

APPARATUS AND METHOD FOR CONTACTLESS HIGH RESOLUTION HANDPRINT CAPTURE

ABSTRACT

A system and method for contactless handprint capture is disclosed that includes an image capture device (14) to capture whole handprint images of a subject hand at each of a plurality of different focal distances, with the image capture device (14) including an imaging camera (32) and an electro-optics arrangement (34) having a plurality of light modulating elements (42) and polarization sensitive optical elements (40) having differing optical path lengths based on polarization states. A control system (38) is coupled to the image capture device (14) to cause the device to capture the handprint images at each of the different focal distances, with each handprint image having a depth-of-focus that overlaps with a depth-of-focus of handprint images at adjacent focal distances such that redundant handprint image data is captured. The control system (38) registers each handprint image with positional data and creates a composite handprint image from the handprint images captured at the different focal distances.

[Figure 3]