

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
2 March 2006 (02.03.2006)

PCT

(10) International Publication Number
WO 2006/022594 A1

(51) International Patent Classification⁷: **G08B 13/187**

(21) International Application Number:
PCT/SG2005/000088

(22) International Filing Date: 21 March 2005 (21.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/605,294 27 August 2004 (27.08.2004) US
200406771-6 24 November 2004 (24.11.2004) SG

(71) Applicant (for all designated States except US): **SINGAPORE TECHNOLOGIES DYNAMICS PTE LTD** [SG/SG]; 249 Jalan Boon Lay, Singapore 619523 (SG).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **TAN, Hong, Soon** [SG/SG]; Blk 698C, #13-27, Hougang Street 52, Singapore 533698 (SG). **SHEN, Fei** [CN/SG]; Block 187 #09-86, Boon Lay Avenue, Singapore 640187 (SG). **WANG, Yingjie** [CN/SG]; Block 683A #17-122, Jurong West Central 1, Singapore 641683 (SG). **QUEK, Joo, Meng** [SG/SG]; Block 561 #03-410, Hougang Street 51, Singapore 530561 (SG). **TAY, Tin, Hui** [SG/SG]; Block 96 #12-376, Margaret Drive, Singapore 141096 (SG).

(74) Agent: **NG, Kim Tean**; Nanyang Law LLC, P.O. Box 1861, Robinson Road Post Office, Singapore 903711 (SG).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

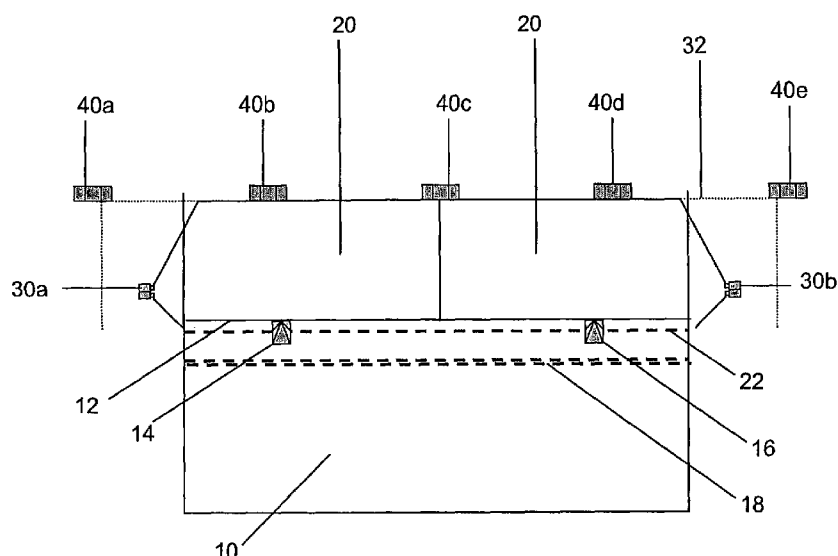
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, 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

[Continued on next page]

(54) Title: MULTI-SENSOR INTRUSION DETECTION SYSTEM



(57) Abstract: An intrusion detection system, suitable for railway platforms (10) is disclosed that utilises two or more detectors (14, 16) preferably of different wavelength ranges of the electromagnetic spectrum. The detectors may be a laser scanner and a CCTV stereo camera. Signals from the two detectors are processed to avoid false alarms by requiring both detectors to indicate an intrusion. The background profile for an area when empty may be stored and used in conjunction with a one of the detectors to determine presence of, for example, people. The processing may further require both detectors to detect a presence at the same time and at the same location. Each detector may include means for cancelling variations in ambient conditions such as changes in light levels.

WO 2006/022594 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.