

## TRANSLATED TEXT

## Utilizing Skin Mask and Face Member Detection for improving the Viola Face

### Detection Method

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#### Summary

Considering the vast applications of face detection, offering a fast and full-proof method has long been one of the main worries in the field of image processing. One successful and fast method in this field was presented by Viola. Relatively slow speed, false negative of missing parts and immoderate fault detection are three disadvantages of this method. In this paper, locations and candidate scales are limited for face detection by means of producing a skin mask, which this results in more than 4X speed increase in the final algorithm. On the other hand, by training these methods to detect nose and eyes, in addition to detecting faces with only two eyes or one nose specified, the accuracy of faces detected with the Viola algorithm has increased. Through improvements made in the Viola method in the presented algorithm, fault detection has reduced from 10 to 2.4 and false negative has dropped from 4.4 to 2.4 .

Keywords: Face Detection, Skin Detection, Eye Detection, Nose Detection.

## ORIGINAL TEXT

در آرشیو موجود نیست.