

**NOTICE OF COMPETITION FOR A RESEARCH SCHOLARSHIP –MASTERS STUDENTS IN THE
FIELDS OF DATA SCIENCE, INFORMATION SYSTEMS MANAGEMENT SOFTWARE
ENGINEERING, COMPUTER ENGINEERING, APPLIED MATHEMATICS, CIVIL ENGINEERING,
ENVIRONMENTAL ENGINEERING, OR RELATED FIELDS – STREAMWATER PROJECT**

Bearing in mind Regulation No. 437/2020 on Research Grants of the Polytechnic Institute of Setúbal, published in the 2nd series of the Official Gazette No. 83, of April 28, it is made public that, by order of 13-08-2025 from the IPS Administrator, delegated by the President of the IPS, in accordance with Order No. 6841/2025, a competition is open for the award of a **Research Grant (BI) aimed at carrying out R&D activities for candidates enrolled in a Master's Degree**, in the area of data science, information systems management, software engineering, computer engineering, applied mathematics, civil engineering, environmental engineering or related areas, within the scope of the StreamWater project, funded by the Foundation for Science and Technology (FCT), reference no.2024.07282.IACDC, with the **period for receiving applications from 25-09-2025 to 08-10-2025**, in accordance with the following conditions:

- 1. Duration of the Scholarship** - The scholarship lasts for 3 months, if it does not exceed the final date of execution of the respective project.
- 2. Recipients** - The scholarship is intended for candidates with the following profile:
 - Students enrolled in a master's degree in the areas of data science, information systems management, software engineering, computer engineering, applied mathematics, civil engineering, environmental engineering, or related areas.
 - Knowledge of Python, data processing, analysis, and visualization, time series processing, and machine learning.
 - Sense of responsibility and ability to communicate and integrate into multidisciplinary work teams.
- 3. Financial component** - According to the Table, contained in Annex I to the FCT Scholarship Regulation, approved by Regulation No. 950/2019, published in the Diário da República, 2nd series of December 16 (updated version), the value of the Scholarship corresponds to **€1 040,98** being paid monthly, by bank transfer.

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- 4. Workplace-** The work will be carried out, on an exclusive basis, in the the Escola Superior de Tecnologia de Setúbal, under the scientific guidance of Professor Raquel Barreira and Professor Rui Madeira.
- 5. Activity plan** - The candidate will perform duties in Tasks T1 and T2 of the project, i.e., T1 – Streaming data processing; T2 – Real-time data-driven anomalous events detection and location.

6. Assessment and ranking criteria:

6.1. Curriculum Assessment and Motivation Letter (CA+ML) – (scale of 0-15 values).

a) Academic background (weighting 0.35) - maximum 15 values

Bachelor's or master's degree holders enrolled in a non-degree course in the areas of data science, information systems management, software engineering, computer engineering, applied mathematics, civil engineering, environmental engineering, or related areas	15 val.
Enrollment in a master's degree program in related fields	5 val.
Enrollment in master's degree programs in other fields	0 val.

b) Analysis of Python knowledge, data analysis, processing, and visualization (weighting 0.20) - maximum 15 values

With knowledge and experience in Python, data analysis, processing, and visualization, time series processing, and machine learning	15 val.
With knowledge and experience in Python, data analysis, processing, and visualization, and time series processing	10 val.
With knowledge and experience in Python, data analysis, processing, and visualization	5 val.
Without knowledge of Python, data analysis, processing, and visualization	0 val.

c) General analysis of the Curriculum Vitae (weighting 0.30) - maximum 15 points

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Very good	15 val.
Good	10 val.
Satisfies	5 val.
Does not satisfy	0 val.

d) General analysis of the Letter of Motivation (weighting 0.20) - maximum 15 points

Very good (presents motivational factors related to the activities to be performed as a scholarship recipient, duly framed within the role)	15 val.
Good	10 val.
Satisfies	5 val.
Does not satisfy	0 val.

6.2. Interview (scale of 0-5 values)

In the interview, 4 evaluation parameters are defined and their classification results from the following formula: $E=MI+TTK+CS+VEF$

- Motivation and Interest (MI)
- Theoretical and Technical Knowledge (TTK)
- Critical Sense (CS)
- Verbal Expression and Fluency (VEF)

Each parameter is valued from 0 points to 1.25 points according to the candidate's demonstration of competence or behavior.

When specified in the competition notice, the interview is a mandatory and eliminatory selection method.

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- 6.3.** Each candidate's score will be calculated by adding the scores obtained in the CURRICULUM EVALUATION, MOTIVATION LETTER and SELECTION INTERVIEW.
- 6.4.** If the candidate misses the interview without providing an explicit justification provided for by law for this purpose, they will be automatically excluded, and there will be no possibility of rescheduling a new date for the interview.
- 6.5.** Candidates will be ranked on a scale of 0 to 20 points, rounded to the nearest tenth, according to the score assigned to the criteria specified above.
- 6.6.** For the candidate to be approved, they must achieve a minimum total score of 9.5 points and must have obtained at least half of the maximum possible score in each of the selection methods to be applied in the competition.
- 6.7.** In the event of a tie, the tiebreaker criterion will be the candidate who achieved the highest score in the Interview component.
- 6.8.** Based on the final ranking list, a recruitment reserve will be established, which will be used for the possible hiring of successful candidates in the event of withdrawal by those ranked in positions eligible for hiring.
- 7. Application documents** - The application must be accompanied by the following documentation:
- Letter of motivation addressed to the President of the IPS;
 - Candidacy form (signed);
 - *Curriculum Vitae*;
 - Certificates of academic qualifications held;
 - Proof of student status for the course and degree attended at a Portuguese Higher Education Institution, issued by the respective academic services;
 - Proof of residence in Portugal (for applicants who are not citizens of Portugal or another European Union member state).

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- 8. How to submit your application** - The application must be made by filling out the standard form, available on the IPS website, at www.ips.pt, and sent to bolsas.investigacao.dgp@ips.pt or through the address, Campus do IPS, Estefanilha, 2910 761 Setúbal, until the application deadline.

- 9. The jury is made up of:**

President

Doutor Nelson Jorge Gaudêncio Carriço, Professor Adjunto da Escola Superior de Tecnologia do Barreiro/IPS.

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Doutor Rui Neves Madeira, Professor Adjunto da Escola Superior de Tecnologia de Setúbal/IPS;

Doutora Maria Raquel Feliciano Barreira, Professora Coordenadora da Escola Superior de Tecnologia de Setúbal/IPS.

Substitute Member

Doutora Ana Jesus Pereira Barreira Mendes, Professora Coordenadora da Escola Superior de Ciências Empresariais/IPS.

- 10. Applicable legislation and regulations** - The scholarship is awarded under Law No. 40/2004 of August 18, in its updated version (Statute of the Scientific Research Fellow) and Regulation of Scholarships and Research of the Foundation for Science and Technology, available for consultation at <https://www.fct.pt/apoios/bolsas/regulamento.phtml.pt>

Polytechnic Institute of Setúbal.