INESC TEC | RESEARCHER (AE2024-0138)
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Job Title	INESC TEC | RESEARCHER (AE2024-0138)
Department	CPES
Institution	INESC TEC PORTO, , Portugal
Date Posted	Apr. 24, 2024
Application Deadline	May 23, 2024
Position Start Date	Apr. 24, 2024
Job Categories	Graduate Student
Academic Field(s)	Electrical and/or Electronics Engineering - Other
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Job Description

Research Opportunity

Power Electronics

Work description

The work to be developed by the researcher is framed within the activities of the Smart Grids and Electric Vehicles Laboratory of INESC TEC, namely:

a) the design and specification of power conversion systems and electric vehicles chargers,

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considering hybrid AC/DC networks and green hydrogen production;

b) construction of digital twins of components/assets and application of artificial intelligence algorithms to optimize the operation and maintenance of facilities with renewable-based electricity generation.

The work will also include production, testing, validation, and demonstration of technological solutions developed for different projects.

Academic Qualifications

Bachelor's degree or Master in electrical and computer engineering, electronics, power electronics, energy systems or other related.

Minimum profile required

- Experience in the specification, design, and implementation of power electronics systems, MPPT algorithms and battery management, and printed circuit boards;
- Experience in simulation (e.g.MATLAB/Simulink or Modelica) and programming of real-time controllers for power conversion systems (e.g.Texas Instruments C2000);
- Experience in the implementation and development of MODBUS (TCP/RTU), CAN, REST, etc. communications.

Preference factors

- Experience in the development and testing of embedded systems based on Linux and programming (e.g. Python, C);
- Experience in testing electronic converters in laboratory and field environments with thermography equipment, power/energy analysis, efficiency and electromagnetic compatibility;
- Fluency in English (spoken and written).

Application Period

Since 24 Apr 2024 to 23 May 2024

Centre

Power and Energy Systems

Scientific Advisor

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Justino Miguel Rodrigues

For more information: Click Here

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

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