

Title (en)

SYSTEM FOR DECENTRALIZED ACQUISITION AND WIRELESS TRANSMISSION OF ACQUIRED DATA FOR USE UNDERGROUND

Title (de)

SYSTEM ZUR DEZENTRALEN ERFASSUNG UND DRAHTLOSEN ÜBERMITTLUNG VON ERFASSTEN DATEN IM UNTERTAGEEINSATZ

Title (fr)

SYSTÈME POUR L'ACQUISITION DÉCENTRALISÉE ET LA TRANSMISSION SANS FIL DE DONNÉES ACQUISES POUR UNE UTILISATION SOUTERRAINE

Publication

**EP 4264951 A1 20231025 (DE)**

Application

**EP 21836510 A 20211214**

Priority

- DE 102020216221 A 20201218
- EP 2021085593 W 20211214

Abstract (en)

[origin: WO2022128980A1] In the system, the data, which are acquired in a decentralized manner, are evaluated centrally. Multiple at least temporarily mobile modules are arranged at various positions of a respective underground structure and the temporarily mobile modules are designed to acquire and buffer store measurement data and to transmit acquired measurement data wirelessly and automatically to multiple fully mobile modules as soon as a fully mobile module has reached a distance from a temporarily mobile module at which a wireless data transmission between a respective temporarily mobile module and a fully mobile module is possible. Fully mobile modules are designed to buffer store data that have been received from at least one temporarily mobile module and, upon reaching a data access point that is connected to a central acquisition, evaluation and/or storage unit, to transmit these buffer-stored data to the respective data access point. Temporarily mobile modules are furthermore designed to wirelessly transmit buffer-stored measurement data only after receiving a wirelessly received request signal that has been transmitted from a fully mobile module to the respective temporarily mobile module.

IPC 8 full level

**H04Q 9/02** (2006.01); **E21B 47/12** (2012.01); **H04W 4/38** (2018.01)

CPC (source: EP US)

**H04L 67/12** (2013.01 - US); **H04Q 9/00** (2013.01 - EP US); **H04W 4/38** (2018.02 - EP); **E21F 17/00** (2013.01 - EP);  
**H04Q 2209/20** (2013.01 - EP US); **H04Q 2209/40** (2013.01 - EP US); **H04Q 2209/50** (2013.01 - EP US)

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

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

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DOCDB simple family (application)

**EP 2021085593 W 20211214**; AU 2021403497 A 20211214; CA 3205270 A 20211214; CL 2023001771 A 20230615;  
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