Title (en)

METHOD FOR CAPTURING THREE-DIMENSIONAL IMAGES WITH THE AID OF A STEREO CAMERA HAVING TWO CAMERAS, METHOD FOR PRODUCING A REDUNDANT IMAGE OF A MEASUREMENT OBJECT, AND DEVICE FOR CARRYING OUT THE METHODS

Title (de)

VERFAHREN ZUR RÄUMLICHEN BILDERFASSUNG MIT HILFE EINER ZWEI KAMERAS AUFWEISENDEN STEREOKAMERA SOWIE VERFAHREN ZUR ERZEUGUNG EINER REDUNDANTEN ABBILDUNG EINES MESSOBJEKTES UND VORRICHTUNG ZUR DURCHFÜHRUNG DER VERFAHREN

Title (fr)

PROCÉDÉ DE CAPTURE D'IMAGES TRIDIMENSIONNELLES À L'AIDE D'UNE CAMÉRA STÉRÉO À DEUX CAMÉRAS, PROCÉDÉ DE PRODUCTION D'UNE IMAGE REDONDANTE D'UN OBJET DE MESURE ET DISPOSITIF POUR LA MISE EN OEUVRE DES PROCÉDÉS

Publication

EP 4222705 A1 20230809 (DE)

Application

EP 21785832 A 20210928

Priority

- DE 102020212285 A 20200929
- EP 2021076559 W 20210928

Abstract (en)

[origin: WO2022069424A1] To capture three-dimensional images with the aid of a stereo camera (55a) having two cameras (54, 55), an image of a three-dimensional scene is first captured (64) with the two cameras (54, 55) simultaneously. Characteristic signatures of scene objects within each captured image are determined (65) and assigned to each other in pairs (66). Characteristic position deviations of the assigned signature pairs from one another are determined (67). The position deviations are filtered in order to select assigned signature pairs. On the basis of the selected signature pairs, a triangulation calculation is carried out (69) to determine depth data for the respective scene objects. A 3D data map of the captured scene objects within the captured image of the three-dimensional scene is then created (70). This results in a method for capturing three-dimensional images, which is well adapted for practical use, in particular for capturing images to safeguard autonomous driving.

IPC 8 full level

G06T 7/593 (2017.01)

CPC (source: EP KR US)

G06T 7/593 (2016.12 - EP KR US); **G06T 7/596** (2016.12 - EP KR); **G06T 7/80** (2016.12 - KR US); **H04N 13/128** (2018.04 - US); **H04N 13/243** (2018.04 - US); **H04N 23/90** (2023.01 - US); G06T 2207/10012 (2013.01 - US); G06T 2207/10028 (2013.01 - KR); G06T 2207/30252 (2013.01 - US); H04N 2013/0081 (2013.01 - US)

Citation (search report)

See references of WO 2022069424A1

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)

DE 102020212285 A1 20220331; EP 4222705 A1 20230809; JP 2023543946 A 20231018; KR 20230078780 A 20230602; US 2023377196 A1 20231123; WO 2022069424 A1 20220407

DOCDB simple family (application)

DE 102020212285 A 20200929; EP 2021076559 W 20210928; EP 21785832 A 20210928; JP 2023543269 A 20210928; KR 20237014703 A 20210928; US 202118027706 A 20210928