

Title (en)

MARKING METHODS, APPARATUS AND SYSTEMS INCLUDING OPTICAL FLOW-BASED DEAD RECKONING FEATURES

Title (de)

MARKIERUNGSVERFAHREN, -VORRICHTUNGEN UND -SYSTEME MIT AUF OPTISCHER STRÖMUNG BERUHENDEN KOPPLUNGSFUNKTIONEN

Title (fr)

PROCÉDÉS, APPAREIL ET SYSTÈMES DE MARQUAGE COMPRENANT DES CARACTÉRISTIQUES ESTIMÉES EN FONCTION DE FLUX OPTIQUE

Publication

EP 2704855 A4 20141119 (EN)

Application

EP 12779689 A 20120502

Priority

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- US 201113236162 A 20110919
- US 2012036198 W 20120502

Abstract (en)

[origin: WO2012151333A2] A position of a marking device is monitored by receiving start position information indicative of an initial position of the marking device, capturing one or more images using one or more camera systems attached to the marking device, and analyzing the image(s) to determine tracking information indicative of a motion of the marking device. The tracking information and the start position information are then analyzed to determine current position information. In one example, images of a target surface over which the marking device is carried are analyzed pursuant to an optical flow algorithm to provide estimates of relative position for a dead-reckoning process, and the current position information is determined based on the estimates of relative position and the start position information. In another example, a geo-location device is used to generate geo-location data indicative of positions of the marking device as it traverses at least a first portion of the path. The camera system(s) are used to obtain optical flow-based dead reckoning data indicative of relative positions of the marking device as it traverses at least a second portion of the path.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [Y] US 2010247754 A1 20100930 - NIELSEN STEVEN [US], et al
- [Y] EP 2112630 A1 20091028 - HONEYWELL INT INC [US]
- [A] US 5517419 A 19960514 - LANCKTON ARNOLD H [US], et al
- [Y] "Field and Service Robotics", vol. 62, 1 January 2010, SPRINGER BERLIN HEIDELBERG, Berlin, Heidelberg, ISBN: 978-3-54-075404-6, ISSN: 1610-7438, article MICHAEL DILLE ET AL: "Outdoor Downward-Facing Optical Flow Odometry with Commodity Sensors", pages: 183 - 193, XP055145070, DOI: 10.1007/978-3-642-13408-1_17
- See references of WO 2012151333A2

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