

Title (en)

VERSATILE SENSORS WITH DATA FUSION FUNCTIONALITY

Title (de)

VIELSEITIGE SENSOREN MIT DATENFUSIONSFUNKTIONALITÄT

Title (fr)

CAPTEURS VERSATILES AVEC FONCTIONNALITÉ DE FUSION DE DONNÉES

Publication

**EP 2967471 A4 20161116 (EN)**

Application

**EP 14769534 A 20140310**

Priority

- US 201313840098 A 20130315
- US 201414184042 A 20140219
- US 2014022624 W 20140310

Abstract (en)

[origin: WO2014150221A1] Apparatuses and methods are disclosed for identifying with a single, small, intelligent activity monitor a particular type of activity from among a plurality of different activities. The monitor may include a multi-axis accelerometer and microcontroller configured to combine and process accelerometer data so as to generate features representative of an activity. The features may be processed to identify a particular activity (e.g., running, biking, swimming) from among a plurality of different activities that may include activities not performed by a human subject. An intelligent activity monitor may be configured to operate as a versatile sensor, or to operate in combination with a versatile sensor, to further receive and process physiological data and compute a fitness metric for a subject.

IPC 8 full level

**A61B 5/22** (2006.01); **A61B 6/00** (2006.01); **G06F 19/00** (2011.01); **G16H 20/30** (2018.01); **G16H 40/63** (2018.01)

CPC (source: EP US)

**A61B 5/0024** (2013.01 - EP); **A61B 5/02416** (2013.01 - EP); **A61B 5/1118** (2013.01 - EP); **A61B 5/1123** (2013.01 - EP);  
**A61B 5/14532** (2013.01 - EP); **A61B 5/1455** (2013.01 - EP US); **A61B 5/222** (2013.01 - EP); **G16H 20/30** (2017.12 - EP US);  
**G16H 40/63** (2017.12 - EP US); **G16H 50/30** (2017.12 - EP); **A61B 5/0816** (2013.01 - EP); **A61B 5/0833** (2013.01 - EP);  
**A61B 5/6831** (2013.01 - EP); **A61B 5/6838** (2013.01 - EP); **A61B 2505/09** (2013.01 - EP); **A61B 2560/0209** (2013.01 - EP);  
**A61B 2560/0223** (2013.01 - EP); **A61B 2562/0219** (2013.01 - EP)

Citation (search report)

- [XI] US 6529771 B1 20030304 - KIEVAL ROBERT S [US], et al
- [XI] US 2006063980 A1 20060323 - HWANG YUH-SWU [TW], et al
- [XI] WO 2012140322 A1 20121018 - FIRSTBEAT TECHNOLOGIES OY [FI], et al
- [I] US 2007197920 A1 20070823 - ADAMS JOSHUA [US]
- [I] JOE FRIEL: "Efficiency Factor and Decoupling | TrainingPeaks", 7 December 2011 (2011-12-07), XP055308028, Retrieved from the Internet <URL:<http://home.trainingpeaks.com/blog/article/efficiency-factor-and-decoupling>> [retrieved on 20161005]
- See references of WO 2014150221A1

Cited by

WO2023092237A1; US9700223B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**WO 2014150221 A1 20140925**; EP 2967471 A1 20160120; EP 2967471 A4 20161116; EP 3225167 A1 20171004; EP 3225167 B1 20210421;  
HK 1220100 A1 20170428; HK 1244193 A1 20180803

DOCDB simple family (application)

**US 2014022624 W 20140310**; EP 14769534 A 20140310; EP 17170282 A 20140310; HK 16108341 A 20160715; HK 18103692 A 20180316