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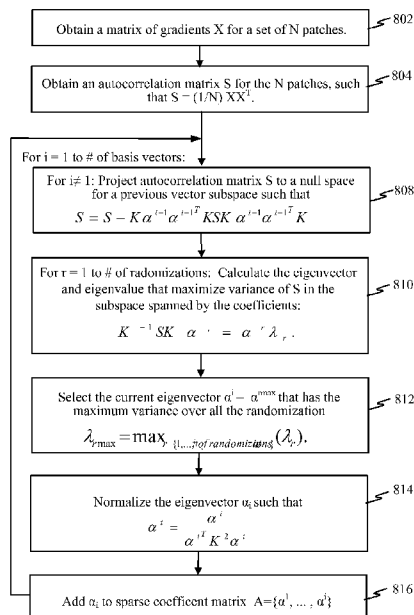
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[Continued on next page]

(54) Title: FAST SUBSPACE PROJECTION OF DESCRIPTOR PATCHES FOR IMAGE RECOGNITION



Exemplary Method for
Variance Maximization

FIG. 8

(57) Abstract: A method for generating a feature descriptor is provided. A set of pre-generated sparse projection vectors is obtained. A scale space for an image is also obtained, where the scale space having a plurality of scale levels. A descriptor for a keypoint in the scale space is then generated based on a combination of the sparse projection vectors and sparsely sampled pixel information for a plurality of pixels across the plurality of scale levels.

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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	F. Rodriguez and G. Sapiro, : "Sparserepresentations for image classification: Learning discriminative and reconstructivenon-parametric dictionaries", Univ. Minnesota, Minneapolis, MN, Tech. Rep./IMA Preprint, Dec. 2007 October 2007 (2007-10), XP002636642, Retrieved from the Internet: URL: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.154.7161&rep=rep1&type=pdf [retrieved on 2011-05-10] sect.2.1, 2.3, 3.2 figure 3 ----- -/--	1-4, 8-14, 16-20, 23-29, 31-34, 38-44, 46-49, 53-59
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* Special categories of cited documents :		
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed		"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016		Authorized officer Darolti, Cristina

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X	<p>MASAKI YAMAZAKI ET AL: "Local Image Descriptors Using Supervised Kernel ICA", 13 January 2009 (2009-01-13), LECTURE NOTES IN COMPUTER SCIENCE; VOL. 5414; PROCEEDINGS OF THE 3RD PACIFIC RIM SYMPOSIUM ON ADVANCES IN IMAGE AND VIDEO TECHNOLOGY, SPRINGER BERLIN HEIDELBERG, BERLIN, HEIDELBERG, PAGE(S) 94 - 105, XP019137307, ISBN: 978-3-540-92956-7 sect.3 and sect1 par.1 and 2</p> <p style="text-align: center;">-----</p>	1-60
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