INESCTEC

CALL FOR APPLICATIONS: RESEARCHER

Job/position/grant:

Job reference:	AE2022-0237 (CPES-Geral - 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 Power systems - Energy communities	
Scientific Advisor:	José Villar
Duration of the contract:	from 2022-10-01 to 2023-09-30, eventually renewable.
Location:	INESC TEC, Porto, Portugal

Job description:

Work Area: Power systems - Energy communities

Project overview: Renewable energy communities are essential decarbonization drivers for the energy system since they allow a further local development of renewable energy generation and a better balancing between local generation and consumption. The last Portuguese regulation set up the basic rights that allow the development of new and advanced business models for these energy communities. Under this context, new algorithms and tools are needed to size and operate the renewable energy communities according to the selected business models. This project focus on the design and development of these algorithms and tools to end up with both a digital microservices integration platform and the microservices themselves needed to optimally operate such energy communities, either based on centralized energy management systems, or on local electricity markets, potentially supported by a blockchain platform, to be tested in a real pilot.

Objectives: The candidate selected for this position will be involved in the design and development of the advanced algorithms and tools described in the previous section. As such he will need to show skills in scientific research and development, including the conceptualization of the problems to be solved, the formulation of the optimization algorithms, and the design and development of digital platforms to integrate the operation of these algorithms and tools. In this sense, 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's degree in Electrical and Computer Engineering, Applied Mathematics, Computer Science, Informatics or similar.
Minimum profile required:	Experience coding in Python.
Preference factors:	Experience in energy systems and in the development of digital platforms according to the position objectives. Fluency in English and Portuguese (written and spoken). Experience in the development of APIs via web services (e.g., Rest API) and Docker.

Funding Entity:	
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. José Villar;
	Member: Prof. Clara Sofia Gouveia;
	Member: Prof. Ricardo Jorge Bessa;
Notification of results:	The results of the selection process will be sent to the interested by electronic mail.
Application period:	From 2022-07-27 to 2022-09-09
Application submission:	Electronic form filling in www.inesctec.pt in the section Work with Us