Title (en)
A METHOD AND SYSTEM OF DETERMINING AN INERTIAL SENSOR ORIENTATION OFFSET

Title (de)
VERFAHREN UND SYSTEM ZUR BESTIMMUNG DES AUSRICHTUNGSVERSATZES EINES TRÄGHEITSSENSORS

Title (fr)
SYSTÈME ET PROCÉDÉ DE DÉTERMINATION D'UN DÉCALAGE D'ORIENTATION DE CAPTEUR INERTIEL

Publication
EP 2753939 A4 20150527 (EN)

Application
EP 12830003 A 20120829

Priority
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Abstract (en)
[origin: WO2013033756A1] Inertial sensors are typically mounted at an angular offset relative to a chassis, such as a vehicle chassis or electronic device chassis. This offset can influence the measurements of the angular orientation of said chassis derived from inertial sensors. There is provided a method of determining a sensor orientation offset relative to a chassis by obtaining a first inertial sensor measurement, rotating the chassis approximately 180°, obtaining a second inertial sensor measurement; and then determining the offset from the two inertial sensor measurements.

IPC 8 full level
G01P 21/00 (2006.01); G01C 25/00 (2006.01); G06F 19/00 (2011.01)

CPC (source: EP)
G01C 25/005 (2013.01); G01P 21/00 (2013.01)

Citation (search report)
• [XI] FONG W T ET AL: "Methods for in-field user calibration of an inertial measurement unit without external equipment; Methods for in-field user calibration of an IMU without external equipment", MEASUREMENT SCIENCE AND TECHNOLOGY, IOP, BRISTOL, GB, vol. 19, no. 8, 1 August 2008 (2008-08-01), pages 85202, XP020144339, ISSN: 0957-0233
• [XI] FERRARIS F ET AL: "Procedure for effortless in-field calibration of three-axis rate gyros and accelerometers", SENSORS AND MATERIALS, SCIENTIFIC PUBLISHING DIVISION OF MYU, TOKYO, JP, vol. 7, no. 5, 1 January 1995 (1995-01-01), pages 311 - 330, XP008088394, ISSN: 0914-4935
• [T] "Linear and Nonlinear Optimization", 31 December 2009, SIAM, article IGOR GRIVA ET AL: "Linear and Nonlinear Optimization", XP055182122
• See references of WO 2013033756A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
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