

Title (en)

METHOD AND DEVICE FOR DETECTING ANOMALIES ALONG A RAILWAY TRACK

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ERKENNUNG VON ANOMALIEN ENTLANG EINES GLEISES

Title (fr)

PROCÉDÉ ET DISPOSITIF DE DÉTECTION D'ANOMALIES LE LONG D'UNE VOIE FERRÉE

Publication

EP 4360989 A1 20240501 (EN)

Application

EP 22203763 A 20221026

Priority

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Abstract (en)

A method for detecting anomalies along a railway track (20) is provided, the method comprising detecting at least one first sensor signal (F) by a fiber optic sensor (21) for a measurement segment (22) of the fiber optic sensor (21), the fiber optic sensor (21) being arranged along the railway track (20), detecting at least one second sensor signal (S) by the fiber optic sensor (21) for the measurement segment (22) after detecting the first sensor signal (F), determining a first difference signal (FD) where the first difference signal (FD) relates to the difference between an average sensor signal (AS) and the first sensor signal (F), wherein the average sensor signal (AS) relates to an average of previous sensor signals detected by the fiber optic sensor (21) for the measurement segment (22) before detecting the first sensor signal (F), determining a second difference signal (SD) where the second difference signal (SD) relates to the difference between the average sensor signal (AS) and the second sensor signal (S), and providing an alarm signal (AL) for the case that a confidence condition is fulfilled, wherein the confidence condition requires at least that the first difference signal (FD) and the second difference signal (SD) are each larger than a predefined threshold signal or the confidence condition requires at least that the absolute value of the first difference signal (FD) and the absolute value of the second difference signal (SD) are each larger than a predefined threshold signal. Furthermore, a device (24) for detecting anomalies along a railway track (20) is provided.

IPC 8 full level

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CPC (source: EP)

B61L 1/06 (2013.01); **B61L 23/045** (2013.01); **B61L 27/53** (2022.01)

Citation (search report)

- [X] EP 3925850 A1 20211222 - FRAUSCHER SENSOR TECH GROUP GMBH [AT]
- [X] WO 2022018388 A1 20220127 - SERCEL RECH CONST ELECT [FR]
- [A] WO 2013114135 A2 20130808 - OPTASENSE HOLDINGS LTD [GB]

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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA

Designated validation state (EPC)

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