

Title (en)

IMAGE PROCESSING DEVICE AND METHOD FOR PRODUCING IN REAL-TIME A DIGITAL COMPOSITE IMAGE FROM A SEQUENCE OF DIGITAL IMAGES OF AN INTERIOR OF A HOLLOW STRUCTURE

Title (de)

BILDVERARBEITUNGSVORRICHTUNG UND VERFAHREN ZUR VON IN ECHTZEIT-HERSTELLUNG EINES DIGITALEN ZUSAMMENGESETZTEN BILDES AUS EINER SEQUENZ VON DIGITALEN BILDERN EINES INNENRAUMS EINES HOHLKÖRPERS

Title (fr)

DISPOSITIF DE TRAITEMENT D'IMAGE ET PROCÉDÉ DE PRODUCTION EN TEMPS RÉEL D'UNE IMAGE COMPOSITE NUMÉRIQUE À PARTIR D'UNE SÉQUENCE D'IMAGES NUMÉRIQUES D'UN INTÉRIEUR D'UNE STRUCTURE CREUSE

Publication

EP 3549093 A1 20191009 (EN)

Application

EP 16805382 A 20161130

Priority

EP 2016079323 W 20161130

Abstract (en)

[origin: WO2018099556A1] Image processing device for producing in real-time a digital composite image from a sequence of digital images of an interior of a hollow structure recorded by an endoscopic camera device so that the composite image has a wider field of view than the images of the sequence of images, the image processing device comprising: a selecting unit, a key point detection unit, a transforming unit and a joining unit, wherein the transforming unit comprises a key point matching unit configured for determining key point pairs, wherein the transforming unit comprises a transformation determination unit configured for determining a transformation for transforming a further image into a global coordinate system, wherein the transformation for transforming the further image into the global coordinate system is a concatenation of a perspective transformation, an isomorphic mapping and a Mobius transformation, wherein parameters of the transformation for transforming the further image into the global coordinate system are determined from at least some of the key point pairs, and wherein the transforming unit comprises a transforming execution unit configured for transforming the further image into the global coordinate system by using the transformation for transforming the further image into the global coordinate system in order to produce a transformed further image.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

See references of WO 2018099556A1

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