

Title (en)

SYSTEM AND METHOD FOR VEHICLE WHEEL DETECTION

Title (de)

SYSTEM UND VERFAHREN ZUR FAHRZEUGRADDETEKTION

Title (fr)

SYSTÈME ET PROCÉDÉ DE DÉTECTION DE ROUE DE VÉHICULE

Publication

EP 3762903 A4 20211208 (EN)

Application

EP 19774547 A 20190308

Priority

- US 201815917331 A 20180309
- US 2019021478 W 20190308

Abstract (en)

[origin: WO2019190726A1] A system and method for vehicle wheel detection is disclosed. A particular embodiment can be configured to: receive training image data from a training image data collection system; obtain ground truth data corresponding to the training image data; perform a training phase to train one or more classifiers for processing images of the training image data to detect vehicle wheel objects in the images of the training image data; receive operational image data from an image data collection system associated with an autonomous vehicle; and perform an operational phase including applying the trained one or more classifiers to extract vehicle wheel objects from the operational image data and produce vehicle wheel object data.

IPC 8 full level

G06N 3/04 (2006.01); **G06N 3/08** (2006.01); **G06V 10/44** (2022.01); **G07C 5/00** (2006.01); **G07C 5/08** (2006.01)

CPC (source: CN EP US)

G06F 18/2413 (2023.01 - EP); **G06N 3/045** (2023.01 - EP); **G06N 3/08** (2013.01 - CN EP); **G06V 10/26** (2022.01 - CN);
G06V 10/44 (2022.01 - CN EP US); **G06V 10/764** (2022.01 - CN); **G06V 10/82** (2022.01 - CN EP US); **G06V 20/56** (2022.01 - EP US);
G06V 20/58 (2022.01 - CN); **G06V 20/70** (2022.01 - EP US); **G07C 5/0808** (2013.01 - EP US)

Citation (search report)

- [I] CN 107577988 A 20180112 - NEUSOFT CORP, et al
- [IY] XUE YAO ET AL: "Vehicle detection and pose estimation by probabilistic representation", 2017 IEEE INTERNATIONAL CONFERENCE ON IMAGE PROCESSING (ICIP), IEEE, 17 September 2017 (2017-09-17), pages 3355 - 3359, XP033323197
- [I] FROHLICH BJORN ET AL: "Is it safe to change the lane? - Visual exploration of adjacent lanes for autonomous driving", 17TH INTERNATIONAL IEEE CONFERENCE ON INTELLIGENT TRANSPORTATION SYSTEMS (ITSC), 8 October 2014 (2014-10-08), pages 2304 - 2309, XP032685984
- [Y] WANG PANQU ET AL: "Understanding Convolution for Semantic Segmentation", 9 November 2017 (2017-11-09), XP055855519, Retrieved from the Internet <URL:<https://arxiv.org/pdf/1702.08502v2.pdf>> [retrieved on 20211027]
- [A] LIANG-CHIEH CHEN ET AL: "Rethinking Atrous Convolution for Semantic Image Segmentation", 17 June 2017 (2017-06-17), XP055558070, Retrieved from the Internet <URL:<https://arxiv.org/pdf/1706.05587v1.pdf>>
- See also references of WO 2019190726A1

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

DOCDB simple family (publication)

WO 2019190726 A1 20191003; AU 2019241892 A1 20201008; AU 2019241892 B2 20240328; AU 2024204394 A1 20240718;
CN 111837163 A 20201027; CN 111837163 B 20220823; CN 115331198 A 20221111; EP 3762903 A1 20210113; EP 3762903 A4 20211208

DOCDB simple family (application)

US 2019021478 W 20190308; AU 2019241892 A 20190308; AU 2024204394 A 20240626; CN 201980017911 A 20190308;
CN 202210931196 A 20190308; EP 19774547 A 20190308