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(54) **Title:** SYSTEM AND METHOD FOR AUTOMATICALLY DETERMINING CALIBRATION PARAMETERS OF A FLUOROSCOPE

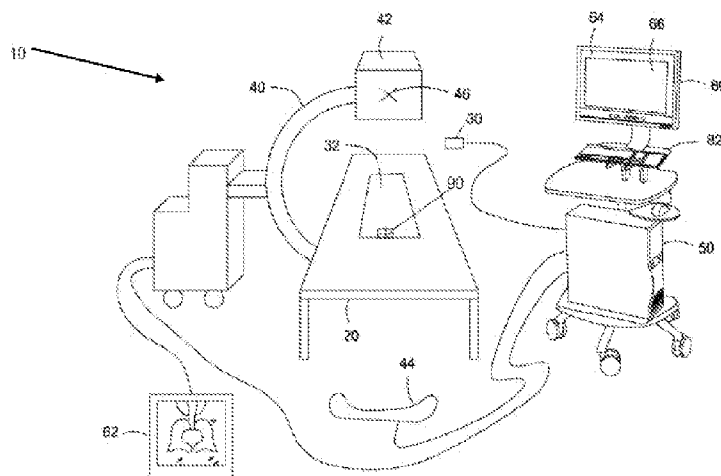


FIG. 1

(57) **Abstract:** A method and system for estimating calibration parameters of a medical fluoroscope and more particularly a method and system which automatically determines intrinsic and distortion correction parameters of a fluoroscopy device.

**A. CLASSIFICATION OF SUBJECT MATTER***A61B 6/08(2006.01)i, A61B 1/267(2006.01)i, A61B 19/00(2006.01)i*

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)

A61B 6/08; A61B 5/05; A61B 6/00; A61N 5/00; G06K 9/32; G21K 4/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) &amp; Keywords: calibration, fluoroscopy, marker, tracking

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                                            | Relevant to claim No. |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| A         | US 2006-0050988 A1 (KRAUS, FLORIAN et al.) 09 March 2006<br>See abstract, paragraphs [0018]-[0024], claim 1, figures 1 and 2.                                 | 1-15                  |
| A         | US 2005-0171428 A1 (FICHTINGER, GABOR et al.) 04 August 2005<br>See abstract, paragraphs [0041]-[0042], claims 9,10, and figures 1-4b.                        | 1-15                  |
| A         | US 2001-0053204 A1 (NAVAB, NASSIR et al.) 20 December 2001<br>See bstract, paragraphs [0004]-[0020], claim 1, figures 1 and 2.                                | 1-15                  |
| A         | WO 2010-067281 A1 (KONINKLIJKE PHILIPS ELECTRONICS N.V. et al.) 17 June 2010<br>See abstract, page 9, line 29 - page 11, line 5, claims 1,2, and figures 1-3. | 1-15                  |



Further documents are listed in the continuation of Box C.



See patent family annex.

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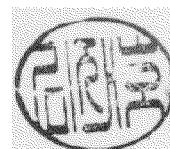
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Information on patent family members

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| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s)                                                | Publication<br>date                                  |
|-------------------------------------------|---------------------|---------------------------------------------------------------------------|------------------------------------------------------|
| US 2006-0050988 A1                        | 09.03.2006          | DE 502004003843 D1<br>EP 1629789 A1<br>EP 1629789 B1<br>US 7587076 B2     | 28.06.2007<br>01.03.2006<br>16.05.2007<br>08.09.2009 |
| US 2005-0171428 A1                        | 04.08.2005          | US 2008-0262345 A1<br>WO 2005-009220 A2<br>WO 2005-009220 A3              | 23.10.2008<br>03.02.2005<br>17.11.2005               |
| US 2001-0053204 A1                        | 20.12.2001          | None                                                                      |                                                      |
| WO 2010-067281 A1                         | 17.06.2010          | CN 102245106 A<br>EP 2375988 A1<br>JP 2012-511381 A<br>US 2012-0008741 A1 | 16.11.2011<br>19.10.2011<br>24.05.2012<br>12.01.2012 |