such as passports, driving licenses, access badges, etc. Therefore, the authenticity of a three-dimensional image of this type is difficult to establish on visual inspection.

It is an object of this invention to provide an identity document, from which the photo can be easily authenticated. Accordingly it would be desirable to overcome or ameliorate at least one of the disadvantages of the prior art.

Summary of the invention

The object is achieved by the identity document comprising the two-dimensional image and the ghost image on a single image plane according to claim 1.

According to the invention, an identity document comprising in a single plane a two-dimensional image and under optical means a ghost image for verifying the authenticity of the two-dimensional image, wherein the ghost image is a stereo image and the stereo image is based on the two-dimensional image.

According to an aspect of the invention, there is provided an identity document comprising in a single plane a two-dimensional image and under optical means a ghost image for verifying the authenticity of the two-dimensional image, wherein the ghost image is a stereo image and in that the stereo image is based on the two-dimensional image, wherein the ghost image comprises the two-dimensional image per se, wherein the two-dimensional image shows a person, and the ghost image shows a person being the same person as shown by the two-dimensional image, wherein the ghost image comprises images being applied interlaced and wherein the optical means comprise a series of linear lenticular lenses forming a lens array and said lenses are cylindrical shaped, the lenses extending in the direction of the symmetry axis of the face of the person.

Advantageously, the identity document will provide quick verification of the authenticity of the two-dimensional image on visual inspection, where the stereo image should be visible without tilting the identity document while the stereo image is compared with the two-dimensional image. The identity document of the invention comprising in a single plane the two-dimensional image and under optical means the ghost image also provides an indication of the authenticity at the same time, in that since the ghost image is based on the two-dimensional image, a further verification is provided that the identity document has not been tampered with. The invention thus will improve the verification of the authenticity of the identity document.

It should be noted that the stereo image comprises at least two images of a person of the two-dimensional image and in that the stereo image comprises images based on the two-dimensional image at least two different angles with respect to the person in the two-dimensional image.

According to the present invention, the stereo image comprises at least two images of the person on the identity card wherein at least one of the two images is a calculated image.

Advantageously, when inspecting the identity document, a user verifying the identity document will always be inclined to study the images applied thereon of the face of the bearer of the identity document. When the identity document is inspected, the user will immediately recognize that the two-dimensional image and the stereo image

correspond to the same person without having to perform any operation, such as touching, tilting or put the identity document against the light for checking the authenticity of the two-dimensional image. If there is any difference between the two-dimensional image and the stereo image, it would become immediately evident to the user or if there is an error between the images, this will be recognizable to the user at first sight. This action will occur as a reflex, and after this action the user can proceed to inspect the identity document in more detail.

In a preferred embodiment of the invention, the stereo image comprises at least two images of the person on the identity card of which at least one of the two images is a calculated image.

Advantageously, only one image should be taken from the bearer of the identity document, while the other image will be derived from calculation. This option can reduce cost since no stereophotography is required.

According to the present invention, the at least one of the two images is a rotated image over an angle in the range from about 4,5° to about 7,5°, preferably over an angle of about 6°. Moreover, the angle of rotation can be in the range from about -4,5° to about -7,5°, preferably over an angle of about -6°.

According to some examples of the invention, a rotation angle difference between two consecutive rotated images in the stereographic ghost image is about 4°. These consecutive images refer to images that are being applied relative to each other.

Advantageously, an accurate ghost image can be obtained for use in identity documents from only one single conventional two-dimensional basic image.

According to some examples of the invention, the stereo image consist of more than two images.

As a result, the quality of the stereo image could be increased. Moreover, the risk of the unique characteristics of the image being lost through calculation is substantially reduced.

According to some examples of the present invention, the optical means comprise a series of linear lenticular lenses forming a lens array and said lenses are cylindrical shaped or spherical shaped.

Additionally, the images are being applied interlaced. Furthermore, the interlaced images are being applied offset relative to one another and overlapping one another in an image layer.