CALL FOR APPLICATIONS: RESEARCHER

Job/position/grant:

Job reference:	AE2024-0210 (NEXUS - CPES)
	INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência
Job/position/grant:	RESEARCHER
City:	Porto
Research field:	Main: ENGINEERING
	Sub: Electrical engineering

Job summary:

INESC TEC is accepting applications for 1 RESEARCHER job in the Engineering	
Project:	Innovation Pact - Digital and Green Transition
Scientific Advisor:	Tiago André Soares
Start Date:	2024-07-16
Location:	INESC TEC, Porto, Portugal

Job description:

Work Area: Engineering

Project overview: The NEXUS project is focused on the digital and green transition of the whole logistic and energy ecosystem of the port of Sines. It aims to produce a set of products and services for the digital and green transition in the port. In the energy sector, the project aims to provide the port grid operator with tools to improve the planning, monitoring and control of energy assets. Within this scope, this work focuses on the: -Development of physical and data-based models of energy systems associated with the electrical grid and port infrastructures; - Description of use cases of innovative services for energy system solutions to support "hinterland" and "shore-" and "near-shore" port operations; - Development of digital tool specifications; - Development of SW modules for backend and frontend; - Integration of algorithms and mathematical models; - Simulation, testing and validation of the developed models; - Writing technical documentation of activities.

Objectives: - Detailed study of future energy management and operation of the electrical network in the port;
- Co-optimization of the port's energy and logistics aspects;
- Design and development of an efficient energy management module for the port;
- Programming and support in the integration of energy management and power grid operation modules, through the development of APIs;
- Prepare a scientific report on activities and write scientific papers.

Academic Qualifications:	Bacharel or Master electrical and computer engineering or related areas
Minimum profile required:	- Experience in developing models of energy systems and their components (supply and demand); - Advanced knowledge of digital tools and platforms (e.g., Docker, kubernets, etc.); - Experience in integrating digital systems; - Advanced programming knowledge
Preference factors:	- Experience in using software development and production tools; - Knowledge in implementing "digital twin" systems; - Fluency in English and Portuguese (written and spoken)

Funding Entity:	NEXUS funded by IAPMEI with reference 53 Co-financed by Component 5 - Capitalization and Business Innovation, integrated in the Resilience Dimension of the Recovery and Resilience Plan within the scope of the Recovery and Resilience Mechanism (MRR) of the European Union (EU), framed in the Next Generation EU, for the period 2021 - 2026.
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.

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.

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Selection Jury:	President of the Jury: Tiago André Soares; Member: Zenaida Mourão; Member: Ricardo Jorge Bessa;
Notification of results:	The results of the selection process will be sent to the interested by electronic mail.
Application period:	From 2024-06-03 to 2024-06-30
Application submission:	Electronic form filling in www.inesctec.pt in the section Work with Us

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