

## Company Description

CIC energiGUNE is a research center specialized in energy, electrochemical storage (batteries and supercapacitors), thermal energy solutions and hydrogen, a member of the Basque Research and Technology Alliance - BRTA, and, a strategic initiative of the Basque Government. CIC energiGUNE was created in 2011 to generate excellent knowledge and at the same time useful for the Basque business network, being a reference in knowledge transfer. CIC energiGUNE has a dynamic research team of more than 100 researchers and is extremely well equipped with a wide range of up-to-date facilities that are fully available for all its researchers. Also, the European Commission has recently (2019) awarded CIC energiGUNE with the 'HR Excellence in Research' which reflects its commitment to achieving fair and transparent recruitment and appraisal procedures and certifies the existence of a stimulating and favorable work environment for researchers in the institution. For more details on CIC energiGUNE's research activities please visit our website at <http://www.cicenergigune.com>

## Information

 **Deadline:** 2022-09-30  
 **Category:** Business  
 **Province:** Araba / Alava

 **Country:** Basque Country  
 **City:** Vitoria-Gasteiz

## Company

CIC energiGUNE



## Main functions, requisites & benefits

### Main functions

CIC energiGUNE is looking for an engineer for the design, construction and engineering of flow battery cells and their auxiliary elements. The position is related to the organic redox flow battery research line, which covers the design of water-based organic electrolytes and their integration with electrodes and membranes in electrochemical cells. Specifically, the individual will study the engineering aspects for the application of this energy storage technology. The individual will work in an interdisciplinary environment employing innovative approaches located at the interface of chemistry, modeling and engineering. The main tasks of the project are: Characterization of the reaction environment: mass transport to (and from) electrode surfaces as a function of flow conditions, as well as pressure drop and electrolyte flow dispersion. Study of the influence of cell design features on performance and the effect of process conditions on cell potential components. Cell and stack design: electrode size, electrode spacing and electrode thickness, number of cells, flow rate determined under ideal conditions. Proper attention to engineering and scaling aspects, including the design and definition of the balance of plant system (pumps, valves, heat exchangers, etc.).

### Requisites

Mechanical engineer, chemical engineer, or doctorate in chemical engineering or in the field of energy storage. Knowledge of mechanical engineering (fluid dynamics, strength of materials, etc.) and/or electrochemistry, chemical engineering. Aspects related to computational simulation, 2D and 3D system design will be highly valued. Knowledge in fuel cell design and development is a plus. A team player who can collaborate well with other researchers. A highly motivated person with interest in research brought to application. An excellent level of spoken and written English

### Benefits

We offer a contract according to the candidate's profile and professional development opportunities with a competitive salary within the category. Access to a complete set of existing laboratory infrastructure and equipment to ensure a fruitful stay and the fulfillment of the objectives in due time. Candidates will join an integrated, enthusiastic, and multidisciplinary institute making high quality research and impactful contributions to the energy and sustainability fields. CIC energiGUNE will also help smooth the transition for you and your family, providing a welcome program that offers help with accommodation and addresses other aspects to help you integrate into the local environment (such as free language courses, help with schools for children...). CIC energiGUNE is located close to the city of Vitoria-Gasteiz (Spain), in the heart of the Basque Country. The Basque Country is the region with the highest R&D investment in Spain, with more than 20.000 researchers. The basque research ecosystem comprises a solid and collaborating community composed of universities, technology and cooperative research centers. For more information: <https://cicenergigune.com/en/work-with-us>