Title (en)

SYSTEMS AND METHODS FOR AUGMENTED NEUROLOGIC REHABILITATION

Title (de)

SYSTEME UND VERFAHREN ZUR VERSTÄRKTEN NEUROLOGISCHEN REHABILITATION

Title (fr)

SYSTÈMES ET PROCÉDÉS DE RÉHABILITATION NEUROLOGIQUE AUGMENTÉE

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2022020493A1] A method and system for augmented neurologic rehabilitation (ANR) of a patient is disclosed. The ANR system generates rhythmic auditory stimulus (RAS) and a visual augmented reality (AR) scene that are synchronized according to a common beat tempo and output to the patient during a therapy session. Sensor worn by the patient capture biomechanical data relating to repetitive movements performed by the patient in sync with the AR visual content and RAS. A critical thinking algorithm analyzes the sensor data to determine a spatial and temporal relationship of the patient's movements relative to the visual and audio elements and determine a level of entrainment of the patient and progression toward clinical/therapeutic goals. Additionally, a 3D AR modelling module configures the processor to dynamically adjust the augmented-reality visual and audio content output to the patient based on the determined level of entrainment and whether a training goal has been achieved.

IPC 8 full level

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