

Title (en)

Method for optical inspection of a matt surface and apparatus for applying this method

Title (de)

Verfahren zur optischen Inspektion einer matten Oberfläche und Vorrichtung zum Durchführen dieses Verfahrens

Title (fr)

Méthode d'inspection optique d'une surface matte et appareil pour la mise en oeuvre de cette méthode

Publication

**EP 2006804 A1 20081224 (DE)**

Application

**EP 07075502 A 20070622**

Priority

EP 07075502 A 20070622

Abstract (en)

The invention concerns a method for the optical inspection of a matt surface of an object, the surface having a random texture, for example a tile (11) to find cracks (12). Furthermore the invention relates to an apparatus which is equipped to run the said method. The method includes the following steps. In a first step digital images of the surface are created by an image sensor (K) whereby the surface is illuminated from different directions by light sources (B). In a second step sub-images of the regions of interest are created from the images. In a third step the cracks are detected in the sub-images by digital image processing, generating abnormality sub-charts showing the putative cracks. In a fourth step for each region of interest a joint abnormality chart is generated by fusion of the sub-charts and in a fifth step the cracks are detected in each of the joint abnormality charts of each region of interest.

IPC 8 full level

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CPC (source: EP US)

**G01N 21/8806** (2013.01 - EP US); **G01N 21/95** (2013.01 - EP US); **G06T 7/0004** (2013.01 - EP US)

Citation (search report)

- [X] JP H09311020 A 19971202 - NEC CORP
- [AX] WO 0010115 A1 20000224 - ACUITY IMAGING LLC [US]
- [E] EP 1832867 A1 20070912 - OMRON TATEISI ELECTRONICS CO [JP]
- [AX] DE 4123916 A1 19920123 - MALZ REINHARD [DE]

Cited by

CN104792795A; DE102015212837A1; TWI497425B; EP3495077B1

Designated contracting state (EPC)

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