

## CORRECTED VERSION

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
5 June 2008 (05.06.2008)

PCT

(10) International Publication Number  
**WO 2008/066312 A8**

(51) International Patent Classification:  
**F03B 13/26** (2006.01)

[KR/KR]; 201-505, Bangbae Raemian Tower, 485-3, Bangbae-dong, Seocho-gu, Seoul 137-935 (KR).

(21) International Application Number:  
**PCT/KR2007/006036**

(74) Agents: **KIM, Moon-Jae et al.**; KAL Bldg. 3rd Fl., 41-3, Seosomun-Dong, Jung-Gu, Seoul 100-813 (KR).

(22) International Filing Date:  
27 November 2007 (27.11.2007)

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, 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, 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, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(25) Filing Language: Korean  
(26) Publication Language: English  
(30) Priority Data:  
10-2006-0118645

28 November 2006 (28.11.2006) KR

(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, MT, 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).

(71) Applicant (for all designated States except US): **KOREA OCEAN RESEARCH AND DEVELOPMENT INSTITUTE** [KR/KR]; 1270 Sa 1-dong,, Ansan-si,, Gyeonggi-do 426-171 (KR).

**Published:**

— with international search report

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PARK, Jin-Soo** [KR/KR]; 403-502, Hyundai 2-cha Apt., Sa 2-dong, Sangnok-gu,, Ansan-si,, Gyeonggi-do 426-753 (KR). **YUM, Ki-Dai** [KR/KR]; 2-1303, Ssangyong Apt., 66, Daechi-dong, Gangnam-gu,, Seoul 135-280 (KR). **LEE, Kwang-Soo** [KR/KR]; 205-803, Yuwon Apt., 7, Dangsang-dong 5-ga,, Yeongdeungpo-gu,, Seoul 150-045 (KR). **KANG, Sok-Kuh** [KR/KR]; 8-1505, Hanyang Apt., Wolpi-dong, Sangnok-gu,, Ansan-si,, Gyeonggi-do 426-788 (KR). **JIN, Jae-Youll** [KR/KR]; 736-904, Best Town A.,, Vidanmaeul, Cheoncheon-dong,, Jangan-gu, Suwon-si,, Gyeonggi-do 440-730 (KR). **PARK, Woo-Sun**

(48) Date of publication of this corrected version:

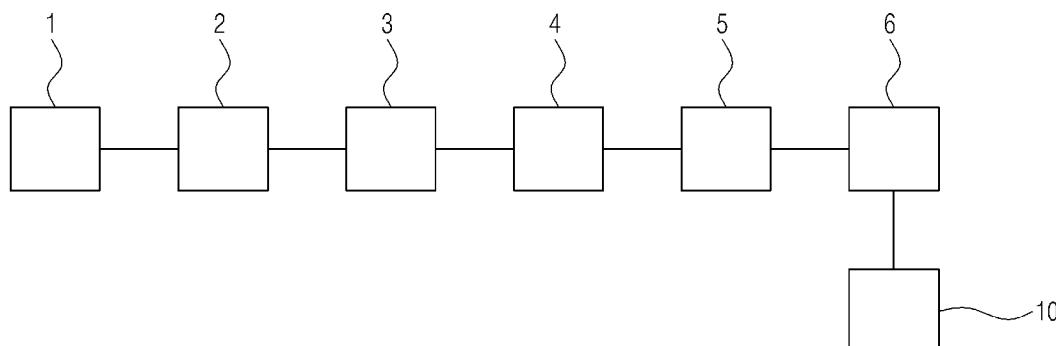
2 July 2009

(15) Information about Correction:

see Notice of 2 July 2009

(54) Title: POWER GENERATION SYSTEM USING HELICAL TURBINE

[Fig. 1]



(57) Abstract: Disclosed is a helical turbine power generation system for generating electricity by using a helical turbine and a synchronous generator, the system including: a helical turbine rotatably provided in a frame so as to continuously generate rotation force under unidirectional or multidirectional fluid flow; a step-up gear for increasing a rotational velocity of the helical turbine up to a level required for generating electricity; a fluid coupling for preventing the rotational velocity increased by the step-up gear from increasing above a required velocity at a temporarily high rate of fluid flow; and a synchronous generator for generating electricity by using the rotational velocity transferred from the fluid coupling. Therefore, it is possible to reduce equipment costs and to prevent environmental pollution.

WO 2008/066312 A8