

Title (en)
METHOD AND DEVICE FOR SIMULATING THE VISIBILITY OF A PAINT FOR A LIDAR SENSOR, WHICH PAINT IS APPLIED TO A SURFACE

Title (de)
VERFAHREN UND VORRICHTUNG ZUR SIMULATION EINER SICHTBARKEIT EINES AUF EINER OBERFLÄCHE AUFGEBRACHTEN LACKS FÜR EINEN LIDAR-SENSOR

Title (fr)
PROCÉDÉ ET DISPOSITIF POUR LA SIMULATION D'UNE VISIBILITÉ D'UN VERNIS APPLIQUÉ SUR UN SURFACE POUR UN CAPTEUR LIDAR

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Application
EP 19816542 A 20191115

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Abstract (en)
[origin: WO2020099643A1] The invention relates to a method for simulating the visibility of a paint for a LIDAR sensor, which paint is applied to a surface, said method comprising at least the following steps: applying the paint to the surface (301); measuring the reflection of light having an operating wavelength of the LIDAR sensor by the surface painted with the paint at a plurality of illumination angles and/or measurement angles (302); adapting a bidirectional reflectance distribution function for the paint in dependence on the illumination angles and/or measurement angles to the respective measured reflections (303); simulating the propagation of the light emitted by the LIDAR sensor and reflected by the surface painted with the paint on the basis of the adapted bidirectional reflectance distribution function by means of a ray tracing application (304), the LIDAR sensor being simulated as a unit comprising a point light source and a camera, and the surface painted with the paint being simulated as a profile arranged at a variable distance and with a variable orientation in front of the camera; outputting a brightness image, which shows the brightness of the light reflected by the profile, in the direction of the LIDAR sensor, in accordance with the adapted bidirectional reflectance distribution function (305).

IPC 8 full level
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CPC (source: EP KR US)
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Citation (search report)
See references of WO 2020099643A1

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