

INESC TEC | Research Grant (AE2024-0516)  
INESC TEC

Direct Link: <https://www.AcademicKeys.com/r?job=250036>

Downloaded On: Dec. 22, 2024 12:15am

Posted Dec. 6, 2024, set to expire Apr. 7, 2025

<b>Job Title</b>	INESC TEC   Research Grant (AE2024-0516)
<b>Department</b>	CPES
<b>Institution</b>	INESC TEC PORTO, , Portugal
<b>Date Posted</b>	Dec. 6, 2024
<b>Application Deadline</b>	Dec. 31, 2024
<b>Position Start Date</b>	Dec. 6, 2024
<b>Job Categories</b>	Graduate Student
<b>Academic Field(s)</b>	Engineering - Other Electrical and/or Electronics
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<b>Apply By Email</b>	
<b>Job Description</b>	

Research Opportunities

**Power Systems - Hybrid AC/DC Distribution grids**

**Work description**

- Survey of the state of the art regarding dynamic and steady-state analysis of AC/DC hybrid distribution networks and microgrids.
- Survey of the state of the art regarding protection, islanding operation, and service restoration in AC/DC hybrid distribution networks and microgrids.

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- Identification of use cases for hybrid AC/DC distribution networks and assessment of the technical challenges in the addressed aspects that are still unresolved according to the current state of the art.
- Development of innovative technical and scientific solutions to address the challenges identified for the use cases from the previous point, using computational simulation;
- Contribute to the development of toolboxes for computational simulation, specifically designed for DC networks, considering widely used software in academia and system operators, such as Matlab, PSCAD, PSSE, and DIgSILENT PowerFactory.
- Contribute to the writing of project deliverables, where the developed work should be reported.

### Minimum profile required

- Solid academic knowledge in electrical power systems and programming (Matlab, Simulink, Proteus, OpenModelica, Python/C, Programming, Microcontrollers, Project Management.)

### Preference factors

- Proficiency in English (written and spoken).
- Relevant academic or practical knowledge in control theory and power electronics.
- Knowledge of computational simulation tools (for example, Matlab, PSCAD, PSSE or DIgSILENT PowerFactory).

### Application Period

Since 06 Dec 2024 to 31 Jan 2025

### Centre

Power and Energy Systems

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### Scientific Advisor

[Carlos Moreira](#)

### 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

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

### Contact

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Portugal

**Contact E-mail**    rh@inesctec.pt