

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 June 2006 (22.06.2006)

PCT

(10) International Publication Number
WO 2006/065677 A3

(51) International Patent Classification:
G01R 23/00 (2006.01)

(21) International Application Number:
PCT/US2005/044741

(22) International Filing Date:
9 December 2005 (09.12.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/016,278 17 December 2004 (17.12.2004) US

(71) Applicant (for all designated States except US): **TEX-ACO DEVELOPMENT CORPORATION** [US/US]; 6001 Bollinger Canyon Road, 3rd Floor, San Ramon, CA 94583 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SUN, Hongqiao** [CN/US]; 2723 River Birch Drive, Sugar Land, TX 77479 (US). **MIRKOVIC, Vesna, R.** [YU/US]; 2201 Lan Street, Pearland, TX 77584 (US). **WHEAT, W., Spencer** [US/US]; 3414 Crosby Landing, Missouri City, TX 77459 (US).

(74) Agents: **TURNER, Frank** et al.; Chevrontexaco Corporation, Law Department, Post Office Box 6006, San Ramon, CA 94583-0806 (US).

(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, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, 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, LV, 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).

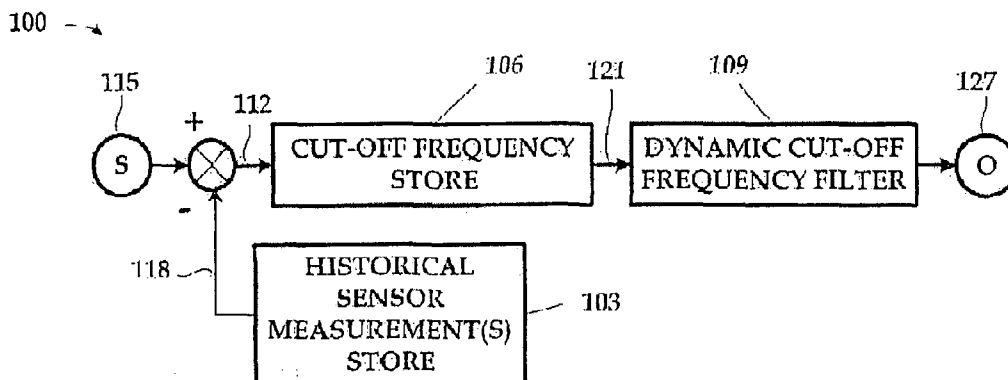
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
12 October 2006

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.

(54) Title: DYNAMIC CUT-OFF FREQUENCY VARYING FILTER



(57) Abstract: A method and apparatus are disclosed. The apparatus includes a store (103) of at least one historical sensor measurement, a store of potential cut-off frequencies (106), and a filter (109). Each potential cut-off frequency (106) is associated with a respective potential difference (112) between a sensor measurement (115) and the stored historical sensor measurement (118). The filter (109) has a cut-off frequency (121) dynamically selected from the stored potential cut-off frequencies (106) on the basis of a difference (112) between the stored historical sensor measurement (118) and a current sensor measurement (115). The method includes determining a difference between a current sensor measurement (115) and a historical sensor measurement (118); and dynamically selecting a cut-off frequency for a filter for the current sensor measurement (115) from the difference.