

## **CIDETEC [WWW.CIDETEC.ES](http://WWW.CIDETEC.ES)**

### **JOB DESCRIPTION**

The researcher will join the Energy Materials Unit, working in training and/or transfer to company projects. They must undertake the work in such a way that they are able to carry out several lines of research simultaneously, optimising resources and maximising results.

The researcher will work independently in accordance with the defined work plan.

They will be in charge of leading battery modelling projects.

They will also be involved in:

- 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 SOA/Market.

### **REQUIREMENTS**

#### **Education:**

Engineer / Mathematician / Physicist

#### **Languages:**

High level of written and spoken English

#### **Knowledge:**

The successful candidate must know how to manage the projects in progress and be able to handle meetings with clients, participate in workshops and platforms in order to defend the projects under their responsibility.

It will also be appreciated if the successful candidate has knowledge of multiphysics battery models, lithium ion batteries, advanced lithium ion batteries and / or lithium metal batteries.

**Observations:**

A highly motivated person with an interest in research and innovation will join a multidisciplinary and multicultural team. They will be able to organise the work, keeping to the deadlines and meeting the established objectives.

**PLEASE, SEND YOUR CV TO:** [eayerbe@cidetec.es](mailto:eayerbe@cidetec.es)

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### **JOB DESCRIPTION**

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The researcher will work independently in accordance with 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.

They will also be involved in:

- 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 SOA/Market.

### **REQUIREMENTS**

#### **Education:**

Mathematician / Physicist / Engineer

#### **Languages:**

High level of written and spoken English

#### **Knowledge:**

The successful candidate must demonstrate solid 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 an interest in research and innovation will join a **multidisciplinary and** multicultural team. They will be able to organise the work, keeping to the deadlines and meeting the established objectives.

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