

Title (en)

SYSTEM AND METHOD FOR DETERMINING THE ACTIVITY OF A MOBILE ELEMENT

Title (de)

SYSTEM UND VERFAHREN ZUR BESTIMMUNG DER AKTIVITÄT EINES BEWEGLICHEN ELEMENTS

Title (fr)

SYSTEME ET PROCEDE DE DETERMINATION DE L'ACTIVITE D'UN ELEMENT MOBILE

Publication

**EP 2421437 A1 20120229 (FR)**

Application

**EP 10715837 A 20100426**

Priority

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Abstract (en)

[origin: WO2010122172A1] The invention relates to a system for determining the activity of a mobile element (EM), including at least one motion sensor (CM) with at least one measurement axis, provided with an attachment means (MF) for rigidly connecting said motion sensor (CM) to said mobile element (EM), including: a filter (FILT) for selecting, for every measurement axis of the motion sensor, high frequencies above a first threshold (S1); a means (DET) for determining a one-dimensional high-frequency component (y(n)) equal to the square of the Euclidean norm of said high frequencies of the measurement axes taken into account by said motion sensor (CM); a means (CALC) for calculating, for every state, probability density functions (Py, i) of said high-frequency component (HF), said probability density function corresponding to each state according to a chi-square distribution of a degree of freedom equal to the number of measurement axes taken into account by the motion sensor (CM); and an analysis means suitable for defining states of the mobile element, said analysis means combining: the probability density function of said high-frequency component for each state, the probability of changing between two consecutive states.

IPC 8 full level

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