Title (en)

METHOD AND DEVICE FOR TRAVEL TIME-BASED DETECTION WITH THE AID OF A TRIGGERED OR SELF-ACTUATED REFERENCE SIGNAL

Title (de)

VERFAHREN UND VORRICHTUNG ZUR LAUFZEITBASIERTEN ORTUNG MIT HILFE EINES GETRIGGERTEN ODER SELBSTAUSLÖSENDEN REFERENZSIGNALS

Title (fr)

PROCÉDÉ ET DISPOSITIF POUR UNE LOCALISATION BASÉE SUR LE TEMPS DE PROPAGATION AVEC L'AIDE D'UN SIGNAL DE RÉFÉRENCE DÉCLENCHÉ OU SE DÉCLENCHANT AUTOMATIQUEMENT

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2008025713A1] The present invention relates to a method for the detection of an object X by means of the TDOA (Time-Difference-of-Arrival) principle, wherein the object (X) transmits a signal, which is received by a plurality of stationary stations (B_i) having known positions, wherein clocks of the stations (B_i) can have different unknown time delays (Ti) in relation to each other. The goal is to achieve high measurement accuracy at reasonable costs and no synchronization between the individual stationary stations with respect to time should be necessary. The present invention is characterized by an additional stationary reference station (R), which has a known position relative to the stations and transmits a signal that is received by the stations (B_i). An unknown transmission delay ($?t_{XR}$) can be generated between the emission of the signal from the object (X) and the emission of the signal from the reference station (R), for each station (B_i) the difference in travel time ($?t_i$) between receipt of the signal from the object (X) and the signal from the reference station (R) is determined, the difference of the travel time differences ($?t_i$) between the stations is determined, and appropriate mathematical algorithms for determining the location are performed.

IPC 8 full level

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CPC (source: EP US)

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