Claims

1. A method for image compensation, comprising:
acquiring a Hall value of an electronic device, wherein the electronic device is provided with a first camera and a second camera, and at least one of the first camera and the second camera is provided with an optical image stabilization (OIS) system;
acquiring a lens bias corresponding to the Hall value;
calculating an image bias corresponding to the lens bias according to a preset OIS calibration function; and
performing image compensation by using the image bias on at least one of a first image captured by the first camera and a second image captured by the second camera at the same time.

2. The method according to claim 1, further comprising: in response to acquiring the lens bias corresponding to the Hall value, acquiring the first image captured by the first camera and the second image captured by the second camera at the same time.

3. The method according to claim 1, further comprising:
acquiring angular velocity information of a gyroscope,
wherein acquiring the Hall value of the electronic device comprises:
selecting at least one piece of the angular velocity information, and acquiring the Hall value corresponding to the at least one piece of the angular velocity information.

4. The method according to claim 3, wherein the angular velocity information comprises angular velocity values, and selecting at least one piece of the angular velocity information comprises selecting at least one angular velocity value.

5. The method according to claim 1, further comprising: setting the preset OIS calibration function by:
shooting a target reference at different time points, and recording a lens bias and an image bias at each time point;
determining an OIS calibration function model according to a corresponding relationship between recorded lens biases and image biases; and
inputting the lens biases and the image biases at the different time points into the OIS calibration function model to determine an expression of the preset OIS calibration function.

6. The method according to claim 1, further comprising:
shooting a target reference at different time points to acquire an image corresponding to a lens bias at each time point, wherein the image contains at least one feature point;
detecting the at least one feature point in the image, and according to a position of the at least one feature point in the image, calculating an image bias of the image relative to an image at an initial time point; and
constructing a calibration relationship table according to lens biases and image biases at the different time points, and fitting the preset OIS calibration function between the lens bias and the image bias according to the calibration relationship table.

7. The method according to claim 6, wherein fitting the preset OIS calibration function between the lens bias and the image bias according to the calibration relationship table comprises:
fitting an OIS calibration function model of the lens bias and the image bias according to the calibration relationship table; and

inputting the lens biases and image biases at the different time points into the OIS calibration function model to determine an expression of the preset OIS calibration function.

8. The method according to claim 1, further comprising:

setting a calibration relationship between Hall values and lens biases,

wherein acquiring the lens bias corresponding to the Hall value comprises:

calculating the lens bias corresponding to the Hall value according to the calibration relationship.

9. The method according to claim 1, wherein an image frame of at least one of the first image and the second image corresponds to at least two Hall values.

10. The method according to claim 9, wherein performing image compensation by using the image bias on at least one of the first image and the second image comprises:

configuring the at least two Hall values to correspond to different regions of an image frame to be compensated, and performing image compensation on the different regions respectively by using image biases corresponding to the different regions.

11. The method according to claim 10, wherein configuring the at least two Hall values to correspond to different regions of the image frame comprises:

when the image frame is acquired by progressive scan, evenly dividing all lines of the image frame to the at least two Hall values.

12. An electronic device comprising a storage and a processor, wherein a computer program is stored in the storage, and when the computer program is executed by the processor, the processor performs actions of:

acquiring a Hall value of an electronic device, wherein the electronic device is provided with a first camera and a second camera, and at least one of the first camera and the second camera is provided with an optical image stabilization (OIS) system;

acquiring a lens bias corresponding to the Hall value;

calculating an image bias corresponding to the lens bias according to a preset OIS calibration function; and

performing image compensation by using the image bias on at least one of a first image captured by the first camera and a second image captured by the second camera at the same time.

13. The electronic device according to claim 12, wherein when the computer program is executed by the processor, the processor further performs an action of: acquiring angular velocity information of a gyroscope; and

wherein acquiring the Hall value of the electronic device comprises: selecting at least one piece of the angular velocity information, and acquiring the Hall value corresponding to the at least one piece of the angular velocity information.

14. The electronic device according to claim 13, wherein the angular velocity information comprises angular velocity values, and selecting at least one piece of the angular velocity information comprises: selecting at least one angular velocity value.

15. The electronic device according to claim 12, wherein when the computer program is executed by the processor, the processor further performs an action of: setting the preset OIS calibration function by:

shooting a target reference at different time points and recording a lens bias and an image bias at each time point;

determining an OIS calibration function model according to a corresponding relationship between recorded lens biases and image biases; and

inputting the lens biases and the image biases at the different time points into the OIS calibration function model to determine an expression of the preset OIS calibration function.

16. The electronic device according to claim 12, wherein when the computer program is executed by the processor, the processor further performs actions of:

shooting a target reference at different time points to acquire an image corresponding to a lens bias at each time point, wherein the image contains at least one feature point;

detecting the at least one feature point in the image, and according to a position of the at least one feature point in the image, calculating an image bias of the image relative to an image at an initial time point; and

constructing a calibration relationship table according to lens biases and image biases at the different time points, and fitting the preset OIS calibration function between the lens bias and the image bias according to the calibration relationship table.

17. The electronic device according to claim 12, wherein when the computer program is executed by the processor, the processor further performs an action of: setting a calibration relationship between Hall values and lens biases; and

wherein acquiring the lens bias corresponding to the Hall value comprises: calculating the lens bias corresponding to the Hall value according to the calibration relationship.

18. The electronic device according to claim 12, wherein an image frame of at least one of the first image and the second image corresponds to at least two Hall values; and

wherein performing image compensation by using the image bias on at least one of the first image and the second image comprises:

configuring the at least two Hall values to correspond to different regions of an image frame to be compensated, and performing image compensation on the different regions respectively by using image biases corresponding to the different regions.

19. The electronic device according to claim 18, wherein configuring the at least two Hall values to correspond to different regions of the image frame comprises:

when the image frame is acquired by a progressive scan, evenly dividing all lines of the image frame to the at least two Hall values.

20. A non-transitory computer-readable storage medium, comprising a computer program that is executable by a processor to perform actions of:

acquiring a Hall value of an electronic device, wherein the electronic device is provided with a first camera and a second camera, and at least one of the first camera and the second camera is provided with an optical image stabilization (OIS) system;

acquiring a lens bias corresponding to the Hall value;

calculating an image bias corresponding to the lens bias according to a preset OIS calibration function; and

performing image compensation by using the image bias on at least one of a first image captured by the first camera and a second image captured by the second camera at the same time.