

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

Direct Link: <https://www.AcademicKeys.com/r?job=245836>

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

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

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

- **Multicultural and collaborative environment**
- A multicultural, international and collaborative environment that makes it easier to exchange ideas, work in networks and create synergies.
- **International projects**
- The possibility of working in international projects with some of the most important companies in the field.
- **Mentoring**
- Mentoring with the best researchers in the fields of electrical and industrial engineering, bioengineering, information technology and physics.
- **Self Improvement**
- The possibility of participating in international conferences, workshops, seminars and vocational training.
- **Other Benefits and Perks**
- Flexible working time, health insurance, discounts in hotels, transportation, etc.
- **Informal Events**
- Annual informal events, such as the multicultural party.

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**Contact Information**

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

**Contact**

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