

Notice n.º 18383-A/2023

ANNOUNCEMENT FOR THE OPENING OF AN INTERNATIONAL SELECTION TENDER PROCEDURE FOR THE HIRING OF 1 (ONE) DOCTORAL JUNIOR RESEARCHER UNDER THE INNOVATION PACT HfPT - HEALTH FROM PORTUGAL - IJ1

1. Doctor Maria José da Silva Fernandes, Professor and President of Polytechnic Institute of Cávado and Ave (IPCA), in the use of own competence pursuant to paragraph d) of paragraph 1 of article 92 of Law 62/2007, of September 10, and paragraph g) of paragraph 2 of article 38 of the IPCA Statutes approved by Normative Order No. 1-A / 2019, published in the 2nd series of the daily of the republic of June 14, makes it known that, for a period of twenty business days from the business day immediately after the date on which this announcement is publicized, an international selection tender is open for recruitment in the form of an uncertain term contract concluded under the Labour Code, of 1 (one) doctorate with the category of Junior Researcher position for the exercise of scientific research activities in the scientific area of Mechanical Engineering, in the R&D unit Applied Artificial Intelligence Laboratory 2Ai, under the Innovation Pact HfPT – Health From Portugal (Notice No 01/C05-i01/2021, Mobilising Agendas/Alliances for Reindustrialisation RE-C05-i01.01 and Green Agendas/Alliances for Business Innovation RE-C05-i01.02) under and by co-financing the "Mobilising Agendas for Business Innovation" of the Next Generation EU programme of Component 5 of the Recovery and Resilience Plan (RRP), relating to "Capitalisation and Business Innovation", under the Regulation of the Incentive Scheme "Agendas for Business Innovation".
2. **Applicable Legislation:** This tender shall be governed by the Decree No. 57/2016, of 29th of August, amended by Law No. 57/2017 of 19 July, which approved a regime of hiring of doctorates to stimulate scientific and technological employment in all areas of knowledge (RJEC), by Labour Code, approved Law no. 7/2009, of February 12, under its current version and other applicable laws and regulations.

The doctorate will be hired under a uncertain term contract, under the terms of subparagraph b) of paragraph 1 of article 6 of RJEC, ex vi, paragraph 2 of article 18 of RJEC, as long as the duration of the functions to be performed within the scope of the project corresponding to the financing of the project is extended, if the need to exercise the functions and the existence of financing remains. The total duration of the contract and any renewals may not exceed the maximum duration of 6 years, under the terms of paragraph 3 of article 6 of the RJEC. The opening of this competition was authorized by Order No. 98/2023, of the President of IPCA, 11/09/2023, by proposal of the Director of the School of Technology (EST) and the Coordinator of the Research Center 2Ai, the existence of opinions from Scientific Technical Council of EST and Scientific Council of 2Ai, the confirmation of the existence of adequate budgetary appropriateness and that the job now open is foreseen in the IPCA staff chart there characterized by the category.

3. **Place of Work:** The workplace is located at 2Ai - Applied Artificial Intelligence Laboratory, IPCA School of Technology (EST), Barcelos Campus, Barcelos and/or other locations required for the development of research activities.
4. **Monthly salary:** The monthly remuneration to be awarded corresponds to level 33 of the single remuneratory table, approved by Ministerial Order no. 1553-C/2008 of 31 December, which, considering the revision of the pecuniary amounts of the remuneratory levels of the TRU approved by Decree-Law no. 84-F/2022 of 16 December, corresponds to the gross value of € 2. 228,11 for the category of junior researcher.
5. **Functions Regime:** The researcher to be hired will perform his duties on an exclusive dedication basis, implying the waiver of any paid public or private function or activity, including the exercise of a liberal profession.
The hired researcher may provide teaching service only at the IPCA.
Inventions, patents, designs and models, made or created, in whole or in part, by the researcher in the performance of his public activity are the exclusive property of the institution in which he works, without prejudice to the right to be considered as an inventor in the registration with NIIP (National Institute of Intellectual Property).
6. **Eligibility Criteria:** Any national, foreign and stateless candidate(s) who hold a doctoral degree in Mechanical Engineering or related scientific areas and holders of a scientific and professional whose profile is suitable with the indicated above can submit their application.
7. **Formalization of the applications:** The applications are formalized through an application addressed to the President of the IPCA, according to the attached model, with identification of this announcement, full name, affiliation, ID and Citizen Card number or date or civil identification number, tax identification number, date and place of birth, marital status, profession, residence and contact address, including email address and phone contact.

7.1. The application shall be accompanied by documents proving the conditions laid down in point 6, namely:

- a) Copy of certificate or degree diploma. If the doctorate has been awarded by a foreign higher education institution, it must be recognized in Portugal, under the terms provided for in the applicable law, under penalty of exclusion. However, failure to submit the degree recognition does not determine the exclusion of the application, which is, in this case, conditionally admitted. The verification of this requirement is waived during the application stage and will only be waived during the contractualization stage.
- b) Detailed curriculum vitae structured according to the items in point 11;
 - i. The curriculum vitae shall contain all relevant information for the evaluation of the application taking into consideration the criteria of ordering and selection

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contained in this notice, and it must be organized according to the evaluation parameters detailed in point 11.

- ii. The curriculum vitae shall also state, explicitly and objectively, the number of citations.
- iii. The publications indicated in the curriculum and the explanation of the method used for counting it must contain detail to enable the selection board to reproduce the procedure in accordance with point 11.

c) Motivation Letter (maximum 5 pages) where the candidate describes his scientific trajectory and objectives for the scientific career;

d) At least 2 Letters of Recommendation;

e) A digital list on a non-editable format containing the exact identification of all the documents, elements or facts accompanying the application;

f) Any other documents that the applicant considers relevant, namely for the assessment of the information referred to in section 2 of article 5 of the RJEC. 6.2.

7.2. The candidates submit the application and supporting documents, in PDF format, obligatorily, by electronic means, to the address InvestigadorJunior1HFPT@ipca.pt, by the deadline for submission of applications defined in this notice, indicating in "Subject" the Reference of this notice.

7.3 Only documents sent via electronic document transfer platforms with a permanent link will be accepted, and all documents must be in a single folder in zip or rar format. It is the sole and exclusive responsibility of the candidates to ensure that all the documents in the folder are in a condition to be downloaded and opened. Any corrupted documents will not be assessed by the jury.

8. **Members of the Jury:** The jury appointed by the President of the IPCA, as proposed by the Director of 2Ai, after being approved by the Scientific Council of EST and 2Ai, is composed of:

President:

Professor Doctor João Luís Araújo Martins Vilaça, Professor Coordinator of EST/IPCA, Coordinator of 2Ai and responsible for the project;

Effective Members:

- Professor Doctor Pedro André Gonçalves Morais, Auxiliar Researcher of 2Ai/EST/IPCA.
- Professor Doctor José Henrique de Araújo Silveira de Brito, Professor Coordinator of EST/IPCA.

Substitute members:

- Professor Doctor Duarte Filipe Oliveira Duque, Auxiliar Professor of EST/IPCA.
- Professor Doctor Antonio Herculano Jesus Moreira, Auxiliar Professor of ETESP/IPCA.

9. Rules of operation of the Jury:

9.1. The jury shall deliberate by means of a nominal vote based on the selection criteria adopted and published, and abstentions shall not be allowed.

9.2. The jury meetings will be documented in written minutes, containing a summary of what has taken place, as well as the votes cast by each of the members and their reasons, being provided to the candidates whenever requested.

10. Admission and exclusion: Candidates who formalize their application incorrectly or who do not prove the admission requirements required in point 6 are excluded from admission to the competition of this invitation to tender. The jury has the power to require any candidate, in case of doubt, to present documents proving their statements.

10.1. The exclusion decision shall be notified to the applicants by email for preliminary hearing to the interested parties.

10.2. After the deadline for the exercise of the right of hearing of the interested parties, the jury appreciates the allegations offered and, if it maintains the exclusion decision, notifies the excluded candidates by email with delivery receipt, beginning the application of the selection methods to admitted candidates.

11. Method(s) and evaluation criteria: The Selection Methods are the Assessment of the Scientific and Curricular Path (ASCP), weight of 90%, and the Interview (INT), weight of 10%. In addition, an absolute merit analysis based on the merit of the candidate's overall CV will initially be conducted.

11.1. Absolute merit is analysed based on the merit of the candidates' overall CV in the area for which the competition is open and also taking into account the fulfilment, cumulatively, of the following specific requirements:

- a) A minimum of 2 (two) articles published as first author in scientific journals indexed in the ISI Web of Science and with a quartile higher or equal to Q3, according to the ISI Web of Science.
- b) Participation as a member of research teams in at least three research projects in R&D units;
- c) A minimum of one patent granted or at the entry of the national US and/or regional phase with the EPO in the last 5 years in areas related to devices for medical applications;
- d) A minimum of 5 (five) articles published in Quartile 1 (one), Quartile 2 (two) or Quartile 3 (three), according to the ISI Web of Science, in the last 5 (five) years;

11.2. The candidate's merit is expressed by the formulas "rejected" or "approved". Only "approved" candidates are admitted to the remaining phases of the selection method, namely the evaluation of the scientific and curricular background and the interview.

11.3. In case of non-approval in absolute merit, the jury shall proceed to a prior hearing of the rejected candidates for the purposes of a hearing of interested parties, under the terms and

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- for the purposes set forth in article 121 and following of the Administrative Procedure Code. After the hearing of interested parties, the jury appraises the allegations and approves the final list of rejected and approved candidates in absolute merit.
- 11.4. The evaluation of the scientific and curricular career focuses on relevance, quality and relevance to the current situation:
- a) The scientific/technological production of the last five years considered most relevant by the candidate;
 - b) The applied research activities, or activities based on practice, developed in the last five years and considered by the candidate as having the greatest impact;
 - c) Extension and knowledge dissemination activities carried out in the last five years, namely in the context of promoting scientific culture and practices, considered to be of greater relevance by the applicant;
 - d) The management activities of science, technology and innovation programmes, or the experience in observing and monitoring the scientific and technological system or higher education, in Portugal or abroad.
- 11.5. The 5 (five) year period referred to in the above number may be extended by the Jury, at the candidate's request, when justified by suspension of scientific activity for socially protected reasons, namely paternity leave, serious protracted illness and other situations of unavailability for work that are legally protected.
- 11.6. Evaluation of the Scientific and Curricular Pathway (APCC): The following evaluation criteria are considered, with the respective weightings/weights, the final classification of the APCC being obtained by the formula: $APCC = 0.20HA + 0.65DC + 0.10TC + 0.05CM$, where the numerical value represents the weighting to be applied:
- a) AQ – Academic Qualifications, with the respective weight of 20%;
 - b) SP – Scientific Performance, with the respective weight of 65%;
 - c) KT – Knowledge Transfer, with the respective weight of 10%;
 - d) ML – Motivation letter, with the respective weight of 5%;

In the applying of the above-mentioned criteria, the following parameters are evaluated, with the respective weights:

Critério	Parâmetro	Peso
[AQ] Academic Qualifications (20%)	Academic Qualifications of the candidate	100% de AQ
[SP] Scientific Performance (65%)	Scientific Production (SP.1)	65% de SP
	Scientific research activities (SP.2)	20% de SP
	Intervention in the scientific community (SP.3)	15% de SP
[TC] Knowledge Transfer (10%)	Patents / Intellectual Property Registry (KT.1)	50% de KT

	Cooperation and liaison activities for the productive / entrepreneurial fabric (KT.2)	50% de KT
[ML] – Motivation letter (5%)	Motivation Letter of the candidate	100% de ML

a) Within the parameter Academic Qualifications of the Candidate (AQ.1), with the weight of 100%, it will be considered the candidate's training area: PhD in Mechanical Engineering, AQ.1 = 5 values; PhD in related scientific areas, AQ.1 = up to 4 values.

b) Within the parameter Scientific Production (SP.1), with the weight of 65%, it will be considered the quality and the quantity of the scientific production (papers published in international peer-reviewed journals, books, book chapters, communications in conferences/congresses), as well as the recognition that is given to it by the scientific community (translated in the impact of the scientific production and in the citations that are made by other authors).

The classification in the parameter SP.1 will be obtained by the formula $0,5AV + 0,5VRAP$: - AV corresponds to the absolute valorization regarding the scientific production: AV = up to 5 values; - VRAP corresponds to the valorization relative to the area of preference: VRAP = 5 values, if the scientific production is in the area of preference; VRAP = up to 4 values, if the scientific production is in related scientific areas; VRAP = up to 1 value, if the scientific production is in other areas.

c) Within the parameter Scientific research activities (SP.2), with the weight of 20%, it will be considered the quality and the quantity of scientific projects that the candidate has coordinated or in which has participated, funded in a competitive basis, through National, European or International agencies, or funded by companies. In the evaluation of the quality, it will be taken into account the funding obtained, the degree of requirement of the call for tenders and the results attained/achieved, in particular if those results had repercussion in the generation of value, through the creation of products or services with impact in the society. In this parameter should also be consider scientific-pedagogical management activities, namely participation in academic management bodies, participation in academic juries and supervision / co-supervision of postgraduate students.

The classification in the parameter SP.2 will be obtained by the formula $0,5AV + 0,5VRAP$: - AV corresponds to the absolute appreciation of the coordination/participation in scientific projects and scientific-pedagogical management activities: AV = up to 5 values; - VRAP corresponds to the valorization relative to the area of preference: VRAP = 5 values, if the coordination/participation in scientific projects is in the area of preference; VRAP = up to 4 values, if the coordination/participation in

scientific projects and the activities of pedagogical scientific management are in related scientific areas; VRAP = up to 1 value, if the coordination/participation in scientific projects and the activities of pedagogical scientific management are in other areas.

d) In the parameter Intervention in the Scientific Community (SP.3), with the weight of 15%, the capacity of intervention in the scientific community will be evaluated, expressed, namely, through the organization of scientific events, participation as editor / co-editor of journals, participation in the evaluation of projects and articles, presentations as guest lecture, oral presentations at international conferences, as well as the recognition obtained through the awarding of prizes or other distinctions and their impact on the scientific community. The classification in parameter DC.3 will be obtained by the formula $0,5AV + 0,5VRAP$: - AV corresponds to the absolute valorization relative to the scientific community: AV = up to 5 values; - VRAP corresponds to the valorization relative to the area of preference: VRAP = 5 values, if the intervention in the scientific community is in the area of preference; VRAP = up to 4 values, if intervention in the scientific community is in related scientific areas; VRAP = up to 1 value, if intervention in the scientific community is in other areas.

e) In the parameter Patents / Intellectual Property Registry (KT.1), with the weight of 50%, the authorship and co-authorship of patents or utility models will be considered, considering the economic valuation resulting from these patents / registrations of intellectual property and its impact on society.

The classification in the parameter KT.1 will be obtained by the formula $0,4AV + 0,6VRAP$: - AV corresponds to the absolute valorization relative to the patents/intellectual property registry: AV = up to 5 values; - VRAP corresponds to the valorization relative to the area of preference: VRAP = 5 values, if Intellectual Property Patents / Registrations are in the preferred area; VRAP = up to 4 values, if Intellectual Property Patents / Registrations are in related scientific areas; VRAP = up to 1 value, if Intellectual Property Patents / Registrations are in other areas.

f) In the parameter Cooperation and liaison activities for the productive / entrepreneurial fabric (KT.2), with a weight of 50%, will be given into consideration the economic value of the research results achieved, as measured by the development and knowledge / technology transfer contracts to which they originated and the spin-off companies to which they have contributed.

The classification in the parameter KT.2 will be obtained by the formula $0,4AV + 0,6VRAP$:

- AV corresponds to the absolute valorization relative to the Cooperation and liaison activities for the productive / entrepreneurial fabric: AV = up to 5 values; - VRAP

corresponds to the valorization relative to the area of preference: VRAP = 5 values, if cooperative and productive-business-related activities are in the area of preference; VRAP = up to 4 values, if the activities of cooperation and connection to the productive / business fabric are in related scientific areas; VRAP = up to 1 value, if cooperative and productive-business-related activities are in other areas.

g) In the parameter motivation letter (ML.1), with a weight of 100%, will be evaluated the relevance of the scientific trajectory to the career profile and personal goals. Similarly, the interest of the candidate in the core areas mentioned in this announcement will be analyzed and the interest in the development of applied scientific research projects will be valued. This parameter will be rated on a scale of 0 to 5 values.

- 11.7. The classification obtained in the ASCP is expressed on a numerical scale from 0 to 5 values.
- 11.8. The classification of each candidate in the ASCP is obtained by the average of the classifications from each element of the jury. In case of a tie, the tie-breaking decision is up to the president of the jury.
- 11.9. With the ASCP finished, to the 3 (three) candidates with the highest classification in the ASCP will be applied the next Evaluation Method, the Interview (INT), with the immediate exclusion of the remaining candidates and the candidates with a CF lower than 9.5 are excluded.
- 11.10. Candidates who do not attend, for reasons not legally justified, the interview are excluded regardless of the score obtained in the evaluation method of the scientific and curricular path.
- 11.11. The INT will be classified on a numerical scale from 0 to 5 values, aiming to obtain clarifications and explanations regarding the curricular elements and/or additional information, as well as to evaluate the attitude profile and the motivation of the candidate.
- 11.12. The INT has a maximum duration of 30 minutes, in which the following evaluation criteria will be applied, with the respective weights, and the final classification of INT will be obtained by the formula $INT = 0,7RCV + 0,3MTV$, in which the numerical value represents the weight to be applied: a) RCV – Capacity to expose the Relevance of the Curriculum Vitae (CV), with the respective weight of 70%; b) MTV – Motivation to perform the tasks within the Work Plan, with the respective weight of 30%.

In the applying of the above-mentioned criteria, the following parameters are evaluated, with the respective weights:

- Capacity to expose the Relevance of the Curriculum Vitae (RCV = 70%): RCV.1) Exposure of the relevance of the CV 40%; RCV.2) Knowledge and skills 60%;

- Motivation to perform the tasks within the work plan (MTV = 30%): MTV.1) Motivation 100%.

a1) Within the parameter Exposure of the Relevance of the CV (RCV.1), with the weight of 40%, it will be evaluated the capacity to expose in a precise, succinct and contextualized way the relevance of the candidate's CV to perform the tasks within the position to which he/she is applying for.

The classification in the parameter RCV.1 will be obtained by the formula $0,6AV + 0,4VRAP$: - AV corresponds to the absolute valorization regarding the exposure of the relevance of the CV: AV = up to 5 values; - VRAP corresponds to the valorization relative to the area of preference: VRAP = 5 values, if the relevance of the CV is in the area of preference; VRAP = up to 4 values, if the relevance of the CV is in related scientific areas; VRAP = up to 1 value, if the relevance of the CV is in other areas.

a2) Within the parameter Knowledge and Skills (RCV.2), with the weight of 60%, it will be evaluated the knowledge and the skills with which the candidate is qualified to perform the tasks within the position to which he/she is applying for.

The classification in the parameter RCV.2 will be obtained by the formula $0,6AV + 0,4VRAP$: - AV corresponds to the absolute valorization regarding the knowledge and skills with which the candidate is qualified: AV = up to 5 values; - VRAP corresponds to the valorization relative to the area of preference: VRAP = 5 values, if the knowledge and skills with which the candidate is qualified are in the area of preference; VRAP = up to 4 values, if the knowledge and skills with which the candidate is qualified are in related scientific areas; VRAP = up to 1 value, if the knowledge and skills with which the candidate is qualified are in other areas.

b1) Within the parameter Motivation (MTV.1), with the weight of 100%, it will be evaluated the candidate's motivation to perform the tasks within the position to which he/she is applying for, measured by the evidenced stimulus to execute the tasks/activities related with the position to which he/she is applying for and the project to be developed, as well as the candidate's future prospects and its suitability to the requirements of the present position.

The classification in the parameter MTV.1 will be obtained according to the absolute valorization of the motivation evidenced by the candidate to perform the tasks within the position to which he/she is applying for: up to 5 values.

12. Order of candidates: The order of the candidates must be based on the evaluation made according to the evaluation criteria contained in this announcement.

- 12.1. The final classification (FC) of each candidate is obtained by the average of the classifications of each one of the elements of the Jury. In case of a tie, the decision of the tiebreaker shall be the responsibility of the President of the Jury.
- 12.2. The FC of the candidates is expressed in the numerical scale of [0 to 5 values], the classification being obtained through the weighted average, obtained by the formula $FC = 0.9ASCP + 0.1INT$. Candidates with a CF lower than 9.50 are not approved.
- 12.3. When the President of the Jury is from the scientific area for which the contest is open, he / she votes and, in case of a tie, the voting will be considered automatically tied according to the President's vote. When not in the scientific area of the contest, you only vote in the event of a tie, using the following tiebreaker criteria: highest average of the overall final scores awarded by the jury members. Maintaining the tie, the highest average of the overall scores given in the Scientific Performance criterion (SP) will be considered.
- 12.4. After completion of the application of the evaluation criteria, the jury will draw up an orderly list of successful candidates with their classification.
13. **Participation of interested parties and decision:** The final ordering project is notified to the candidates, by email with receipt of delivery of the notification, to pronounce for the purpose of preliminary hearing to the interested parties, pursuant to article 121^o and following of the Code of Administrative Procedure. After being notified, candidates have 10 working days to comment at the prior hearing. In the absence of allegations from the candidates, the final ordination project shall be automatically approved.
- 13.1. At the hearing of the interested parties, the jury appreciates the allegations offered and approves the final ordering list of the successful candidates. Within 90 days, from the deadline for submission of applications, the final decisions of the jury are given.
- 13.2. The final decision of the jury is approved by the President of the IPCA that also decides on the hiring.
14. **Publication of results:** The list with the admitted and excluded candidate, as well as the Final Ranking List of the approved candidates are published on the Human Resources Division website at the website of the IPCA Internet <https://ipca.pt/ipca/servicos-ipca/recursos-humanos/>, candidates being notified by email with receipt of delivery of the notification.
15. This international tender is exclusively destined to fill the indicated vacancies and may be terminated until the homologation of the final ranking list of candidates and expires with the respective occupation of the jobs on offer.
16. In compliance with paragraph h) of article 9 of the Constitution of the Portuguese Republic, the Polytechnic Institute of Cávado and Ave, as an employer, actively promotes a policy of equal opportunities between men and women in access to employment and in professional progression, providing scrupulously to avoid any form of discrimination.

17. The processing of personal data under the tender procedure follows the personal data protection policy available at: [https://ipca.pt/ipca/apresentacao/o-ipca/politica-de-privacia-e-protecao-de - Dice/](https://ipca.pt/ipca/apresentacao/o-ipca/politica-de-privacia-e-protecao-de-Dice/).
18. The selection of the candidates to be hired will be conditional, with the corresponding labour contracts being executed depending on the availability of the budget and corresponding funding under the legislation and the regulations and rules established by the Foundation for Science and Technology (FCT).

13/09/2023, The President of IPCA,

Professor Doctor Maria José da Silva Fernandes

**ANNEX
APPLICATION**

Dear President of Polytechnic Institute of Cávado and Ave

Name (...), birthdate (...), VAT N^o (...), identification card n^o (...), address (...), postal card (...), mobile phone (...), e-mail (...), literary abilities (...), hereby requests that you kindly accept my application for the international competition for recruitment in the form of an uncertain term contract under the Labor Code and Decree-Law No. 57/2016 of 29 August, as amended by Law no. 57/2017, of 19 July, of 1 doctoral position in the scientific areas of _____, according to a notice published in the Diário da República no __, 2nd series, of __/__/__, with Ref. (...).

Further declares that it agrees to receive by email the communications and notifications resulting from the present selection tender procedure.

In case the PhD has been conferred by a foreign higher education institution, the candidate is aware that it must be recognised in Portugal, under the terms foreseen in the applicable legislation, and commits to submit the same, in case of being the selected candidate.

Find attached the following documents: (...)

(Place and date)

(Signature)