

# (19) United States

## (12) Patent Application Publication (10) Pub. No.: US 2023/0231964 A1 Maheshwari

(43) **Pub. Date:** 

Jul. 20, 2023

### (54) PRINTER CALIBRATION USING ERROR-CORRECTED COLOR PROFILE GENERATION

(71) Applicant: M/S Kothari Infotech Pvt. Limited,

Surat (IN)

Sanjay Chandramohan Maheshwari, (72) Inventor:

Surat (IN)

(21) Appl. No.: 18/154,123

(22) Filed: Jan. 13, 2023

### Related U.S. Application Data

(62) Division of application No. 16/618,356, filed on Nov. 30, 2019, filed as application No. PCT/IN2017/ 050213 on May 31, 2017.

#### **Publication Classification**

(51) Int. Cl. H04N 1/60 (2006.01)H04N 1/00 (2006.01) (52) U.S. Cl.

CPC ...... H04N 1/6038 (2013.01); H04N 1/00023 (2013.01); H04N 1/6019 (2013.01); H04N 1/00034 (2013.01); H04N 1/6058 (2013.01)

#### (57)**ABSTRACT**

The present invention relates to a method of generating "expanded color chart" representing various ink combination, for profiling a multi-color printing device or printer, using "reduced set of color chart", printed using the printer,

- a. The expanded color chart is computed by applying "Error Correction" function to the expanded color chart predicted using a theoretical model of color prediction for a given ink combinations in the expanded chart.
- b. Error Correction function is computed/modelled as function of the variance/difference observed between the color values predicted by the theoretical model and the actual values measured for the ink combinations in the printed "reduced set of color chart".

Process of creating the color profile from reduced set of patches/ink combination chart.

