

INESC TEC | Research Grant (AE2025-0326)
INESC TEC

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Posted Aug. 8, 2025, set to expire Dec. 8, 2025

Job Title	INESC TEC Research Grant (AE2025-0326)
Department	CTM
Institution	INESC TEC PORTO, , Portugal
Date Posted	Aug. 8, 2025
Application Deadline	Aug. 22, 2025
Position Start Date	Aug. 8, 2025
Job Categories	Graduate Student Graduate Student
Academic Field(s)	Engineering - Other Engineering - Other
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Job Description	

Research Opportunities

Computer Science, Electronics and Digital Systems, Digital Electronics, Microprocessors, Heterogeneous Systems

Work description

The combination of RISC-V processors with dedicated accelerators is especially promising for edge computing; among these, CGRAs (Coarse Grained Reconfigurable Arrays) stand out for their efficiency

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and flexibility. However, their use is still limited by integration difficulties and poorly standardized programming models.

This grant explores the use of custom RISC-V instructions as a standardizable integration mechanism, allowing abstraction in the compilation process and transparency in the use of the CGRA by software. Specific objectives:

1. Adapt an existing state-of-the-art CGRA for integration with a RISC-V processor through custom instructions.
2. Validate the functional integration between RISC-V core and CGRA using in-house co-simulation methods, and simulations of CGRA designs available in the state-of-the-art.
3. Writing a co-authored scientific article to disseminate the results obtained.

Academic Qualifications

- Bachelor's degree or enrollment in a master's degree in electrical engineering, computer science, or a related field.

Minimum profile required

- Experience in HDL and C++.
- Fluency in English (written and spoken).

Preference factors

- Experience in RISC-V.
- Experience in FPGA or heterogeneous systems.
- Fluent in Portuguese and English (written and spoken)

Maintenance stipend: € 1040.98, 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 08 Aug 2025 to 22 Aug 2025

Centre

Telecommunications and Multimedia

Scientific Advisor

[Nuno Miguel Paulino](#)

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- **Multicultural and collaborative environment**
- A multicultural, international and collaborative environment that makes it easier to exchange ideas, work in networks and create synergies.
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- 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

Portugal

Contact E-mail rh@inesctec.pt