Title: ANTI-RUT SYSTEM FOR AUTONOMOUS-VEHICLE GUIDANCE

Abstract: In a vehicle traffic system, the predetermined nominal trajectory (20, 22, 24, 26, 28, 30) for an autonomous vehicle (32) is varied periodically within acceptable boundaries which define a permitted travel corridor (46). The corridor’s boundaries ensure the continued safe and controlled operation of the vehicle (32) within the system. In an embodiment of the invention, alternative trajectories (54) are selected randomly; in another, they are parallel to one another (50, 52). In yet another, preferred embodiments, judiciously-selected, alternative trajectories are repeated periodically according to a predetermined schedule designed to avoid repetitive travel over the same precise path, and possibly also selected for optimal results under different terrain, environmental, and/or operational conditions. Thus, by avoiding repeated passage precisely over the path of the nominal trajectory, rutting on the road is greatly reduced and a more uniform surface is maintained for travel.
Declarations under Rule 4.17:
— as to applicant’s entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations
— as to the applicant’s entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

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A. CLASSIFICATION OF SUBJECT MATTER
IPC(7) : G01C 22/00
US CL. : 701/23, 26
According to International Patent Classification (IPC) or to both national classification and IPC.

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
U.S. : 701/23, 24, 25, 26, 27, 28, 200, 201, 207, 208, 209, 210, 213, 300

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
</table>

☐ Further documents are listed in the continuation of Box C. ☑ See patent family annex.

* "A" document defining the general state of the art which is not considered to be of particular relevance
  "F" later document published after the international filing date on priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
  "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
  "V" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
  "D" document member of the same patent family

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