

# (19) United States

## (12) Patent Application Publication (10) Pub. No.: US 2023/0231986 A1 YOON et al.

Jul. 20, 2023 (43) **Pub. Date:** 

### (54) DISPLAY DEVICE, ELEVATOR ASSEMBLY INCLUDING SAME, AND IMAGE PROCESSING METHOD

(71) Applicant: **DAJIT CO., LTD.**, Goyang-si, Gyeonggi-do (KR)

(72) Inventors: Il Shik YOON, Seoul (KR); Jun Chan YOON, Seoul (KR); Jayoung YOON, Seoul (KR)

(21) Appl. No.: 18/021,110

PCT Filed: Jul. 27, 2021

(86) PCT No.: PCT/KR2021/009706

§ 371 (c)(1),

(2) Date: Feb. 13, 2023

#### (30)Foreign Application Priority Data

Aug. 12, 2020 (KR) ..... 10-2020-0101436

## **Publication Classification**

(51) Int. Cl.

H04N 13/361 (2006.01)H04N 7/18 (2006.01)

H04N 23/90	(2006.01)
H04N 23/698	(2006.01)
G06T 13/20	(2006.01)
B66B 3/00	(2006.01)

(52) U.S. Cl.

CPC ...... H04N 13/361 (2018.05); H04N 7/181 (2013.01); H04N 23/90 (2023.01); H04N 23/698 (2023.01); G06T 13/20 (2013.01); **B66B** 3/002 (2013.01)

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

A display apparatus capable of being installed in an elevator may include: a monitor unit for displaying an output image; and an image processor configured to display, on the monitor unit, at least one of an external image obtained by photographing an external panoramic view of the elevator and a virtual graphic screen related to the external panoramic view. The monitor unit includes a ceiling monitor extending to be inclined at a predetermined angle with respect to a ceiling part of the elevator. The image processor displays, on the monitor unit, a virtual object for giving an effect of providing a sense of boundary between the inside and outside of the elevator to an occupant in the elevator along with the external panoramic view corresponding to at least one of the external image and the virtual graphic screen

