

OFERTA DE TRABAJO

# SENIOR RESEARCHER

**Position: Senior researcher. Prototyping.**

**Offer Date: Publication DOE**

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

**Department: Thermal Energy Storage**

**Estimated starting date: January 2023**

<b>Centro de trabajo:</b>	University of Extremadura. Cáceres Campus	
<b>Tasks to be developed:</b>	<p>Prototyping focuses on turning ideas into physical objects, solving technical challenges, and integrating them into a functional device. It is a fundamental piece in order to validate the theoretical work that other researchers and engineers developing on a laboratory scale.</p> <p>The chosen person will work together with a multidisciplinary team of engineers and scientists to design new ideas for prototypes, test equipment and laboratory configurations. And will design, build and integrate devices such as prototypes, components or auxiliary equipment.</p> <p>The selected candidate will work along the different research lines of CIIAE:</p> <ul style="list-style-type: none"> <li>- Electrical storage: Li, Na, flow batteries, supercapacitors, metal-air, etc.</li> <li>- Circular Economy: recycling, reuse, ecodesign, etc.</li> <li>- Hydrogen generation, catalysis for the production of synthetic fuels, CO<sub>2</sub> capture, industrial applications of hydrogen.</li> <li>- Thermal storage.</li> </ul> <p>The selected candidate is expected to:</p> <ul style="list-style-type: none"> <li>- Show a Development Engineering profile able to strong and effectively collaborate with the different research groups of CIIAE for the development of prototypes. The work will be focused on Energy Storage systems (electric and thermal batteries, hydrogen storage, electrodes, etc.)</li> <li>- Carry out low-noise electrical, thermal and/or optical measurements of different phenomena.</li> <li>- Develop user interfaces and data acquisition in measurement instruments using software such as Matlab, LabView, etc. Data analysis and validation of results</li> <li>- Acquire competitive financing, both private and public,</li> <li>- Project management and project administration</li> <li>- Collaborate closely with CIIAE colleagues. As well as with universities, research institutes and companies at a national and international level.</li> <li>- Occasional support in the supervision and tutoring of doctors and master's students.</li> <li>- Write work procedures.</li> </ul>	
<b>Duration of the contract and salary (per annum):</b>	Contrato Temporal. Duración inicial: noviembre 2024, con posibilidad de prórroga	Salario Bruto + Cuotas de S.S. Horquilla Salario Base Bruto Inicial 41.000 € - 45.000 €
<b>Academic background required:</b>	Degree in Physics, Mechanical/ Electronic/Physic Engineering or similar	
<b>Other education:</b>	Valuable training/knowledge in: Microcontrollers. Instrumentation Control Systems, Controller Design Laboratory Automation,	

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	Automation and Control PCB Design, Microcontroller Programming, Mechanical Design.	
<b>Professional experience:</b>	<ul style="list-style-type: none"> <li>- At least 4 years of work experience</li> <li>- Extensive experience in design and development of research instrumentation; mechanics, electronics, computer interfaces and data acquisition.</li> <li>- Fab Lab experience is a plus.</li> </ul>	
<b>Job requirements (have to be fulfilled):</b>	<b>Specific techniques (analytical, software, calculations, prototyping, etc.)</b>	<ul style="list-style-type: none"> <li>- Practical knowledge of mechanical manufacturing techniques: welding equipment, lathes, milling machines, moulders.</li> <li>- Experience in the manufacturing of home-made equipment (by using in-house parts or by integrating parts from external suppliers)</li> <li>- User knowledge of some software used in research and industry will be valued (Matlab, LabView, Auto-Cad, SolidWorks, etc.)</li> <li>- Experience in 3D CAD design. Knowledge of design software: Fusion360, Solidworks, Inventor, Rhinoceros or similar will be valued</li> <li>- Experience in workshop management: acquisition, set-up and maintenance of machines and tools</li> </ul>
	<b>Participation and/or collaboration in R&amp;D&amp;I/business projects</b>	Previous experience in research projects will be valued.
	<b>Languages</b>	English. Valuable: Spanish and Portuguese
	<b>Cross-cutting competences</b>	<ul style="list-style-type: none"> <li>- Ability to supervise and to work as part of a team</li> <li>- Commitment to open science practices, e.g. open access publishing, dissemination activities, development of open educational resources, open source software development.</li> <li>- Ability to work with precision, safety and care</li> </ul>
	<b>Willingness to travel and stay abroad</b>	This position requires occasional participation in events outside of Extremadura
	<b>Publications: scientific articles (in journals indexed in Web of Science and/or Scopus), theses (PhD and/or Master's), presentations at conferences, reports, technical guides, etc.</b>	Valuable experience in the preparation of reports or technical guides.

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### To be evaluated (adds points to the final evaluation)

- Experience in scaling from laboratory to prototypes.
- Experience in industrial collaborations and/or previous experience working in industry.
- Patents.
- Feedback of the 2 references provided by the candidates. Please, include email and phone.
- Motivation letter.
- Awards, mentions or other achievements.

### Selection Tests:

**TECHNIQUES: Oral knowledge test** YES  NO

**LANGUAGE: ORAL** YES  NO  (Will be evaluated during the interview)

**JOB INTERVIEW:** YES  NO

### Interested candidates:

Are invited to send the curriculum vitae, maximum date 15 calendar days from the day following the publication in the DOE (Official Journal of Extremadura) indicating **Ref<sup>a</sup> IS-PROTOTIPADO (ALMACENAMIENTO DE ENERGÍA TÉRMICA)**

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