

JOB OFFER

JUNIOR RESEARCHER

Position: Junior researcher in LCA and techno-economic analysis

Offer date: DOE publication

Project: CIIAE - Ref^a IJ-LCA (ELÉCTRICO E HIDRÓGENO Y POWER-TO-X)

Department: Hydrogen and Power-to-X

Estimated starting date: January 2023

Workplace:	University of Extremadura. Cáceres campus	
Tasks to be developed:	<p>Providing decision support is key to speed up the transition to net zero energy systems. In LCA and techno-economic analysis, the environmental and economic impacts, respectively, of products and services are assessed, throughout the life cycle: resource extraction, manufacturing, technology use, and waste management. The created models should be open, when possible, in order to improve the quality of science, on the basis of more transparency, reproducibility and traceability.</p> <p>The successful candidate is expected to perform the following tasks:</p> <ul style="list-style-type: none"> – Creating open-source LCA models of energy storage and hydrogen technologies, linked with renewables – Using monitored data in pilot plants for sustainability indicators – Integrating LCA with energy system modelling – Providing recommendations to decision makers based on modelling results – Collaborations with experimental researchers from CIIAE and beyond – Writing project proposals and contribute to the acquisition of research funds – Writing publications as first author and co-author (e.g. 1.5 articles per year in high-impact journals) – Daily orientation of doctoral and master's students – Project management and project administration (internal and external), also towards the department and CIIAE – Gradually becoming more independent, in order to conduct, manage and direct an independent project <p>Challenges: There is a large number of available technologies, actors, e.g., households and industry, as well as intrinsic uncertainty which makes LCA and techno-economic models complex. Plenty of data are also generated, making the assessment of the important results to provide policy recommendations challenging</p>	
Duration of the contract and salary:	Temporary Contract Initial duration: November 2024, with the possibility of extension	Gross Salary + S.S. Fees Gross Salary Range: 35 000 € - 38 000 €
Academic background required:	A PhD in chemical engineering, chemistry, energy engineering or equivalent, physics, natural sciences, industrial Ecology, sustainability, or similar	
Other education:	To be valued: Master in electrochemistry, LCA or similar	
Professional experience:	<ul style="list-style-type: none"> – Minimum 1-year experience with LCA and/or techno-economic projects 	

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Job requirements (have to be fulfilled):	Specific techniques (analytical, software, calculations, prototyping, etc.)	<ul style="list-style-type: none"> – Excellent analytical skills and experience in LCA (OpenLCA, Brightway 2, SimaPro, Ecoinvent, etc.). But the work will be mostly on open source Brightway. – Experience in techno-economic analysis (e.g. LCOE) and circular economy – Statistical skills, e.g. statistical tests and regression – Experience in programming in general purpose language (any language, but the work will be mainly in Python and Matlab).
	Participation and/or collaboration in R&D&I/business projects	Minimum participation in 1 research project, European, national or industry-related
	Languages	Excellent oral and written skills in English
	Cross-cutting competences	<ul style="list-style-type: none"> – Teamwork – Communication skills – Commitment to open science in research methods, data and publications – Ability to work in a diverse and flexible academic environment in a team-oriented, yet independent manner – Experience in collaborating with other colleagues in the same department and other centers
	Willingness to travel and stay abroad	The candidate is expected to travel, both nationally and internationally, in the context of projects and conferences
	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>Strong publication history as first author and co-author, as the candidate is expected to publish in the best journals in the sector. At least 3 publications in journals indexed in Scopus.</p> <p>Alternatively, a monographic thesis can also be considered, as well as publications in congresses.</p>
To be evaluated (adds points to the final evaluation):		
<ul style="list-style-type: none"> – Previous experience, either use or learning, with the Input-Output method – Experience with MCDA – Participation in regional/national/European or direct contracting projects. – Supervision of bachelor and master projects. – Experience with statistical learning and machine learning models – Knowledge of Spanish and/or Portuguese – Experience in industrial collaborations and/or previous experience working in the industry – Being the first author of at least one scientific article – Valuable knowledge of modeling energy and hydrogen storage systems – Valuable to have obtained scholarships/research contracts of competitive competition equivalent – Time of stays in different centers of realization of the Doctoral Thesis 		

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- Awards, distinctions or any merit that is consistent with the position described
- Motivation letter (maximum 2 pages) included in the application.
- Evaluation provided by 2 references via telephone conversation. The contact details of the references (e-mail and telephone) are provided by the candidates in their application

Selection process details:

Technical test: NO

Language (English): yes (**will be evaluated during the interview**)

Job interview: yes

Interested candidates:

Please, send the curriculum vitae, with the deadline being 15 calendar days from the day following the publication in the DOE (Official Journal of Extremadura) indicating the following reference: **Refª IJ-LCA (ELÉCTRICO E HIDRÓGENO Y POWER-TO-X)**

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