

EE368 Face detection

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Introduction

- Face detection : important part of face recognition
- Variations of image appearance
 - pose (front, non-front)
 - occlusion
 - Image orientation
 - illuminating condition
 - facial expression.
- Methods
 - color segmentation
 - image segmentation
 - template matching methods.



Color Segmentation

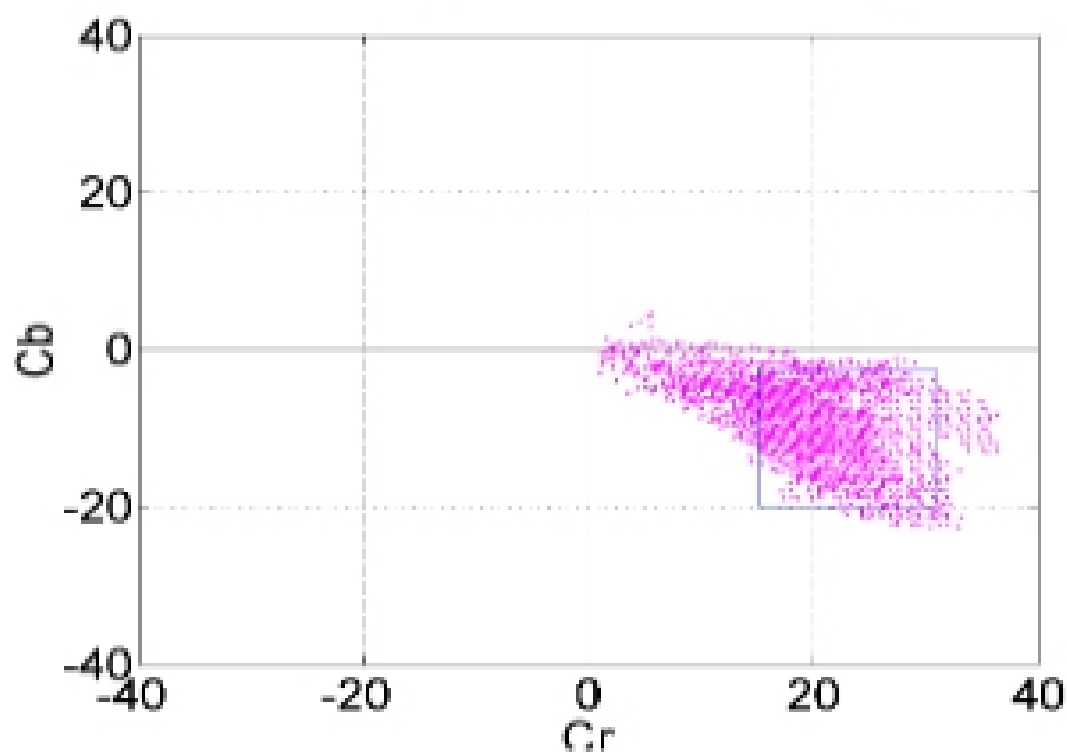
- RGB components \rightarrow YCbCr components

$$Y = 0.299R + 0.587G + 0.114B$$

$$Cb = -0.169R - 0.332G + 0.500B$$

$$Cr = 0.500R - 0.419G - 0.081B$$

- Skin window : from mean, deviation of Cb, Cr components.



Skin pixel of YCbCr color space

