Abstract

In this paper, we have used the knowledge-based approach to detect the multiple human face of an image. We presented an algorithm, which detects human face by the geometric correlations between location of face and hairs in an image. Range of skin color are used to figure out possible face regions so as to initially localize the face, furthermore, the probable hair blocks in an image frame are determined by means of hair color spectrums. Combined skin and hair blocks decide candidate face areas in light of the geometric relation then we separate each component on the basis of pixel and count the number of faces detected therefore, the proposed is able to be expectedly transplanted to an embedded system, like the developing pet robot so as to perform dynamic face detection and tracking. The algorithm can be used for surveillance. The algorithm can be used for developing secure PC camera and web camera. The algorithm is being used for providing laptop security.
15. Viola, Paul A. and Jones, Michael J., 2001 “Rapid Object Detection using a Boosted Cascade of Simple Features”, IEEE CVPR.

**Index Terms**

Computer Science

Algorithms
Keywords

Skin Quantization, Hair Quantization