



(51) International Patent Classification:

G06T 5/00 (2006.01) *G06K 9/00* (2006.01)
H04N 1/409 (2006.01)

(21) International Application Number:

PCT/SG2014/000162

(22) International Filing Date:

11 April 2014 (11.04.2014)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

201302802-2 12 April 2013 (12.04.2013) SG

(71) Applicant: AGENCY FOR SCIENCE, TECHNOLOGY
AND RESEARCH [SG/SG]; 1 Fusionopolis Way, #20-10
Connexis, Singapore 138632 (SG).(72) Inventors: **LI, Zhengguo**; c/o PKM, Institute for Infocomm Research, 1 Fusionopolis Way, #21-01 Connexis, South Tower, Singapore 138632 (SG). **ZHENG, Jing-hong**; c/o PKM, Institute for Infocomm Research, 1 Fusionopolis Way, #21-01 Connexis, South Tower, Singapore 138632 (SG). **ZHU, Zijian**; c/o PKM, Institute for Infocomm Research, 1 Fusionopolis Way, #21-01 Connexis, South Tower, Singapore 138632 (SG). **WU, Shiqian**; c/o PKM, Institute for Infocomm Research, 1 Fusionopolis Way, #21-01 Connexis, South Tower, Singapore 138632

(SG). **YAO, Wei**; c/o PKM, Institute for Infocomm Research, 1 Fusionopolis Way, #21-01 Connexis, South Tower, Singapore 138632 (SG). **RAHARDJA, Susanto**; c/o PKM, Institute for Infocomm Research, 1 Fusionopolis Way, #21-01 Connexis, South Tower, Singapore 138632 (SG).

(74) Agent: **VIERING, JENTSCHURA & PARTNER LLP**;
P. O. Box 1088, Rochor Post Office, Rochor Road, Singapore 911833 (SG).

(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, LT, 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, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR PROCESSING AN INPUT IMAGE

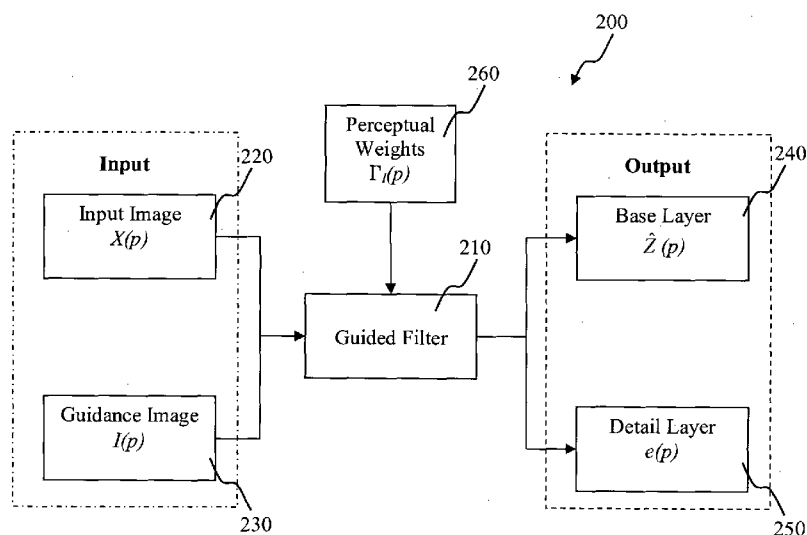


FIG. 2

(57) **Abstract:** In various embodiments of the present disclosure, there is provided a method for processing an input image. The method includes generating a base layer portion and a detail layer portion from the input image by carrying out a linear transformation of pixels of a guidance image, and determining, for each of the pixels of the guidance image, a variance of the pixels in a surrounding window of pixels. Further, the method includes determining, for each of the pixels of the guidance image, a weight value of the pixels based on the determined variance, wherein the pixels are weighted in the linear transformation according to the determined weight value. Accordingly, a system for processing an input image is also provided.



EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, **Published:**

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).

— *with international search report (Art. 21(3))*