JOB ADVERTISEMENT

SCIENTIFIC EMPLOYMENT – INSTITUTIONAL SUPPORT

HIRING OF 1 (ONE) DOCTORATE

INESC TEC - Institute for Systems and Computer Engineering, Technology and Science, private research institution, is accepting applications for hiring 1 (one) doctorate researcher with an employment contract subject to an uncertain resolutory term, under the Programme Contract concluded with the Foundation for Science and Technology (FCT), following the Institutional Support Call for Proposals (CEECInst-2nd edition).

The hiring shall be governed by the Decree-Law 57/2016 dated August 29, which approves the Legal Framework on the Scientific Employment, as amended by Law No 57/2017 of 19 July, hereinafter referred to as "LFSE", by the Regulatory Decree No. 11-A/2017 dated 29 December, by the Labour Code and by other legislation applicable to individual employment contracts, as well as the internal rules of INESC TEC, also considering the specific conditions provided for in the Programme Contract concluded with FCT for the funding of the above-mentioned employment contract.

In accordance with Article 6 (1) (b) and (3) of the LFSE, the contract duration is for a maximum of 6 years, without prejudice to INESC TEC being able, at any time, to integrate the researcher in its permanent staff.

HIRING SALARY LEVEL

Considering the position approved for funding in the Programme Contract (**Junior Researcher**) and in accordance with Article 15 of LFSE and Article 2 of Regulatory Decree mentioned above, the monthly salary to be awarded is € 2.153,94, which corresponds to the paying position 1 of the level equivalent to Junior Researcher, by reference to the corresponding category of the scientific research career statute, approved by Decree-Law 124/99 dated April 20, in its current version.

FUNCTIONAL DESCRIPTION

Execution of R&D and knowledge valorisation projects, preparation of R&D project applications, team management and supervision of junior researchers, scientific production oriented to international journals and conferences, intervention in the scientific and professional communities, as well as coordination and participation in scientific and technological dissemination initiatives.

WORK PLACE

INESC TEC, Porto, Portugal

DUTIES TO BE PERFORMED

Duties will include: a) implementation of R&D, innovation and technology transfer projects; b) Identification of new opportunities and areas of activity, according to the options defined in INESC TEC's strategic plan; c) Leadership of R&D teams; d) Scientific supervision and post-graduate training of human resources;

REQUIRED PROFILE

National, foreigner and stateless candidates holding a PhD degree in Electrical and Computer Engineering Computer Engineering, Computer Science, Bioengineering, Physics, Industrial Management, Mathematics or a related scientific area and have a scientific and professional curriculum vitae that reveals a profile that is appropriate for the activity to be developed may apply to this competition.

Minimum requirements: PhD.

Preference factors: proficiency in English; track record (relevant publications, involvement in research projects) in the Scientific domains of INESC TEC; experience in interaction with national and international stakeholders (companies, RTO, Universities, etc.) in the assessment and identification of opportunities in INESC TEC's research areas; experience, including responsibility positions, in research and development projects **in at least one of the Scientific Domains of INESC TEC described below:**

- **POWER AND ENERGY** - electrification of society, renewable energy sources massive integration and on energy efficiency, requiring the combination of physical representations and data-driven methods for modelling and optimising energy systems, leveraging from emerging technologies like AI, blockchain and interoperability. This requires significant advances in the state-of-the-art and a combination of new computational, hardware and regulatory solutions
- **NETWORKED INTELLIGENT SYSTEMS** - work "towards autonomous networked intelligent hybrid systems enabled by ubiquitous sensing and processing of information". These systems are obtained by interconnecting agents, which interact and communicate mainly over wireless networks. Intelligence is achieved by developing the capability of agents to sense, perceive, communicate, navigate, and learn from past experiences, in order to enhance the ability to meet objectives. Such systems are expected to be low power and locally intelligent, to act as reconfigurable networks, to be tolerant to external disturbance, allowing them to sense and operate under extreme conditions or environments.
- **COMPUTER SCIENCE** - Current computer systems, especially in critical realms such as utilities, health care, transportation, and finance, present new, and often unanticipated, sorts of risks that defy our best practices of software engineering and human-computer interaction and present hard and intricate challenges associated to interoperability, scalability, security, and criticality. The ever-increasing data generated present a never seen opportunity for real world data centred solutions to filter, curate, store, process, query and visualise unprecedented volumes of data from diverse sources and formats complying with demanding levels of privacy and liability pose enormous and new challenges for software systems and their engineering.

- **INDUSTRIAL AND SYSTEMS ENGINEERING** The goal is to lead complex decision-making in end-to-end, customer-centric, agile supply chains across different industries (e.g., manufacturing, retail, health and mobility). To improve business performance, innovation, productivity, and environmental and social sustainability, our intervention in this domain ranges from local optimisation of individual organisations to complex system

optimisation of networks and chains. Our activities cover the design, implementation and improvement of systems for decision support, operations human-centred automation, management and intelligence, as well as innovation and technology management.

FORMALISATION OF THE APPLICATIONS

The applications will be formalised by submitting an electronic form in www.inesctec.pt in the section "Work with us > Research opportunities".

In the same form, each candidate must upload the following documents:

- **Motivation letter** for the job position, addressed to the Chief Executive Officer of INESC TEC, including an **activity and career development plan** for a maximum period of 6 years. The description should reveal the compliance of this plan with INESC TEC's strategy (see Chapter 2 of INESC TEC's Activity Plan for 2019 at https://repositorio.inesctec.pt/handle/123456789/8244 and the duties to be performed and should not contain more than 2000 words and no more than 5 pages;
- **Curriculum Vitae**, highlighting all the higher education, the scientific and technological production, the activities of basic, applied or practice based research, the activities of extension and knowledge dissemination and the science management activities in the last five years, that the candidate considers more relevant or with greater impact in order to allow the assessment of the corresponding relevance, quality, timeliness and adequacy.
- **Copy of certificates or diplomas degree;**

The selected candidates with a PhD granted by a foreign higher education institution will have to present, for contracting purposes, the record of the recognition of that degree, issued by the Portuguese Directorate General for Higher Education or by a Portuguese public higher education institution.
The legal framework applicable to the recognition processes required after 1 January 2019 is the one approved by the Decree-Law 66/2018 dated 16 August.
The legal framework applicable to the recognition processes required before 1 January 2019, is the one provided by the Decree-Law 341/2007 dated 12 October and regulated by the Ordinance 227/2017 dated 25 July or, alternatively, the legal framework introduced by the Decree-Law 283/83 dated 21 June, in case the recognition is made through equivalence. Regarding this issue, please consult the website of the Portuguese Directorate General for Higher Education: https://www.dges.gov.pt/en: Home> Recognition of Degrees and Diplomas > Foreign Degrees and Diplomas > Recognition of Foreign Degrees and Diplomas.

- **Other documents** that you consider relevant for the evaluation of the scientific and curricular path.

Candidates who formalise their applications incorrectly or who do not fulfil the demanded requirements will be excluded from the tender.

The jury has the power to require any candidate, if in doubt, to present supporting documents for their statements. The false statements made by the candidates shall be penalised by law.

EVALUATION AND SELECTION PROCESS

The evaluation is carried out in two phases, which will result in a final classification between 0 and 100 points.

First phase: Curricular assessment

The selection is made through the evaluation of the motivation letter, which will include the activity and career development plan, and of the scientific and curricular journey, focusing on the scientific activity and R&D projects experience that **the candidate considers more relevant.**

The scientific and professional curriculum of the candidate will be evaluated focusing on the relevance, quality and timeliness of the factors referred to in Article 5 (2) (a) to (d) of the LFSE and of the motivation letter in the subject area(s) of the tender, considering the specific requirements and the adequacy for the duties to be performed.

F1 - Scientific, technological, cultural or artistic production that the candidate considers more relevant.
F2 – Applied or practice-based research activities that the candidate considers with greater impact.
F3 - Activities of extension and dissemination of knowledge, namely in the promotion of the scientific culture and practices that the candidate considers more relevant.
F4 - Management activities of projects and of science, technology and innovation programmes, or experience in observing, monitoring and evaluating the scientific and technological or the higher education systems in Portugal or abroad. Included here are the activities of preparation and submission of applications for science, technology and innovation projects.
F5 - Motivation letter, including the activity and career development plan, integrated and consistent with the duties to be developed under the strategic project of INESC TEC.

The evaluation of all candidates in the first phase must be completed within a period of no more than one calendar month after the applications are received.
The candidates who have obtained less than 70 points in the average of the curricular assessments of the members of the jury will be considered not approved in absolute merit.

The top five candidates in the average of the curricular assessments that were approved in absolute merit will be qualified for the second phase, consisting of an individual interview, either face-to-face or through videoconference. The interview will weight 10% of the final classification. The candidates who do not qualify for the second phase will have a classification of 0 in the interview.

Second phase: Interview

In accordance with Article 5(5) of the LFSE, as it stands, the Jury will individually interview each candidate that is qualified to the second phase.

During the interview, the members of the Jury will stimulate an open debate about the quality and the innovative and creative nature of the research and professional activity of the candidates, considering the requirements and the subject areas of the specific tender procedure.

The interviews will be conducted within a period not exceeding 10 working days after the decision of the Jury.

FUNCTIONING OF THE JURY

Each member of the Jury will assess all the candidates in all the factors from F1 to F5 between 0 and 100 and must present the reasons for the scores attributed. Abstention is not allowed.
The same procedure will apply to the candidates that qualify for the interview.
The candidates who do not qualify for the interview will have 0 points in the second phase.

The curricular assessment (AC) of each candidate is obtained by the weighted average of the factors (Fi) multiplied by the weighting coefficients for the specific position, as provided below, rounded to the nearest tenth.

$$AC = F1*0.25 + F2*0.15 + F3*0.15 + F4*0.25 + F5*0.2$$

The final classification (CF) is obtained by the average of the curricular assessment and the interview (E), multiplied by the weighting coefficients, as provided below, rounded to the nearest unit.

$$CF = AC*0.9 + E*0.1$$

After completing the application of the selection criteria, each member of the Jury will sort the candidates according to the final classification assigned to them. Based on this sorting, the Jury will sort the candidates by successive clearance to the first place and following places (each member of the jury follows their personal sorting). The clearance is carried out when a candidate obtains more than half of the votes. If this doesn't happen in the first voting for a particular place, the least voted candidate is eliminated and the procedure is repeated with the remaining candidates (with tie breakers based on the average of the final classifications).

The Jury will advise the hiring of the candidate approved in absolute merit sorted in the first place.

Minutes of the jury meetings shall be drawn up, containing a summary of what has arisen from them, as well as the votes cast by each one of the members and their reasons, and shall be held available on request to the candidates.

SELECTION JURY

In accordance with article 13 of LFSE, the jury is composed of:

President of the Jury: João Alberto Campos Claro
Full Member: Rui Carlos Oliveira
Full Member: Aníbal Castilho Matos
Full Member: David Emanuel Rua

APPLICATION PERIOD

Application period: from 01 July to 31 July 2022

NOTIFICATION OF THE RESULTS, PRELIMINARY HEARING AND FINAL DECISION OF THE RESULTS

The results of the selection process will be disclosed to the candidates by email.

After being notified, the candidates have 10 working days to comment on the results of the selection process under their right to a preliminary hearing. The final decision of the jury will be given within 10 days from the deadline for the decision under the right to a preliminary hearing.

The present tender is exclusively for occupying the indicated vacancy, expiring once the position is filled.

NON-DISCRIMINATION AND EQUAL ACCESS POLICY

INESC TEC actively promotes a policy of non-discrimination and equal access, so that no candidate can be privileged, benefited, harmed or deprived of any right or exempted from any duty, on basis of origin, age, sex, sexual orientation, marital status, family situation, economic situation, education, social origin or condition, genetic heritage, reduced capacity for work, disability, chronic illness, nationality, ethnic origin or race, region of origin, language, religion, political or ideological convictions and trade union membership.

The candidate with a disability has preference under conditions of equal classification. Candidates must declare on the application form, under word of honour, the respective degree of incapacity, the type of disability and the means of communication to be used in the selection process, in accordance with the above-mentioned diploma.

The Executive Board of INESC TEC approved this job advertisement in the meeting of 30 June 2022, also being responsible for the final decision on the hiring.