

Title (en)

APPARATUS FOR DETECTING HUMANS ON CONVEYOR BELTS USING ONE OR MORE IMAGING DEVICES

Title (de)

VORRICHTUNG ZUR ERKENNUNG VON MENSCHEN AUF FÖRDERBÄNDERN MIT EINER ODER MEHREREN
BILDAUFNAHMEVORRICHTUNGEN

Title (fr)

APPAREIL POUR DÉTECTER DES ÊTRES HUMAINS SUR DES BANDES TRANSPORTEUSES À L'AIDE D'UN OU DE PLUSIEURS
DISPOSITIFS D'IMAGERIE

Publication

EP 2805188 A4 20160224 (EN)

Application

EP 13738858 A 20130116

Priority

- US 201213351103 A 20120116
- CA 2764192 A 20120116
- CA 2013050025 W 20130116

Abstract (en)

[origin: WO2013106928A1] A system for detecting a class of objects at a location, for example humans on a conveyor belt. A thermal camera may be used to detect objects and to detect the variance of the heat distribution of objects to classify them. Objects detected in an image from one camera may be detected in an image from another camera using geometric correction. A color camera may be used to detect the number of edges and the number of colors of an object to classify it. A color camera may be used with an upright human body classifier to detect humans in an area, and blobs corresponding to the detected humans may be tracked in a thermal or color camera image to detect if a human enters an adjacent forbidden area such as a conveyor belt.

IPC 8 full level

G01V 99/00 (2009.01); **B07C 5/34** (2006.01); **B64F 1/36** (2006.01); **B65G 43/00** (2006.01); **B65G 43/06** (2006.01); **G01V 8/10** (2006.01); **G06K 9/00** (2006.01); **G06K 9/62** (2006.01); **G08B 21/02** (2006.01)

CPC (source: EP US)

B64F 1/368 (2013.01 - EP US); **G06F 18/251** (2023.01 - EP); **G06V 20/52** (2022.01 - EP US); **G06V 2201/06** (2022.01 - EP)

Citation (search report)

- [Y] EP 1725451 B1 20110622 - VANDERLANDE IND BV [NL]
- [XYI] GRZEGORZ CIELNIAK ET AL: "People Recognition by Mobile Robots", JOURNAL OF INTELLIGENT & FUZZY SYSTEMS, vol. 15, no. 1, 2004, pages 21 - 27, XP055240823
- [A] RUFF T M: "Feasibility of Using Intelligent Video for Machine Safety Applications", INDUSTRY APPLICATIONS SOCIETY ANNUAL MEETING, 2008. IAS '08. IEEE, IEEE, PISCATAWAY, NJ, USA, 5 October 2008 (2008-10-05), pages 1 - 5, XP031354066, ISBN: 978-1-4244-2278-4

Citation (examination)

- CN 101793562 A 20100804 - DONGGUAN HUAYI INSTR TECHNOLOGY CO LTD, et al
- See also references of WO 2013106928A1

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)

WO 2013106928 A1 20130725; EP 2805188 A1 20141126; EP 2805188 A4 20160224

DOCDB simple family (application)

CA 2013050025 W 20130116; EP 13738858 A 20130116