PHD GRANT IN ARTIFICIAL INTELLIGENCE FOR ULTRASOUND MEDICAL IMAGING

Company Description

The University of Deusto invites applications for several PhD projects to be performed in DeustoTech. Deusto Institute of Technology -DeustoTech- http://deustotech.deusto.es/ locate in Bilbao (Spain), is a Research Institute of the Faculty of Engineering at the University of Deusto, and was created with the mission of promoting research and postgraduate training in Information Technology and Communications (ICT) through the participation in research projects of interest to society and industry. DeustoTech is looking for promising young researchers in the areas such as Data Science, Biomedical Engineering and Computer Vision. The positions are directed to master graduates and they are intended to offer three years fellowships.

Information

Deadline: 2021-05-07
Category: Academia
Province: Bizkaia
Country: Basque Country
City: Bilbao

Company

Universidad de Deusto

Main functions, requisites & benefits

Main functions

Topic #PC1: Artificial Intelligence for Ultrasound Medical Imaging Life expectancy is continuously increasing, and to promote healthy and active aging, which guarantee an improved quality of life for older adults, is essential. Ultrasound is a portable, hazard-free and cost-effective imaging technology, with the potential to become ubiquitous. Our vision is to convert ultrasound echography from qualitative body assessment into a universal quantitative diagnostics tool. We address high-prevalence diseases, for which life-long monitoring is necessary. We work in an interdisciplinary mix of engineers at DeustoTech, together with radiologists at the BioCruces Bizkaia Health Research Institute and collaborators at Stanford Radiology Department to develop and translate disruptive tissue quantification methods from the workbench to the patients. The successful candidate will use modern machine learning techniques to extract and exploit the wealth of information about tissue mechanics and microstructure, which is contained in the wave signals captured by the ultrasound. For this purpose, they will combine traditional radiomics features extracted with biomechanical models with self-learned features directly extracted from the data. They will also support technology deployment and data acquisition in clinical studies. Further Information: Sergio Sanabria sergio.sanabria@deusto.es

Requisites

Candidates should have a first class or good 2.1 honours degree in Computer Engineering, Biomedical Engineering, Telecommunications Engineering or Electronic Engineering (other equivalent disciplines will be also considered). An appropriate degree at Masters Level will be mandatory in order to access to the PhD program (applicants finishing a Master's degree along this academic year will also be considered). Proficiency in spoken and written English is desired; knowledge of Spanish is not a requirement. To be eligible, candidates must become a full-time worker at DeustoTech facilities. All qualified candidates will be considered.

Benefits

The grants will have duration of 36 months, with annual renewals. Each 12 months the performance of the doctoral student will be evaluated to check if he/she achieves the PhD research goals stablished for the period. The exact amounts awarded will be established by the University of Deusto. In the last year call, the annual gross salary was 16,450€ for the first two years and 17,625€ for the third year. The application is open to worldwide research applicants.