

Title (en)

DETERMINING OCCUPANCY USING UNOBSTRUCTED SENSOR EMISSIONS

Title (de)

BELEGUNGSBESTIMMUNG UNTER VERWENDUNG UNVERSPERRTER SENSOREMISSIONEN

Title (fr)

DÉTERMINATION DE L'OCCUPATION À L'AIDE D'ÉMISSIONS DE CAPTEURS NON OBSTRUÉS

Publication

**EP 4387878 A1 20240626 (EN)**

Application

**EP 22858953 A 20220808**

Priority

- US 202117405826 A 20210818
- US 202117405865 A 20210818
- US 2022039708 W 20220808

Abstract (en)

[origin: WO2023022894A1] Techniques for determining occupancy using unobstructed sensor emissions. For instance, a vehicle may receive sensor data from one or more sensors. The sensor data may represent at least locations to points within an environment. Using the sensor data, the vehicle may determine areas within the environment that are obstructed by objects (e.g., locations where objects are located). The vehicle may also use the sensor data to determine areas within the environment that are unobstructed by objects (e.g., locations where objects are not located). In some examples, the vehicle determines the unobstructed areas as including areas that are between the vehicle and the identified objects. This is because sensor emissions from the sensor(s) passed through these areas and then reflected off of objects located farther distances from the vehicle. The vehicle may then generate a map indicating at least the obstructed areas and the unobstructed areas within the environment.

IPC 8 full level

**B60W 40/02** (2006.01); **B60W 50/00** (2006.01); **B60W 60/00** (2020.01)

CPC (source: EP)

**B60W 30/095** (2013.01); **B60W 40/02** (2013.01); **B60W 40/04** (2013.01); **G06V 20/58** (2022.01); **G08G 1/166** (2013.01); **B60W 2554/80** (2020.02)

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)

**WO 2023022894 A1 20230223**; EP 4387878 A1 20240626

DOCDB simple family (application)

**US 2022039708 W 20220808**; EP 22858953 A 20220808