

INESC TEC | Post Doctoral Research Grant (AE2025-0020)
INESC TEC

Direct Link: <https://www.AcademicKeys.com/r?job=252079>

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Posted Jan. 24, 2025, set to expire May 26, 2025

Job Title	INESC TEC Post Doctoral Research Grant (AE2025-0020)
Department	CPES
Institution	INESC TEC PORTO, , Portugal
Date Posted	Jan. 24, 2025
Application Deadline	Feb. 13, 2025
Position Start Date	Jan. 23, 2025
Job Categories	Graduate Student
Academic Field(s)	Electrical and/or Electronics Engineering - Other
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Apply By Email	
Job Description	

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

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AC/DC hybrid distribution networks and microgrids.

- 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.
- Dissemination of the work in international journals and/or conferences.

Minimum profile required

- Solid academic knowledge in electrical power systems.

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).

Maintenance stipend: € 1801,00, 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 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".

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

Application Period

Since 23 Jan 2025 to 13 Feb 2025

Centre

Power and Energy Systems

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**

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- 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