

HONDA



DATA ANALYTICS

ON THE NEXT PAGES YOU CAN SEE SUMMARIES OF THE FOLLOWING PATENTS
IN THE RESEARCH FIELD DATA ANALYTICS:

EP2899692	METHOD, SYSTEM, IMAGING DEVICE, MOVABLE DEVICE AND PROGRAM PRODUCT FOR DETECTING STATIC ELEMENTS IN VIDEO AND IMAGE SOURCES
EP2894532	SENSOR CLEANING SYSTEM FOR AN AUTONOMOUS ROBOT DEVICE, BASE STATION AND CORRESPONDING METHOD
EP2845779	DRIVING ASSISTANCE TECHNIQUE FOR ACTIVE VEHICLE CONTROL
EP2562060	A METHOD AND SYSTEM FOR PREDICTING MOVEMENT BEHAVIOR OF A TARGET TRAFFIC OBJECT

Method, system, imaging device, movable device and program product for detecting static elements in video and image sources

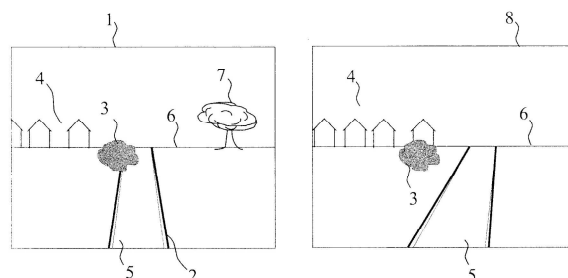
EP2899692 B1

Current assignees HONDA RESEARCH INSTITUTE EUROPE*		IPC - International classification B60S-001/08 G01N-021/94 G01N-021/958 G06K-009/00 G06K-009/52 G06T-001/00 G06T-007/20 G06T-007/215 G06T-007/269* H04N-005/217 H04N-007/18		
Inventors EINECKE NILS DEIGMÖLLER JÖRG		CPC - Cooperative classification B60S-001/08/18 B60S-001/56 G01N-021/94 G01N-021/958 G01N-2021/945 G06K-009/00/791* G06K-009/52 G06T-007/20/06 G06T-007/20/13 G06T-007/20/53 G06T-007/215 G06T-007/269 G06T-2207/10016 G06T-2207/30252 H04N-005/217/1		
Filing date: 2014-01-28	Granting Date: 2019-09-04			

Family					
EP2899692	B1	JP2015156212	A		
JP6018231	B2	US20150213318	A1		
US9454703	B2	EP2899692	A1		

(EP2899692)

The invention relates to a method for determining a static element in images captured by an imaging means mounted on a movable device. The method comprises steps of acquiring a first image and a second image captured by the imaging means,. The first image and the second image are captured at capture times separated by a time difference and the method is characterized by the time difference being selected depending on motion parameters of the movable device. A determination measure for corresponding regions of the first and the second image for representing a similarity of the corresponding regions is calculated and a static element of the first and the second image is determined based on the calculated determination measure. An output signal comprising information on the determined static element is generated.



Sensor cleaning system for an autonomous robot device, base station and corresponding method

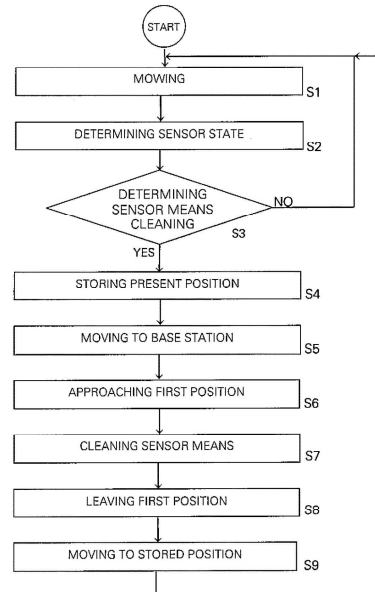
EP2894532 B1

Current assignees HONDA RESEARCH INSTITUTE EUROPE*		IPC - International classification A01D-034/00 B08B-001/00 B08B-003/02 G05D-001/02*		
Inventors EINECKE NILS FRANZIUS MATHIAS SENDOFF BERNHARD		CPC - Cooperative classification A01D-034/00/8 B08B-001/00/2 B08B-001/00/6 B08B-003/02 G05D-001/02/25* G05D-2201/0215 Y10S-901/01 Y10S-901/30 Y10S-901/46		
Filing date: 2014-01-10	Granting Date: 2018-12-26			

Family			
EP2894532	B1	US20150198952	A1
US9557739	B2	EP2894532	A1

(EP2894532)

The inventive system comprises an autonomous robot device, a base station and a method operating the same. The autonomous robot device includes a sensor means, e.g. an optical sensor, and a propulsion means. The base station includes a cleaning means specifically adapted for cleaning the sensor means of the autonomous robot device. In a preferred embodiment the propulsion means of the autonomous robot device is configured to move the autonomous robot device in a manner suitable to generate a relative movement of the autonomous robot device with respect to the passive cleaning means arranged at the stationary base station to effect the cleaning of the sensor means of the autonomous robot device.



Driving assistance technique for active vehicle control

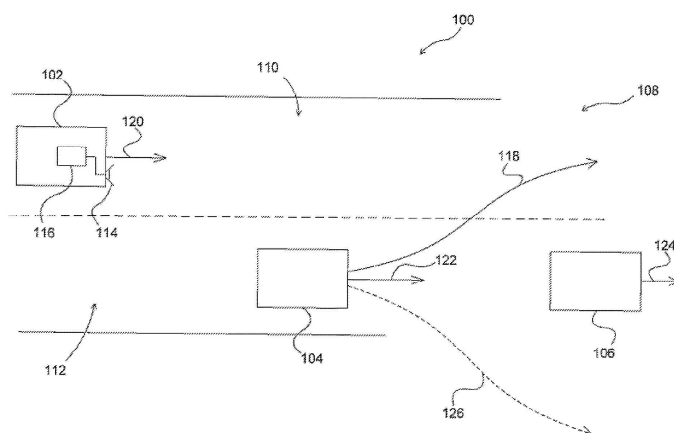
EP2845779 B1

Current assignees HONDA RESEARCH INSTITUTE EUROPE*		IPC - International classification B60R-021/00 B60W-010/184 B60W-010/20 B60W-030/095* B60W-030/12 B60W-030/14 B60W-030/16 B60W-030/18 B60W-040/04 B60W-050/00 B62D-006/00 G08G-001/16		
Inventors REBHAN SVEN DR SCHMÜDDERICH JENS KLEINEHAGENBROCK MARCUS KASTNER ROBERT MORI NAOKI KUSUHARA SHUNSUKE KAMIYA HIROYUKI		CPC - Cooperative classification B60W-010/184 B60W-010/20 B60W-030/095/6 B60W-030/12 B60W-030/14 B60W-030/16 B60W-030/18/163 B60W-040/04 B60W-050/00/97 B60W-2556/20 B60W-2710/207 B60W-2720/10 B60W-2720/106 B62D-006/00*		
Filing date: 2013-09-09	Granting Date: 2018-08-01	PCL - US patent classification PCLO: 701041000* PCLX: 701001000 701093000		

Family					
JP6822752	B2	JP2015051761	A		
US10625776	B2	US20150073662	A1		
EP2845779	B1	EP2845779	A1		

(EP2845779)

The invention relates to a driving assistant (116) adapted for active control of a vehicle (102) based on predictions of a behavior of a detected object (104). A method aspect of the invention comprises accepting a first prediction of a behavior associated with the detected object (104) from a first prediction subsystem and a second prediction from a second prediction subsystem; determining a control signal based on a combination of the first prediction and the second prediction; and initiating active control of the vehicle (102) based on the control signal.



A method and system for predicting movement behavior of a target traffic object

EP2562060 B1

Current assignees HONDA RESEARCH INSTITUTE EUROPE*		IPC - International classification B60R-021/00 B60W-030/095* B60W-030/16 B60W-050/00 G06F-007/00 G06F-017/10 G06K-009/00 G06K-009/46 G06K-009/62 G06Q-010/04 G08G-001/16*		
Inventors SCHMÜDDERICH DR JENS REBHAN SVEN		CPC - Cooperative classification B60W-030/095/6* B60W-030/16 B60W-050/00/97 B60W-2554/4042 B60W-2554/4043 G06K-009/00/798 G06K-009/00/805 G06K-009/62/93 Y02T-010/84		
Filing date: 2011-08-22	Granting Date: 2014-10-01	PCL - US patent classification PCLO: 701023000* PCLX: 701096000 701301000		

Family			
US8903588	B2	JP2013045447	A
EP2562060	B1	US20130054106	A1
JP5580852	B2	EP2562060	A1

(EP2562060)

The invention proposes a method for computationally predicting future movement behaviors of at least one target object, such as e.g. vehicle, comprising the steps of: - Producing sensor data by at least one sensor physically sensing the environment of a host vehicle, - computing a plurality of movement behavior alternatives of a target object sensed by the sensor(s), by predicting movement behaviors of the traffic target vehicle applying a context based prediction step using indirect indicators and/or indicator combinations derived from said sensor data, wherein said context based prediction step uses a set of classifiers, each classifier estimating a probability that said sensed target object will execute a movement behavior at a time, wherein the probability is calculated based on a feature vector calculated for each classifier, - validating the movement behavior alternatives by a physical prediction comparing measured points with trajectories of situation

models and determining at least one trajectory indicating at least one possible behavior of the traffic participant, wherein the at least one movement behavior is a sub-set of the possible movement behavior alternatives, and - estimating at least one future position of the traffic participant based on the at least one trajectory, - outputting a signal representing the estimate future position.

```

graph LR
    subgraph Sensors
        1[optional]
        2[GPS]
        3[CAN]
    end
    4[GPS] --> 5[CAN]
    5 --> 6[model-selector]
    6 --> 7[direct indicators / physical evidence]
    6 --> 8[indirect indicators]
    7 --> 9[trajectory model]
    8 --> 9
    9 --> 10[validator]
    10 --> 11[physical predictor with mismatch-detector]
    11 --> 12[situation model]
    
```