

CALL FOR APPLICATIONS: RESEARCHER

Job/position/grant:

Job reference:	AE2022-0319 (Plurianual_LA - CPES) INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência
Job/position/grant:	RESEARCHER
City:	Porto
Research field:	Main: COMPUTER SCIENCE,ENGINEERING,MATHEMATICS Sub: Electrical engineering

Job summary:

INESC TEC is accepting applications for 1 RESEARCHER job in the Power Systems

Project:	Financiamento Laboratório Associado
Scientific Advisor:	Gil Silva Sampaio
Duration of the contract:	from 2022-12-01 to 2023-11-30, eventually renewable.
Location:	INESC TEC, Porto, Portugal

Job description:

Work Area: Power Systems

Project overview: Low voltage (LV) grids have growing monitoring and control needs in order to meet the challenges created by the integration of photovoltaic micro-production, the presence of electric vehicles, or approaches that increase the participation of the consumer himself in managing the electricity grid, among others. However, the LV network does not have a monitoring infrastructure that allows a real time observability of the assets. Furthermore, the topological and electrical characterization of LV networks is typically incorrect, or even non-existent, making it impossible to apply common analysis and resource management techniques. In view of these challenges, the application of artificial intelligence is of particular interest to develop techniques and methodologies for LV network monitoring and control, based on the data massively produced by smart meters.

Objectives: The candidate selected for this position will be involved in scientific and technological innovation initiatives in the field of LV grid monitoring and control. Furthermore, given the interest of several entities (e.g., LV grid operators, software vendors for electric grid management) in evaluating the potential of these algorithms, it will be necessary to participate in software integration tasks in existing systems via virtualization methodologies (e.g., Docker), and to implement communication interfaces through web services (e.g., Rest API).

Academic Qualifications:	Bachelor or Master degree in electrical and computer engineering, applied mathematics or computer science or informatics or similar.
Minimum profile required:	Experience coding in C++, Python or Matlab.
Preference factors:	Experience in artificial intelligence and data analytics, particularly if applied to power systems. Fluency in English and Portuguese (written and spoken). Experience in the development of APIs via web services (e.g., Rest API). Experience with Docker.

Funding Entity:	funded by National Funds through FCT - Portuguese Foundation for Science and Technology, I.P., project (reference LA/P/0063/2020)
Type of contract:	fixed-term contract
The hiring shall be governed by what is stipulated in the legislation in force regarding fixed-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.
Selection Jury:	President of the Jury: Prof. Ricardo Jorge Bessa; Member: Prof. Manuel Matos; Member: Prof. Jorge Correia Pereira;
Notification of results:	The results of the selection process will be sent to the interested by electronic mail.
Application period:	From 2022-10-19 to 2022-11-15
Application submission:	Electronic form filling in www.inesctec.pt in the section Work with Us