

SENIOR POST-DOC POSITION IN COMPUTATIONAL FLUID DYNAMICS FOR ENERGY STORAGE

Company [|] Descripti<u>on</u>

CIC energiGUNE (CICe) www.cicenergigune.com, is a young Energy Research Centre (inaugurated in June 2011) with headquarters in the Basque Country (Spain), whose mission is to do an excellence oriented research as well as the transfer of technology to the industry. CICe has a dynamic research team of more than 100 researchers, is extremely well equipped with a wide range of up-to-date facilities that are fully available for all its researchers.

Information

■ Deadline: 2021-03-31
■ Category: Business
■ Province: Araba / Álava
■ City: Vitoria-Gasteiz

Company

CIC energiGUNE



Main functions, requisites & benefits

Main functions

CIC energiGUNE is seeking for an experienced researcher in computational fluid dynamics (CFD) to work in thermal energy storage related projects. The position is open within "Heat Transfer Intensification" research group which investigates novel heat transfer solutions and improves existing ones through both experimental and computational approaches. It closely collaborates with groups devoted to materials development as well as with system engineering group by providing guidance for design and optimization of either storage materials or energy storage systems, thus contributing to the development and scale-up of efficient thermal energy storage solutions for renewable energy generation systems, electricity grid and integrated energy networks and renewable heating and cooling. This covers low-, medium- and high-temperature applications and involves a wide range of technologies such as sensible, latent heat and thermochemical storage. Job Functions: To develop computational models to simulate the behavior of thermal energy storage systems and materials using the best of the state-of-the-art in CFD. To provide useful guidance for storage materials development and optimization. To provide efficient and innovative design solutions for thermal energy storage systems. To contribute to prototyping and benchmarking tasks. To publish the obtained results in high impact journals. To present the obtained results in international conferences. To provide guidance to PhD-, Master- and visiting-students when required.

Requisites

The candidate must have a background in Computational Sciences with the hands-on expertise in: Computational multiphase fluid flow coupled with thermal analysis. Experience in at least some of the relevant CFD software such as Ansys-Fluent, OpenFOAM, COMSOL Multiphysics, etc... The following experience will be considered as advantageous: Fluid flow and heat and mass transfer in porous reactive media. Melting and solidification processes. Boiling in porous media. Reduce-order models. Familiarity with energy storage applications. Qualification requirements: PhD in Physical or Engineering Sciences. Sound experience in CFD (6 years min.). A team player who can collaborate with other groups, technical centers, and industries. Excellent verbal and written communication skills in English.

Benefits

We are offering a 3-year contract and advantageous professional development opportunities. A prolongation of the contract for 2 additional years is possible subjected to a positive performance assessment. In addition to the appeal of the entire project, the CIC energiGUNE offers a competitive basic salary augmented by important benefits such as special conditions for a private health insurance that compare favorably with the best global private and public institutions. CIC energiGUNE will also help smooth the transition for you and your family, providing a welcome program that offers accommodation and addresses other aspects to help you integrate into the local environment. CIC energiGUNE is committed to affirmative action, equal opportunity and the diversity of its workforce.