

Title (en)

ORIENTATION-BASED POSITION DETERMINATION FOR RAIL VEHICLES

Title (de)

ORIENTIERUNGSBASIERTE POSITIONSERMITTLUNG VON SCHIENENFAHRZEUGEN

Title (fr)

DÉTERMINATION DE POSITION BASÉE SUR L'ORIENTATION POUR DES VÉHICULES FERROVIAIRES

Publication

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Application

EP 22708754 A 20220126

Priority

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Abstract (en)

[origin: WO2022228738A1] A method for orientation-based position determination for a rail vehicle (2) is described. The method involves capturing sensor data (SD) that are correlated with a change of orientation (dO/dt) of the rail vehicle (2). A time-dependent change of orientation (dO/dt) of the rail vehicle (2) is determined on the basis of the sensor data (SD). Moreover, an estimated velocity (Vlok) of the rail vehicle (2) is determined on the basis of the captured sensor data (SD) and/or on the basis of additionally captured sensor data. A distance-dependent orientation (O(s)) of the rail vehicle (2) is subsequently determined on the basis of the estimated velocity (Vlok) and the time-dependent change of orientation (dO/dt) of the rail vehicle (2). Furthermore, an absolute position (pabs(t)) of the rail vehicle (2) is determined by comparing the determined distance-dependent orientation (O(s)) of the rail vehicle (2) against reference data (Oref(s)) of a distance-dependent orientation. A position determination device (20) is also described. Furthermore, a rail vehicle (2) is described.

IPC 8 full level

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