

CALL FOR APPLICATIONS: RESEARCHER

Job/position/grant:

Job reference:	AE2025-0358 (EPICURE - HASLAB) INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência
Job/position/grant:	RESEARCHER
City:	Braga
Research field:	Main: COMPUTER SCIENCE Sub:

Job summary:

INESC TEC is accepting applications for 1 RESEARCHER job in the Computer Science

Project:	High-level specialised application support service in High-Performance Computing (HPC)
Scientific Advisor:	António Luís Sousa
Start Date:	2025-09-17
Location:	Braga

Job description:

Work Area: Computer Science

Project overview: The work plan falls within the scope of the project supporting the European supercomputing infrastructure, with the participation of INESC TEC. The main focus is work plan is to support users of supercomputing infrastructures, especially in the optimization and profiling of scientific applications in pre-exascale and exascale environments.

Objectives: Coordination and implementation of R&D projects and knowledge enhancement, preparation of R&D project applications, team management and guidance of junior researchers, scientific production for international journals and conferences, intervention in the scientific and professional communities, as well as coordination and participation in scientific and technological dissemination initiatives, particularly in the field of Computer Science.

Advanced User Support (Level 2 and 3) - The core function will involve providing specialized technical assistance, prioritizing code optimization and resolving performance bottlenecks, as well as adapting and optimizing applications for specific architectures, to achieve improvements notable in operational efficiency; User Training Support - Responsibilities will include the development of comprehensive educational materials and the coordination of practical sessions, with the main objective being to train users in code optimization techniques and adaptation to specific architectures, promoting autonomy and deepening of knowledge. Communication and Dissemination Support - The central function will be to establish transparent communication channels between the support team and users, helping to actively disseminate results, achievements, and available resources, which will be essential to promote the visibility of the project and encourage active community participation.

Academic Qualifications:	National, foreigner and stateless candidates holding a master degree in Electrical and Computers , Computer Science, Physics, or related scientific area, and holders of a scientific and professional curriculum showing a relevant profile for the activity to be developed can apply for the tender.
Minimum profile required:	a) Demonstrated competence and experience in the development of applications in C++, C, Fortran, and Python; b) Experience in the development of parallel applications in shared memory, using technologies such as OpenMP, TBB, among others; c) Experience in the development of parallel applications in distributed memory, using MPI; d) Knowledge of numerical methods with application in various computational models, including CFD, Molecular Dynamics, and others; e) Practical experience with Linux systems, HPC environments, and SLURM submission systems; f) Proficiency in written and oral communication in Portuguese and English.
Preference factors:	g) Knowledge and experience in high-performance libraries such as FFTW, BLAS, LAPACK, Intel MKL; h) Familiarity and experience in advanced-level high-performance Frameworks, such as PETSc, BLIS; i) Experience using scientific visualisation tools such as Paraview, Visit, and YT; j) Experience managing and using Infiniband networks; k) Experience with ARM architecture.

Funding Entity:	on the scope of the project EPICURE, with reference 101139786, funding from the European High-Performance Computing Joint Undertaking (EuroHPC JU) under grant agreement No 101139786 and National Funds through the FCT - Fundação para a Ciência e a Tecnologia, I.P.
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Type of contract:	Uncertain term contract The hiring shall be governed by what is stipulated in the legislation in force regarding uncertain term employment contracts and by INESC TEC norms.
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EuroHPC
Joint Undertaking

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e a Tecnologia

Selection criteria:	The selection of the candidates will be based on the following criteria, in descending order of consideration: a) Relevant Curriculum in the concerned field of this tender b) Proven experience.
Disability Incentive:	Candidates who present a degree of disability equal to or greater than 90% will benefit from an incentive (20) in the score of the CV Assessment. Candidates who present a degree of disability equal to or greater than 60% and less than 90% will also benefit from an incentive (10) in the score of the CV Assessment. Said score may, in these cases, exceed 100 points. Candidates must demonstrate the degree of disability during the application, namely through the submission of the Multi-Purpose Medical Certificate of Disability, issued in accordance with Decree-Law no. 202/96, of October 23 - currently in effect. Candidates must declare, in the application form, the type of disability used throughout the selection process, in order to proceed with the required adaptations.
Selection Jury:	President of the Jury: António Luís Sousa; Member: André Martins Pereira; Member: João Tiago Paulo; Substitute member: José Orlando Pereira; Substitute member: Cláudia Vanessa Brito;
Notification of results:	The results of the selection process will be sent to the interested by electronic mail.
Application period:	From 2025-08-14 to 2025-09-07
Application submission:	Electronic form filling in www.inesctec.pt in the section Work with Us