

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 July 2009 (23.07.2009)

PCT

(10) International Publication Number
WO 2009/091237 A3

- (51) International Patent Classification:
G01W 1/10 (2006.01)
- (21) International Application Number:
PCT/MY2009/000016
- (22) International Filing Date:
16 January 2009 (16.01.2009)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
PI20080103 18 January 2008 (18.01.2008) MY
- (71) Applicant (for all designated States except US): MIMOS BERHAD [MY/MY]; Technology Park Malaysia, Bukit Jalil, 57000 Kuala Lumpur (MY).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): CHU, Lye, Pin [MY/MY]; 12, Jalian A, off Jalan Jambu, Jalan Kuching, 52000 Kuala Lumpur (MY). HON, Hock, Woon [MY/MY]; C-14-1 Bayu Tasik 2, Bandar Sri Permaisuri, 56000 Kuala Lumpur (MY). CHAN, Ching, Hau [MY/MY]; 40, Jalan Halaman 3, Taman Halaman, 68000 Ampang, Selangor (MY). CHAU, Sheau, Wei [MY/MY]; 3275 Taman Indah, 73000 Tampin, Negeri Sembilan (MY). THEN, Siu, Jing [MY/MY]; No 4, Lot 5322, Lorong 5, Taman Ketika, Jalan Stampin Tengah, 93350 Kuching Sarawak (MY).
- (74) Agent: MOHAN, K.; Adastra Intellectual Property Sdn Bhd, PO Box 43, Suite 2B, Level 7, Menara Dato Onn, Putra World Trade Centre, 45, Jalan Tun Ismail, 50480 Kuala Lumpur (MY).

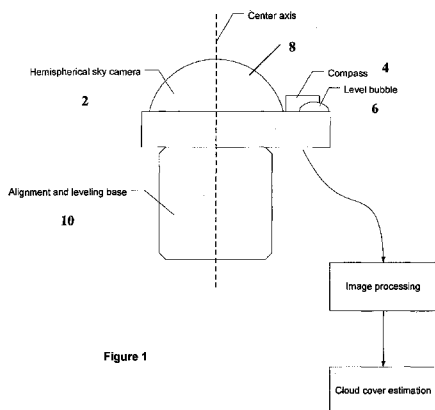
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))



- (88) Date of publication of the international search report:
15 October 2009

(54) Title: APPARATUS FOR CLOUD COVER ESTIMATION AND METHOD THEREOF



(57) Abstract: The invention accordingly provides an apparatus and method for facilitating in estimating the cloud cover within the sky. The observation method is conducted automatically and is able to provide reliable output.

WO 2009/091237 A3

A. CLASSIFICATION OF SUBJECT MATTER		
<i>G01W 1/10(2006.01)i</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) IPC G01W		
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 since 1975 Japanese Utility models and applications for Utility models since 1975		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) eKOMPASS (KIPO internal), NDSL keywords: "cloud cover" "camera", "level" and similar terms.		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,133,990 A (MILLER, THEODORE L. et al.) 17 October 2000 see column 2, line 38~column3, line 35 and column 4, line 56~column 7, line 3; claim 18; figures 1-3B	1-10
X	US 6,208,938 B1 (DOERFEL, STEVE) 27 March 2001 see abstract; figures 1, 4 and 8; column 3, line 60~column 6, line 34; column 9, lines 7-25	1-10
X	JP 3593567 B2 (NICT) 24 November 2004 see paragraphs [0013]-[0026]	1-10
A	CAZORLA, A. et al., Development of a Sky Imager for Cloud Cover Assessment, J. Opt. Soc. Am. A, Jan. 2008 (published Dec. 5 2007), Vol. 25, No. 1, pp. 29-39	1-10
A	JP 5-333160 A (SONY CORPORATION) 17 December 1993 see the whole document	1-10
A	JP 2507973 B2 (NEC CORPORATION) 19 June 1996 see the whole document	1-10
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" 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 application or patent 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 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		
Date of the actual completion of the international search 31 JULY 2009 (31.07.2009)		Date of mailing of the international search report 31 JULY 2009 (31.07.2009)
Name and mailing address of the ISA/KR  Korean Intellectual Property Office Government Complex-Daejeon, 139 Seonsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140		Authorized officer KIM, Sang Hee Telephone No. 82-42-481-5499 

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/MY2009/000016

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 06133990 A	17.10.2000	AU 2000-17268 A1 WO 2000-028279 A1	12.11.1999 18.05.2000
US 06208938 B1	27.03.2001	AU 1998-95742 A1 CA 2301895 A1 CA 2301895 C EP 1023673 A4 EP 1023673 A1 US 06085152 A WO 1999-014702 A1	18.09.1998 25.03.1999 16.12.2003 28.05.2003 02.08.2000 04.07.2000 25.03.1999
JP 3593657 B2	24.11.2004	JP 15-21195 A	24.01.2003
JP 05333160 A	17.12.1993	None	
JP 2507973 B2	19.06.1996	JP 7-98385 A	11.04.1995