(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
28 September 2017 (28.09.2017)

WIPO | PCT

(10) International Publication Number
WO 2017/164993 A3

(51) International Patent Classification:
G05D 1/00 (2006.01) *G05D 1/02* (2006.01)

(21) International Application Number:
PCT/US2017/016287

(22) International Filing Date:
02 February 2017 (02.02.2017)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/291,344 04 February 2016 (04.02.2016) US
15/206,222 09 July 2016 (09.07.2016) US

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(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG,

(54) Title: VEHICLE, SYSTEM AND METHODS FOR DETERMINING AUTOPILOT PARAMETERS IN A VEHICLE

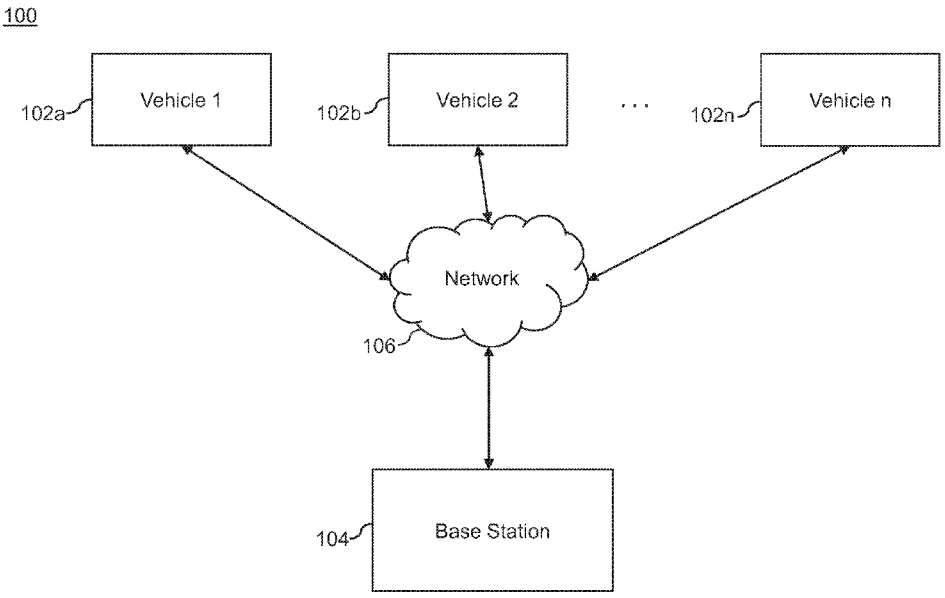


FIG. 1

(57) Abstract: Some embodiments are directed to a system for use with a vehicle, the system including control circuits for controlling an operation of the vehicle, each of the control circuits implementing autopilot coefficients. The system further includes a sensor that is configured to detect control circuits operating in an untuned or incorrectly tuned state from the control circuits; an electronic switch that is configured to isolate the control circuits in the untuned or incorrectly tuned state from other control circuits; a tuning circuit that is configured to determine tuned values of the autopilot coefficients corresponding to the control circuits in the untuned or incorrectly tuned state; the tuned values of the autopilot coefficients enabling the control circuits to operate in a tuned state; and a memory to store the tuned values of the autopilot coefficients, wherein the electronic switch is further configured to connect the control circuits in the tuned state to the other control circuits.

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[Continued on next page]

MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
14 December 2017 (14.12.2017)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US17/16287

A. CLASSIFICATION OF SUBJECT MATTER
IPC: **G05D 1/00**(2006.01),**1/02**(2006.01)

CPC: G05D 1/12, 1/0221, 1/0246, 1/0274, 1/0272
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)
CPC. : G05D 1/12, 1/0221, 1/0246, 1/0274, 1/0272

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

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Miskovic et al,Autotuning Autopilots for Micro-ROVs, June 2006, 14th Mediterranean Conference on Contro and Automation, 2006.	1-20
Y	US 5,453,925 (Wojsznis et al.) 26 September 1995, see entire document.	1-20

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

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Date of the actual completion of the international search	Date of mailing of the international search report
20 October 2017 (20.10.2017)	06 NOV 2017
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-8300	Authorized officer John Nguyen Telephone No. 571-272-4300

Form PCT/ISA/210 (second sheet) (April 2007)