

Company Description

WHO ARE WE?
<https://cicenergigune.com/en/who-are-we> OUR FACILITIES:
<https://cicenergigune.com/en/platform-facilities> EES RESEARCH GROUPS:
<https://cicenergigune.com/en/electrochemical-storage-research-groups> For more details on CIC energigUNE's research activities please visit our website at <http://www.cicenergigune.com>

Information

 Deadline: 2023-09-30
  Country: Basque Country
 Category: Academia
  City: Vitoria-Gasteiz
 Province: Araba / Álava

Company

CIC energigUNE



Main functions, requisites & benefits

Main functions

Perform electrochemical characterization and analysis of advanced Li-ion cells with focus on ageing, safety, and prediction of failure mechanisms. Process and analyse the results obtained from the characterization tests, give conclusions and provide ideas to improve the lifetime and performance. Collaborate with the testing team to formulate and execute designs of experiments (DOE) to acquire sufficient data to train, validate, and test the cell and battery models. Work on battery estimation algorithms and models regarding SOC, SOH, impedance, SOS and performance limitation under given operating conditions. Develop advanced deep learning models and tools for data analysis, optimization and prediction/estimation of SoX. Area: Electrochemical energy storage (EES) Research group: Battery Post-Mortem Analysis and Ageing

Requisites

PhD in Electrochemistry, Chemistry, Chemical Engineering or other related fields. Electrochemistry characterization techniques knowledge and experience: galvanostatic and potentiostatic techniques. Experience on cell/battery degradation mechanisms, ageing and safety issues at material and cell level. Experience on modelling chemical and physical working mechanisms at cell level, model validation, failure modes and effects analysis (FMEA). Knowledge in data processing and analytics. Experience on developing cell/battery performance estimation algorithms and deep learning models for SoX estimation (charge, health, safety). Good verbal and written communication skills in English (Spanish or Basque valuable but not compulsory). A good team player who can collaborate with other researchers and with external partners. Highly motivated to transfer technology to the industry. Knowledge of safety awareness and protocols is preferred.

Benefits

A 36-months contract and attractive professional development opportunities with the possibility of renewal based upon satisfactory job performance, continuing availability of funds, and ongoing operational needs. Flexible working hours and hybrid distance/on-site work model. Full access to cutting-edge laboratory facilities and characterization platforms (<https://cicenergigune.com/en/platform-facilities>). The incorporation to a top research center in Europe that makes high quality research and impactful contributions to the energy and sustainability fields. Professional and personal development: opportunity to attend seminars, international conferences, trainings, etc. Integrated, enthusiastic, international and multidisciplinary environment. A welcome program that offers help with finding accommodation and addresses other aspects to help you integrate into the local environment (such as free language courses, assistance with the administrative procedures, help with schools for children...). For more information: <https://cicenergigune.com/en/work-with-us>