

Company Description

The University of Deusto was founded in 1886 by the Society of Jesus. With campuses in Bilbao and San Sebastian and branches in Vitoria and Madrid, its hallmarks are education in skills and values, thanks to its own socially recognised teaching model. It is also characterised by its specialist research, its commitment to justice and international outreach. General call for Grants allocated to Research Projects or Groups to pursue Doctoral Studies at the eVIDA Lab. The Industry 4.0 paradigm is applicable to health and even life in general. Therefore, Health 4.0 is the new framework in which to frame any technological solution that is sought to the challenges of society. In this new framework, artificial intelligence plays a key role combined with virtual and augmented reality, biofeedback, cybersecurity or 3D manufacturing among others. Within active and healthy aging, the role of 4.0 solutions are key to provide comprehensive services to our seniors and people with disabilities to improve their quality of life and increase their autonomy. This position assigned to a project called "REVITAL" has as main research objective the use of health 4.0 approaches to technological solutions for neuro-telerehabilitation including biofeedback for telerehabilitation purposes applied to elderly people in both rural and urban areas. IoT, biosignal processing, artificial intelligence and biofeedback are an essential tool

Information

 Deadline: 2024-07-15
 Category: Academia
 Province: Bizkaia

 Country: Basque Country
 City: Bilbao

Company

Universidad de Deusto



Main functions, requisites & benefits

Main functions

The hypothesis for this research is that it is possible to predict human behavior after neuro-telerehabilitation activities, response to a treatment and effectiveness of it from the fusion of data by designing a real-time artificial intelligence neurofeedback application combined with other physiological basic biofeedback multi-sensors and located in a cloud platform with front-end and back-end. Then, the objectives of this Research conducted under REVITAL project context will be: a) Define the experiment with 2 different case studies. b) Create a database with fusion of data and signals acquired in real time with a biofeedback multisensor system. c) Design the algorithms for pre-processing and generation of features. d) Design AI models capable of predicting human behavior and response to a treatment. e) Design AI models capable of predicting human behavior and response to a treatment. f) Validate the experiment with the private database. Title of the Project to be incorporated: Acronym of the project: REVITAL (S1/4.5/E0037). Title: Revitalización de zonas de baja densidad de población mediante la promoción de servicios de tele-rehabilitación que impidan la deslocalización de personas mayores y creen oportunidades de empleo local (REVITAL). PI and/or Project Manager: Begoña García-Zapirain Funding Entity: Interreg SUDOE call 2023.

Requisites

Qualification Needed: To be already enrolled as PhD student in the second or third year. Experience Required: IoT, biosensors, data science and artificial intelligence applied to human and environmental health (health diseases, social problems, air pollution, air quality, food quality). Experience on writing scientific publications and reports. Google Scholar with a minimum h index=2 and including at least 3 JCR indexed journal.

Benefits

Endowment of the contract Gross Salary Year 1 of contract: 25,973,10 € Gross Salary Year 2 of contract: 25,973,10 €