

CALL FOR APPLICATIONS: RESEARCHER

Job/position/grant:

Job reference:	AE2021-0189 (TRF4p0-2 - LIAAD) INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência
Job/position/grant:	RESEARCHER
City:	Porto
Research field:	Main: COMPUTER SCIENCE,ENGINEERING Sub: Programming,Informatics,Electronic engineering

Job summary:

INESC TEC is accepting applications for 1 job in the Modeling, Power Transformers, Data Mining	
Project:	TRANSFORMER4.0: DIGITAL REVOLUTION OF POWER TRANSFORMERS
Scientific Advisor:	Ricardo Teixeira Sousa
Duration of the contract:	from 2021-11-01 to 2022-10-31
Location:	INESC TEC, Porto, Portugal

Job description:

Work Area:	Modeling, Power Transformers, Data Mining
Project overview:	- Broaden the knowledge in the state-of-the-art in the scientific area of the grant, - Develop advanced models of the power transformer electrical and mechanical behaviour, - Develop a data-driven service for a power transformer.
Objectives:	- Analysis of use cases and definition of the specific goals and requisites (e.g., what data should be used) - Collect data and perform pre-processing (e.g., remove noise, damaged data, ...) - Describe the data from the power transformers sensors (e.g., through statistical descriptors) - Study the underlying physical models (e.g., electrical model, mechanical model) - Create empirical models using Neural Networks or methods that are more suitable. - Combine physical models with empirical models and yield hybrid models. - Create/adapt the hybrid models for incremental operations and data streams. - Adapt these behaviours models to possible data-driven services. It is also predicted the collaboration in lectures activities.

Academic Qualifications:	MSc in Electrical or Informatics Engineering, Data Science or similar.
Minimum profile required:	Fluency in the english language (spoken and written). Be approved in absolute merit with a final rating equal to or greater than 60.
Preference factors:	Programming proficiency.

Funding Entity:	cofunded by the ERDF - European Regional Development Fund, through the Operational Programme for Competitiveness and Internationalisation - COMPETE 2020 Programme and by National Funds through the FCT - Portuguese Foundation for Science and Technology, I.P. on the scope of the MIT Portugal Program on the scope of POCI-01-0247-FEDER-045926
Type of contract:	fixed-term contract The hiring shall be governed by what is stipulated in the legislation in force regarding fixed individual 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. António Lucas Soares; Member: Prof. Ricardo Teixeira Sousa; Member: Prof. João Pedro Pedroso;
Notification of results:	The results of the selection process will be sent to the interested by electronic mail.
Application period:	From 2021-09-22 to 2021-10-13
Application submission:	Electronic form filling in www.inesctec.pt in the section Work with Us