

# 6I DIRS - PHD RESEARCHER ON NEW MACHINE LEARNING MODELS IN THE MANUFACTURING

# Company Description

The University of Deusto, founded in 1886 by the Society of Jesus, focuses on six main areas: Business, Law, Psychology and Education, Theology, Social and Human Sciences and Engineering. Its aim is to train leaders who can integrate a professional, humanistic and ethical vision. Deusto is a topranked university in Spain and has an increasingly significant presence in the global rankings for its teaching and high performance. Research at DEUSTO has seen a significant growth during the last decades, following a path towards excellence through the increased participation in international projects and networks. Overall DEUSTO provides a flexible research ecosystem that nurtures international and inter-sectoral collaboration, and enables our researchers to cross-fertilise ideas and address local and global issues from an interdisciplinary perspective. It is a thriving environment that complements our teaching, and offers a fertile ground for our 7 PhD programs, including two MSCA COFUND projects (DIRS and 6i Dirs) and extensive Post Graduate activity. DEUSTO's interdisciplinary research is articulated around: 5 interdisciplinary platforms on Social Justice and Inclusion, Ageing and Wellbeing, Creative Industries and Cities (B Creative), Gender, Strengthening Participation, plus 4 interdisciplinary areas: Energy, Health, Territory, and Industry 4.0.

#### Information

Deadline: 2020-02-28
Category: Academia

Province: Bizkaia

Company

Universidad de Deusto



## Main functions, requisites & benefits

#### Main functions

6i Dirs A Growing Attractive Collaborative Ecosystem for Boosting Impact Driven Research: Supported and co-funded by the Marie Skłodowska-Curie programme of the European Commission and over 40 partners, the University of Deusto opens the first call of the 6i Dirs project (http://www.deusto.es/dirs-cofund.es). Through this project, the Deusto International Research School (DIRS) will attract 19 qualified international Early Stage Researchers (ESRs) for high-quality PhD training: 10 candidates will be selected in a first call in the beginning of 2020 while 9 other researchers will be recruited in the second call in 2021. • We are looking for recruiting outstanding international ESRs for high excellent research environment and training the University of Deusto is generating and that combines 6 elements starting with the letter 'i': internationalisation, interdisciplinarity, intersectoriality, social impact, innovation and inclusion. The 6i Dirs project encompasses the seven doctoral programmes and 24 excellence research teams with 5 interdisciplinary platforms and 4 interdisciplinary areas within the University of Deusto. • Within Call 2020 there is a choice of 19 selected topics for recruitment. From all candidates applying to these topics, 10 researchers will be recruited in this first call. One of these topics is Developing new machine learning models in the manufacturing process of glass containers. Production optimisation in today's industry is one of the most difficult problems that encompasses both managers, production planners, and maintenance personnel within the industry. This process of optimisation and continuous improvement help to improve the efficiency of the industry. In the same vein, this doctoral thesis is framed within the new paradigm of Industry 4.0 and seeks to optimise industrial processes through the use of machine learning techniques. The main objective of this thesis is to advance in the creation and development of new machine learning models in these processes. • Following European Commission's requirements, the candidates will be selected via an open, transparent, merit-based, impartial, equitable and internationally advertised procedure, in order to avoid any kind of inequality or discrimination, guaranteeing a fair selection process. Regarding terms and conditions, the selected candidates will sign an employment contract and compulsorily enrol in the corresponding PhD Programme, benefiting from a shared supervision and mentoring process formally inscribed in the Doctoral Agreement and the individualized Personal Career Development Plan. The 6i Dirs project will offered recruited researchers a full programme of training activities, identified by an interdisciplinary group of senior researchers, the industry and other non-academic stakeholders, and designed to develop the skills necessary for excellent research. • Researchers are expected to enrol on 1st October 2020, provided the corresponding authorities have granted the compulsory work permit by that date. The duration of each fellowship will be 36 months to be executed at the University of Deusto. During the fellowship, the ESRs will be encouraged to undertake mobility to an international institution for a period of 3 to 6 months, to be scheduled preferably between the second or third year of the fellowship.

### Requisites

Who can Apply: • Applicants of any age and of any nationality • Early Stage Researchers (i.e. shall be in the first four years of their research careers and not yet have been awarded a doctoral degree). • Fligible researchers shall not have resided or carried out their