

Title (en)
SYSTEMS AND METHODS FOR THREE-DIMENSIONAL VIDEO GENERATION

Title (de)
SYSTEME UND VERFAHREN ZUR ERZEUGUNG DREIDIMENSIONALER VIDEOS

Title (fr)
SYSTÈMES ET PROCÉDÉS DE GÉNÉRATION DE VIDÉO TRIDIMENSIONNELLE

Publication
EP 2462539 A4 20141022 (EN)

Application
EP 10807018 A 20100803

Priority
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Abstract (en)
[origin: WO2011017310A1] A device for generating a three-dimensional (3D) video based on a two dimensional (2D) image sequence including at least one 2D image includes: an object segmentation and tracking module configured to segment out objects in the 2D image and track the objects in the 2D image sequence; an object classification module configured to classify the objects in the 2D image; an object orientation estimation module configured to estimate orientations of the objects and generate depth information for the 2D image; a scene structure estimation module configured to estimate a scene structure in the 2D image; an object topological relationship determination module configured to determine a topological relationship of the objects in the 2D image; and a depth-image based rendering module configured to generate the 3D video based on the depth information for the 2D image and the topological relationship of the objects.

IPC 8 full level
G06K 9/34 (2006.01)

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G06T 7/187 (2016.12); **G06T 7/536** (2016.12); **H04N 13/264** (2018.04); **G06T 2207/10004** (2013.01)

Citation (search report)
• [XYI] US 2009116732 A1 20090507 - ZHOU SAMUEL [CA], et al
• [Y] SEBASTIANO BATTIATO ET AL: "Depth map generation by image classification", PROCEEDINGS OF SPIE, S P I E - INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING, US, vol. 5302, 1 January 2004 (2004-01-01), pages 95 - 104, XP002527303, ISSN: 0277-786X, ISBN: 978-0-8194-9876-2
• [Y] XIAO-LING DENG ET AL: "Automatic Depth Map Estimation of Monocular Indoor Environments", MULTIMEDIA AND INFORMATION TECHNOLOGY, 2008. MMIT '08. INTERNATIONAL CONFERENCE ON, IEEE, PISCATAWAY, NJ, USA, 30 December 2008 (2008-12-30), pages 646 - 649, XP031477084, ISBN: 978-0-7695-3556-2
• See references of WO 2011017310A1

Designated contracting state (EPC)
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