

## ANNOUNCEMENT FOR THE AWARD OF A RESEARCH FELLOWSHIP (BI) IN THE CONTEXT OF R&D PROJECT

**Title:** Announcement for the award of (2) research grant scholarship (BIEM) for students enrolled in a Master's program or in a non-degree awarding course

**Reference:** F4PPT-IPCA-EST-2AI-BIEM-1-2

**Number of positions:** 2

**Project:** F4PPT – Factory for People, Processes and Technology

The Laboratory of Applied Artificial Intelligence (2Ai), a R&D unit of the School of Technology (EST) of the Polytechnic Institute of Cávado and Ave (IPCA), open a call for two (2) Research Grant Scholarship (BIEM), for students enrolled in a Master's program or in a non-degree awarding course within the scope of project 2023.13382.PEX - 'Factory for People, Processes and Technology', funded by the FCT state budget through PORTUGAL2030, as part of the 2023 call for exploratory projects in all scientific domains.

**Scientific Areas:** Industrial Engineering and Management or similar areas.

### Admission requirements:

- Candidates must have a degree<sup>1</sup> in the areas: Industrial Engineering and Management, Management, Economy, Data Science, or similar areas.
- Candidates must be enrolled in a master's, integrated master's or doctorate or enrolled in a non-academic course, namely advanced training courses or postgraduate courses, in accordance with the established legal regime in numbers 3 to 6 of article 4 of Decree-Law no. 74/2006, of March 24.

### Work plan:

The Project F4PPT – Factory for People, Processes, and Technology aims to design an intelligent factory model for operational excellence and provide guidelines for the implementation of an

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<sup>1</sup> If the qualification has been conferred by a foreign higher education institution, it will have to be recognized by a Portuguese higher education institution, in accordance with the provisions of article 25 of Decree-Law no. 66/2018, of 16 August, which approves the legal regime for the recognition of academic degrees and higher education diplomas, awarded by foreign higher education institutions and paragraph e) of paragraph 2 of article 4 of Decree-Law no. 60/2018, August 3, and any formalities established therein must be fulfilled by the date of the contracting act.

integrated management system to ensure industrial sustainability. These objectives are achieved, together with the research team, through the convergence of three work areas: (1) People, (2) Processes, and (3) Technology.

1. People: Investigate industrial organization strategies and practices so that companies become more resilient, sustainable, and people-centered, harnessing the potential of the Industry 5.0 vision.
2. Processes: Develop an intelligent factory model for operational excellence that combines ISO standards, Lean Six Sigma methodology, and data-based problem-solving, integrating the Industry 5.0 vision to optimize industrial productivity and competitiveness.
3. Technology: Establish guidelines for an integrated management system for intelligent factories, aiming at operational excellence and industrial sustainability, with reference to advanced technologies, artificial intelligence, management and certification systems, and aligned with Industry 5.0—where technology serves as an enabler to strengthen people’s skills and capabilities rather than replace them.

The pursuit of these goals includes carrying out practical applications to solve operational problems based on data collection, analysis, and processing, in order to develop forecasting models and support decision-making.

#### **Legislation:**

- Research Fellowship Statute – Decree-Law No. 89/2013, which was later amended by Decree-Law No. 123/2019, of 28 August. Current scholarship holder statute: <https://diariodarepublica.pt/dr/legislacao-consolidada/lei/2004-58216179>.
- Regulation of Research Grants of the Polytechnic Institute of Cávado and Ave, Regulation approved by the Order n.º 12952/2023 (Diário da República n.º 242/2023, Série II de 2023-12-18).

#### **Workplace:**

- The work will be developed at 2Ai of the Polytechnic Institute of Cávado and Ave – Barcelos, under the scientific guidance of Professor António Rocha.

#### **Duration of scholarships:**

- The grant will have a duration of twelve (12) months, potentially renewable, up to the limit of the project’s funding or until the project’s completion date on August 1, 2026, with a planned start date in March 2025, if the candidate meets the conditions, up to the maximum time limit in which funding for the project is guaranteed and/or while the project execution period is running, if the contract it is not denounced, in writing, with 60 days prior notice by either part.

#### **Monthly maintenance allowance amount:**

- Scholarship holders are awarded a monthly subsidy of €990.98, in accordance with the table

of values for FCT scholarships ([https://www.fct.pt/wp-content/uploads/2024/02/Tabela-de-Valores-SMM\\_atualizacao-2024.pdf](https://www.fct.pt/wp-content/uploads/2024/02/Tabela-de-Valores-SMM_atualizacao-2024.pdf)), and according to the table in Annex IV of the Regulation of Research Grants of the Polytechnic Institute of Cavado and Ave, updated in accordance with paragraph 8 of Article 26 of the IPCA Regulation. This amount will be paid monthly by bank transfer.

**Other benefits:**

- Reimbursement of Voluntary Social Insurance, corresponding to the 1st step of the contributory base, and Personal Accident Insurance.

**Applications evaluation:**

Applications will be evaluated taking into account the selection criteria listed below. In case the selected scholarship holder withdraws, the second candidate from the ordered list of candidates will be automatically selected, and so on, until the candidates presented are exhausted.

**Selection methods:**

-The selection methods to be used will be the following: Curricular evaluation, with a value of 50% and Selection Interview, with a value of 50%.

-The Curriculum Assessment (AC) is based on the following criteria:

- Classification obtained in the bachelor -50%;
- Scientific and/or professional experience related to the project – 50 %.

-The Selection Interview (ES) will have a maximum duration of 30 minutes and is based on the following criteria:

- Motivation and interest in the place – 20 %;
- Capacity for expression, argumentation and verbal fluency – 20 %;
- Sense of teamwork – 20 %;
- Domain of English Language - 10%;
- Compatibility with the work plan profile – 30 %.

-In case of a tie, preference will be given to the classification obtained in the AC, if a tie persists, preference will be given to the classification obtained in each of the factors that make up the EPS criterion, in the following order:

- Compatibility with the work plan profile (30%);
- Sense of teamwork (20%);
- Motivation and interest in the place (20%);
- Capacity for expression, argumentation and verbal fluency (20%);
- Domain of English Language (10%).

-Candidates who do not attend the interview, for reasons not legally justified, will be excluded, regardless of the score obtained in the curriculum evaluation, and candidates with a final classification of less than 9.50 points.

**Selection Jury:** The Jury is composed of:

President:

- Professor Doctor António Miguel de Sousa Rocha, Research collaborator of 2AI and Assistant Professor of the School of Technology of the Polytechnic Institute of Cávado e Ave.

Effective Members:

- Professor Doctor Oscarina Conceição, Researcher at UNIAG – Applied Management Research Unit and at DINÂMIA'CET-Iscte – Center for Studies on Socioeconomic Change and Territory, and Assistant Professor of the School of Management of the Polytechnic Institute of Cávado e Ave.
- Professor Doctor Alexandrino Ribeiro, Researcher at UNIAG – Applied Management Research Unit and at DINÂMIA'CET-Iscte – Center for Studies on Socioeconomic Change and Territory, and Coordinator Professor of the School of Management of the Polytechnic Institute of Cávado e Ave.

Alternate Members:

- Professor Doctor Fernando Romero, Researcher of Centro Algoritmi, and Assistant Professor of the School of Engineering at University of Minho.
- Professor Doctor Martinha Pereira, Research collaborator of 2AI and Assistant Professor of the School of Technology of the Polytechnic Institute of Cávado e Ave.

#### **Stakeholder participation and decision:**

Candidates will be notified of the assessment results project by email with delivery receipt of the notification, so that they can comment for the purpose of holding a hearing of interested parties, pursuant to article 121 et seq. of the Code of Administrative Procedure, to the email [candidatura\\_2ai\\_est@ipca.pt](mailto:candidatura_2ai_est@ipca.pt). In the absence of a response from the candidates, the project becomes definitive.

#### **Decision:**

Once the prior hearing period has elapsed, or the issues raised within this scope have been considered, the jury draws up the final ranking list of the admitted candidates, submitting it, together with the remaining parts of the procedure, for approval by the IPCA President.

### Form of advertising/notification of results:

The results of the evaluation will be publicized, through a list sorted by the final grade obtained, and the candidates will be notified by email, with delivery receipt of the notification, pursuant to article 16, paragraph 1, of the Research Grants Regulation of the Polytechnic Institute of Cávado and Ave.

### Application deadline and form of submission of applications:

- The contest is open for a period of 10 working days after publication on <https://euraxess.ec.europa.eu/>.

- Applications must be sent exclusively by email to the address: [candidatura\\_2ai\\_est@ipca.pt](mailto:candidatura_2ai_est@ipca.pt). In the subject of the e-mail it is mandatory to put the reference of the to which you are applying. If the reference of the scholarship is not indicated in the subject of the e-mail, the candidate will be automatically excluded from the procedure.

- Applications must be formalized, obligatorily through a presentation, accompanied by the following documents:

- Curriculum Vitae;
- Proof of Enrollment in a master's, integrated master's, doctorate or in non-academic degree courses integrated in the educational project of a higher education institution;
- Certificate(s) of qualifications and other documents considered relevant for consideration (optionally letters of reference).

- Curriculum Vitae and Certificates of Qualifications must be presented, the non-delivery of which determines the exclusion.

- Proof of enrollment in a master's, doctorate or non-degree courses must be presented until the scholarship is contracted. The candidate must attach a declaration of commitment of honor, under pain of exclusion, to confirm that they meet the requirements for enrolment in an integrated master's degree, master's or doctoral program, or in non-academic degree courses.

- If the candidate is not a Portuguese citizen, he/she must provide documentary evidence, at the time of signing the grant contract, that he/she holds an authorization to legally remain in Portuguese territory and that entitles him/her to enter into the contract arising from the grant award.

- If the qualification requested has been conferred by a foreign university, it must comply with the provisions of Decree-Law no. 66/2018, of 16th August, and any formalities established herein must be fulfilled until the date of the signature of the grant contract. Registration of the recognition of academic degrees awarded by foreign higher education institutions and registration of the conversion of the respective final classification to the Portuguese classification scale may be waived at the application stage and replaced by a **declaration of honor by the candidate**, to be presented at the time of application, with verification of this condition only occurring at the stage of contracting the scholarship. If the candidate does not

present the conversion of the classification to the Portuguese classification scale, the jury will establish the conversion, only for the purposes of the competition, based on the rules of the legal regime applicable to the recognition of foreign degrees and diplomas or, when impossible, will apply the minimum classification of 10 points.

**Complaint:**

- Complaints from the final ordering list, duly ratified, may be made to the IPCA president, to be submitted within 15 working days from the notification, to the email [candidatura\\_2ai\\_est@ipca.pt](mailto:candidatura_2ai_est@ipca.pt), which does not have a suspensive effect.

**Non-discrimination and equal access policy:**

- The IPCA actively promotes a policy of non-discrimination and equal access, so that no candidate can be privileged, benefited, harmed or deprived any right or exemption from any duty due, in particular, to ancestry, age, sex, sexual orientation, marital status, family status, economic status, origin or social status, genetic heritage, reduced work capacity, disability, illness chronicle, nationality, ethnic or race origin, territory of origin, language, religion, political or ideological convictions and union membership.

Barcelos, 5 de fevereiro de 2025

A Presidente do Politécnico do Cávado e do Ave

Professora Doutora Maria José Fernandes

## ANEXO I

### Modelos

Modelo do Relatório Final de Apreciação do Programa de Bolsa a elaborar pelo Bolseiro

Identificação do bolseiro:

Identificação da bolsa, do projeto e entidade de acolhimento:

Orientador científico da bolsa:

#### 1. Objeto e objetivos da bolsa

*[De acordo com o tipo de bolsa, anúncio e plano de atividades]*

#### 2. Trabalhos desenvolvidos

*[Apresentação cronológica das atividades desenvolvidas, incluindo listagem das publicações e trabalhos elaborados no âmbito do contrato de bolsa com os respetivos endereços URL, bem como cópia do respetivo trabalho final, no caso de bolsa concedida para obtenção de grau ou diploma académico].*

#### 3. Resultados

*[Descrição sucinta dos resultados alcançados e eventuais desvios]*

#### 4. Apresentação dos resultados alcançados

#### 5. Autoavaliação e avaliação do programa de bolsa

*[Análise crítica do trabalho desenvolvido, conhecimentos adquiridos e avaliação geral – positiva ou negativa – do desempenho e do programa de bolsa]*

**Nota:** Anexos a apresentar em formato eletrónico: Publicações e Trabalhos elaborados no âmbito do Contrato de Bolsa e cópia do Trabalho Final apresentado, no caso de Bolsa concedida para a obtenção de grau ou diploma académico. Em caso de bolsa de participação em reuniões científicas anexar comprovativo de presença na reunião.

Barcelos, \_\_\_ de \_\_\_\_\_ de 20\_\_

O Bolseiro de Investigação, \_\_\_\_\_ (nome completo)

## ANEXO II

Modelo de Relatório Final de Avaliação da Atividade do Bolseiro de Investigação Científica a elaborar pelo Orientador Científico

Orientador científico da bolsa:

Identificação da bolsa, do projeto e entidade de acolhimento:

Bolseiro:

### 1. Análise crítica das atividades e do trabalho desenvolvidos pelo bolseiro

*[Breve descrição das atividades desenvolvidas pelo bolseiro, de acordo com o anúncio e o plano de atividades e apreciação crítica dos objetivos e resultados atingidos pelo bolseiro.]*

### 2. Avaliação final do trabalho desenvolvido pelo bolseiro

*[Apreciação global fundamentada do trabalho desenvolvido pelo bolseiro, com balanço final positivo ou negativo, abordando o seu desempenho, esforço e dedicação]*

Barcelos, \_\_\_ de \_\_\_\_\_ de 20\_\_

O Orientador Científico da Bolsa, \_\_\_\_\_ (nome completo)



## ANEXO III

### Contrato de Bolsa de Investigação

ENTRE:

**PRIMEIRO:** INSTITUTO POLITÉCNICO DO CÁVADO E DO AVE, pessoa coletiva número 503 494 933, com sede na avenida Professor Doutor João Carvalho, Campus do IPCA, 4750-810 Barcelos, representado neste ato pelo sua Presidente, \_\_\_\_, adiante designado por **Primeiro Outorgante**

e

**SEGUNDO:** \_\_\_\_, de nacionalidade \_\_\_\_, nascido a \_\_-\_\_-\_\_\_\_, portador do \_\_\_\_ (Cartão de Cidadão/Bilhete de Identidade/Passaporte/Outro) n.o \_\_\_\_\_, válido até \_\_-\_\_-\_\_\_\_, contribuinte fiscal n.º \_\_\_\_\_, residente na \_\_\_\_\_, adiante designado por **Segundo Outorgante**,

É celebrado de boa-fé e reciprocamente aceite o presente contrato de **bolsa** de investigação ao abrigo do Estatuto do Bolseiro de Investigação, aprovado pela Lei n.º 40/2004, de 18 de agosto, na sua redação atual, e do Regulamento de Bolsas de Investigação do IPCA, que se rege pelas cláusulas seguintes:

**CLÁUSULA 1.ª** – O **Primeiro Outorgante** compromete-se a conceder ao **Segundo Outorgante** uma bolsa de \_\_\_\_ (indicar e caracterizar o tipo de bolsa e sua referência) no âmbito do projeto “ \_\_\_\_ ” (indicar a referência e o título do projeto em que se insere, se for o caso) financiada por \_\_\_\_\_, pelo período de \_\_\_\_ (indicar meses ou dias, consoante o caso), \_\_\_\_ (eventualmente renovável OU não renovável), com início em \_\_-\_\_-\_\_\_\_.

**CLÁUSULA 2.ª – 1.** O **Segundo Outorgante** obriga-se a desenvolver os trabalhos constantes do plano de atividades anexo ao presente contrato de bolsa, cujo conteúdo declara ter tomado conhecimento integral e aceitar sem reservas a partir da data de início do presente contrato.

2. O desempenho de funções pelo **Segundo Outorgante** a título de bolseiro é efetuado em regime de dedicação exclusiva nos termos previstos no artigo 5.o do Estatuto do Bolseiro de Investigação.

3. O **Segundo Outorgante** realiza os trabalhos no \_\_\_\_\_, sito em \_\_, que funciona como entidade de acolhimento, tendo como Orientador Científico \_\_\_\_ (nome e instituição).

**CLÁUSULA 3.ª** - Ao **Segundo Outorgante** são reconhecidos os direitos previstos na lei, de acordo com a sua situação, nomeadamente nos artigos 9.º a 11.º do Estatuto do Bolseiro de Investigação, no(s) regulamento(s) aplicável(eis) e no presente contrato.

**CLÁUSULA 4.ª** - O **Segundo Outorgante** obriga-se a cumprir os deveres, aplicáveis à sua situação, previstos na lei, nomeadamente no artigo 12.º do Estatuto do Bolseiro e Investigação, no(s) regulamento(s) aplicável(eis) e no presente contrato.

**CLÁUSULA 5.ª - 1.** O montante do subsídio mensal de manutenção é de €\_\_\_\_,\_\_\_\_ (\_\_\_\_), a liquidar mensalmente, através de cheque ou transferência bancária. **2.** O **Segundo Outorgante** beneficia também de um seguro de acidentes pessoais durante o período de concessão da bolsa, de cujas condições declara ter tomado conhecimento e aceitar sem reservas. **3.** O Segundo outorgante beneficiará, ainda, do seguro social voluntário correspondente ao primeiro escalão, caso opte pela sua atribuição e desde que cumpra as condições legalmente previstas, comprometendo-se a entregar, até 10 dias úteis após o prazo de limite de pagamento, no serviço competente, o original do comprovativo de pagamento do Seguro Social Voluntário, sob pena de, esgotado aquele prazo, poder não ser reembolsado o valor em questão.

4. Acrescem ainda as seguintes componentes de bolsa \_\_\_\_\_ (indicar se aplicável).

**CLÁUSULA 6.ª – 1.** O presente contrato não gera qualquer relação de natureza jurídico-laboral nem de prestação de serviços, não adquirindo o bolseiro a qualidade de trabalhador em funções públicas. **2.** Não são devidos subsídios de alimentação, natal, férias ou quaisquer outros não previstos no Estatuto do Bolseiro de Investigação, no(s) regulamento(s) aplicável(eis) e no presente contrato.

**CLÁUSULA 7.ª – 1.** Ao presente contrato aplica-se o Estatuto do Bolseiro de Investigação e o Regulamento Bolsas de Investigação do IPCA, do qual o bolseiro declara ter tomado conhecimento. **2.** Os casos omissos serão decididos pelo Presidente do IPCA, ouvido o Orientador científico.

**CLÁUSULA 8.ª –** São causas de cessação do contrato as previstas no Estatuto do Bolseiro de Investigação e no Regulamento Bolsas de Investigação do IPCA.

As partes declaram estar de acordo com o clausulado neste contrato, que é feito em duplicado, ambas as vias valendo como originais, ficando um exemplar na posse de cada um dos Outorgantes.

Barcelos, \_\_ de \_\_\_\_\_ de \_\_\_\_\_.

O Primeiro Outorgante,

O Segundo Outorgante,