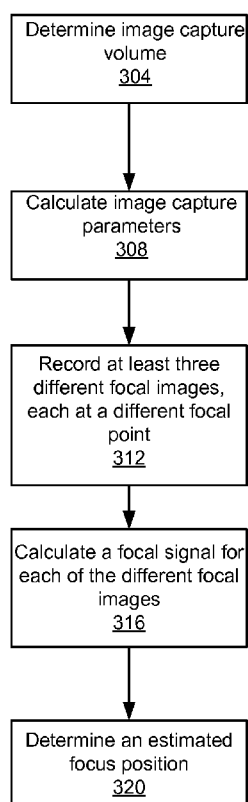




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[Continued on next page]

(54) Title: FOCUSING METHOD FOR OPTICALLY CAPTURING AN IRIS IMAGE



300

FIG. 3

(57) Abstract: Methods and systems describe calculating an estimated focal point for a feature of interest within an ocular area of a subject using acquired test images and focal points. A curve is approximately fit to the defocus measurements located at different focal points. A maximum of the curve is identified that corresponds to an estimated focal point of the subject's iris. An image capture device can then record an approximately focused image of the iris using the estimated focal point. This reduces the time and computing resources needed to capture an image iris that is in focus where the subject may be located at a variable, unknown standoff distance. These methods and systems can be used for biometric identification using iris imaging, among other applications where quickly focusing an imaging system is advantageous.





ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,  
NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS,  
RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,  
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USPC - 382/117

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## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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CPC - A61B 3/14, 3/18; G06K 9/0061 (2013.01)

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

Questel Orbit; Google Patents; Google Scholar

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2010/0220288 A1 (CLEVELAND) 02 September 2010 (02.09.2010) entire document	1-17
Y	US 2010/0165293 A1 (TANASSI et al) 01 July 2010 (01.07.2010) entire document	1-17
Y	US 7,123,779 B2 (BEUKER et al) 17 October 2006 (17.10.2006) entire document	3, 13
Y	US 2010/0259723 A1 (KORB et al) 14 October 2010 (14.10.2010) entire document	5, 10, 15
Y	US 8,025,399 B2 (NORTHCOTT et al) 27 September 2011 (27.09.2011) entire document	8

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