

SENIOR MASTER TECHNICIAN

Position: Senior Master Technician Prototyping.

Offer Date: WEB Publication

Project: CIIAE – Refª TMS-PROTOTIPADO (ALMACENAMIENTO DE ENERGÍA TÉRMICA)

Department: Thermal Energy Storage

Estimated starting date: 2023

Workplace:	Iberian centre of energy storage research (CIIAE) located at Cáceres Campus of University of Extremadura, Spain.
Tasks to be developed:	<p>CIIAE is the research center focused on contributing to the following research lines:</p> <ul style="list-style-type: none">• Electrical energy storage such as technologies of Li-ion, Na-ion, flow batteries, supercapacitors, metal-air, etc.• Circular Economy topics such as recycling, reuse, eco-design, etc.• Hydrogen generation, catalysis for production of synthetic fuels, CO₂ capture, and industrial applications of hydrogen.• Thermal energy storage technologies <p>As a Junior Researcher in Prototyping, the successful candidate will work closely with the senior researchers and engineers to design and develop prototypes for the devices related to the above-mentioned research lines. You will be a member of a cross-functional team and expected to collaborate with the members of the other teams to design, fabricate, assemble, and integrate components/auxiliary equipment.</p> <p>The successful candidate will get opportunity to work on the range of projects and expected to perform research activities by integrating the knowledge of rapid prototyping, user-centered design, materials and manufacturing, iterative design, human factors, visualization and simulation, and design thinking with the applications of energy storage systems.</p> <p>The objective is to be focused on turning ideas into physical objects, solving technical challenges, and integrating them into a functional device. It is a fundamental piece to validate the theoretical work that other researchers/engineers are developing on a laboratory scale.</p> <p>The selected candidate is expected to:</p> <ul style="list-style-type: none">- Exhibit a development engineering profile who is able to effectively collaborate with the other research groups of CIIAE to develop prototypes. The work will be focused on energy storage systems such as electrochemical and thermal batteries, hydrogen storage, electrolyzers, etc.- Carry out low-noise electrical, thermal, and/or optical measurements of different phenomena.- Develop algorithms for data acquisition using LabVIEW which can assist in testing prototypes by performing measurements of pressure, temperature, etc.- Experience with data analysis software such as MATLAB or Python.- Collaborate closely with CIIAE colleagues. As well as with universities, research institutes, and companies at a national and international level.

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	<ul style="list-style-type: none"> - Occasional support in the supervision and tutoring students of degree programmes. - Write work procedures. 	
Duration of the contract and salary (per annum):	Fixed term contract. Initial duration: September 2025, having possibility of extension	Gross Salary Range: 35 000 - 38 000 €
Academic background required:	Master's degree of engineering in Mechanical, Chemical, Electrical / Electronics, Physics, Materials Science, or related fields.	
Other professional education:	Valuable training/knowledge in: Microcontrollers. Instrumentation Control Systems, Controller Design Laboratory Automation, Automation and Control PCB Design, Microcontroller Programming, Mechanical Design.	
Professional experience:	<ul style="list-style-type: none"> - At least five years of hands-on work experience with prototyping and fabrication techniques. - Have experience in selection of machine elements such as pipe fittings, bearings, gears, threads, etc. - design and development of research instrumentation; mechanics, electronics, computer interfaces and data acquisition. - Fab Lab experience is a plus. 	
Job requirements (have to be fulfilled):	Specific techniques (analytical, software, calculations, prototyping, etc.)	<ul style="list-style-type: none"> - Experience in workshop. Practical knowledge of mechanical manufacturing techniques: welding equipment, lathes, milling machines, moulders. - Experience in the manufacturing of home-made equipment (by using in-house parts or by integrating parts from external suppliers) - User knowledge of softwares used in research and industry will be valued such as Matlab, LabView, Auto-Cad, and others. - Experience in 3D CAD design. - Knowledge of design softwares: Fusion360, Solidworks, Inventor, Rhinoceros or similar will be valued
	Participation and/or collaboration in R&D&I/business projects	Previous experience in research projects will be valued.
	Languages	English. Valuable: Spanish and Portuguese
	Cross-cutting competences	<ul style="list-style-type: none"> - Ability to supervise and to work as part of a team - Ability to work with precision, safety and care

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	<p>Willingness to travel and stay abroad</p>	<p>This position requires occasional participation in events outside of Extremadura</p>
	<p>Publications: scientific articles (in journals indexed in Web of Science and/or Scopus), theses (PhD and/or Master's), presentations at conferences, reports, technical reports, technical guides, etc.</p>	<p>The number and relevance of scientific publications / congresses related to the main topic of the position will be valued. Experience in the preparation of reports or technical guides will be valued</p>
<p>To be evaluated (adds points to the final evaluation)</p> <ul style="list-style-type: none"> - Motivation letter: please include a letter describing the skills you consider of value for the position of Junior researcher in solid-state PCMs, as well as some general objectives of the research you would like to develop at the CIIAE. - Reference letters: please provide two reference letters (from employers and/or professors, together with their contact information, e-mail and telephone number) highlighting the technical and soft skills identified by the reference in the candidate, and that are of relevance for the position. - Research projects: please include a list of the R+D+i projects you have been involved - Experience in writing proposals for competitive calls (even if funding has not been obtained, in this case, please attach the evaluation letter). - Having obtained funding or competitive research contracts - Having been a principal investigator in R+D+i projects - Demonstrated experience in supervising work teams - Having supervised end-of-degree projects (TFGs), end-of-master projects (TFMs) - Being the first author or the corresponding author in scientific articles - Having completed specific training courses, relevant to the offered position - Experience in scaling from laboratory to prototypes - Experience in industrial collaborations and/or previous experience working in industry. - Patents. - Awards, mentions or other achievements <p>Note: To facilitate the evaluation process, it is recommended to include a list or table, itemizing the merits you consider that should be evaluated for each of the requirements (Ex: Requirement: Experience working with solidworks program. Candidate: brief description of experience with solidworks program reflected in scientific articles, theses, courses, projects, etc.)</p>		
<p>Selection Tests:</p> <p>TECHNIQUES: Oral knowledge test YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p>LANGUAGE: ORAL YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> (Will be evaluated during the interview)</p> <p>JOB INTERVIEW: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/></p>		

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Interested candidates:

Please send all the documentation required in THE CONDITIONS OF THE CALL and THE JOB OFFER, no later than 15 calendar days from the day after publication on the WEB, indicating: **Refª TMS-PROTOTIPADO (ALMACENAMIENTO DE ENERGÍA TÉRMICA)**.

Address:

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