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(54) Title: WEARABLE GLASSES FOR BLOCKING A HIGH INTENSITY LIGHT AND A METHOD THEREOF

(57) Abstract: The wearable glasses and method for blocking a high intensity light in a field of view of a user is disclosed. The wearable glasses comprises a pair of LCD lenses (110) and at least one camera (101). The wearable glasses further comprises one or more sensors configured to detect movement of the user and generate one or more sensor data. The wearable glasses further comprises a control unit configured to determine a viewing angle of the user based on the one or more sensor data, process at least one captured image to extract intensity of light of each of plurality of pixels of the at least one captured image, based on viewing angle of the user, identify one or more pixels having an intensity value greater than a maximum intensity value, and dynamically control one or more coordinate of the pair of LCD lenses (110) to block a high intensity light in the field of view of the user.

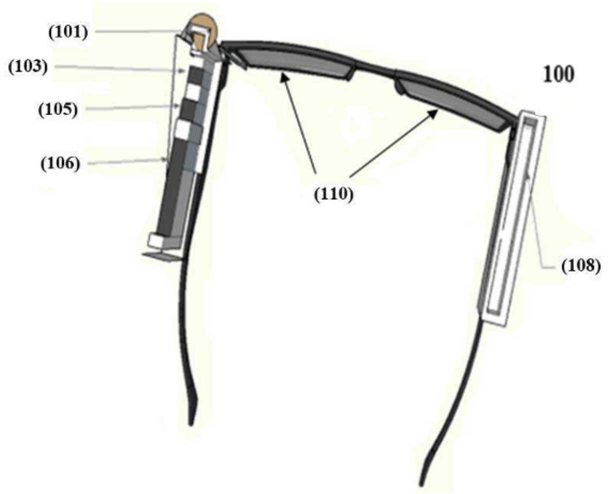

Figure 1

FORM 2

THE PATENTS ACT 1970
(39 OF 1970)
&
The Patent Rules, 2003

Complete Specification

(See Section 10 and Rule 13)

1. TITLE OF THE INVENTION

WEARABLE GLASSES FOR BLOCKING A HIGH INTENSITY LIGHT AND A METHOD THEREOF

2. APPLICANT(S)

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3. PREAMBLE TO THE DESCRIPTION

COMPLETE

The following specification describes the invention and the manner in which it is to be performed

DESCRIPTION

TECHNICAL FIELD

[0001] The present disclosure generally relates to a field of wearable glasses. Particularly, but not exclusively, the present disclosure relates to a system and a method for blocking a high intensity light in a field of view of a user.

BACKGROUND OF THE INVENTION

[0002] Driving requires effective coordination of visual, motor, and cognitive skills. Safe driving of a vehicle requires a clear and unimpaired view for the driver driving the vehicle. Bright rays of sunshine encountered on the road distracts drivers, even potentially temporarily blinding them. Poor visibility caused by sunshine can lead to loss of control of the vehicle, impact and subsequent damage of the vehicle and injury or death of drivers, passengers, or onlookers.

[0003] Sun ray's incident on the eyes of the driver of the vehicle can cause pain or irritation to the eyes of the driver, or potential long-term damage to the eye. To avoid glare from the sun, drivers tend to wear sunglasses during driving. Though, such sunglasses minimize the intensity of light, the sunglass also potentially reduces the visibility, which is undesired.

[0004] Visual skills are pushed to their limit at night by decreased illumination and by disabling glare from oncoming headlights. A night driving problem, especially for drivers on two lane roads, and particularly when it is raining, is that oncoming high beams can be blinding, and even oncoming low beams can cause dangerous glare. That is because cataracts in the eye's lens scatter the oncoming light.

[0005] High beams are used when other vehicles are not present on the oncoming side of the road. Low beams have stricter control of upward light, and direct most of their light downward and either rightward (in right-traffic countries) or leftward (in left-traffic countries) to provide safe forward visibility without excessive glare. However, switching between the high beam and low beam solely depends on the driver. Inexperienced drivers tend to drive the vehicles in high beams, thereby increasing glare for the oncoming drivers, thus causing inconvenience to the drivers.

[0006] Modern cars have of information cluster and navigation display which are also bright. However, the driver may not want this brightness of information cluster and navigation display to be blocked by the wearable glasses. If these displays are blocked by the wearable glasses, then it may lead to inconvenience to the driver.

[0007] Therefore, there exists a need in the art to provide a method and a system which overcomes the above-mentioned problems by for selectively blocking a high intensity light in a field of view of a user.

SUMMARY OF THE INVENTION

[0008] The present disclosure overcomes one or more shortcomings of the prior art and provides additional advantages discussed throughout the present disclosure. Additional features and advantages are realized through the techniques of the present disclosure. Other embodiments and aspects of the disclosure are described in detail herein and are considered a part of the claimed disclosure.

[0009] In one non-limiting embodiment of the present disclosure, wearable glasses for blocking a high intensity light in a field of view of a user is disclosed. The wearable glasses comprises a pair of LCD lenses and at least one camera configured to capture at least one image of the field of view of the user at a predetermined interval of time. The wearable glasses further comprises one or more sensors configured to detect movement of the user and generate one or more sensor data. The wearable glasses further comprises a control unit comprising an LCD circuitry and at least one processor, wherein the control unit is in communication with the at least one camera and the one or more sensors and configured to determine a viewing angle of the user based on the one or more sensor data, process the at least one captured image to extract intensity of light of each of plurality of pixels of the at least one captured image, based on viewing angle of the user, identify one or more pixels having an intensity value greater than a maximum intensity value, determine one or more coordinate of the pair of LCD lenses corresponding to the identified one or more pixels, and dynamically control the one or more coordinate of the pair of LCD lenses to block a high intensity light in the field of view of the user.

[0010] In another non-limiting embodiment of the present disclosure, a method for blocking a high intensity light in a field of view of a user using wearable glasses is disclosed. The method comprises capturing at least one image of the field of view of the user at a predetermined interval of time, detecting movement of the user and generating one or more sensor data, and determining a viewing angle of the user based on the one or more sensor data. Said method further comprises processing the at least one captured image to extract intensity of light of each of plurality of pixels of the at least one captured image, based on viewing angle of the user and identifying one or more pixels having an intensity value greater than a maximum intensity value. Said method further comprises determining one or more coordinate of a pair of LCD lenses corresponding to the identified one or more pixels and dynamically controlling the one or more coordinate of the pair of LCD lenses to block a high intensity light in the field of view of the user.

[0011] The foregoing summary is illustrative only and is not intended to be in any way limiting. In addition to the illustrative aspects, embodiments, and features described above, further aspects, embodiments, and features will become apparent by reference to the drawings and the following detailed description.

BRIEF DESCRIPTION OF THE ACCOMPANYING DRAWINGS

[0012] The features, nature, and advantages of the present disclosure will become more apparent from the detailed description set forth below when taken in conjunction with the drawings in which like reference characters identify correspondingly throughout. Some embodiments of system and/or methods in accordance with embodiments of the present subject matter are now described, by way of example only, and with reference to the accompanying figures, in which:

[0013] **Fig. 1** shows schematic view of wearable glasses, in accordance with an embodiment of the present disclosure;

[0014] **Fig. 2** shows a flow chart illustrating an exemplary method for blocking a high intensity light in a field of view of a user using wearable glasses, in accordance with an embodiment of the present disclosure;

[0015] **Fig. 3** shows a block diagram illustrating a wearable glasses for blocking a high intensity light in a field of view of a user, in accordance with an embodiment of the present disclosure.

[0016] It should be appreciated by those skilled in the art that any block diagram herein represents conceptual views of illustrative systems embodying the principles of the present subject matter. Similarly, it will be appreciated that any flow charts, flow diagrams and the like represent various processes which may be substantially represented in computer readable medium and executed by a computer or processor, whether or not such computer or processor is explicitly shown.

DETAILED DESCRIPTION

[0017] The terms "comprise", "comprising", "include(s)", or any other variations thereof, are intended to cover a non-exclusive inclusion, such that a setup, system or method that comprises a list of components or steps does not include only those components or steps but may include other components or steps not expressly listed or inherent to such setup or system or method. In other words, one or more elements in a system or apparatus proceeded by "comprises… a" does not, without more constraints, preclude the existence of other elements or additional elements in the system or apparatus.

[0018] In the following detailed description of the embodiments of the disclosure, reference is made to the accompanying drawings that form a part hereof, and in which are shown by way of illustration specific embodiments in which the disclosure may be practiced. These embodiments are described in sufficient detail to enable those skilled in the art to practice the disclosure, and it is to be understood that other embodiments may be utilized and that changes may be made without departing from the scope of the present disclosure. The following description is, therefore, not to be taken in a limiting sense.

[0019] Wearable glasses and a method for blocking a high intensity light in a field of view of a user is disclosed. The wearable glasses comprises a pair of LCD lenses and at least one camera. The wearable glasses further comprises one or more sensors configured to detect movement of the user and generate one or more sensor data. The wearable glasses further comprises a control unit configured to determine a viewing angle of the user based on the one or more sensor data, process at least one captured image to extract intensity of light of each of plurality of pixels of the at least one captured image, based on viewing angle of the user, identify one or more pixels having an intensity value greater than a maximum intensity value, and dynamically control one or more coordinate of the pair of LCD lenses to block a high intensity light in the field of view of the user.

[0020] **Fig. 1** shows schematic view of wearable glasses **100**, in accordance with an embodiment of the present disclosure.

[0021] In an embodiment of the present disclosure, the wearable glasses **100** may comprise a camera **101**, a gyroscope **103**, an accelerometer **105**, at least one processor **106**, and a pair of

LCD lenses **110** in communication with each other. The wearable glasses **100** may also comprise a battery **108** or a DC power source for powering the circuitry of the wearable glasses 100.

[0022] The camera **101** may be mounted on the front left corner of the frame of the wearable glasses as shown in fig.1. However, the position of the camera **101** is not limited to above example and the camera **101** may be situated anywhere on the front side of the frame of the wearable glasses **100**. The camera **101** may be calibrated for left and right eye based on the position of the camera.

[0023] The camera **101** may be configured to capture one or more images of the field of view of the user wearing the wearable glasses **100**. The images may be captured either in burst mode or after a predetermined interval of time. The images may be used to scan the field of view of the user wearing the wearable glasses **100**.

[0024] The images may be processed to determine intensity values of the pixels present in the image. The images may be processed using any known image processing technique known to a person skilled in the art.

[0025] . The gyroscope **102** and accelerometer **105** sensor may be used to detect movement of the user and generate one or more sensor data. In one non-limiting embodiment of the present disclosure, the movement of the user may be detected using any other sensor known to a person skilled in the art. The at least one processor **106** may use the generated one or more sensor data and identify a viewing angle of the user.

[0026] The user may be looking on a road, above the road, below the road, or sideways, which may be indicated through the viewing angle of the user. If the user is viewing on the road, the processor **106** may be configured to identify one or more pixels having an intensity value greater than a maximum intensity value.

[0027] The at least one processor **106** may then determine one or more coordinate of the pair of LCD lenses **110** corresponding to the identified one or more pixels using the camera calibration discussed above. The one or more coordinate of the pair of LCD lenses **110** may be selectively darkened or selectively dimmed to block a high intensity light in the field of view of the user.

[0028] Hence, the high intensity pixel in the field of view of the user are only blocked when the user is looking on the road. Thus, the wearable glasses **100** selectively blocks the high intensity light of other vehicles and sun rays and avoids blocking the light from other sources such as a mobile phone, information cluster and navigation display of the vehicle.

[0029] **Fig. 2** shows a flow chart illustrating an exemplary method **200** for blocking a high intensity light in a field of view of a user using wearable glasses, in accordance with an embodiment of the present disclosure.

[0030] At block **202**, at least one image of the field of view of the user is captured at a predetermined interval of time. The user may be driving a vehicle or riding a bicycle. The camera may be mounted on the front left corner of the frame of the wearable glasses as shown in fig.1. However, the position of the camera is not limited to above example and the camera may be situated anywhere on the front side of the frame of the wearable glasses.

[0031] The camera **101** may be calibrated for left and right eye based on the position of the camera. In one non-limiting embodiment of the present disclosure, the images may be captured either in burst mode. The images may be used to scan the field of view of the user wearing the wearable glasses.

[0032] At block **204**, the movement of the user may be detected using one or more sensors. The one or more sensors may generate one or more sensor data based on the detected movement of the user. In one non-limiting of the present disclosure, the one or more sensors used for detecting the movement of the user may comprise an accelerometer and a gyroscope.

[0033] However, the one or more sensors are not limited to above examples, the one or more sensors may comprise any other sensor for movement detection. In an embodiment of the present disclosure, the sensors may be placed anywhere on the frame of the wearable glasses.

[0034] At block **206**, the generated sensor data of the one or more sensors may be processed to determine a viewing angle of the user. The viewing angle of the user may indicate whether the user is looking on a road, above the road, below the road, or sideways. Thus, the sensor data may help in distinguishing between the traffic signal light, the light from the navigation display of vehicle, light from mobile phone display, and the headlight of the vehicles travelling in opposite direction.

[0035] At block **208**, the at least one captured image is processed to extract intensity of light of each of plurality of pixels of the at least one captured image, if the user is looking on the road. If the viewing angle indicates that the user is looking above the road, below the road, or sideways, then the at least one captured image is not processed, and user may view the navigation display of the vehicle or use a mobile phone through the wearable glasses without any inconvenience.

[0036] In one non-limiting embodiment of the present disclosure, the captured image may be processed for calculating color grading of the pixels in the captured image. The wearable glass may use the color grading to distinguish between the traffic signal light, the light from the navigation display of vehicle, light from mobile phone display, and the headlight of the vehicles travelling in opposite direction. The user may view the traffic light, the navigation display of the vehicle or use a mobile phone through the wearable glasses without any inconvenience.

[0037] At block **210**, the one or more pixels having the intensity value greater than a maximum intensity value are identified. The maximum intensity value may be twice the average intensity of light. In one non-limiting embodiment of the present disclosure, the maximum intensity value be user defined or may be predefined as per medical standard to avoid pain or irritation to the eyes of the driver.

[0038] At block **212**, one or more coordinate of a pair of LCD lenses are determined corresponding to the identified one or more pixels. The one or more coordinates may be determined based on the left eye and the right eye calibration of the camera. The camera may be pre-calibrated before mounting the camera on the wearable glasses.

[0039] In one non-limiting embodiment of the present disclosure, the one or more coordinates may be determined by superimposing the captured image on the pair of LCD lenses. However, the determination of one or more coordinates on the pair of LCD lenses is not limited to above examples and a person skilled in the art may use any other technique for determining the coordinates on the pair of LCD lenses.

[0040] At block **214**, the determined one or more coordinate of the pair of LCD lenses are dynamically controlled to block a high intensity light in the field of view of the user. The dynamic control of the one or more coordinate of the pair of LCD lenses may comprise selective darkening or selective dimming the one or more coordinate of the pair of LCD lenses.

The phrase “selective darkening” and “selective dimming” have been used alternatively throughout the description.

[0041] Hence, the high intensity pixel in the field of view of the user are only blocked when the user is looking on the road. Thus, the wearable glasses selectively blocks the high intensity light of other vehicles and sun rays and avoids blocking the light from other sources such as a mobile phone, information cluster and navigation display of the vehicle.

[0042] In one non-limiting embodiment of the present disclosure, the method **200** may further comprise resetting the one or more coordinates of the pair of LCD lenses, if the respective intensity value of the identified pixels corresponding to the one or more coordinates is less than the maximum intensity value.

[0043] Thus, the pair of LCD lenses may get reset as soon as field of view of the user changes and there is no high intensity light present in the field of view of the user, thereby avoiding unnecessary darkening or dimming the field of view of the user in absence of high intensity light.

[0044] In another embodiment of the present disclosure, the steps of method **300** may be performed in an order different from the order described above.

[0045] **Fig. 3** shows a block diagram illustrating a wearable glasses **300** for blocking a high intensity light in a field of view of a user, in accordance with an embodiment of the present disclosure.

[0046] In an embodiment of the present disclosure, the wearable glasses **300** may comprise a pair of LCD lenses **302**, a control unit **304**. The control unit **304** may comprise memory 36, at least one processor **306**, and LCD circuitry **310**. The wearable glasses may further comprise at least one camera **312** and one or more sensors 3**14**. In one non-limiting embodiment of the present disclosure, the one or more sensors **314** may comprise a gyroscope **316** and accelerometer **318**.

[0047] The at least one camera **312** may be mounted on the front left corner of the frame of the wearable glasses 300. However, the position of the at least one camera **312** is not limited to above example and the at least one camera **312** may be situated anywhere on the front side of the frame of the wearable glasses **300**. The at least one camera **312** may be calibrated for left and right eye based on the position of the camera.

[0048] The at least one camera **312** may be configured to capture at least one image of the field of view of the user at a predetermined interval of time. The user may be driving a vehicle or riding a bicycle. The camera may be mounted on the front left corner of the frame of the wearable glasses as shown in fig.1. However, the position of the camera is not limited to above example and the camera may be situated anywhere on the front side of the frame of the wearable glasses.

[0049] The camera **101** may be calibrated for left and right eye based on the position of the camera. In one non-limiting embodiment of the present disclosure, the images may be captured either in burst mode. The images may be used to scan the field of view of the user wearing the wearable glasses.

[0050] The one or more sensors **314** may be configured to detect movement of the user. The one or more sensors **314** may generate one or more sensor data based on the detected movement of the user. In one non-limiting of the present disclosure, the one or more sensors **314** used for detecting the movement of the user may comprise an accelerometer **316** and a gyroscope **318**.

[0051] However, the one or more sensors **314** are not limited to above examples, the one or more sensors may comprise any other sensor for movement detection. In an embodiment of the present disclosure, the sensors may be placed anywhere on the frame of the wearable glasses.

[0052] The control unit **304** is in communication with the at least one camera **312** and the one or more sensors **314** and configured to process the generated sensor data of the one or more sensors **314** to determine a viewing angle of the user. The viewing angle of the user may indicate whether the user is looking on a road, above the road, below the road, or sideways. Thus, the sensor data may help in distinguishing between the traffic signal light, the light from the navigation display of vehicle, light from mobile phone display, and the headlight of the vehicles travelling in opposite direction.

[0053] The control unit **304** may be configured to extract intensity of light of each of plurality of pixels of the at least one captured image, if the user is looking on the road. If the viewing angle indicates that the user is looking above the road, below the road, or sideways, then the at least one captured image is not processed, and user may view the navigation display of the vehicle or use a mobile phone through the wearable glasses without any inconvenience

[0054] In one non-limiting embodiment of the present disclosure, the control unit **304** may process the captured image for calculating color grading of the pixels in the captured image. The wearable glass may use the color grading to distinguish between the traffic signal light, the light from the navigation display of vehicle, light from mobile phone display, and the headlight of the vehicles travelling in opposite direction. The user may view the traffic light, the navigation display of the vehicle or use a mobile phone through the wearable glasses without any inconvenience.

[0055] The control unit **304** may be then configured to identify the one or more pixels having the intensity value greater than a maximum intensity value. The maximum intensity value may be twice the average intensity of light. In one non-limiting embodiment of the present disclosure, the maximum intensity value be user defined or may be predefined as per medical standard to avoid pain or irritation to the eyes of the driver.

[0056] The control unit **304** may be configured to determine one or more coordinate of a pair of LCD lenses are determined corresponding to the identified one or pixels. The one or more coordinates may be determined based on the left eye and the right eye calibration of the at least one camera **312**. The at least one camera **312** may be pre-calibrated before mounting the camera on the wearable glasses **300**.

[0057] In one non-limiting embodiment of the present disclosure, the control unit **304** may be configured to determine one or more coordinates by superimposing the captured image on the pair of LCD lenses. However, the determination of one or more coordinates on the pair of LCD lenses is not limited to above examples and a person skilled in the art may use any other technique for determining the coordinates on the pair of LCD lenses.

[0058] The control unit **304** may be configured to the dynamically control one or more coordinate of the pair of LCD lenses to block a high intensity light in the field of view of the user. To dynamically control the one or more coordinate of the pair of LCD lenses, the control unit is configured to selectively darken or selectively dim one or more the one or more coordinate of the pair of LCD lenses to block the high intensity light in the field of view of the user.

[0059] Hence, the high intensity pixel in the field of view of the user are only blocked when the user is looking on the road. Thus, the wearable glasses selectively blocks the high intensity light of other vehicles and sun rays and avoids blocking the light from other sources such as a mobile phone, information cluster and navigation display of the vehicle.

[0060] In one non-limiting embodiment of the present disclosure, the control unit **304** may be further configured to reset the one or more coordinates of the pair of LCD lenses, if the respective intensity value of the identified pixels corresponding to the one or more coordinates is less than the maximum intensity value.

[0061] Thus, the pair of LCD lenses may get reset as soon as field of view of the user changes and there is no high intensity light present in the field of view of the user, thereby avoiding unnecessary darkening or dimming the field of view of the user in absence of high intensity light.

[0062] The illustrated steps are set out to explain the exemplary embodiments shown, and it should be anticipated that ongoing technological development will change the manner in which particular functions are performed. These examples are presented herein for purposes of illustration, and not limitation. Further, the boundaries of the functional building blocks have been arbitrarily defined herein for the convenience of the description. Alternative boundaries can be defined so long as the specified functions and relationships thereof are appropriately performed. Alternatives (including equivalents, extensions, variations, deviations, etc., of those described herein) will be apparent to persons skilled in the relevant art(s) based on the teachings contained herein. Such alternatives fall within the scope and spirit of the disclosed embodiments.

[0063] Furthermore, one or more computer-readable storage media may be utilized in implementing embodiments consistent with the present disclosure. A computer-readable storage medium refers to any type of physical memory on which information or data readable by a processor may be stored. Thus, a computer-readable storage medium may store instructions for execution by one or more processors, including instructions for causing the processor(s) to perform steps or stages consistent with the embodiments described herein. The term “computer- readable medium” should be understood to include tangible items and exclude carrier waves and transient signals, i.e., are non-transitory. Examples include random access memory (RAM), read-only memory (ROM), volatile memory, nonvolatile memory, hard drives, CD ROMs, DVDs, flash drives, disks, and any other known physical storage media.

[0064] Suitable processors include, by way of example, a processor, a special purpose processor, a conventional processor, a digital signal processor (DSP), a plurality of microprocessors, one or more microprocessors in association with a DSP core, a controller, a microcontroller, Application Specific Integrated Circuits (ASICs), Field Programmable Gate Arrays (FPGAs) circuits, any other type of integrated circuit (IC), and/or a state machine.

ADVANTAGES OF THE PRESENT DISCLOSURE

[0065] Exemplary embodiments discussed above may provide certain advantages. Though not required to practice aspects of the disclosure, these advantages may include those provided by the following features.

[0066] In an embodiment, the present disclosure provides selective dimming based on the situation rather than all-time dimming.

[0067] In an embodiment, the present disclosure provides selective and situational dimming rather than indiscriminate filtering of all bright spots.

[0068] In an embodiment, the present disclosure avoids unnecessary darkening or dimming of the field of view of the user in absence of high intensity light.

WE CLAIM:

1. The wearable glasses for blocking a high intensity light in a field of view of a user, the wearable glasses comprising:

a pair of LCD lenses;

at least one camera configured to capture at least one image of the field of view of the user at a predetermined interval of time;

one or more sensors configured to detect movement of the user and generate one or more sensor data;

a control unit comprising an LCD circuitry and at least one processor, wherein the control unit is in communication with the at least one camera and the one or more sensors and configured to:

determine a viewing angle of the user based on the one or more sensor data;

process the at least one captured image to extract intensity of light of each of plurality of pixels of the at least one captured image, based on viewing angle of the user;

identify one or more pixels having an intensity value greater than a maximum intensity value;

determine one or more coordinate of the pair of LCD lenses corresponding to the identified one or more pixels; and

dynamically control the one or more coordinate of the pair of LCD lenses to block a high intensity light in the field of view of the user.

2. The wearable glasses as claimed in claim 1, wherein the control unit is further configured to:

reset the one or more coordinates of the pair of LCD lenses, if the respective intensity value of the identified pixels corresponding to the one or more coordinates is less than the maximum intensity value.

3. The wearable glasses as claimed in claim 1, wherein the one or more sensors at least comprises an accelerometer and a gyroscope.

4. The wearable glasses as claimed in claim 1, wherein the determined viewing angle of the user indicates whether the user is looking on a road, above the road, below the road, or sideways.

5. The wearable glasses as claimed in claim 1, wherein to dynamically control the one or more coordinate of the pair of LCD lenses, the control unit is configured to:

selectively darken one or more the one or more coordinate of the pair of LCD lenses to block the high intensity light in the field of view of the user.

6. A method for blocking a high intensity light in a field of view of a user using wearable glasses, the method comprising:

capturing at least one image of the field of view of the user at a predetermined interval of time;

detecting movement of the user and generating one or more sensor data;

determining a viewing angle of the user based on the one or more sensor data;

processing the at least one captured image to extract intensity of light of each of plurality of pixels of the at least one captured image, based on viewing angle of the user;

identifying one or more pixels having an intensity value greater than a maximum intensity value;

determining one or more coordinate of a pair of LCD lenses corresponding to the identified one or more pixels; and

dynamically controlling the one or more coordinate of the pair of LCD lenses to block a high intensity light in the field of view of the user.

7. The method as claimed in claim 6, further comprising:

resetting the one or more coordinates of the pair of LCD lenses, if the respective intensity value of the identified pixels corresponding to the one or more coordinates is less than the maximum intensity value.

8. The method as claimed in claim 6, wherein the movement of the user is detected using at least an accelerometer and a gyroscope.

9. The method as claimed in claim 6, wherein the determined viewing angle of the user indicates whether the user is looking on a road, above the road, below the road, or sideways.

10. The method as claimed in claim 6, wherein dynamically controlling the one or more coordinate of the pair of LCD lenses comprises:

selectively darkening one or more the one or more coordinate of the pair of LCD lenses to block the high intensity light in the field of view of the user.

Dated this 02nd day of August 2022

-- Digitally Signed--

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ABSTRACT

"WEARABLE GLASSES FOR BLOCKING A HIGH INTENSITY LIGHT AND A METHOD THEREOF"

The wearable glasses and method for blocking a high intensity light in a field of view of a user is disclosed. The wearable glasses comprises a pair of LCD lenses (110) and at least one camera (101). The wearable glasses further comprises one or more sensors configured to detect movement of the user and generate one or more sensor data. The wearable glasses further comprises a control unit configured to determine a viewing angle of the user based on the one or more sensor data, process at least one captured image to extract intensity of light of each of plurality of pixels of the at least one captured image, based on viewing angle of the user, identify one or more pixels having an intensity value greater than a maximum intensity value, and dynamically control one or more coordinate of the pair of LCD lenses (110) to block a high intensity light in the field of view of the user.

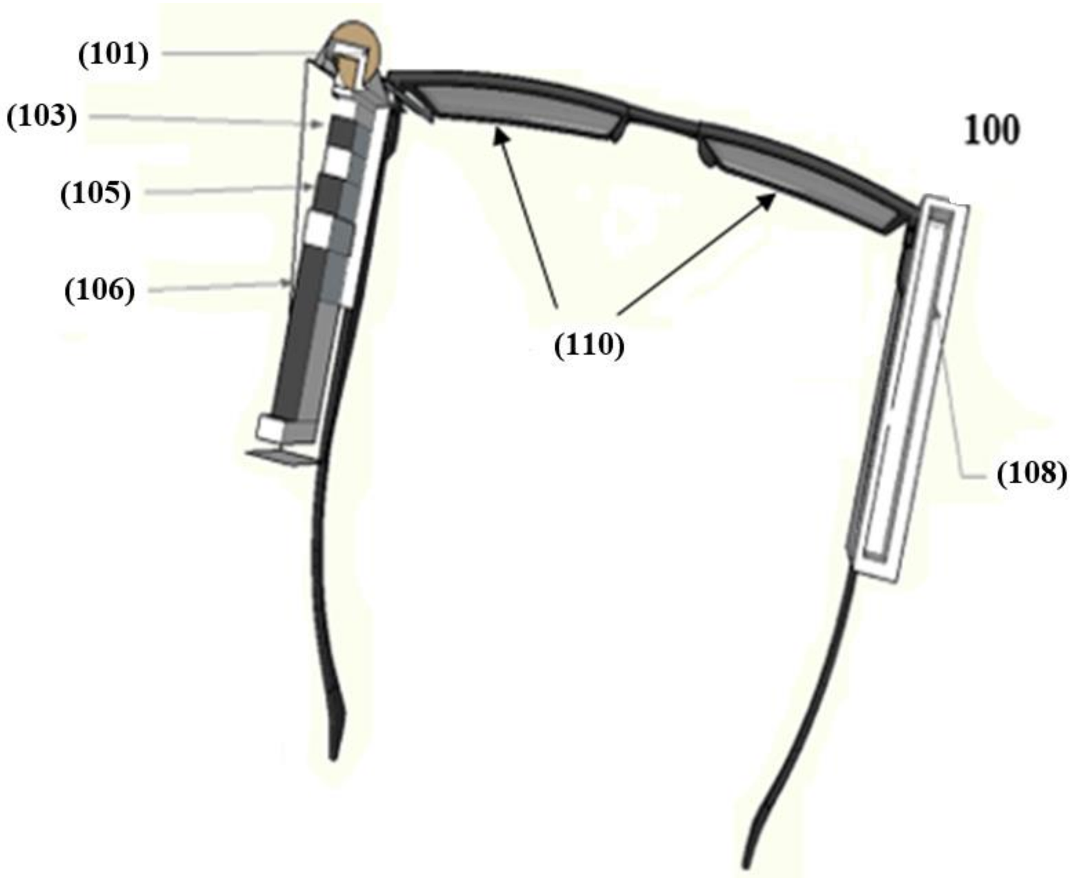

FIG 1

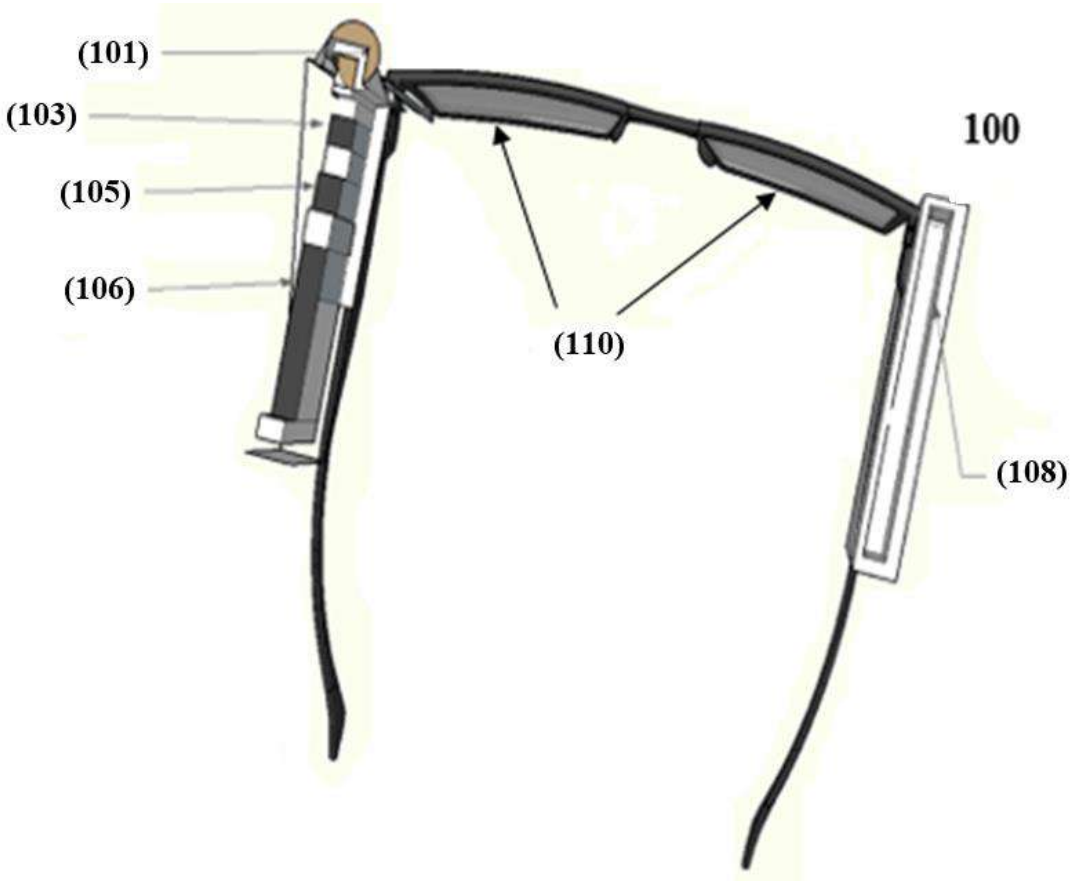

Figure. 1

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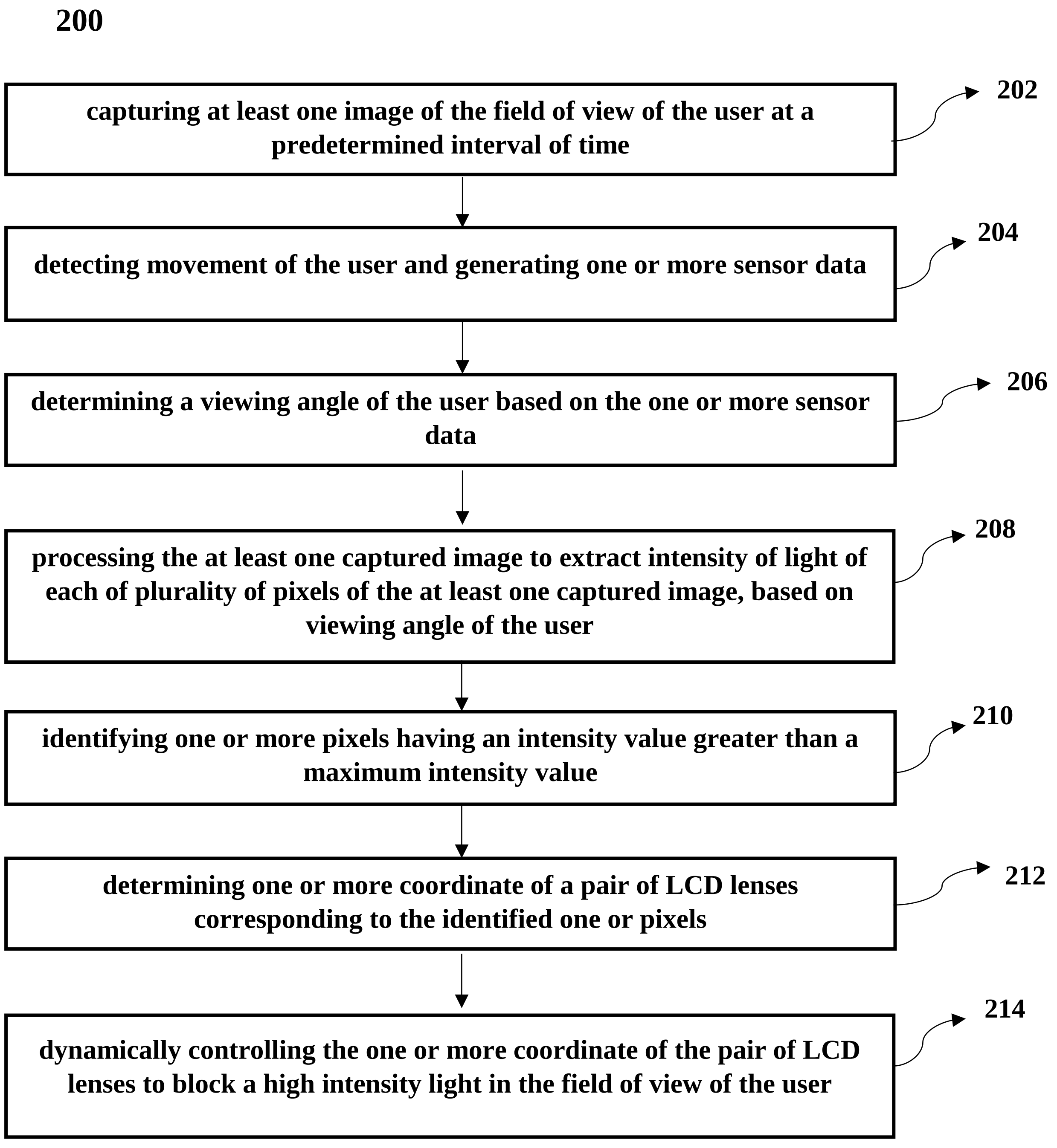

Figure. 2

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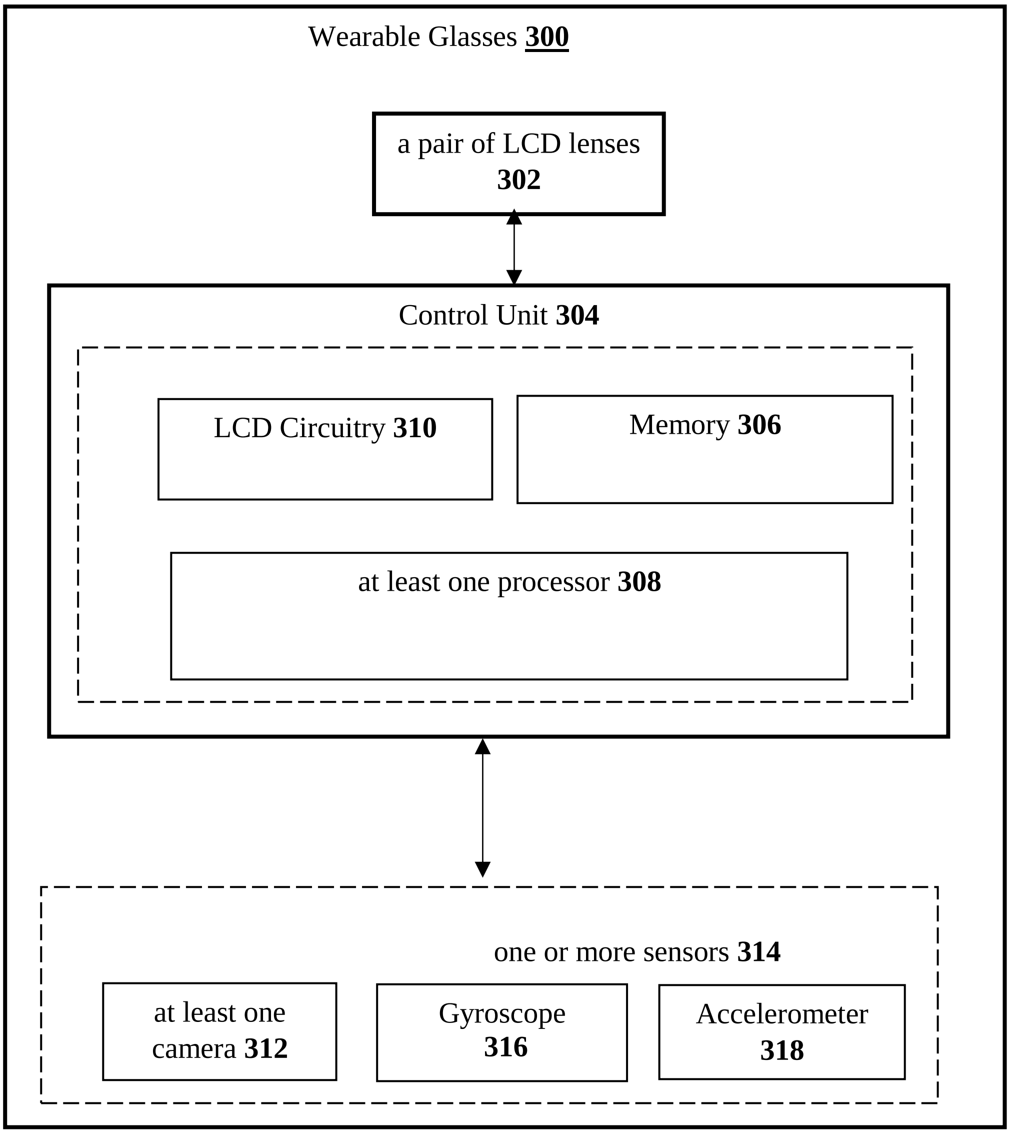

Figure. 3

-- Digitally Signed--
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