Title (en)

METHOD AND DRIVER ASSISTANCE SYSTEM FOR CLASSIFYING OBJECTS IN THE AREA AROUND A MOTOR VEHICLE

Title (de)

VERFAHREN UND FAHRERASSISTENZSYSTEM ZUR KLASSIFIZIERUNG VON OBJEKTEN IN DER UMGEBUNG EINES FAHRZEUGS

Title (fr)

PROCÉDÉ ET SYSTÈME D'ASSISTANCE AU CONDUCTEUR POUR LA CLASSIFICATION D'OBJETS DANS L'ENVIRONNEMENT D'UN VÉHICULE

Publication

**EP 3977161 A1 20220406 (DE)**

Application

**EP 20723340 A 20200429**

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Abstract (en)

[origin: WO2020239351A1] The invention relates to a method for classifying objects in the area around a vehicle (1) using ultrasonic sensors (10), which transmit ultrasonic pulses and receive ultrasonic echoes reflected by objects, wherein distances between a respective ultrasonic sensor (10) and objects in the surroundings reflecting ultrasonic pulses are determined by means of at least two ultrasonic sensors (10) having at least partially overlapping fields of view (30) and the position of the reflecting objects is determined to distinguish between elongate objects and point-like objects using lateration and assignment of the received ultrasonic echoes to object hypotheses. The invention further provides that the height of a point-like object represented by an object hypothesis is classified using, as classification parameters, the update rate of the object hypothesis, stability of the position of the object represented by the object hypothesis, the amplitude of the ultrasonic echos assigned to the object hypothesis and a probability that the ultrasonic sensors (10) will receive an ultrasonic echo from the object which is represented by the object hypothesis. A further aspect of the invention relates to a driver assistance system (100) configured for performing the method.

IPC 8 full level

**G01S 7/527** (2006.01); **G01S 7/539** (2006.01); **G01S 15/46** (2006.01); **G01S 15/87** (2006.01); **G01S 15/931** (2020.01)

CPC (source: CN EP US)

**B60W 40/04** (2013.01 - US); **B60W 40/06** (2013.01 - US); **B60W 50/14** (2013.01 - US); **G01B 17/02** (2013.01 - US); **G01S 7/539** (2013.01 - EP); **G01S 15/46** (2013.01 - EP); **G01S 15/52** (2013.01 - CN); **G01S 15/876** (2013.01 - EP); **G01S 15/931** (2013.01 - CN EP US); **G06N 20/20** (2018.12 - US); B60W 10/18 (2013.01 - US); B60W 10/20 (2013.01 - US); B60W 30/09 (2013.01 - US); B60W 2050/146 (2013.01 - US); B60W 2420/54 (2013.01 - US); B60W 2552/00 (2020.02 - US); B60W 2554/20 (2020.02 - US); B60W 2554/404 (2020.02 - US); G01S 7/527 (2013.01 - EP); G01S 2015/465 (2013.01 - EP); G01S 2015/937 (2013.01 - EP)

Citation (search report)

See references of WO 2020239351A1

Designated contracting state (EPC)

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DOCDB simple family (application)

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