

## **EDITAL**

### **Announcement of a RESEARCH GRANT (BI)**

**Reference: PRBI/24/2026**

A call is open for applications for a Research Fellowship within the project “Structural Academy – Intelligent Multimodal Platform for Structural Engineering: Adaptive Personalization Based on Artificial Intelligence and User Behavioral Analysis”, operation code COMPETE2030 FEDER 03257000, hosted by the Polytechnic Institute of Coimbra, co-funded by COMPETE 2030, Portugal 2030 and the European Union.

The fellowship aims to support the development and validation of the behavioral model associated with adaptive learning personalization using Generative Artificial Intelligence, ensuring the identification, operationalization and validation of behavioral constructs relevant to characterizing students’ learning processes.

The fellow will join a multidisciplinary team composed of researchers from behavioral, pedagogical and technological fields, contributing to the scientific specification required for the development of the project’s activities.

#### **Requirements**

Master’s degree holders enrolled in a doctoral program in the areas of Psychology or Behavioral Sciences, including Cognitive Sciences, Neuroscience, Education Sciences, Human-Computer Interaction (HCI), or other scientific fields relevant to the study of human behavior in digital environments, such as Behavior-focused Data Science, Computer Science applied to human-computer interaction, or Digital Education, with valued experience in:

- Human behavior and learning processes
- Applied neuroscience and cognition
- Psychometrics and behavioral data analysis
- Digital learning and Human-Computer Interaction (HCI)
- Experimental research in digital interaction contexts
- Multimodal integration of VR/AR metrics, eyetracking and other behavioral indicators
- Behavioral modeling in HCI

Additional experience in these areas is not mandatory but will be valued

#### **Work Plan**

Mod. 612\_03

1. Literature review (behavior in digital learning environments, learner modelling, learning analytics, self-regulation, decision making, engagement and adaptive learning).
2. Identification and definition of behavioral constructs relevant to modelling.
3. Development of behavioral operationalization matrices, articulating constructs, indicators, variables, evidence and interpretations.
4. Definition of pedagogical adaptation criteria, in articulation with the multidisciplinary team.
5. Collaboration with the engineering team in translating constructs and indicators into functional and computational requirements.
6. Participation in the design and implementation of instruments and experimental protocols for behavioral models.
7. Incorporation of Human Computer Interaction (HCI) in the specification of indicators, variables and experimental protocols for behavioral modelling based on digital interaction.
8. Preparation of technical reports and scientific outputs within the scope of the project.

### **Selection Criteria**

1. Scientific merit (30%): quality of academic background and scientific output in human behavior, cognitive processes and learning, applied neuroscience and Human-Computer Interaction (HCI).
2. Experience in applied research (35%): practical experience in behavioral modelling, definition and testing of indicators, variable specification, behavioral data analysis, psychometrics, digital learning environments and experimental protocols in HCI contexts.
3. Adequacy to the work plan (35%) : demonstrated ability to define indicators and variables, apply experimental protocols, collaborate with multidisciplinary teams and contribute to the development and validation of the behavioral model.

### **Fellowship Duration**

The fellowship has a duration of 12 months, on an exclusive basis, starting on 1 December 2026 and ending on 30 November 2027. It may be renewed for successive periods up to a maximum of 30 months, subject to

performance evaluation, continuity of planned scientific activities and achievement of the project's objectives, coinciding with the execution period of the operation funded by Portugal 2030.

### **Monthly Maintenance Allowance**

1359,64 euros, according to the table of Research Fellowships in Portugal awarded by FCT, I.P. ( [www.fct.pt/apoios/bolsas/valores](http://www.fct.pt/apoios/bolsas/valores) ), paid monthly by bank transfer. This amount includes voluntary social insurance at the first level, should the candidate opt for enrollment, and personal accident insurance.

### **Workplace**

The work will be carried out at UPCoimbra, under the scientific supervision of Professor Sónia Brito Costa.

### **Selection Committee**

#### **Members:**

Professor Sónia Maria de Brito Costa

Professor Fernando Manuel Lourenço Martins

Professor Nuno Cid Martins

#### **Alternate:**

Professor Carla Margarida Saraiva de Oliveira Henriques

Professor Sílvia Maria de Deus Espada

The grant holder will join a multidisciplinary team comprising researchers from the behavioral, pedagogical, and technological fields, contributing to the scientific specifications required for the development of the project's activities.

### **Documents to be submitted:**

Applications must include the following documents:

- Application form available on the internet page for this competition at [https://www.ipc.pt/bupc/concursos/form/concursos\\_bolseiros](https://www.ipc.pt/bupc/concursos/form/concursos_bolseiros)
- Identification details, identification document number and tax identification number;
- Documentary evidence demonstrating that the applicant meets the admission requirements, namely:
  1. Master's degree certificates;
  2. Proof of enrolment or registration in a doctoral program
  3. Applicants holding foreign qualifications must provide evidence of the recognition of their foreign academic degree and diploma in accordance with Decree-Law No. 66/2018 of 16 August;
- Curriculum vitae;
- Motivation letter;
- Reference or recommendation letter(s).

The above-mentioned documents must be submitted within the application period established in this call for applications.

### Application Period

The application period will be 10 working days, from **07/09/2026 to 18/09/2026**, inclusive.

Candidates must access and register on the website:

[https://www.ipc.pt/bupc/concursos/form/concursos\\_bolseiros](https://www.ipc.pt/bupc/concursos/form/concursos_bolseiros) to submit the application, selecting the procedure for which they intend to apply.

Applications must be delivered exclusively in digital format, in portable document format (pdf), with the exception of documents whose delivery is scheduled in other digital formats.

Application instructions are completed by filling in the sections available at the aforementioned link.

When formalizing the application, if it contains a classified document that reveals commercial or industrial secrets, or secrets relating to literary, artistic or scientific property, the candidate must expressly indicate such reservation, under penalty of the work in question being freely accessed by any one of the other candidates, in consultation with the process.

When submitting the application, the candidate must provide the data strictly necessary for the purpose, under the terms of this public notice, and must hide personal data that may exist in the documentation submitted, otherwise these data may be freely accessed by any of the other candidates, in the process query. Applicable legislation and regulations:

The awarding of scholarships is based on Law No. 40/2004 of 18 August (Statute of Scientific Research Scholarships), amended and republished by Decree-Law No. 202/2012 of 27 August, updated by: Decree-Law No. 233/2012, Law No. 12/2013, and Decree-Law No. 89/2013; the Scholarship and Research Regulations of the Foundation for Science and Technology in force ([www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2015.pdf](http://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2015.pdf)), Order No. 12709/2016 published in DR, II series of 21/10/2016, of the Polytechnic Institute of Coimbra, regarding the IPC Scholarship Regulations.

The model scholarship contract and final reports to be prepared by the scholarship holder and the coordinator are those contained in the annexes to the Scientific Research Scholarship Statute mentioned above.

### **Applicable Legislation and Regulations**

The fellowship is awarded under the following legal frameworks:

Law no. 40/2004, of 18 August, in its current version (Statute of the Scientific Research Fellow);

Dispatch no. 5963/2020, of 1 June, in its current version (Research Fellowship Regulation of the Polytechnic of Coimbra).

The fellowship contract model and the final reports to be prepared by the fellow and the scientific supervisor are those included in the annexes of the Statute of the Scientific Research Fellow.

### **Publication/Notification of Results**

The evaluation results will be communicated within 90 working days from the application deadline, via email to all candidates. After the results are announced, candidates will be notified to, if they wish, submit comments under the prior hearing procedure within 10 working days. After this period, selected candidates must declare their acceptance in writing and indicate the effective start date of the fellowship. Failure to submit this declaration within the deadline, without a justified reason, will be considered a withdrawal. In case of withdrawal or resignation, the next highest-ranked candidate will be notified

Coimbra, september 2026