

Title (en)

METHOD AND DEVICE FOR VISUALIZING A MOTOR VEHICLE ENVIRONMENT WITH ENVIRONMENT-DEPENDENT FUSION OF AN INFRARED IMAGE AND A VISUAL IMAGE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR SICHTBARMACHUNG DER UMGEBUNG EINES FAHRZEUGS MIT UMGEBUNGSABHÄNGIGER FUSION EINES INFRAROT- UND EINES VISUELL-ABBILDS

Title (fr)

PROCEDE ET DISPOSITIF POUR RENDRE VISIBLE L'ENVIRONNEMENT D'UN VEHICULE AU MOYEN D'UNE FUSION DEPENDANT DE L'ENVIRONNEMENT, ENTRE UNE IMAGE INFRAROUGE ET UNE IMAGE VISUELLE

Publication

EP 1590697 A1 20051102 (DE)

Application

EP 04706661 A 20040130

Priority

- EP 2004000848 W 20040130
- DE 10304703 A 20030206

Abstract (en)

[origin: WO2004070449A1] The invention relates to a method for visualizing a motor vehicle environment, especially in the dark. In order to improve upon known methods, weighted superpositioning of simultaneous, locally identical image pairs is carried out from a visual image and an infrared image in order to a fusion image. For further improvement, the weighting is environment-related. As a result, the weighting is higher in the dark and the infrared information is weighted significantly higher than the visual information in the fusion image. In fog, the visual information is weighted significantly higher than the infrared information, whereby infrared information, which is often less helpful during fog, is not (significantly) taken into account in the fusion image. The device used to carry out said method comprises a colour-sensitive visual camera (101), an infrared camera (102) and a fusion or superpositioning device (106) which superpositions simultaneous and locally identical image pairs either pixel by pixel or partially and forms mean values.

IPC 1-7

G02B 23/12; **H04N 7/18**; **H04N 5/33**; **B60R 16/00**; **B60R 11/04**

IPC 8 full level

G02B 23/12 (2006.01); **G06K 9/00** (2006.01); **H04N 5/33** (2006.01); **H04N 7/18** (2006.01)

CPC (source: EP KR US)

G02B 23/12 (2013.01 - EP KR US); **G06V 20/56** (2022.01 - EP KR US); **H04N 5/33** (2013.01 - US); **H04N 7/181** (2013.01 - EP KR US); **H04N 23/11** (2023.01 - KR); **H04N 23/20** (2023.01 - EP); **B60R 2300/60** (2013.01 - KR); **B60R 2300/70** (2013.01 - KR)

Designated contracting state (EPC)

DE ES FR GB IT SE

DOCDB simple family (publication)

WO 2004070449 A1 20040819; CN 100401129 C 20080709; CN 1748167 A 20060315; DE 10304703 A1 20040819; DE 10304703 B4 20230316; EP 1590697 A1 20051102; JP 2006516507 A 20060706; JP 4491453 B2 20100630; KR 20050103194 A 20051027; US 2005270784 A1 20051208; US 7199366 B2 20070403

DOCDB simple family (application)

EP 2004000848 W 20040130; CN 200480003555 A 20040130; DE 10304703 A 20030206; EP 04706661 A 20040130; JP 2006501664 A 20040130; KR 20057012503 A 20050701; US 19726405 A 20050805