a preferential parameter the contribution to the development and evolution of the scientific field of the competition, in particular the emphasis on theoretical and computational methods in Nuclear Physics, to be developed within the mission of the Department of Nuclear Sciences and Engineering.

The preferential conditions are the following ones: experience in theoretical and quantitative understanding of the consequences of the first principles of QCD at the interface of hadronic and nuclear physics; knowledge of non-perturbative tools which unify hadron properties of multinucleon and multiquark systems; experience with calculations on structure of light nuclei and hadrons as mesons, including pion, nucleon and deuteron electromagnetic couplings, and the nuclear interaction; successful teaching record and ability to engage students.

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 find.

Annex

Declaration on honor

I (Name), candidate to the recruitment procedure open to fulfill one Principal 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 17 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, 22nd of May 2024, The President, Professor Doctor Rogério Anacleto Cordeiro Colaço