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(54) Title (EN): METHOD FOR DETERMINING LANE DEPARTURE WARNING USING DRIVER CONDITION MONITORING

(54) Title (FR): PROCÉDÉ POUR DÉTERMINER UN AVERTISSEMENT DE FRANCHISSEMENT DE VOIE À L'AIDE D'UNE SURVEILLANCE DE L'ÉTAT DU CONDUCTEUR

(54) Title (KO): 운전자 상태 모니터링을 이용한 차선 이탈 경보 판단 방법

(57) Abstract:

(EN): The present invention relates to a method for determining a lane departure warning, the method comprising: (a) a step for extracting lane information by recognizing lanes around a vehicle from an image captured by a lane recognition camera; (b) a step for extracting a driver facial feature point from the image captured by the driver recognition camera; a step for determining, from the lane information, whether the vehicle is located in a lane departure state in which the vehicle deviates from the left or right lane, or the vehicle is located in a lane proximity state in which the vehicle enters the left or right lane within a certain distance; and (d) a step for, when it is determined in step (c) that the vehicle is in the lane departure state, generating a warning when a driver facial slope from the driver facial feature point exceeds a predetermined first angle with the front of the vehicle as a central axis.

(FR): La présente invention concerne un procédé pour déterminer un avertissement de franchissement de voie, le procédé comprenant: (a) une étape d'extraction d'informations de voie par reconnaissance de voies autour d'un véhicule à partir d'une image capturée par une caméra de reconnaissance de voie ; (b) une étape d'extraction d'un point de caractéristique faciale de conducteur à partir de l'image capturée par la caméra de reconnaissance de conducteur; (c) une étape de détermination, à partir des informations de voie, si le véhicule est situé dans un état de franchissement de voie dans lequel le véhicule s'écarte de la voie gauche ou droite, ou si le véhicule est situé dans un état de proximité de voie dans lequel le véhicule entre dans la voie gauche ou droite sur une certaine distance; et (d) une étape pour, lorsqu'il est déterminé à l'étape (c) que le véhicule se trouve dans l'état de franchissement de voie, générer un avertissement lorsqu'une inclinaison faciale du conducteur à partir du point de caractéristique faciale du conducteur dépasse un premier angle prédéterminé avec l'avant du véhicule comme axe central.

(KO): 본 발명은 차선 이탈 경보 판단 방법에 관한 것으로서, (a) 차선 인식 카메라에서 촬영된 영상으로부터 차량 주변의 차선을 인식하여 차선 정보를 추출하는 단계; (b) 운전자 인식 카메라에서 촬영된 영상으로부터 운전자 안면 특징점을

추출하는 단계; (c) 상기 차선 정보로부터 차량이 좌측 차선 또는 우측 차선을 이탈한 차선 이탈 상태, 또는, 차량이 좌측 차선 또는 우측 차선에 소정 거리 이내로 진입하는 차선 근접 상태에 위치하고 있는지를 판단하는 단계; 및 (d) 상기 단계 (c)에서 상기 차선 이탈 상태로 판단되는 경우, 상기 운전자 안면 특징점으로부터 운전자 안면 기울기가 차량 전방을 중심축으로 하여 소정의 제1 각도를 초과하는 경우 경보를 발생시키는 단계를 포함한다.

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