

Title (en)
Vehicle on board detection of traffic jam

Title (de)
Fahrzeugautonome Detektion von Verkehrsstau

Title (fr)
Détection de bouchon de circulation embarquée dans le véhicule

Publication
EP 0789341 A1 19970813 (DE)

Application
EP 97250017 A 19970129

Priority
DE 19606258 A 19960206

Abstract (en)
[origin: US6131064A] A process for automated vehicle-autonomous detection of a particular traffic situation by continuously detecting an instantaneous vehicle speed onboard a vehicle. The detected vehicle speeds are classified using guidelines which may be based on rigid values or on fuzzy logic relationships, into one or more of a plurality of traffic categories by assigning a weight for that detected vehicle speed to each of the traffic categories. Thereafter, for each traffic category the weights associated with the detected speed values are integrated over time to calculate an integrated result for each traffic category. The integrated results of the traffic categories are then evaluated based on predetermined rules or criteria to generate a probabilistically-based traffic detection value indicating the traffic category representing the vehicles' current traffic situation. The traffic categories and guidelines or membership functions or relationships are defined for use with a particular type of road.

Abstract (de)
Die Erfindung betrifft ein Verfahren zur automatischen fahrzeugautonomen Detektion von Verkehrsstau. Dabei wird, die Geschwindigkeit des Fahrzeugs im Fahrzeug fortlaufend erfaßt, die erfaßten Geschwindigkeitswerte werden vorgegebenen Geschwindigkeitsklassen zugeordnet, die zugeordneten Geschwindigkeitsklassen bilden die Eingangsgröße eines zeitlichen Integrationsprozesses und das Ergebnis dieses Integrationsprozesses wird zur Bildung eines Staumaßes auf eine begrenzte Skala, insbesondere eine Wahrscheinlichkeitsskala, abgebildet. Ferner betrifft die Erfindung eine Vorrichtung zur Durchführung des Verfahrens. <IMAGE>

IPC 1-7
G08G 1/01

IPC 8 full level
G08G 1/01 (2006.01)

CPC (source: EP US)
G08G 1/0112 (2013.01 - EP US); **G08G 1/0133** (2013.01 - EP US); **G08G 1/0141** (2013.01 - EP US); **G08G 1/0145** (2013.01 - EP US)

Citation (applicant)
DE 4321437 A1 19940217 - KRAISS KARL FRIEDRICH PROF DR [DE]

Citation (search report)
• [A] WO 9514292 A1 19950526 - PHILIPS ELECTRONICS NV [NL], et al
• [A] WO 9525321 A1 19950921 - SIEMENS AG [DE], et al
• [A] IOKIBE T ET AL: "TRAFFIC PREDICTION METHOD BY FUZZY LOGIC", PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON FUZZY SYSTEMS, SAN FRANCISCO, MAR. 28 - APR. 1, 1993, vol. 2, 28 March 1993 (1993-03-28), INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, pages 673 - 678, XP000371490
• [A] LINNARTZ J -P M G ET AL: "MONITORING A METROPOLITAN FREEWAY SYSTEM USING PROBE VEHICLES AND RANDOM ACCESS RADIO CHANNEL", PROCEEDINGS OF THE VEHICULAR TECHNOLOGY CONFERENCE, STOCKHOLM, JUNE 8 - 10, 1994, vol. 1, 8 June 1994 (1994-06-08), INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, pages 410 - 414, XP000496706

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CN105321347A; EP1262934A3; US10573174B2; WO2019007111A1; US6865475B2

Designated contracting state (EPC)
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DOCDB simple family (application)
US 79480697 A 19970204; AT 97250017 T 19970129; DE 19606258 A 19960206; DE 59703486 T 19970129; EP 97250017 A 19970129