

**WHAT IS CLAIMED IS:**

1. A mobile device, comprising:
  - a memory configured to register and store a first iris image;
  - an illumination sensor configured to sense an external illuminance of the mobile device;
  - a display configured to emit a light from a preset region;
  - a camera configured to detect either a second iris image or a pupil image; and
  - a controller configured to control the memory, the illumination sensor, the camera and the display and control the display to display a message for guiding an eye motion according to the external illuminance sensed by the illumination sensor,
    - wherein the message for guiding the eye motion is changed according to the sensed external illuminance.
  
2. The mobile device of claim 1, wherein the controller is further configured to determine whether the second iris image is forged based on a reference changed according to the sensed external illuminance and displays a result of the determination through the display.
  
3. The mobile device of claim 2, wherein the determination is made in a manner of determining whether the second iris image is forged using at least one of a pupil size change according to a display brightness of the mobile device, a pupil size change according to a size of an object and a location change of the pupil, depending on the sensed external illumination.

4. The mobile device of claim 3, wherein if the sensed external illuminance belongs to a preset first range, the controller is further configured to:

control the display to set the display brightness to a maximum value and primarily detects the pupil image through the camera,

control the display to set the display brightness to a minimum value and secondarily detects the pupil image through the camera,

calculate a size variation of the pupil based on the primarily and secondarily detected pupil images,

determine whether the calculated size variation is equal to or greater than a preset threshold, and

determine whether the second iris image is forged according to the determination.

5. The mobile device of claim 3, wherein if the sensed external illuminance belongs to a preset first range, the controller is further configured to control the display to change the display brightness into a minimum value from a maximum value, controls the camera to consecutively detect the pupil image, determines whether the size of the pupil is changed based on the detected pupil image, and determines whether the second iris image is forged according to the determination.

6. The mobile device of claim 4, wherein the controller is further configured to control the camera to detect the pupil, determines whether the pupil moves along a path displayed on a prescribed region of the display, and determines whether the second iris image is forged according to the determination.

7. The mobile device of claim 3, wherein if the sensed external illuminance belongs to a preset second range, the controller:

displays a message for guiding a user to gaze at a first icon displayed on a prescribed region of the display,

controls the camera to primarily detect the pupil image,

displays a message for guiding the user to gaze at a second icon displayed on the prescribed region of the display,

controls the camera to secondarily detect the pupil image,

determines whether a size variation of the pupil is equal to or greater than a preset threshold based on the primarily and secondarily detected pupil images, and

determines whether the second iris image is forged according to the determination, wherein each of the first icon and the second icon has a same shape, and wherein the first icon and the second icon differ from each other in size.

8. The mobile device of claim 3, wherein if the sensed external illuminance belongs to a preset second range, the controller:

displays a message for guiding a user to gaze at an icon displayed on a prescribed region of the display,

changes a size of the icon into a maximum value from a minimum value consecutively,

controls the camera to consecutively detect the pupil image,

determines whether a size of the pupil is changed based on the detected pupil image, and

determines whether the second iris image is forged according to the determination.

9. The mobile device of claim 7, wherein the controller controls the camera to detect the pupil, determines whether the pupil moves along a path displayed on a prescribed region of the display, and determines whether the second iris image is forged according to the determination.

10. The mobile device of claim 3, wherein if the sensed external illuminance belongs to a preset third range, the controller:

displays a message for guiding a user to gaze at an icon displayed on a prescribed region of the display,

controls the camera to primarily detect the pupil image,

displays a message for guiding the user to gaze at a far object,

controls the camera to secondarily detect the pupil image,

determines whether a size variation of the pupil is equal to or greater than a preset threshold based on the primarily and secondarily detected pupil images, and

determines whether the second iris image is forged according to the determination.

11. A method of controlling a mobile device, comprising the steps of:  
registering and storing a first iris image at a memory;  
detecting a second iris image through a camera after registering the first iris image at the memory;  
identifying whether the detected second iris image matches the first iris image registered at the memory;  
sensing an external illuminance of the mobile device; and  
displaying a message for guiding an eye motion according to the sensed external illuminance,  
wherein the message for guiding the eye motion is changed according to the sensed external illuminance.

12. The method of claim 11, further comprising the steps of:  
determining whether the second iris image is forged based on a reference changed according to the sensed external illuminance; and  
displaying a result of the determination.

13. The method of claim 12, wherein the determining step comprises the step of determining whether the second iris image is forged using at least one selected from the group consisting of a pupil size change according to a display brightness of the mobile device, a pupil size change according to a size of an object and a location change of the pupil, depending on the sensed external illumination.

14. The method of claim 13, comprising the steps of:

- if the sensed external illuminance belongs to a preset first range, primarily detecting the pupil image in a state that the display brightness is set to a maximum value;
- secondarily detecting the pupil image in a state that the display brightness is set to a minimum value;
- determining whether a size variation of the pupil is equal to or greater than a preset threshold based on the primarily and secondarily detected pupil images; and
- determining whether the second iris image is forged according to the determination.

15. The method of claim 14, further comprising the steps of:

- detecting the pupil;
- determining whether the pupil moves along a path displayed on a prescribed region of the display; and
- determining whether the second iris image is forged according to the determination.

16. The method of claim 13, comprising the steps of:

- if the sensed external illuminance belongs to a preset second range, displaying a message for guiding a user to gaze at a first icon displayed on a prescribed region of the display;
- primarily detecting the pupil image;
- displaying a message for guiding the user to gaze at a second icon displayed on the prescribed region of the display;

secondarily detecting the pupil image;

determining whether a size variation of the pupil is equal to or greater than a preset threshold based on the primarily and secondarily detected pupil images; and

determining whether the second iris image is forged according to the determination,

wherein each of the first icon and the second icon has a same shape and

wherein the first icon and the second icon differ from each other in size.

17. The method of claim 13, comprising the steps of:

if the sensed external illuminance belongs to a preset second range, displaying a message for guiding a user to gaze at an icon displayed on a prescribed region of the display;

changing a size of the icon into a maximum value from a minimum value consecutively;

consecutively detecting the pupil image through a camera;

determining whether a size of the pupil is changed based on the detected pupil image; and

determining whether the second iris image is forged according to the determination.

18. The method of claim 16, further comprising the steps of:

detecting the pupil;

determining whether the pupil moves along a path displayed on a prescribed region of the display; and

determining whether the second iris image is forged according to the determination.

19. The method of claim 13, comprising the steps of:

if the sensed external illuminance belongs to a preset third range, displaying a message for guiding a user to gaze at an icon displayed on a prescribed region of the display;

primarily detecting the pupil image;

displaying a message for guiding the user to gaze at a far object;

secondarily detecting the pupil image;

determining whether a size variation of the pupil is equal to or greater than a preset threshold based on the primarily and secondarily detected pupil images; and

determining whether the second iris image is forged according to the determination.

20. The method of claim 11, the step of registering the first iris image at the memory, comprising:

a first step of detecting the first iris image through a camera;

a second step of determining whether the sensed external illuminance of the mobile device belongs to a preset range;

a third step of determining whether the eye is a naked eye based on the detected first iris image;

a fourth step of determining whether the first iris image is in a static state; and



a fifth step of registering the first iris image at the memory according to results of the determinations of the second to fourth steps.