CALL FOR GRANT APPLICATIONS
(AE2022-0374)

INESC TEC is now accepting grant applications to award 1 Research Grant (BI) within the scope of the project BigHPC, cofunded by the ERDF - European Regional Development Fund, through the Operational Programme for Competitiveness and Internationalisation - COMPETE 2020 Programme and by National Funds through the FCT - Portuguese Foundation for Science and Technology, I.P. on the scope of the UT Austin Portugal Program on the scope of POCI-01-0247-FEDER-045924

1. GRANT DESCRIPTION

Type of grant: Research Grant (BI)

General scientific area: COMPUTER SCIENCE

Scientific subarea:

Grant duration: 3 months, starting on 2023-01-01.

Scientific advisor: João Marco

Workplace: INESC TEC, Braga, Portugal

Maintenance stipend: € 1144,64, according to the table of monthly maintenance stipend for FCT grants (http://www.fct.pt/apoios/bolsas/valores), 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".

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

2. OBJECTIVES:

Within the context of non-authoritative digital identification systems, trust in the supporting infrastructure is fundamental for their acceptance and full use by attribute providers, identified individuals and service providers. Thus, the work proposed in this grant aims at designing and developing proofs of concept of security mechanisms adapted to the operating environment of such systems. In particular, components that ensure the integrity and privacy of the involved entities data will be the object of exploratory research and scientific production.
Considering the broad operation scenario of a personal identification system, challenges related to the volume of data stored and processed in attribute consolidation operations will also be central to the planned work. Thus, the design of strategies supported by distributed computing constitutes an objective within the scope of the grant.

3. BRIEF PRESENTATION OF THE WORK PROGRAMME AND TRAINING:

- Survey and study of non-authoritative electronic identification systems;
- Survey and specification of functional and non-functional requirements of non-authoritative electronic identification systems;
- Design and development of components aimed at guaranteeing the integrity, confidentiality, availability and non-repudiation of transactions carried out on these systems;
- Design and development of components that ensure the scalability of these systems;
- Design and implementation of proof-of-concept and evaluation scenarios for the developed components, with a particular interest in HPC environments;

- Production of reports and scientific papers.

4. REQUIRED PROFILE:

Admission requirements:
- Be enrolled in a doctoral programme in computer science or informatics engineering.
The awarding of the fellowship is dependent on the applicants' enrolment in study cycle or non-award courses of Higher Education Institutions.

Preference factors:
- Experience in Information Security; - Knowledge of digital identity systems; - Knowledge about self-sovereign identity systems; - Experience in the production of technical reports and scientific papers.

Minimum requirements:
- Knowledge of Linux system administration;
- Knowledge of cryptography and information security;
- Knowledge of distributed systems;
- Knowledge of application development;
- Knowledge of development in Python, Java and C languages;
- Proficiency in English and Portuguese languages.

5. EVALUATION OF APPLICATIONS AND SELECTION PROCESS:

Selection criteria and corresponding valuation: the first phase comprises the Academic Evaluation (AC), based on the criteria referred to in Article 12 of the Regulations for Grants of INESC TEC, while the second phase comprehends the Individual Interview (EI). All factors are evaluated on a scale of 0 to 100, taking into account the applicants' merit, suitability and conformity with the preference factors.
The weight of the AC factors are as follows: Academic Qualifications (FA, 60%), Scientific Publications (PC, 10%), Experience (EX, 20%) and Motivation Letter (CM, 10%).
Candidates who score less than 50 points in the AC average will be considered excluded on absolute merit. The top five candidates approved on absolute merit will be qualified for the individual interview. The Final Grade (CF) is obtained by the weighted average of AC (80%) and EI (20%).

The Selection Jury is composed of the following members:
President of the Jury: João Tiago Paulo
Full member: João Marco
Full member: António Luís Sousa
Substitute member: Fábio André Coelho

Release of results and prior hearing: the results of the selection process, as well as the terms and procedures for prior hearing, will be released to the applicants by email, under the terms referred to in Article 13 of the Regulations for Studentships and Fellowships of INESC TEC.

6. FORMALISATION OF APPLICATIONS:

Application Documents:

1. Motivation letter;
2. Curriculum Vitae (must include the list of previous fellowships, their type, beginning and end dates, funding entities and host institutions);
3. Certificate or diploma degree dully recognised in Portugal;
   - Documents proving the awarding of academic degrees and diplomas, or the according recognition - in cases of academic degrees or diplomas granted by a foreign higher education institution - can be dismissed in the application process, and replaced by the applicant's declaration of honour, with the verification of said condition taking place during the grant's hiring stage. The submission of the certificate is mandatory when signing the contract.
   - Academic degrees or diplomas awarded by a foreign higher education institution require an authentication by a Portuguese higher education institution, and the corresponding registration on the DGES platform, in conformity with Decree-Law no. 66/2018, of August 16, and Ordinance no. 33/2019, of January 25. More information available on the website https://www.dges.gov.pt/pt/pagina/reconhecimento?plid=374

4. Proof of enrollment in a degree awarding study cycle or in a non degree awarding Higher Education program.
   ● The proof of enrollment may be presented just during the grant hiring stage.
5. Signed declaration stating the infringement of the grant holder's duties (article 14, no. 4)
6. Documental evidence to support the country of residence, residence permit or other legally equivalent document, in cases where the applicant is a foreigner or non-resident in Portugal - valid until the beginning of the grant.
7. Other supporting documents relevant to the final assessment.

Failure to deliver the required documents within the 90-day period after the date of the notice of the conditional awarding of the grant implies its cancellation.

Application period: From 2022-11-23 to 2022-12-07

Submission of applications: the application will be formalised by submitting the form available in the *Work With Us* section of INESC TEC website.

7. BINDING LEGISLATION AND REGULATION

The hiring process shall comply with the current legislation regarding the Research Grant Holder Statute, approved by Law no. 40/2004 of August 18, in its current wording, as well as by the Regulations for Grants of INESC TEC and for FCT Grants Regulation in force.

For more information, please check the Regulations for Grants of INESC TEC and relevant annexes at www.inesctec.pt/bolsas