appropriate, a person moving toward another gate is erroneously recognized.

[0007]

Further, a problem of erroneous recognition of persons moving toward the gates may be caused in the case where collation is performed on any target, without being limited to the case where a target that is about to pass through the gate is a person.

[0008]

Therefore, embodiments of the present invention provide a collation system capable of solving the problem described above, that is, a problem of erroneous recognition of a target that is about to pass through a gate.

[0009]

According to a first aspect of the present invention, there is provided a collation system including an imaging means for acquiring a captured image of a pre-passage side area with respect to each of gates arranged in parallel with each other, and a collation means for performing a collation process on the captured image of the pre-passage side area for each of the gates, between a previously registered target and a target included in the captured image, wherein the collation means is configured to perform the collation process on the basis of a target in the captured image corresponding to one of the gates and a target in the captured image corresponding to another one of the gates.

[0010]

According to a second aspect of the present invention, there is provided an information processing apparatus including a collation means for performing a collation process on a captured image of a pre-passage side area with respect to each of gates installed in parallel with each other, between a previously registered target and a target in the captured image, wherein the collation means is configured to perform the collation process on the basis of a target in the captured image corresponding to one of the gates and a target in the captured image corresponding to another one of the gates.

[0011]

According to a third aspect of the present invention, there is provided a program for causing an information processing apparatus to realize a collation means for performing a collation process on a captured image of a pre-passage side area with respect to each of gates installed in parallel with each other, between a previously registered target and a target in the

captured image, wherein the collation means is configured to perform the collation process on the basis of a target in the captured image corresponding to one of the gates and a target in the captured image corresponding to another one of the gates.

[0012]

According to a fourth aspect of the present invention, there is provided a collation method including performing a collation process on a captured image of a pre-passage side area with respect to each of gates installed in parallel with each other, between a previously registered target and a target in the captured image , wherein the collation process is performed on the basis of a target in the captured image corresponding to one of the gates and a target in the captured image corresponding to another one of the gates.

[0013]

Embodiments of the present invention suppress erroneous recognition of a target that is about to pass through a gate.

BRIEF DESCRIPTION OF DRAWINGS

[0014]

Fig. 1 illustrates a used state of a face authentication system according to a first exemplary embodiment of the present invention.

Fig. 2 is a block diagram illustrating a configuration of the face authentication system according to the first exemplary embodiment of the present invention.

Fig. 3 is illustrates an imaging state by the face authentication system disclosed in Fig. 1.

Fig. 4A illustrates a captured image captured in the imaging state of Fig. 3 by the face authentication system disclosed in Fig. 1.

Fig. 4B illustrates a captured image captured in the imaging state of Fig. 3 by the face authentication system disclosed in Fig. 1.

Fig. 5 illustrates an imaging state by the face authentication system disclosed in Fig. 1.

Fig. 6A illustrates a captured image captured in the imaging state of Fig. 5 by the face authentication system disclosed in Fig. 1.

Fig. 6B illustrates a captured image captured in the imaging state of Fig. 5 by the face authentication system disclosed in Fig. 1.

CLAIMS

1. A collation system comprising:

imaging means for acquiring a captured image of a pre-passage side area with respect to each of gates arranged in parallel with each other; and

collation means for performing a collation process on the captured image of the pre-passage side area for each of the gates, between a previously registered target and a target included in the captured image, wherein

the collation means performs the collation process on a basis of a target in the captured image corresponding to one of the gates and a target in the captured image corresponding to another one of the gates.

2. The collation system according to claim 1, wherein

the collation means performs the collation process on a basis of a target located in a predetermined area in the captured image corresponding to the one of the gates and the target in the captured image corresponding to the other one of the gates.

3. The collation system according to claim 2, wherein

the collation means performs the collation process on a basis of a target located in a first area of the captured image corresponding to the one of the gates and a target located in a second area of the captured image corresponding to the other one of the gates.

4. The collation system according to claim 3, wherein

when the target located in the first area of the captured image corresponding to the one of the gates is also located in the second area of the captured image corresponding to the other one of the gates, the collation means excludes the target located in the first area of the captured image corresponding to the one of the gates from the collation process.

5. The collation system according to claim 4, wherein

when a target located in an end area in a horizontal direction that is the first area of the captured image corresponding to the one of the gates is also located in a center area in a horizontal direction that is the second area of the captured image corresponding to the other one of the gates, the collation means excludes the target located in the end area in the horizontal direction of the captured image corresponding to the one of the gates from the collation process.

6. The collation system according to claim 4 or 5, wherein

when the target located in the first area of the captured image corresponding to the one of the gates is also located in the second area of the captured image corresponding to the other one of the gates at a timing when the target is located in the first area, the collation means excludes the target located in the first area of the captured image corresponding to the one of the gates from the collation process.

7. The collation system according to any of claims 3 to 6, further comprising

area setting means for setting the first area of the captured image corresponding to the one of the gates and the second area of the captured image corresponding to the other one of the gates, on a basis of the target in the captured image corresponding to the one of the gates and the target in the captured image corresponding to the other one of the gates acquired at a timing when the target is located in the captured image corresponding to the one of the gates.

8. The collation system according to claim 7, wherein

when the target in the captured image corresponding to the one of the gates and the target in the captured image corresponding to the other one of the gates acquired at a timing when the target is located in the captured image corresponding to the one of the gates are identical, the area setting means sets a periphery of a position of the target in the captured image corresponding to the one of the gates as the first area and sets a periphery of a position of the target in the captured image corresponding to the other one of the gates as the second area, on a basis of the position of the target in the captured image corresponding to the one of the gates and the position of the target in the captured image corresponding to the other one of the gates.

9. An information processing apparatus comprising:

collation means for performing a collation process on a captured image of a pre-passage side area with respect to each of gates installed in parallel with each other, between a previously registered target and a target in the captured image, wherein

the collation means performs the collation process on a basis of a target in the captured image corresponding to one of the gates and a target in the captured image corresponding to another one of the gates.

10. A collation method comprising

performing a collation process on a captured image of a pre-passage side area with respect to each of gates installed in parallel with each other, between a previously registered target and a target in the captured image, wherein

the collation process is performed on a basis of a target in the captured image corresponding to one of the gates and a target in the captured image corresponding to another one of the gates.