

# POSTDOCTORAL RESEARCHER POSITION. PHYSICAL MODELLING AND NUMERICAL ANALYSIS.

# Company Description

CIC Energigune is a Cooperative Research Centre founded in 2007 with its headquarters in the Basque Country. Created thanks to the investments of the Basque Government and several leading companies in the energy sector, it aspires to become a true international leader in the field of energy and contribute to the industrial competitiveness of Basque companies.

## Information



❸ Country: Basque Country▲ City: Miñano

Company

CIC energiGUNE



# Main functions, requisites & benefits

#### Main functions

Modelling and numerical implementation of heat and mass transfer within packed-bed systems with PCMs as storage material and multi-phase fluid flow, including boiling/condensing phenomena at the solid-liquid interfaces

Parametric analysis, optimization and final viability demonstration of the modelled packed-bed thermal energy storage solutions through computational fluid dynamic codes, using either commercial standard CFD codes or self-developments

Contribution to the design of TES system prototypes based on the studied concept, either at a lab-scale or at a relevant scale with respect to applications

Empirical validation of the developed numerical codes

Participation to benchmarking activities

Collaboration in project proposal writing to obtain funding from institutions and industrial sources.

Supervise graduate/master students.

### Requisites

- · PhD in Physics, Engineering, or related fields.
- Experience in the development, and implementation of physical macroscopic models.
- Experience in fluid mechanics and heat transfer phenomena.
- · Experience in computational fluid dynamic (CFD) methodology.
- Experience in transport phenomena through porous media.
- Experience in boiling/condensing processes within porous media.
- · A team player who can collaborate with other groups, technical centers, and industries
- Good verbal and written communication skills in English

### Benefits

We are offering a 24+12 months position within interesting National and International projects in the field of thermal energy storage and important opportunities for professional development.

CIC energiGUNE offers a competitive basic salary augmented by important benefits such as special conditions for a private health insurance that compare favourably with the best global private and public institutions.

The "Fundación" will also help smooth the transition for you and your family, providing a accommodation and addresses of other aspects to help you integrate into the local environment.

All applicants are invited to submit detailed curriculum vitae and 2 reference letters at http://www.cicenergigune.com.

The selection process ends once a candidate is selected