

FACE RECOGNITION ATTENDANCE SYSTEM

Technical Field

This utility model relates to an attendance system, and more specifically, to a face recognition attendance system using a mobile device.

Related Art

Salary is the motivation for employees to work hard, which needs to be clear and accurate, so that working morale of the employees will not be affected. To accurately master starting and quitting attendance time of the employees to make it conducive to salary settlement, business owners provide a check-in clocking device. Traditional management modes of employees' starting and quitting time such as manual check-in and plug-in clock check-in clocking are most accepted by the business owners.

Although there is also employees' starting and quitting attendance management by using proximity cards to check-in and clock now, such proximity cards is not suitable for small-and-medium-sized enterprise business premises that has streamlined personnel and that cannot provide access control. Business owners of this kind of business premises can only provide employees' check-in by using the traditional manual check-in and plug-in clock, and the traditional manual check-in and plug-in clock can only be used at a single place. The foregoing traditional modes make attendance management and salary settlement of the employees inefficient and extremely low in accuracy. In addition, to use proximity cards, the costs of purchasing a card reader and making the proximity cards are needed, and for business owners who have a small number of employees, based on business costs, there is still problem of low willingness to use the proximity cards. The employees usually lose the proximity cards, or damage the proximity cards because of improper placing, causing the proximity cards to lose the function. Further, cheat on check-in among the employees still cannot be eliminated.

SUMMARY

This utility model is to resolve the problem by using any mobile device that has a lens, that is, a full background service that can replace the traditional clock and can calculate salary in combination with scheduling.

To resolve the above problem, this utility model is directed to disclose a face recognition attendance system, comprising a mobile device installed with an attendance application, comprising a camera unit, where a face image of a user is obtained by using the camera unit and the face image data is transmitted; and a server terminal device, obtaining the face image by connecting to the mobile device through the Internet, where the server terminal device further comprises: a storage unit, configured to store attendance data and image data; and a processing unit, comparing the face image to the image data stored in the storage unit and generating comparison result information, where a corresponding attendance interface is generated in the mobile device based on the comparison result information.

In an embodiment, the mobile device further comprises a tablet or a smartphone.

In an embodiment, the camera unit captures a face image comprising a face recognition feature based on face detection.

In an embodiment, the attendance data further comprises attendance clocking time of the user.

In an embodiment, the attendance interface further comprises generating a prompt to obtain a face image again when the face image cannot be recognized.

In an embodiment, the attendance interface further comprises automatically transmitting clocking success information to an instant messaging program.

In an embodiment, the attendance interface further comprises generating a historical attendance record based on the attendance data of the user.

In an embodiment, the attendance interface further comprises an employee interface and an administrator interface.

In an embodiment, the administrator interface further comprises absence and attendance approval information, salary calculation information, and scheduling list information.

In an embodiment, the administrator interface further comprises employee clocking make-up application information, employee ask-off information, and working hour calculation information.

Main features of this utility model are: 1. Combined with an instant messaging software

(e.g. LINE) alert service, when you clock, a message will be sent to LINE to notify you of clocking success. The place of use is not limited, any mobile phone or tablet can be used to clock, and foreign agents can also clock in outside. 2. The background directly settles the salary based on employee clocking data, and no longer needs to spend a week in calculating attendance time. 3. Nobody can clock on behalf of others, and face recognition is needed to clock. 4. According to the regulation, employee clocking records need to be kept for five years. The traditional clocking paper is not easy to keep, and the background is used to access all the employee clocking data, to reduce paper and increase space, which is also more environmentally friendly.

This utility model is further described below with reference to the accompanying drawings and specific embodiments, so that a person skilled in the art may understand and implement this utility model more easily.

BRIEF DESCRIPTION OF THE DRAWINGS

[0001] FIG. 1 is a schematic system diagram of a face recognition attendance system of this utility model.

[0002] FIG. 2 is a flowchart of employee clocking according to an embodiment of the face recognition attendance system of this utility model.

DETAILED DESCRIPTION

[0003] Refer to FIG. 1 for the structure and application of this utility model. As shown in FIG. 1, the face recognition attendance system of this utility model includes a mobile device 110 installed with an attendance application, including a camera unit 111, where a face image of a user is obtained by using the camera unit 111 and the face image data is transmitted; and a server terminal device 120, obtaining the face image by connecting to the mobile device through the Internet, where the server terminal device further includes: a storage unit 121, configured to store attendance data and image data; and a processing unit 122, comparing the face image to the image data stored in the storage unit 121 and generating comparison result information, where a corresponding attendance interface is generated in the mobile device 110 based on the comparison result information.

[0004] In an embodiment, the mobile device further includes a tablet or a smartphone.

[0005] In an embodiment, the camera unit captures a face image including a face recognition feature based on face detection.

[0006] In an embodiment, the attendance data further includes attendance clocking time of the user.

[0007] In an embodiment, the attendance interface further includes generating a prompt to obtain a face image again when the face image cannot be recognized.

[0008] In an embodiment, the attendance interface further includes automatically transmitting clocking success information to an instant messaging program.

[0009] In an embodiment, the attendance interface further includes generating a historical attendance record based on the attendance data of the user.

[0010] In an embodiment, the attendance interface further includes an employee interface and an administrator interface.

[0011] In an embodiment, the administrator interface further includes absence and attendance approval information, salary calculation information, and scheduling list information.

[0012] In an embodiment, the administrator interface further includes employee clocking make-up application information, employee ask-off information, and working hour calculation information.

[0013] FIG. 2 is a flowchart of employee clocking according to an embodiment of the face recognition attendance system of this utility model. The step process is as follows:

[0014] Step S210: Obtain a face image by using a camera unit of a mobile device and transmit the face image to a server terminal device.

[0015] Step S220: Recognize whether the face image is clear by using a processing unit.

[0016] Step S230A: When the face image is clear, compare the face image to the image data stored in a storage unit by using the processing unit.

[0017] Step S230B: When the face image is not clear, perform step S210 to obtain a face image again.

[0018] Step S240A: Generate an attendance interface in the mobile device when the comparison succeeds.

[0019] Step S240B: Generate a failure message in the mobile device when the comparison fails.

[0020] In an embodiment, the mobile device further includes a tablet or a smartphone.

[0021] In an embodiment, the camera unit captures a face image including a face recognition feature based on face detection.

[0022] In an embodiment, the attendance data further includes attendance clocking time of the user.

[0023] In an embodiment, the attendance interface further includes generating a prompt to obtain a face image again when the face image cannot be recognized.

[0024] In an embodiment, the attendance interface further includes automatically transmitting clocking success information to an instant messaging program.

[0025] In an embodiment, the attendance interface further includes generating a historical attendance record based on the attendance data of the user.

[0026] In an embodiment, the attendance interface further includes an employee interface and an administrator interface.

[0027] In an embodiment, the administrator interface further includes absence and attendance approval information, salary calculation information, and scheduling list information.

[0028] In an embodiment, the administrator interface further includes employee clocking make-up application information, employee ask-off information, and working hour calculation information.

[0029] As can be known, this utility model is a face recognition attendance system, the advantages of which include: 1. Combined with an instant messaging software (e.g. LINE) alert service, when you clock, a message will be sent to LINE to notify you of clocking success. The place of use is not limited, any mobile phone or tablet can be used to clock, and foreign agents can also clock in outside. 2. The background directly settles the salary based on employees clocking data, and no longer needs to spend a week in calculating attendance time. 3. Nobody can clock on behalf of

others, and face recognition is needed to clock. 4. According to the regulation, employee clocking records need to be kept for five years. The traditional clocking paper is not easy to keep, and the background is used to access all the employee clocking data, to reduce paper and increase space, which is also more environmentally friendly. Further, it can be seen that attendance is digitized, so that the human resources department can spend more time on something more meaningful. In addition, the problem such as cheat in clocking can be completely eliminated, and the scheduling system can be perfectly combined to enable all walks of life to meet the needs of practical use.

[0030] The foregoing merely describes the implementations or embodiments of this utility model to present the technical means adopted to resolve the problems, but are not used to limit the scope of the implementation of this utility model. Any variation and modification consistent with the scope of the claims of this utility model or made based on the scope of the claims of this utility model are to be included within the scope of this utility model.

CLAIMS

What is claimed is:

1. A face recognition attendance system, comprising:

a mobile device installed with an attendance application, comprising a camera unit, wherein a face image of a user is obtained by using the camera unit and the face image data is transmitted; and

a server terminal device, obtaining the face image by connecting to the mobile device through the Internet, wherein the server terminal device further comprises:

a storage unit, configured to store attendance data and image data; and

a processing unit, comparing the face image to the image data stored in the storage unit and generating comparison result information,

wherein a corresponding attendance interface is generated in the mobile device based on the comparison result information.
2. The face recognition attendance system according to claim 1, wherein the mobile device further comprises a tablet or a smartphone.
3. The face recognition attendance system according to claim 1, wherein the camera unit captures a face image comprising a face recognition feature based on face detection.
4. The face recognition attendance system according to claim 1, wherein the attendance data further comprises attendance clocking time of the user.
5. The face recognition attendance system according to claim 1, wherein the attendance interface further comprises generating a prompt to obtain a face image again when the face image cannot be recognized.
6. The face recognition attendance system according to claim 1, wherein the attendance interface further comprises automatically transmitting clocking success information to an instant messaging program.
7. The face recognition attendance system according to claim 1, wherein the attendance interface further comprises generating a historical attendance record based on the attendance data of the user.

8. The face recognition attendance system according to claim 1, wherein the attendance interface further comprises an employee interface and an administrator interface.

9. The face recognition attendance system according to claim 8, wherein the administrator interface further comprises absence and attendance approval information, salary calculation information, and scheduling list information.

10. The face recognition attendance system according to claim 8, wherein the administrator interface further comprises employee make-up clocking application information, employee ask-off information, and working hour calculation information.