PHD IN NON-DESTRUCTIVE CHARACTERIZATION OF BATTERY MATERIALS BASED ON ULTRASOUND

Company Description

The University of Deusto aims to serve society through a specifically university-oriented contribution. This entails full dedication to students and society through the deepening of knowledge, its transfer, the formation of values, and professional development.

Information

Deadline: 2025-04-30
Country: Spain
Category: Academia
City: Bilbao
Province: Bizkaia

Company

Universidad de Deusto

Main functions, requisites & benefits

Main functions

General call for Grants allocated to research projects or groups to pursue Doctoral Studies. APPLIED MECHANICS RESEARCH GROUP, DeustoTech, at the University of Deusto DeustoTech – Deusto Institute of Technology is the technological research centre of the University of Deusto, located on the Bilbao campus, whose mission is to promote research, training and knowledge transfer at the service of society and industry. The selected candidate will join the research activity related to ultrasonic technologies and their novel applications. In particular, she/he will participate in an exciting new line of research based on the development of non-contact ultrasonic technologies as novel non-invasive and fast techniques for battery cell characterization and testing. With the rapid growth of the energy storage sector, next-generation battery technologies demand innovative methods to collect valuable information from battery cells in operando in a non-destructive way, as well as to assist at key stages of the manufacturing line or even at end-of-life for sorting prior to recycling. We offer the opportunity to work on an emerging and high-impact research topic, bridging scientific knowledge generation with industrial applications. The expected findings and results will be actively disseminated through conferences, seminars, and consortium meetings, both nationally and internationally, as well as through publications in high-impact scientific journals. Title of the project to be incorporated Innovative Methods And Domestic Value Chain For The Circular Economy Of Energy Storage Systems, Including Sorting, Reuse, Recycling And Processes Automatization For The Recovery Of Critical Materials (MEDINSPAIN) – Ref. PLEC2024-011140 (https://deustotech.deusto.es/project/medinspain/) PI and/or project manager Lola Fernández-Caballero Fariñas Funding Entity Ministerio de Ciencia, Innovación y Universidades

Requisites

Requirements Programming skills in Matlab and/or Python. Strong analytical and problem-solving skills. Excellent knowledge of English (oral/written) is compulsory for the job profile and tasks development. Valuable items: Knowledge of energy storage systems, particularly at the cell level. Experience with materials characterization techniques or electrochemical methods. Prior experience in multidisciplinary environments (e.g.: some work experience) or international collaborations (e.g.: Erasmus). Scientific publication experience.

Benefits

Endowment of the contract Contract will be made on a yearly basis, renewable once for up to a total of 2 years 27.262,05 € gross/year