Title (en)
SYSTEM AND METHOD FOR PROCESSING SIGNALS FOR THE REAL-TIME DETECTION OF A FUNCTIONAL CYCLIC ACTIVITY

Title (de)
SYSTEM UND VERFAHREN ZUR AUFBEREITUNG VON SIGNALEN ZUM ECHTZEIT-NACHWEIS EINER FUNKTIONALEN ZYKLISCHEN AKTIVITÄT

Title (fr)
SYSTÈME ET PROCÉDÉ DE TRAITEMENT DE SIGNAUX POUR LA DÉTECTION D'UNE ACTIVITÉ FONCTIONNELLE CYCLIQUE EN TEMPS RÉEL

Publication
EP 2416704 A1 20120215 (FR)

Application
EP 10723211 A 20100406

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• FR 0952277 A 20090407

Abstract (en)
[origin: WO2010116087A1] The invention relates to a system and method for processing signals for the real-time detection of a functional cyclic activity, including: means for simultaneously receiving signals acquired by a sensor array comprising at least two sensors; means for recording and preprocessing the acquired signals during a plurality of consecutive cycles; means for identifying event combinations from the recordings of the acquired signals, enabling a calibration to be carried out, comprising: means for identifying a plurality of events in the acquired signals, each signal including an identified event; means for defining a model of the functional activity, consisting of a time order of the events and the mean delays between the events, and means for defining a detection time window from the functional activity model.

IPC 8 full level
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A61B 5/08 (2013.01 - EP US); **A61B 5/389** (2021.01 - EP US); **A61B 5/4818** (2013.01 - EP US)

Citation (search report)
See references of WO 2010116087A1

Citation (examination)
• US 5513631 A 19960507 - MCWILLIAMS ROGER D [US]
• POMPE B ET AL: "USING MUTUAL INFORMATION TO MEASURE COUPLING IN THE CARDIORESPIRATORY SYSTEM", IEEE ENGINEERING IN MEDICINE AND BIOLOGY MAGAZINE, IEEE SERVICE CENTER, PISACATAWAY, NJ, US, vol. 17, no. 6, 1 November 1998 (1998-11-01), pages 32 - 39, XP000785289, ISSN: 0739-5175, DOI: 10.1109/51.731318

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