

Notice no. 2698/2025/2–EST–EngMec

Summary: Opening of an international selection tender for the recruitment of one career doctoral assistant researcher in the form of an open-ended term contract, under private law, concluded under the Labour Code, for the scientific area of mechanical engineering in the 2Ai - Applied Artificial Intelligence Laboratory of the School of Technology of the Polytechnic Institute of Cávado and Ave (IPCA).

Doctor Maria José da Silva Fernandes, Professor and President of Polytechnic Institute of Cávado and Ave (IPCA), makes it known that, for a period of fifteen (15) business days from the business day immediately after the date on which this announcement is publicized in the newspapers Diário do Minho, Público and in the 2nd Series of the Diário da República, with complete notice in the link <https://ipca.pt/procedimentos-concursais/pessoal-investigador/>, an international selection tender is open for recruitment in the form of an open-ended term contract concluded under the private law, of one (1) assistant researcher for the scientific area of Mechanical Engineering in the 2Ai - Applied Artificial Intelligence Laboratory of the School of Technology (EST) of the Polytechnic Institute of Cávado and Ave (IPCA).

This tender, opened by order of January 17th, 2025 by the President of IPCA, following a proposal from the Coordinator of the 2Ai R&D unit and with prior favorable assent from the Director of EST, with assents from the Scientific Council of 2Ai and the Technical-Scientific Council of EST, and confirmation of adequate budgetary provision, is governed by the provisions of the Regulation for the Career, Recruitment, and Contracting of Research Staff under Private Law at IPCA, approved by Order No. 679/2025, published in the 2nd series of the Diário da República No. 10/2025, dated January 15, hereinafter referred to as the Regulation, as well as by the Labor Code and other applicable legislation and regulatory standards.

This recruitment is funded under the FCT-Tenure Program, supported by the RE-C06-i06 investment – “Ciência Mais Capacitação” from the Recovery and Resilience Plan (PRR) through Next Generation EU, and by tax revenue funds from the FCT budget, as provided for in paragraph 3 of article 33 of the “Lei de orçamento de Estado” of 2025, with the goal of promoting the hiring of doctoral graduates exclusively for permanent positions by integrating them into research careers. Considering the funding rules, candidates who are already integrated in the research career or in a teaching career in higher education are not eligible to apply.

I - Characterization of the tender:

1 - Place of Work:

The workplace is located at the 2Ai - Applied Artificial Intelligence Laboratory of the School of Technology (EST) of IPCA, Barcelos Campus, Barcelos, at other IPCA installations in Braga, Guimarães, Esposende, Vila Nova de Famalicão and Vila Verde, and/or other locations required for the development of research activities.

2 – Number of positions:

The number of job positions available is one (1).

3 – Monthly salary:

The monthly remuneration is 3501,27 €, corresponding to the first remuneration position for the category of assistant researcher under the private law, in accordance with Annex I of Order No. 679/2025, published in the 2nd series of the Diário da República No. 10/2025, dated January 15.

4 - Type of employment relationship:

Permanent employment contract under an exclusive dedication regime, in accordance with the Regulation for the Career, Recruitment, and Contracting of Research Staff under Private Law at IPCA, approved by Order No. 679/2025, published in the 2nd series of the Diário da República No. 10/2025, dated January 15, as well as the Labor Code and other applicable legislation and regulatory standards.

4.1. Functional content of the position :

4.1.1. The functions of the assistant researcher to be hired are outlined in Articles 5, 6, 7, 8, and 9 of the Regulation for the Career, Recruitment, and Contracting of Research Staff under Private Law at IPCA, approved by Order No. 679/2025, published in the 2nd series of the Diário da República No. 10/2025, dated January 15, as well as in Article 5 of the Statute of the Scientific Research Career, in its current wording.

4.1.2. It is also the responsibility of the assistant researcher to regularly perform research and development activities, as well as other scientific and technical activities within the scope of the mission of 2Ai and IPCA, and also to:

- a) Participate in the design, development, and execution of research and development projects, as well as related scientific and technical activities;
- b) Supervise the work developed within the projects under their responsibility;
- c) Participate in the coordination or co-coordination of projects;
- d) Collaborate in the development of training actions within the scope of research and development methodology;
- e) Monitor the research work carried out by research fellows, technical research support interns, and technical assistants for research support;
- f) Collaborate in teaching and participate in the institution's training programs;
- g) Supervise higher education students, particularly those in undergraduate, master's, and doctoral programs;
- h) Perform duties for which they have been elected or appointed in the institution's collegial bodies.

5 - Validity period:

5.1 - The tender is valid for this vacancy, expiring upon its occupation or if no candidates are found.

5.2 - The tender may also be terminated by a duly justified act of the President of IPCA, in accordance with the general principles of administrative activity, as well as the legal, regulatory, and competition limits.

6 – Member of the Juri:

The jury is composed of:

President: Professor Doctor Maria José da Silva Fernandes, Principal Coordinator Professor and President of IPCA.

Effective members:

Professor Doctor Filipe José Palhares Chaves, Coordinator Professor of the Higher Vocational Technical School of IPCA;

Professor Doctor Óscar Samuel Novais de Carvalho, Associated Professor of the School of Engineering of the University of Minho.

Professor Doctor Doutor Carlos Fernando Couceiro de Sousa Neves, Coordinator Professor of the School of Technology and Management of the Polytechnic Institute of Leiria.

Professor Doctor Fernando Jorge Lino Alves, Full Professor of the Faculty of Engineering of the University of Porto.

7 - Rules of operation of the Jury:

7.1 – According to the Regulation, it is the responsibility of the jury to carry out, specifically, the following actions:

- a) Admission or exclusion of candidates;
- b) Approval or disapproval of candidates based on absolute merit;
- c) Approval or disapproval of candidates in the selection methods;
- d) Final ordering of the approved candidates;
- e) Selection of the candidate to be hired;
- f) Response to any arguments submitted by candidates in the scope of the hearing of interested parties.

7.2 - In order to comply with the procedures established for performing the actions referred to in item 7.1, the jury may hold one or more meetings, subject to the following:

- a) Each meeting can only take place when at least two-thirds of its effective members are present;

b) The meetings of the competition jury may be held by videoconference at all stages of the procedure, provided that there are the necessary technical conditions for this.

7.3 - The jury shall deliberate by means of a nominal vote, by the absolute majority of the votes of the jury members present at the meeting, with abstentions not being allowed.

7.4 - The jury justifies its vote based on the evaluation criteria and parameters disclosed in the respective notice and the grid approved in the minutes of the definition of the evaluation criteria.

7.5 - The jury meetings will be documented in written minutes, containing a summary of what occurred, the indication of the direction of the votes cast by each member, and their respective justifications, which may be included in separate documents attached to the minutes, being the minutes signed by all jury members present or, upon prior decision of the jury, signed by the president of the jury.

7.6 - Without prejudice to the functions of the jury president as provided in the Regulation, when the president is from the scientific area of the competition, their participation in the execution of the procedures stipulated for performing the actions referred to in item 7.1 is mandatory.

7.7 - In the event of a tie, the president of the jury intervenes with the aim of breaking the tie.

II – Admission rules:

8 - Formalization of the applications:

8.1 - 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 and 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.

8.2 - The application must be accompanied by the following documentation:

a) A digital copy of the detailed curriculum vitae (with supporting documents for all points of the curriculum vitae). The curriculum vitae must contain all the information relevant to the assessment of the application, taking into account the procedures stipulated for carrying out the acts referred to in points 10, 11, 12 and 13. It is required that the curriculum vitae be explicit and organized in accordance with the criteria and parameters of 10, 11, 12 and 13.

b) A document, in digital format, that describes, in no more than 3000 words, the scientific vision that the candidate has for the scientific area of the competition within the objectives of 2Ai. This document should be based explicitly and justifiably on the candidate's scientific contributions to the scientific area of the competition, in particular to the development and design of medical devices, and reveal their original and innovative vision for the development of the R&D Unit, based on a strategy of national and international growth, showing that the candidate has the necessary capacity to carry out, at least adequately, the functions associated with the category and scientific area to which the competition relates;

c) Document, in digital format, integrated in the curriculum vitae, indicating the candidate's identifiers in scientific publication indexing services, namely “ORCID ID” and “Scopus Author ID”;

d) Document, in digital format, in which, for each of the publications included in the curriculum vitae, it is indicated whether the publication is indexed in the Web of Science service, with the corresponding evidence being presented, as well as the number of citations of each of those publications. The method used to count citations must also be explained, in sufficient detail for the jury to be able to reproduce the procedure;

e) Certificate of academic and professional qualifications, in digital format, showing that the degree and qualifications required for the competition have been obtained and the date on which they were obtained.

f) A copy of the doctoral thesis, in digital format, and, if the candidate holds an aggregate degree or has defended public qualification exams, the documents produced by the candidate for this purpose, so that the jury can assess their suitability for the scientific area of the competition.

g) Declaration, in digital format, by which the candidate declares, on oath, that the elements or facts contained in the application are true.;

h) Declaration, in digital format, by which the candidate declares, on oath, that the candidate is not disqualified from exercising public functions, or is barred from the functions to be performed, that the candidate has the physical strength and mental profile required for the performance of the functions and that candidate has complied with the mandatory vaccination laws.

8.3 - Documents must be delivered in digital format and respect the format Portable document format (PDF), preferably in PDF/A version, except in situations where the document to be submitted cannot take the indicated format, at the risk of the documents not being accessible/downloadable, which will be the sole and exclusive responsibility of the candidates and may lead to their exclusion from the competition, must comply with the following:

8.3.1. All documents must be compressed into a single folder in ZIP or RAR format, organized in order by the criteria of scientific performance, the transfer and valorization of knowledge, and other relevant activities, and by the parameters set out in points 10, 11, 12 and 13;

8.3.2. If the option is taken to send the documents by email, in addition to the duty to comply with the provisions of the previous paragraphs, if it is not possible to send all the documents in a compressed folder in a single email, the documents must be sent via a permanent link;

8.3.3. The name of the files:

a) must be as succinct/short as possible to avoid difficulties when downloading;

b) must not contain any of the following characters: /, \, |, :, *, ?, “, > e <.

8.3.4. The documents required in the notice must be scanned from originals or notarized;

8.3.5. The application and accompanying documents must be written in Portuguese or English.

8.4 - The application and other registration documents can only be submitted to the following email: cp-25-pinv-engmec-2ai@ipca.pt

8.4.1 It is the responsibility of each candidate to submit and ensure receipt of confirmation of submission of the full application by the deadline set out in the notice: 15 working days from the first working day after publication of the notice in the Diário do Minho newspaper, the Público newspaper and in the 2nd Series of the Diário da República

8.5 - Candidates with a contract with IPCA are exempt from submitting the documents proving the requirements already included in their individual file.

8.6 — Submission of an application and documents that do not explicitly and fully comply in form and content with the requirements referred to in points 8.1 and 8.2, failure to comply with the deadline for submission of the application, failure to submit or submission after the deadline of any of the documents referred to in points 8.2 a) to j), which must be submitted, will result in the exclusion of the application.

8.7 — Whenever it deems it necessary, the jury will ask candidates for additional documentation relating to the curriculum vitae and documents submitted, as follows:

a) The documentation referred to is not intended for the presentation of elements not referred to in the curriculum vitae, nor to cover the failure to attach the documents required in the notice for tenders in due time.

b) All competitors are informed that additional documentation has been requested.

8.8 - The process can be consulted by candidates who wish to do so at the Human Resources Division, on the IPCA Campus, Vila Frescaíña S. Martinho, 4750 - 810 Barcelos, during office hours, by prior appointment through the email address: drh@ipca.pt.

8.9. The minutes of meetings can be made available to candidates on request.

9 - Eligibility criteria:

9.1 — In addition to the requirements referred to in point 8, it is a requirement for admission to the tender to hold a doctoral degree in a field of knowledge considered appropriate to the scientific area and specialization of the competition, more specifically Mechanical Engineering, and related areas.

9.2 — 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. This formality (recognition of degrees and academic titles obtained abroad) must be completed by the deadline for submitting applications.

9.3. Considering the rules for awarding funding under the FCT-Tenure Program, applications may not be submitted by anyone who is already integrated in a research career or a higher education teaching career.

10 — Admission of candidates and absolute merit:

10.1. At the closure of the deadline for the submission of applications, the jury will assess the admission requirements set out in the opening notice and deliberate on the admission and exclusion of candidates to the procedure, proceeding to the writing of an ordered list of admitted and non-admitted candidates and immediately assessing their absolute merit under the terms of article 28 of the Career, Recruitment and Hiring Regulations for Research Staff under the Private Law Regime of the Polytechnic of Cávado and Ave.

10.2 – The absolute merit is analyzed based on: (i) the adequacy of the scientific project proposal elaborated by the candidate with the scientific vision for the scientific area and specialization of the competition within the objectives of 2Ai, as mentioned in paragraph c) of point 8.2; and (ii) the specific requirements indicated in sub-point 10.3.

10.3 - The candidate must cumulatively fulfill the following specific requirements:

a) At least 2 (two) articles published as first or last author, in scientific journals indexed in the Web of Science, since 2020.

b) At least 2 (two) patent or provisional patent applications since 2020.

c) Participation as a member of the research team in at least 5 (five) funded projects.

d) At least 5 (five) articles published in Quartile 1 (one) or Quartile 2 (two), defined according to the Web of Science, since 2020. The Quartile refers to the year of publication or, if not yet available, to the year prior to publication, and in the case of recent journals, the first value attributed. In case a scientific journal is inserted in multiple quartiles, the maximum quartile is used.

10.4 - Absolute merit is expressed by the formulas “rejected” or “approved”.

10.5 - In order to be approved on absolute merit, each candidate must obtain the favorable vote of the absolute majority of the members of the jury.

10.6 - The decision not to approve on absolute merit and consequently to exclude is made by an absolute majority, with each member of the jury submitting a document stating the reasons for their vote.

10.7 - The vote against approval on absolute merit must be based on one or more of the following circumstances:

a) The scientific project elaborated by the candidate, requested in paragraph c) of point 8.2 and specified therein, presents insufficiencies in innovation or serious inaccuracies that show that the candidate does not have the necessary capacity to adequately perform the duties of Assistant Researcher in the scientific area of the competition and that the candidate does not fit in with the mission and attributions of 2Ai of EST/IPCA; and/or

b) Failure to comply with specific requirements defined in point 10.3.

10.8 - In the case of non-admission or non-approval based on absolute merit, the jury proceeds to a prior hearing of the rejected candidates for the purpose of a hearing of interested parties statements, that can be submitted by writing within five business days, in accordance with paragraph 1 of Article 30 of the Regulation on the Career, Recruitment, and Hiring of Research Staff under Private Law at the Polytechnic Institute of Cávado and Ave, or can, provided it justifies its decision, immediately move on to the assessment phase of the applications admitted and

approved on absolute merit, without prejudice to subsequently assessing the applications of the candidates to whom it has given approval in the context of the prior hearing.

10.9 - Without prejudice to the final part of the previous paragraph, after the candidates have been heard in accordance with the previous paragraph, the selection board will elaborate the final list of approved candidates in absolute merit and will then initiate the evaluation and ordering of the candidates.

IV – Selection methods:

11 - Selection methods:

11.1 - The selection method adopted is the evaluation of the scientific and curricular path - its purpose is to assess the performance and ability to carry out the duties associated with the category and scientific area to which the competition relates, based on the evidence expressed in the procedural documents submitted to the competition, in order to demonstrate the suitability of the candidate's profile to the real needs of the organic sub-unit in terms of reinforcing its research team, which justified the opening of the vacancies offered for this tender.

11.2 - The evaluation of the scientific and curricular path is expressed on a scale of 0 to 100 points, valued to the hundredths, and the classification is obtained through the weighting defined in the criteria, evaluation parameters and weights.

12 - Evaluation of the Scientific and Curricular Path (APCC):

12.1 – In the evaluation of the scientific and curricular path, the following evaluation criteria are compulsory and weighted according to the requirements of the duties corresponding to the category to which this tender relates:

- a) The candidate's scientific performance in the scientific area of the competition.
- b) The transfer and valorization of knowledge carried out by the candidate in the scientific area of the competition.
- c) Other activities relevant to the mission of the IPCA, especially to the R&D unit 2Ai, for which the tender is open, which have been carried out by the candidate.

12.2 – To the criteria listed in point 12.1 are assigned the following weighting factors:

- a) Scientific Performance (DC): 60%;
- b) Transfer and valorization of knowledge (TVC): 20%;
- c) Other activities relevant to the IPCA's mission, especially those relevant to the organic sub-unit related to this tender, which have been carried out by the candidate (OAR): 20%.

13 - Evaluation parameters:

13.1 - When applying the criteria referred to in point 12, the following evaluation parameters are considered:

a) Parameters for evaluating Scientific Performance (DC), weighted at 60%:

DC1 — Scientific or Technological Production, valuing open science practices, to be weighted up to 50 points.

DC2 — Coordination and Participation in Scientific or Technological Development Projects, to be weighted up to 25 points.

DC3 — Intervention in the Scientific Community, to be weighted up to 20 points.

DC4 — Capture of Funding, to be weighted up to 5 points.

b) Parameters for evaluating the Transfer and Valorization of Knowledge (TVC), to be weighted at 20%:

TVC1 — Patents/Intellectual Property Registrations, to be weighted up to 45 points.

TVC2 — Cooperation and Liaison Activities with the Productive/Enterprise Fabric, to be weighted up to 10 points.

TVC3 — Dissemination of Science and Technology, weighted up to 45 points.

c) Parameters for evaluating Other Relevant Activities (OAR), weighted at 20%:

OA1 — Participation in management bodies related to R&D units, to be weighted up to 25 points.

OA2 — Participation in Scientific/Academic Juries, to be weighted up to 10 points.

OA3 — Participation in the Supervision/Cosupervision of students, to be weighted up to 5 points.

OA4 — Involvement in teaching and/or advanced training activities, to be weighted up to 60 points.

14 - Reasoning for the differentiation between candidates:

14.1 - After the candidate's admission and approval, if applicable, on absolute merit, each member of the jury presents their reasoning, which can be joint, attached or included in the minutes, with a list of the candidates in descending order of merit, duly reasoned, considering the criteria and parameters of the tender notice.

14.2 - In the order list elaborated by each of the members of the jury, the final classification of each candidate is expressed on a numerical scale of 0 to 100.

VI - Ordering and selection:

15 - Voting procedure for final ordering:

15.1. The ranking methodology is as follows:

a. The candidate who obtains an absolute majority in each vote will be placed in the first place to be ordered;

b. Voting is carried out using the successive voting method;

c. In accordance with the provisions of the previous paragraph, the jury votes initially for 1st place, then for 2nd place, and so on, until the final ranking of all the candidates admitted to the competition and with absolute merit is reached;

d. If a candidate obtains an absolute majority of the votes, they are ranked in the place for which they are voting and are removed from the ballot, starting the procedure to choose the candidate who will occupy the next place, and so on;

e. If an absolute majority of votes is not reached in the vote for any of the positions, the jury will repeat the vote for the position in question, but excluding the candidate who received the least votes in each of the votes, up to a limit of three, in order to find a candidate who reaches an absolute majority of votes;

f. If there is a tie to determine the candidate with the least votes under the terms of the previous paragraph, the jury will repeat the vote up to a limit of three, only among the candidates in a tie situation, with the candidate with the least votes being excluded in each vote.

15.2 When the president of the jury is not from the scientific area for which the competition is open and does not vote, in the event of a tie, the vote is automatically considered a tie-breaker according to the president's vote, which must be based on the following criteria:

a. Highest average of the final overall scores attributed by the members of the jury;

b. If the tie persists, the highest average of the overall scores awarded in the scientific performance criterion will be considered.

16 - Notification of the final order project:

16.1 - The final ordering project of the approved candidates is notified via email with a delivery receipt to the candidates approved based on absolute merit, to pronounce for the purpose of preliminary hearing to the interested parties.

16.2 – At the hearing of the interested parties, the jury appreciates the allegations offered by the candidates and elaborates the final ordering list of the candidates.

16.3 - Consultation of documents submitted by the candidates, as well as any other documentation containing personal data, can be carried out in person, provided it is requested by any interested party, with the deadline being suspended during this process.

16.4 - Once the deadline for the hearing of interested parties has finished and no candidate has made a pronounce, the decision project is converted into a final decision.

17 – Final decision:

17.1 - The deadline for the jury to deliver the final decision must not exceed 90 days, starting from the end of the application deadline, with the counting of this period being suspended during the hearing period for interested parties.

17.2 - The deliberation and the final ordering list of the approved candidates, along with the other deliberations of the jury, including those related to the admission and exclusion of candidates, are submitted for approval by the president of the IPCA.

17.3 - The final ordering list of the tender and the last minutes/final report, signed by all the members of the jury, will be posted on the IPCA's competition procedures website and notified to all candidates by email with receipt of delivery of the notification, no later than five working days after approval by the President of the IPCA.

17.4 - Candidates are considered to have been formally notified with the electronic notification referred to in the previous paragraph.

18 - Policy of non-discrimination and equal access: IPCA actively promotes a policy of non-discrimination and equal access, whereby no candidate may be privileged, benefited, disadvantaged or deprived of any right or exempted from any duty on the grounds of, in particular, ancestry, age, gender, sexual orientation, marital status, family situation, economic situation, social origin or condition, genetic heritage, reduced working capacity, disability, chronic illness, nationality, ethnic origin or race, territory of origin, language, religion, political or ideological convictions and trade union membership.

19 - In compliance with paragraph h) of Article 9 of the Constitution, the IPCA, as an employer, actively promotes a policy of equal opportunities for men and women in access to employment and professional advancement, taking scrupulous care to avoid any form of discrimination.

20 - The processing of personal data within the scope of the tender procedure complies with the personal data protection policy available at: <https://ipca.pt/ipca/apresentacao/o-ipca/politica-de-privacidade-e-protecao-de-dados/>

January 24, 2025. - The President of IPCA, Professor Doctor Maria José Fernandes.