

Title (en)
COMPUTER-IMPLEMENTED METHOD FOR ENVIRONMENT DETECTION FOR AN AUTOMATED DRIVING SYSTEM, MACHINE LEARNING METHOD, CONTROL DEVICE FOR AN AUTOMATED DRIVING SYSTEM, AND COMPUTER PROGRAM FOR SUCH A CONTROL DEVICE

Title (de)
COMPUTERIMPLEMENTIERTES VERFAHREN ZUR UMFELDERKENNUNG FÜR EIN AUTOMATISIERTES FAHRSYSTEM, MASCHINENLERNVERFAHREN, STEUERGERÄT FÜR EIN AUTOMATISIERTES FAHRSYSTEM UND COMPUTERPROGRAMM FÜR EIN DERARTIGES STEUERGERÄT

Title (fr)
PROCÉDÉ MIS EN OEUVRE PAR ORDINATEUR POUR LA DÉTECTION D'ENVIRONNEMENT POUR UN SYSTÈME DE CONDUITE AUTOMATISÉE, PROCÉDÉ D'APPRENTISSAGE MACHINE, DISPOSITIF DE COMMANDE POUR UN SYSTÈME DE CONDUITE AUTOMATISÉE, ET PROGRAMME INFORMATIQUE POUR LEDIT DISPOSITIF DE COMMANDE

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Abstract (en)
[origin: WO2022053505A1] The invention relates to a computer-implemented method for environment detection for an automated driving system (AD), comprising the steps of: inputting data from at least one sensor (S1, S2, S3) for detecting the environment of the driving system (AD) into a first artificial neural network (MEB, MFB) which is trained to determine first features from the data, and obtaining the first features (V1); inputting and processing the first features in respective second artificial neural networks (Head1 - HeadN), wherein the second artificial neural networks (Head1 - HeadN) are each trained to obtain classification results, localisation results and/or prediction results for one of various detection modes of the automated driving process (V2); and obtaining the environment detection on the basis of the results from the second artificial neural networks (Head1 - HeadN), wherein closed-loop and/or open-loop control signals are determined for the driving system (AD) on the basis of the environment detection (V3).

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