# INESC TEC | Research Grant (AE2024-0257)
## INESC TEC



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| **Job Title** | INESC TEC \| Research Grant (AE2024-0257) |
| **Department** | CRIIS |
| **Institution** | INESC TEC<br>PORTO, , Portugal |
| **Date Posted** | Aug. 6, 2024 |
| **Application Deadline** | Aug. 14, 2024 |
| **Position Start Date** | Aug. 1, 2024 |
| **Job Categories** | Graduate Student |
| **Academic Field(s)** | Engineering - Other |
| **Apply Online Here** | https://www.inesctec.pt/en/form/notice/4951 |
| **Apply By Email** | |
| **Job Description** | |

Research Opportunity

**Mobile Robotics**

**Work description**

- Definition of parametric trajectories compatible with different kinematics of mobile robots (differential, tricycle, omnidirectional).
- Development and integration of a predictive trajectory driver in omnidirectional mobile robots

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present at the facilities of iiLab - INESC TEC's Industry and Innovation Laboratory.

Extension of the predictive trajectories driver for different kinematics of mobile robots (differential, tricycle, omnidirectional).

- Definition of performance indicators and scenarios to demonstrate the results of the predictive driver compared to other trajectory tracking approaches.
- Development of methodologies for avoiding obstacles in parametric trajectories.
- Study and testing of new location technologies based on 3D sensors (optional).
- Study and testing of new emerging technologies based on the application of AI in both perception and mobile robot control (optional)

**Academic Qualifications**

Master's Degree in Electrical and Computer Engineering

**Minimum profile required**

Enrollment in a PhD course in Electrical and Computer Engineering, Computer Engineering, or related areas.

**Preference factors**

- Experience in Control;
- C++/ROS;
- Predictive Control;
- Systems Control;

**Maintenance stipend:** € 1259,64, according to the table of monthly maintenance stipend for FCT grants , paid via bank transfer. Grant holders may be awarded potential supplements, according to a quarterly evaluation process (Articles 19, 21 and 22 of the Regulations for Grants of INESC TEC and

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Annex II), up to a maximum limit of 50% of the monthly maintenance stipend.

INESC TEC supports costs with registration, enrolment or tuition fees, during the grant duration, under the terms established in the internal document: "Payment of Tuition fees to grant holders".

The grant holder will benefit from health insurance, supported by INESC TEC.

**Application Period**

Since 01 Aug 2024 to 14 Aug 2024

**Centre**

Robotics in Industry and Intelligent Systems

**Scientific Advisor**

Héber Miguel Sobreira

**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

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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.

For more information: Click Here

**Contact Information**

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

**Contact**

Portugal

**Contact E-mail** rh@inesctec.pt