

INESC TEC | Research Grant (AE2024-0397)
INESC TEC

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Posted Sep. 26, 2024, set to expire Jan. 26, 2025

Job Title	INESC TEC Research Grant (AE2024-0397)
Department	CRIS
Institution	INESC TEC PORTO, , Portugal
Date Posted	Sep. 26, 2024
Application Deadline	Oct. 9, 2024
Position Start Date	Sep. 26, 2024
Job Categories	Graduate Student
Academic Field(s)	Engineering - Other
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Job Description	

Research Opportunities

Development of Digital Twin technologies and the application of Artificial Intelligence for monitoring and analyzing agricultural systems.

Work description

1. **Bibliographic Review:** Carry out a comprehensive review of the existing scientific literature on the application of Digital Twins in agricultural contexts, with special attention to the techniques that best adapt to the Mediterranean context.
2. **Data Acquisition and Processing:** Participate in the acquisition of data in the field, including data

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obtained using Unmanned Aerial Vehicles (UAVs), and carry out the processing of this data, ensuring high spatial resolution.

3. Development of the Digital Twin: Contribute to the development of a digital twin that faithfully represents the agricultural areas of interest, using appropriate software and tools.
4. Data Integration and Analysis: Implement and test an infrastructure capable of integrating environmental and physiological variables into the digital twin, providing a dynamic and updated representation of agricultural systems.
5. Validation and Optimization: Validate the developed model by comparing it with observational data and previous studies, adjusting the model as necessary.
6. Dissemination of Results: Publish research results in renowned scientific journals and participate in the writing of technical-scientific reports that document the advances and discoveries made during the scholarship period.

Academic Qualifications

Master's degree in Computer Science, Geosciences, or related areas.

Minimum profile required

- Master's degree in Computer Science, Geosciences, or related areas.
- Solid knowledge in programming, with Python being preferred due to its relevance in the area of Artificial Intelligence.
- Ability to develop and apply Artificial Intelligence techniques in the context of modeling complex systems.

Preference factors

- Previous experience in developing Digital Twin models and/or in Artificial Intelligence applications in similar contexts.
- Scientific publications in areas related to the scholarship object.
- Good command of the English language, both in written comprehension and in the production of scientific texts.
- Availability to start activities immediately after granting the scholarship.

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Application Period

Since 26 Sep 2024 to 09 Oct 2024

Centre

Robotics in Industry and Intelligent Systems

Scientific Advisor

[Joaquim João Sousa](#)

What we offer

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Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

Portugal

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