

Company Description

CIDETEC is a technology centre that brings together three leading international centres in the fields of Energy Storage, Surface Engineering and Nanomedicine. For more than 25 years, we have been working with leading companies to develop technology that makes the world a better place. A cutting-edge, diverse and international centre awaits you!

Information

 Deadline: 2025-08-01
  Country: Basque Country
 Category: Business
  City: San Sebastián
 Province: Gipuzkoa

Company

CIDETEC



Main functions, requisites & benefits

Main functions

CIDETEC needs to recruit a researcher to work in the Multi-physics Modelling area in the Energy Materials Unit. A researcher is required in the area of energy storage, capable of assisting in the development and implementation of multi-physics models for lithium ion and lithium metal batteries. If you want to be part of this revolution, we are waiting for you! Our work covers the entire value chain, from battery chemistry to the final application. We design and develop cells, modules and battery packs tailored to our customers' needs, with a clear focus on technology transfer to industry. The researcher's work will be related in the development and implementation of multi-physics models for lithium ion and lithium metal batteries. Your contribution You will form part of a state-of-the-art research centre, geared to sustainability and the circular economy, which has helped electrify Spain's roads and is now working towards 100% future sustainability. The developer will join the Energy Materials Unit, working on the development of battery technologies. They must be capable of carrying out several lines of work simultaneously, optimising resources and maximising results. The researcher will work independently, according to the defined work plan. They will be in charge of implementing new mechanisms and features on an existing battery simulation code. This will require knowledge of Python programming as well as fluency in deducing and implementing variational formulations for complex models. Your work will focus on the following activities: Generating new ideas/concepts and implementing them. They will assist in producing documentation related to the search for funding. Strong product/market/result orientation (deadline, cost, time) Achievement of the forecasts defined in the annual plans. Continuous monitoring of the state of the art and the market.

Requisites

Education: Mathematics / Physics / Engineering / AI Languages: High level of written and spoken English Knowledge: The successful candidate will demonstrate a sound knowledge in: Python programming or advanced programming in another similar language and the ability to adapt Experience in implementing numerical methods for solving systems of differential equations and partial derivative equations Modelling and simulation of complex problems: multi-physics and multi-scale problems Additionally, knowledge in the following areas will be an advantage: Lithium-ion and electrochemical battery modelling Modern programming tools, display and software development (Git/SVN, Plotly) Mathematical, statistical and machine learning optimisation Observations: A highly motivated person, with a keen interest in research and innovation, you will join a multidisciplinary team. You will be able to organise your work, meeting both the deadlines and the established objectives. Problem-solving capacity and scientific criteria. Good communication skills, both verbal and written. Having undertaken a placement abroad and more than 3 years' work experience will be considered a plus. *We positively value applications from people with a disability equal to or greater than 33%, in compliance with current legislation, the General Law on the Rights of Persons with Disabilities and their social inclusion (LGD).

Benefits