Title (en)

SYSTEM FOR IDENTIFYING A PHOTOGRAPHIC CAMERA MODEL ASSOCIATED WITH A JPEG-COMPRESSED IMAGE, AND ASSOCIATED METHOD PERFORMED IN SUCH A SYSTEM, USES AND APPLICATIONS

Title (de)

SYSTEM ZUR IDENTIFIZIERUNG EINES FOTOKAMERAMODELLS IM ZUSAMMENHANG MIT EINEM JPEG-KOMPRIMIERTEN BILD UND ZUGEHÖRIGES VERFAHREN ZUR DURCHFÜHRUNG IN SOLCH EINEM SYSTEM, VERWENDUNGEN UND ANWENDUNGEN

Title (fr)

SYSTEME D'IDENTIFICATION D'UN MODELE D'APPAREIL PHOTOGRAPHIQUE ASSOCIE A UNE IMAGE COMPRESSEE AU FORMAT JPEG ET PROCEDE MISE EN OEUVRE DANS UN TEL SYSTEME, UTILISATIONS ET APPLICATIONS ASSOCIES

Publication

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Application

EP 15718526 A 20150327

Priority

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Abstract (en)

[origin: WO2015145092A1] The invention relates to a system and method for identifying a photographic camera model from a photograph taking the form of a compressed image that has undergone post-acquisition processing and fulfilling a linear relationship between the expectation and the variance of the pixels, such that $\sigma^2 y_{m,n} = a\mu y_{m,n} + b$. The system is characterised in that it comprises an image processing device that can supply an analytical relationship between parameters (α, β) from the model of the discrete cosine transform (DCT) coefficients and the parameters (a, b) of the camera in the form (I), such that the parameters (c, d) determine fingerprints that characterise a photographic camera model and depend on both the frequency (p, q) and parameters a and b. The system also comprises a device for carrying out statistical hypothesis tests on the DCT coefficients and a statistical analysis device for determining if the photograph was taken by the photographic camera model or by another photographic camera model. The statistical properties of these tests have been established, allowing error probabilities to be controlled a priori. These results can be used, in particular, to guarantee compliance with a constraint on the probability of one of the two possible errors in the test (false positive or false negative). The invention further relates to the use of the method and to the application thereof.

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

See references of WO 2015145092A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

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DOCDB simple family (application)

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