



(51) International Patent Classification:

G06F 30/13 (2020.01) G06Q 50/08 (2012.01)
G06F 30/20 (2020.01)

(21) International Application Number:

PCT/AU2022/050321

(22) International Filing Date:

11 April 2022 (11.04.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

17/232,077 15 April 2021 (15.04.2021) US

(71) Applicant: **LENDLEASE DIGITAL IP PTY LIMITED** [AU/AU]; 'Tower 3 International Towers Sydney, Exchange', Level 14, 300 Barangaroo Avenue, Barangaroo, New South Wales 2000 (AU).

(72) Inventors: **HO, Ngoc Thang**; Level 14, 300 Barangaroo Avenue, Barangaroo, New South Wales 2000 (AU). **BESON IV, Robert Bruce**; Level 14, 300 Barangaroo Av-

enue, Barangaroo, New South Wales 2000 (AU). **BELL, Geoffrey Burton**; 233 Broadway, 11th Floor, New York, New York 10279 (US). **CERONE, John David**; 233 Broadway, 11th Floor, New York, New York 10279 (US). **GARRITANO, Adamo**; 233 Broadway, 11th Floor, New York, New York 10279 (US). **OVERALL, Scott Preston**; 233, Broadway, 11th Floor, New York, New York 10279 (US). **SHARPLES, Christopher Robert**; 233 Broadway, 11th Floor, New York, New York 10279 (US).

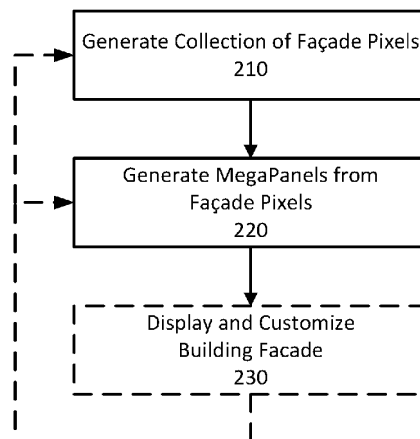
(74) Agent: **GRIFFITH HACK**; GPO Box 1285, Melbourne, Victoria 3001 (AU).

(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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, 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,

(54) Title: SYSTEM AND METHOD FOR AUTOMATICALLY GENERATING AN OPTIMIZED BUILDING FAÇADE DESIGN

FIGURE 2

200



(57) Abstract: The present approach automatically generates an optimized building façade design given a set of building design parameters including a specified interior layout. The generated building façade design comprises a set of MegaPanels that are then displayed to the building designer for review and facilitate customization as desired by the façade designer. Some or all of this process can then be repeated when building design parameters are changed thereby facilitating automated and iterative building façade design as differing design parameters and resulting optimized building façade designs are considered.

[Continued on next page]

RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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))