SENSOR DEVICE AND SENSOR ADJUSTMENT SYSTEM

FIELD

Embodiments described herein relate generally to a sensor device and a sensor adjustment system.

BACKGROUND

In general, sensor devices (safety devices) for preventing persons and objects from being caught are installed in the vicinity of elevators, automatic doors, platform safety gates, etc. Such sensor devices need to be adjusted to be able to normally detect persons and objects in the vicinity thereof. In particular, in the case of sensor devices in which cameras are used, the detectable range easily deviates because of variations in the position and the angle at which they are installed. Thus, minute adjustments are required.

However, if an adjustment method is difficult, there is a problem that only a skilled maintenance engineer can make adjustments.

SUMMARY

According to one aspect, there is provided a sensor device installed in vicinity of a door, the sensor device comprising:

an image capture module configured to successively capture images in an image capture area;

an image recognition module configured to perform an image recognition process for the images captured by the image capture module; and

a parameter adjuster configured to, if parameter adjustment data for adjusting a predetermined parameter specific to the sensor device is detected as a result of the image recognition process by the image recognition module, change the predetermined parameter in accordance with the detected parameter adjustment data.

According to another aspect, there is provided a sensor adjustment system including a sensor device installed

in vicinity of a door and an instruction medium configured to instruct the sensor device, wherein

the instruction medium comprises a presentation module configured to present parameter adjustment data for adjusting a predetermined parameter specific to the sensor device, and

the sensor device comprises:

an image capture module configured to successively capture images in an image capture area;

an image recognition module configured to perform an image recognition process for the images captured by the image capture module; and

a parameter adjuster configured to, if parameter adjustment data presented by the instruction medium is detected as a result of the image recognition process by the image recognition module, change the predetermined parameter in accordance with the detected parameter adjustment data.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates a schematic configuration example of a sensor adjustment system including a sensor device according to one embodiment.

FIG. 2 illustrates examples of an installation place of the sensor device.

FIG. 3 illustrates examples of a parameter adjustment data item.

FIG. 4 is a block diagram showing a schematic configuration example of the sensor device.

FIG. 5 illustrates a data structure of a parameter data item.

FIG. 6 is a diagram for explaining an image capture range of the sensor device.

FIG. 7 is a flowchart showing an example of operations of the sensor device.

FIG. 8 is a diagram for explaining a procedure under which a maintenance engineer causes a parameter