TITLE: SYSTEM AND METHOD FOR THE ASSESSMENT OF JOINT MOVEMENTS SPECIFIC TO THE HUMAN BODY

TECHNOLOGY DESCRIPTION

The present invention proposes a method and a system capable of carrying out an objective evaluation of specific joint movements of the human body carried out in a given exercise, through the fusion of artificial intelligence techniques and time series analysis methods. The fusion of these techniques and methods allows training artificial intelligence systems through movements made from expert subjects, and thus, being able to compare these movements with those made by a person with a motor deficit. All this allows an objective evaluation to be carried out in order to be able to classify the movement carried out within a specific group of affectation based on the quality of the movement carried out. This system not only allows to obtain characteristics associated with the movement performed using the affected limb, but also, characteristics that relate the affected limb with the healthy limb can be obtained.

BUSINESS APPLICATIÓN SECTORS

The main sector of application of this system is that of physical medicine and rehabilitation, more specifically in the fields of neurorehabilitation and assistance.

TECHNICAL ADVANTAGES AND BUSINESS BENEFITS

The fusion of artificial intelligence techniques and time series analysis methods fundamentally presents the following advantages: greater flexibility when studying the quality of exercise, a study of the movement carried out joint by joint and a global vision on the improvement or deterioration over time.

TECHNOLOGY DEVELOPMENT LEVEL

The technology has now been developed and tested on a laboratory scale.

INTELLECTUAL PROPERTY RIGHTS

Protected by patent in Spain. The rights correspond in their entirety to the Miguel Hernández University of Elche (100%)

SEARCHED COLLABORATIÓN

Collaboration with interested companies to carry out concept tests of the technology that facilitate its commercialization and industrial implementation.

TITLE: SYSTEM AND METHOD FOR THE ASSESSMENT OF JOINT MOVEMENTS SPECIFIC TO THE HUMAN BODY

RELATED PICTURE

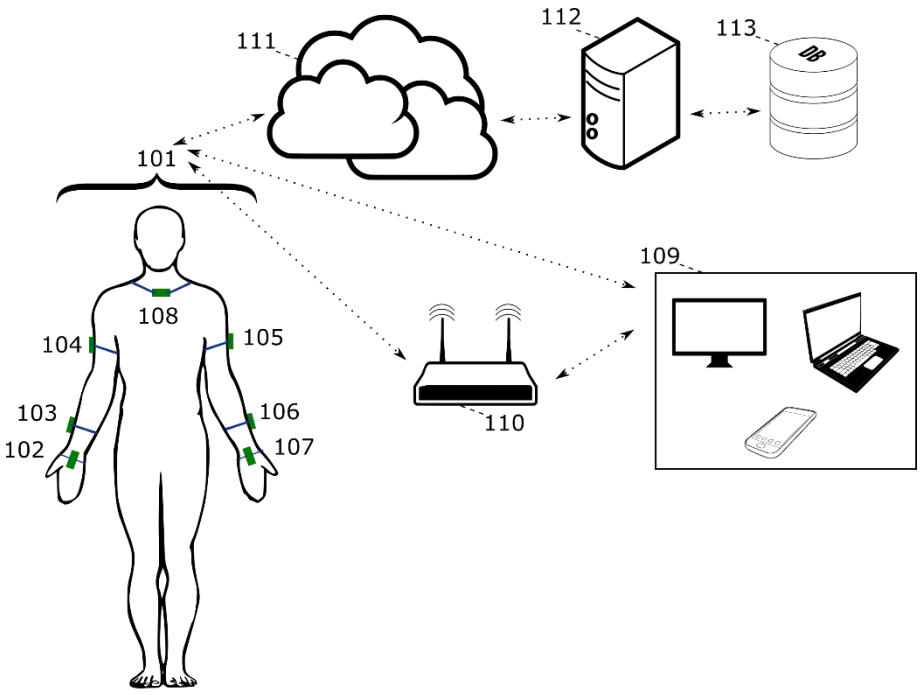

Imagen 1: Example of system application

CONTACT DETAILS
Mariano Almela Alarcón
M.almela@umh.es
Servicio Gestión de la Investigación - OTRI
UNIVERSIDAD MIGUEL HERNANDEZ DE ELCHE
Avda. de la Universidad s/n
Edif. Rectorado y Consejo Social
03202 Elche, Alicante
Telf.: 966658733