# INESC TEC | Research Initiation Grant (AE2024-0563)
## INESC TEC

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| **Job Title** | INESC TEC \| Research Initiation Grant (AE2024-0563) |
| **Department** | CTM |
| **Institution** | INESC TEC |
| | PORTO, , Portugal |
| **Date Posted** | Dec. 18, 2024 |
| **Application Deadline** | Jan. 3, 2025 |
| **Position Start Date** | Dec. 19, 2024 |
| **Job Categories** | Graduate Student |
| **Academic Field(s)** | Engineering - Other |
| **Apply Online Here** | https://www.inesctec.pt/en/opportunities/telecommunications-AE2024-0563#intro |
| **Apply By Email** | |
| **Job Description** | |

Research Opportunities

**Telecommunications**

**Work description**

- Survey the state of the art in emerging wireless networks, including their simulation using real data assimilation, machine learning, and digital twin approaches.
- Collaborate in the writing of technical reports on communications protocols, algorithms, and mechanisms developed.

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- Develop new modules enabling the simulation and/or experimentation of emerging wireless networks.
- Develop IoT network optimization algorithms with the goal of reducing the energy consumption while maintaining the quality of service.
- Write publications in co-authorship within the scope of the work developed.
- Write the final activity report of the grant.

## Academic Qualifications

- Student in Electrical Engineering or similar

## Minimum profile required

- Solid knowledge in TCP/IP stack and Linux.
- Programming skills in C++ and Python.
- Proven experience in the implementation of link layer, network layer and app layer network protocols.

## Preference factors

- Knowledge in IEEE 802.11, Bluetooth and other IoT technologies.
- Knowledge in convencional and Machine Learning-based optimization techniques.
- Knowledge in discrete event-driven simulation.

## Application Period

Since 19 Dec 2024 to 03 Jan 2025

## Centre

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# INESC TEC

Telecommunications and Multimedia

**Scientific Advisor**

Hélder Martins Fontes

**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.

For more information: Click Here

**Contact Information**

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

**Contact**

Portugal

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