

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year)	04.04.2017
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Applicant's or agent's file reference PC-22646
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FOR FURTHER ACTION See paragraph 2 below
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International application No. PCT/JP2016/089091	International filing date (day/month/year) 28.12.2016	Priority date (day/month/year)
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International Patent Classification (IPC) or both national classification and IPC B60W30/00 (2006.01) i

Applicant HONDA MOTOR CO., LTD.

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/JP	Date of completion of this opinion	Authorized officer
Facsimile No.		Telephone No.

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Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - the international application in the language in which it was filed
 - a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2. This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
 - a. forming part of the international application as filed:
 - in the form of an Annex C/ST.25 text file.
 - on paper or in the form of an image file.
 - b. furnished together with the international application under PCT Rule 13*ter*.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. furnished subsequent to the international filing date for the purposes of international search only:
 - in the form of an Annex C/ST.25 text file (Rule 13*ter*.1(a)).
 - on paper or in the form of an image file (Rule 13*ter*.1(b) and Administrative Instructions, Section 713).
4. In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement			
Novelty (N)	Claims	<u>2-8</u>	YES
	Claims	<u>1, 9-10</u>	NO
Inventive step (IS)	Claims	<u>2-8</u>	YES
	Claims	<u>1, 9-10</u>	NO
Industrial applicability (IA)	Claims	<u>1-10</u>	YES
	Claims	<u></u>	NO

2. Citations and explanations:

- Document 1: JP 2008-49918 A (TOYOTA MOTOR CORP.) 06 March 2008, claims 1-2, paragraphs [0003], [0037], [0051], fig. 1, 6 (Family: none)
- Document 2: JP 2011-81784 A (DENSO CORP.) 21 April 2011, abstract, fig. 9 (Family: none)
- Document 3: JP 2015-102893 A (NISSAN MOTOR CO., LTD.) 04 June 2015, paragraph [0095], fig. 15 (Family: none)
- Document 4: JP 2011-145756 A (RENESAS ELECTRONICS CORP.) 28 July 2011, claim 1, paragraph [0034], fig. 4 (Family: none)

The invention as in claims 1 and 9-10 lacks novelty and does not involve an inventive step in the light of document 1 cited in the ISR.

Document 1 discloses a vehicle control system, a vehicle control method or a vehicle control program, comprising: a "road partition line recognition unit" for recognizing a "road partition line" where a vehicle travels; an LKA ECU (corresponding to an "information

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acquisition unit") for acquiring, from a "GPS satellite" (corresponding to an "external device") via a "navigation device", a location on a road map that is information pertaining to a travel trajectory (corresponding to a "travel history") of a "preceding vehicle" (corresponding to "another vehicle") in a section where no "road partition line" can be recognized by the "road partition line recognition unit"; and a "controller" (corresponding to a "self-driving control unit") for performing "self-steering control" (corresponding to "self-driving") by determining a "target trajectory" (corresponding to a "behavior") of the "vehicle" on the basis of the "travel trajectory" (corresponding to the "travel history") acquired by the LKA ECU if, during passage through a "tunnel" (corresponding to a "gate") that has been set up on a road, there is a section where no "road partition line" can be recognized by the "road partition line recognition unit".

The invention disclosed in document 1 allow for the interpretation that, even after passage through the "tunnel" set up on the road, the "target trajectory" of the "vehicle" would still be determined on the basis of the "travel trajectory" of the "preceding vehicle" up until recognition of the road partition line has been determined to be accurate, i.e., if there is a section where no "road partition line" can be recognized by the "road partition line recognition unit".

As such, the invention as in claims 1 and 9-10 is the same as the invention disclosed in document 1.

The invention as in claims 2-8 is novel and involves an inventive step in relation to each of the documents

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cited in the ISR.

None of the documents cited in the ISR indicates that the vehicle control system set forth in claim 1 "further comprises an external environment recognition unit for recognizing the locations of other vehicles traveling through the periphery of the vehicle, and an other vehicle behavior prediction unit for predicting behavior of the other vehicles recognized by the external environment recognition unit on the basis of information pertaining to a travel history of the other vehicles acquired by the information acquisition unit", and a person skilled in the art could not easily conceive of the feature.