



- (51) **International Patent Classification:**
G05B 13/02 (2006.01) *F04D 25/08* (2006.01)
- (21) **International Application Number:**
PCT/US2015/040392
- (22) **International Filing Date:**
14 July 2015 (14.07.2015)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
62/024,229 14 July 2014 (14.07.2014) US
- (71) **Applicant:** DELTA T CORPORATION [US/US]; 2348 Innovation Drive, Lexington, KY 40511 (US).
- (72) **Inventors:** ADAM, Brittany; Delta T Corporation, 2348 Innovation Drive, Lexington, KY 40511 (US). TABER, Christian, R.; 351 Greenbriar Rd., Lexington, KY 40503 (US). OLSEN, Jon; Delta T Corporation, 2348 Innovation Drive, Lexington, KY 40511 (US).
- (74) **Agent:** DORISIO, Andrew, D.; King & Schickli, PLLC, 247 North Broadway, Lexington, KY 40507 (US).
- (81) **Designated States** (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM,

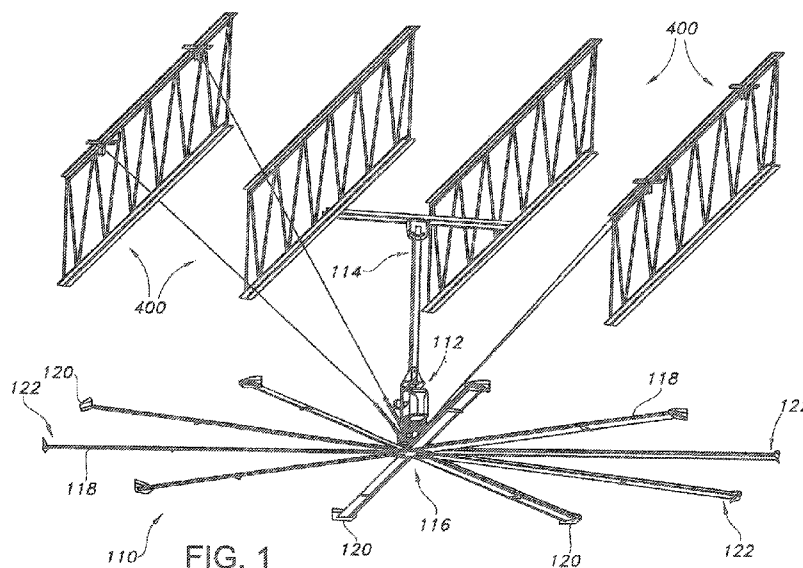
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, 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))

(54) **Title:** INTEGRATED THERMAL COMFORT CONTROL SYSTEM WITH SHADING CONTROL



(57) **Abstract:** An environmental control system for a space including at least one window adapted for admitting light into the space. The system comprises an environmental controller (such as a fan, a light, an HVAC system, a window, a window covering, or any combination of the foregoing) for regulating an environmental condition, and at least one first sensor, such as a radiant heat flux sensor, for sensing an amount of radiant energy associated with the space and generating an output. A controller is provided for controlling the operation of the environmental controller based on the sensor output. Related methods are also disclosed.

