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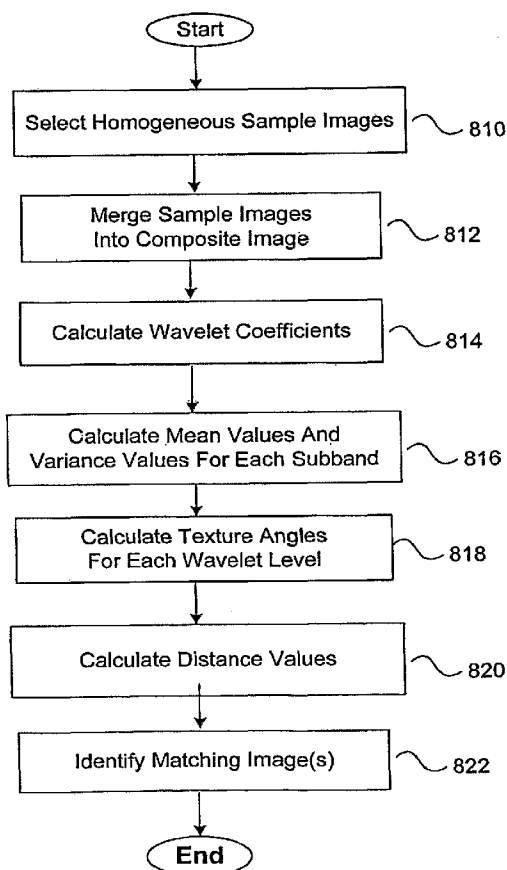
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[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR PERFORMING WAVELET-BASED TEXTURE FEATURE EXTRACTION AND CLASSIFICATION



(57) Abstract: A system and method are disclosed for performing wavelet-based local texture feature extraction and classification procedures. Image data is initially provided to include a query image and a series of test images. A feature detector calculates image parameters corresponding to the image data. The image parameters include mean absolute values, variance values, and texture angles. The feature detector utilizes the image parameters to calculate distance values that represent texture similarity characteristics between the query image and each of the test images. The feature detector then evaluates the distance values to determine one or more matching images from among the test images.



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24 April 2008

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 07/04801

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06K 9/68 (2007.10)

USPC - 382/220

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

USPC - 382/220

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 382/108,209,218-221,240 (see keywords below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PubWEST (USPT, PGPB, EPAB, JPAB); DIALOG PRO (Engineering) & Google Scholar.

Search terms: image search procedure, electronic device, image data, query image, test images, feature detector, image parameters, distance values, texture, matching image, wavelet transform, luminance information, subband, wavelength coefficients.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,751,320 B2 (Rhoads), 15 June 2004(15.06.2004), entire document especially abstract; col 2, ln 6-26; col 10, ln 13-23; col 16, ln 4-18; col 59, ln 15-43.	1-20
Y	US 2001/0016008 A1 (Bahl et al.), 23 August 2001 (23.08.2001), entire document especially para [0037],[0039],[0041],[0048]-[0050].	1-20
Y	US 2003/0052875 A1 (Salomie), 20 March 2003 (20.03.2003), entire document especially para [0005],[0655]-[0660].	2-3, 11-12 and 15-18
Y	US 6,556,853 B1 (Cabib et al.), 29 April 2003 (29.04.2003), entire document especially col 17, ln 38 to col 18, ln 40; col 38, ln 36-58; col 19, ln 54 to col 20, ln 30.	4-5, 11 and 17

☐ Further documents are listed in the continuation of Box C.

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"&" document member of the same patent family

Date of the actual completion of the international search

12 November 2007 (12.11.2007)

Date of mailing of the international search report

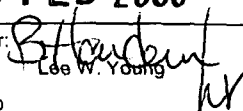
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