

Title (en)

METHOD FOR MONITORING A RAILWAY TRACK AND MONITORING UNIT FOR MONITORING A RAILWAY TRACK

Title (de)

VERFAHREN ZUR ÜBERWACHUNG EINES EISENBAHNGLEISES UND ÜBERWACHUNGSEINHEIT ZUR ÜBERWACHUNG EINES EISENBAHNGLEISES

Title (fr)

PROCÉDÉ DE SURVEILLANCE D'UNE VOIE FERRÉE ET UNITÉ DE SURVEILLANCE POUR SURVEILLER UNE VOIE FERRÉE

Publication

**EP 3978331 A1 20220406 (EN)**

Application

**EP 20200042 A 20201005**

Priority

EP 20200042 A 20201005

Abstract (en)

A method for monitoring a railway track (29) is provided, the method comprising: detecting a first monitoring signal (M1) by a distributed acoustic sensor (20) at an initial position (21) while a rail vehicle passes the initial position (21), wherein the distributed acoustic sensor (20) is arranged along the track (29), detecting a second monitoring signal (M2) by the distributed acoustic sensor (20) at at least one predefined position (22) along the track (29) while a rail vehicle passes the predefined position (22), comparing the first monitoring signal (M1) and the second monitoring signal (M2) with each other, wherein the first monitoring signal (M1) comprises features (23) that each relate to one axle of the rail vehicle passing the initial position (21) and the second monitoring signal (M2) comprises features (23) that each relate to one axle of the rail vehicle passing the predefined position (22), and comparing the first monitoring signal (M1) and the second monitoring signal (M2) with each other comprises counting the features (23) relating to axles of the respective passing rail vehicle for the first monitoring signal (M1) and the second monitoring signal (M2). Furthermore, a monitoring unit (24) for monitoring a railway track (29) is provided.

IPC 8 full level

**B61L 1/16** (2006.01); **B61L 27/00** (2022.01)

CPC (source: EP US)

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Citation (search report)

- [XAI] EP 1902923 A2 20080326 - ANSALDO SEGNALAMENTO FERROVIARIO SPA [IT], et al
- [A] EP 3275763 A1 20180131 - FRAUSCHER SENSORTECHNIK GMBH [AT]
- [A] EP 3531078 A1 20190828 - FRAUSCHER SENSORTECHNIK GMBH [AT]
- [A] WANG YU ET AL: "A Comprehensive Study of Optical Fiber Acoustic Sensing", IEEE ACCESS, vol. 7, 24 June 2019 (2019-06-24), pages 85821 - 85837, XP011734319, DOI: 10.1109/ACCESS.2019.2924736

Designated contracting state (EPC)

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**EP 3978331 A1 20220406**; AU 2021356025 A1 20230511; AU 2021356025 B2 20231221; BR 112023004786 A2 20230418; CN 116348358 A 20230627; US 2023415796 A1 20231228; WO 2022073842 A1 20220414

DOCDB simple family (application)

**EP 20200042 A 20201005**; AU 2021356025 A 20210930; BR 112023004786 A 20210930; CN 202180068373 A 20210930; EP 2021076924 W 20210930; US 202118247731 A 20210930