Title (en)

METHOD FOR EVALUATING THE SIGNALS OF AN ELECTRONIC IMAGE SENSOR DURING PATTERN RECOGNITION OF IMAGE CONTENTS IN A TEST PIECE

Title (de)

VERFAHREN ZUR SIGNALAUSWERTUNG EINES ELEKTRONISCHEN BILDSENSORS BEI DER MUSTERERKENNUNG VON BILDINHALTEN EINES PR FK RPE RS

Title (fr)

PROCEDE POUR ANALYSER LES SIGNAUX D'UN CAPTEUR D'IMAGES ELECTRONIQUE LORS DE LA RECONNAISSANCE DE MODELES DE CONTENUS D'IMAGES D'UN ECHANTILLON

Publication

EP 1525554 A1 20050427 (DE)

Application

EP 03787716 A 20030722

Priority

• DE 0302467 W 20030722
• DE 10234086 A 20020726

Abstract (en)

[origin: DE10234086A1] Two dimensional image of local space of window of n x n pixels (2) is transformed into two dimensional image in frequency space. Frequency spectrum spectral amplitude characteristic values, are selected (09). Membership of each spectral amplitude value to a characteristic is determined using fuzzy membership function (13). Concrete membership (18) is determined by making defuzzy and is compared with predetermined threshold value (21) for classification (19). Grid of N x N windows (01) is laid over entire image to be analyzed, each window of n x n pixel (02). Two dimensional image of local space is transformed into two dimensional image in frequency space. Its frequency spectrum is formed by spectral coefficients. Sum of spectral values is formed (07), spectral amplitude values are the characteristic values. Characteristics that are typical for the image content are selected (09). Membership of each spectral amplitude value to characteristic is done by weighting using fuzzy membership function. Higher ranking function is created (16) by subjunctive conjunction of all membership functions (13) of characteristics (11). Concrete membership or sympathy value (18) is determined from functions (16) by making defuzzy. Sympathy value is compared with predetermined threshold value (21) for classification (19).

IPC 1-7

G06K 9/52; G06K 9/80

IPC 8 full level

G06V 10/70 (2022.01)

CPC (source: EP US)

G06V 10/431 (2022.01 - EP US); **G06V 10/70** (2022.01 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

DE 10234086 A1 20040219; **DE 10234086 B4 20040826**; AU 2003258460 A1 20040303; CN 1331086 C 20070808; CN 1672167 A 20050921; EP 1525554 A1 20050427; US 2006050995 A1 20060309; US 7483573 B2 20090127; WO 2004017252 A1 20040226

DOCDB simple family (application)

DE 10234086 A 20020726; AU 2003258460 A 20030722; CN 03817988 A 20030722; DE 0302467 W 20030722; EP 03787716 A 20030722; US 52259005 A 20050126