

## CALL FOR APPLICATIONS: RESEARCHER

### Job/position/grant:

<b>Job reference:</b>	AE2020-0160 ( TRF4p0-1 - LIAAD ) INESC TEC - Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência
<b>Job/position/grant:</b>	
<b>City:</b>	Porto
<b>Research field:</b>	Main: COMPUTER SCIENCE,ENGINEERING Sub: Programming,Informatics,Knowledge engineering,Industrial engineering

### Job summary:

<b>INESC TEC is accepting applications for 1 job in the Modeling, Power Transformers, Data Mining, Knowledge Based Engineering and Digital Twin area.</b>	
<b>Project:</b>	TRANSFORMER4.0: DIGITAL REVOLUTION OF POWER TRANSFORMERS
<b>Scientific Advisor:</b>	Ricardo Teixeira Sousa
<b>Duration of the contract:</b>	from 2020-10-15 to 2021-04-14
<b>Location:</b>	INESC TEC, Porto, Portugal

### Job description:

<b>Work Area:</b>	Modeling, Power Transformers, Data Mining, Knowledge Based Engineering and Digital Twin
<b>Project overview:</b>	-Develop advanced models of the power transformer electrical and mechanical behavior; -Develop a data-driven service for a power transformer; -Broaden the knowledge in the state-of-the-art in the scientific area of the grant.
<b>Objectives:</b>	-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( base of Digital Twin).; -Create/adapt the hybrid models for incremental operations and data streams.; -Adapt these behavior models to possible data-driven services.

<b>Academic Qualifications:</b>	Master's in Computer Science, Electrical or Mechanical Engineering or similar
<b>Minimum profile required:</b>	Experience in knowledge management in organizations; Fluency in the english language, (spoken and written); Mastering of the digital-twin concep; - Experience in Machine Learning and Data Mining
<b>Preference factors:</b>	Previous participation in R&D projects. Scientific publications in the area

<b>Funding Entity:</b>	ANI (POCI-01-0247-FEDER-045926)
<b>Type of contract:</b>	Certain Term
The hiring shall be governed by what is stipulated in the legislation in force regarding fixed individual employment contracts, as well as by the internal rules of INESC TEC, considering the regulations on the funding of R&D units for 2020-2023.	

<b>Selection criteria:</b>	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.
<b>Selection Jury:</b>	President of the Jury: Prof. António Lucas Soares ; Member: Prof. Ricardo Teixeira Sousa ; Member: Prof. João Pedro Pedroso ;
<b>Notification of results:</b>	The results of the selection process will be sent to the interested by electronic mail.
<b>Application period:</b>	From 2020-09-07 to 2020-09-25
<b>Application submission:</b>	Electronic form filling in <a href="http://www.inesctec.pt">www.inesctec.pt</a> in the section <a href="#">Work with Us</a>