

INESC TEC | Research Grant (AE2024-0291) INESC TEC

Direct Link: <https://www.AcademicKeys.com/r?job=243230>

Downloaded On: Oct. 3, 2024 3:31pm

Posted Aug. 16, 2024, set to expire Dec. 16, 2024

Job Title	INESC TEC Research Grant (AE2024-0291)
Department	CPES
Institution	INESC TEC PORTO, , Portugal
Date Posted	Aug. 16, 2024
Application Deadline	Aug. 25, 2024
Position Start Date	Jul. 25, 2024
Job Categories	Graduate Student
Academic Field(s)	Engineering - Other
Apply Online Here	https://www.inesctec.pt/en/form/notice/4978
Apply By Email	
Job Description	

Research Opportunity

Electrotechnical Engineering

Work description

- 1) Investigate the state of the art of isolated and non-isolated DC/DC converter topologies.
- 2) Study the state of the art of control algorithms for photovoltaic panel converters.

INESC TEC | Research Grant (AE2024-0291) INESC TEC

Direct Link: <https://www.AcademicKeys.com/r?job=243230>

Downloaded On: Oct. 3, 2024 3:31pm

Posted Aug. 16, 2024, set to expire Dec. 16, 2024

- 3) Simulate and design an isolated DC/DC converter for photovoltaic panels with an interface to a DC network.
- 4) Develop the thermal analysis of the converter.
- 5) Design the high-frequency transformer for the converter.
- 6) Develop the printed circuit board (PCB) for the power board and control board.
- 7) Develop the firmware (FW) with control algorithms for the converter using a microcontroller. 8) Test the converter in a laboratory environment.
- 9) Write complementary articles if innovative results are obtained.

Minimum profile required

Previous academic background in applied electrotechnical engineering, informatics, automation or similar.

Preference factors

- Previous experience (or academic training) in power electronics;
- Aptitude for manual work in a laboratory setting;
- Knowledge of microcontroller programming in C;
- Knowledge in developing printed circuit boards.

Maintenance stipend: € 990,98 or 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 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".

INESC TEC | Research Grant (AE2024-0291) INESC TEC

Direct Link: <https://www.AcademicKeys.com/r?job=243230>

Downloaded On: Oct. 3, 2024 3:31pm

Posted Aug. 16, 2024, set to expire Dec. 16, 2024

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

Application Period

Since 25 Jul 2024 to 25 Aug 2024

Centre

Power and Energy Systems

Scientific Advisor

[José Silva](#)

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**

INESC TEC | Research Grant (AE2024-0291) INESC TEC

Direct Link: <https://www.AcademicKeys.com/r?job=243230>

Downloaded On: Oct. 3, 2024 3:31pm

Posted Aug. 16, 2024, set to expire Dec. 16, 2024

- 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