

## CALL FOR APPLICATIONS FOR TWO (2) SCIENTIFIC RESEARCH GRANTS (BI) AS PART OF A R&D PROJECT

**1.Reference:** DEP-PROJECT-IPCA-ESD-ID+-BL-3

**2.Number of vacancies:** Two (2) vacancies

**3.Project:** Dep-Project - Design and incorporation of wearable prostheses.

A call for applications is open for two (2) Scientific Research Scholarships (BI) for Graduates within the scope of the exploratory research project "**Dep-Project - Design and incorporation of wearable prostheses**", funded by the Foundation for Science and Technology, I.P., through the Call for R&D Projects in All Scientific Domains - 2022.

### **4.Scientific Areas:**

Electrical and Computer Engineering / Medical Informatics Engineering / Industrial Design / Product Design / Fashion Design / Communication Design / Digital Design.

### **5. Admission requirements:**

#### 5.1 Admission requirements:

- The candidate must be enrolled in a master's degree, an integrated master's degree or a doctorate or enrolled in a course that does not confer an academic degree, namely advanced training courses or postgraduate courses, in accordance with the legal regime established in numbers 3 to 6 of article 4 of Decree-Law no. 74/2006, of March 24, and
- Hold a degree<sup>(1)</sup> in one of the following areas: Electrical and Computer Engineering, Medical Informatics Engineering, Industrial Design, Product Design, Fashion Design, Communication Design, Digital Design.

#### 5.2 Preferential requirements:

- To be a student enrolled in a master's degree course in the areas of the IPCA School of Design;
- A degree in the scientific areas of the competition, with a final average of at least 14 points;
- Academic or professional experience in the scientific areas of the competition.

### **6.Work plan to be developed throughout the scholarship period:**

As part of the Dep-Project, the aim is to develop a system that combines an upper limb prosthesis printed through additive manufacturing, with a textile garment that can cover the prosthetic device and its user. The successful candidate will have to carry out all the stages of product development until a technically and aesthetically viable solution is obtained that can be used for usability tests with amputees.

<sup>(1)</sup> If the qualification was awarded by a foreign higher education institution, it must be recognized by a Portuguese higher education institution, under the terms of article 25 of Decree-Law no. 66/2018, of August 16, which approves the legal regime for the recognition of academic degrees and higher education diplomas awarded by foreign higher education institutions and article 4(2)(e) of Decree-Law no. 60/2018, of August 3, and any formalities established therein must be fulfilled by the date of the act of hiring.

The aim is also to instrument the printed upper limb prosthesis through additive manufacturing. The successful candidate will contribute to the operationalization of a system based on electromyography that allows the upper limb prosthesis to be moved.

In both grants, the project will be developed as a team, where the grant holders will focus on defining the structural requirements for the prototype to be developed, as well as developing a new design concept for coupling all the components of the prosthetic system and a garment.

#### **7. Applicable legislation and regulations:**

Research Grant Holder Statute - Decree-Law no. 89/2013, which was subsequently amended by Decree-Law no. 123/2019, of August 28. Scholarship holder statute in force: <https://www.fct.pt/apoios/bolsas/estatutobolseiro>. Research Grant Regulations of the Polytechnic Institute of Cávado and Ave, Regulation no. 821/2020 (Diário da República no. 191/2020, Series II of 2020-09-30).

#### **8. Place of work:**

The work will be carried out at the R&D unit (ID+) of the School of Design (ESD) of the Polytechnic Institute of Cávado and Ave (IPCA) - Barcelos, under the scientific supervision of Professor Demétrio Matos.

#### **9. Duration of the scholarship:**

The scholarship will last for 6 months, starting in January 2024.

The scholarship contract may be renewed for successive periods of 3 months, provided that the candidate complies with the requirements, up to the maximum time limit for which funding is secured for the project.

#### **10. Amount of the monthly maintenance allowance:**

Scholarship holders will receive a monthly allowance of €930.98, in accordance with the table of values for FCT scholarships [https://www.fct.pt/wp-content/uploads/2023/02/Tabela-de-Valores-SMM\\_2023.pdf](https://www.fct.pt/wp-content/uploads/2023/02/Tabela-de-Valores-SMM_2023.pdf), and according to the table in Annex III of the Research Scholarship Regulations of the Polytechnic Institute of Cávado and Ave, in accordance with the update authorized for the year 2023. This amount will be paid monthly by bank transfer.

#### **11. Other benefits:**

Reimbursement of Voluntary Social Insurance, corresponding to the 1st Tier of the contribution base, and Personal Accident Insurance.

#### **12. Assessment of applications:**

Applications will be assessed considering the selection criteria set out below on a scale of 0 to 20. If the selected grant holder withdraws, the second candidate will automatically be selected from the ranked list of candidates, and so on, in sequence, until all the candidates submitted are exhausted.

#### **13. Evaluation and selection criteria and procedures:**

13.1 Assessment:

The evaluation considers the merit of the candidate in the context of the academic degrees, curricular evaluation and related scientific and/or professional experience presented by the candidate, in which:

- Curriculum evaluation (CA), which corresponds to 50% of the weighting;
- Related scientific and/or professional experience (CE), which corresponds to 50% of the weighting.

a. The following assessment criteria are defined:

- Curriculum evaluation (CA):

- i. Final degree classification, 50%;
- ii. Attendance and/or completion of training courses in the scientific areas of the research project, 50%;

- Related scientific and/or professional experience (CE):

- i. Participation and/or development of extracurricular projects in the scientific areas of the research project, 50%.
- ii. Portfolio of artistic and/or professional projects, 50%.

13.2. The final grade will be calculated according to the following formula:

$$(0,5*AC) + (0,5*EC)$$

In the event of a tie, preference will be given to the score obtained in the CA, and if a tie persists, preference will be given to the score obtained in each of the factors that make up the CE criteria, in the following order:

- i Participation and/or development of extracurricular projects in the scientific areas of the research project.
- ii Portfolio of artistic and/or professional projects.

Candidates with a final mark of less than 9.50 will be excluded.

#### 14. Composition of the Selection Panel:

##### Effective members:

- President - Professor Demétrio Ferreira Matos, Project Coordinator and Adjunct Professor at the School of Design.
- 1st member - Professor Nuno Martins, Coordinating Professor at the School of Design;

- 2nd member - Professor Daniel António da Silva Miranda, Visiting Assistant Professor at the School of Technology.

**Alternate members:**

- 1st member - Professor Vítor Hugo Mendes da Costa Carvalho, Director and Coordinating Professor of the School of Technology;
- 2nd member - Professor Jorge Manuel Lopes Brandão Pereira, Director and Adjunct Professor of the School of Design.

If the Chairman of the Selection Board is unable to attend, he will be replaced by the first member, and the alternate member will be called in to replace the member. Minutes of the Selection Board meetings will be drawn up for which all members are responsible.

**15. Participation of interested parties:**

The Draft Final Sorting List will be notified to the candidates by email, with receipt of delivery of the notification, so that they can give their opinion for the purposes of the hearing of interested parties, under the terms of article 121 et seq. of the Code of Administrative Procedure, to the email address [idmais\\_poloipca@ipca.pt](mailto:idmais_poloipca@ipca.pt). In the absence of a statement from the candidates, the final ranking project is considered to have been automatically approved.

**16. Decision:**

Once the prior hearing period has elapsed, or the issues raised in this regard have been assessed, the jury draws up the final ranking list of admitted candidates and submits it, together with the other parts of the procedure, to the President of the IPCA for approval.

**17. Form of publication/notification of results:**

All candidates will be notified of the admission and evaluation results via the email address indicated, with receipt of delivery of the notification, under the terms of article 19, no. 1, of the Research Scholarship Regulations of the Polytechnic Institute of Cávado and Ave.

The final results of the evaluation will be published in a list ordered by final score obtained, posted in a visible and public place at IPCA and on the IPCA website in the Recruitment Processes menu and Research Grants submenu.

**18. Application deadline:**

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

**19. Form of application:**

Applications must be sent exclusively by e-mail to the following address: [idmais\\_poloipca@ipca.pt](mailto:idmais_poloipca@ipca.pt) duly referenced in the subject of the message.

Applications must be formalized by means of a presentation, accompanied by the following documents:

- Complete curriculum vitae;
- Proof of enrollment in a master's degree, integrated master's degree, doctorate or non-academic degree course integrated into the educational project of a higher education institution;
- Certificate(s) of qualifications and other documents considered relevant for assessment (optionally letters of reference);
- Portfolio of artistic achievements and/or professional projects, if available.



## 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)

## 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 II

### 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.

2. 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,