

Image processing based emotion recognition

駱樂, 黃志長, 劉學燕

Electrical Engineering

Engineering

lluh@ee.ncu.edu.tw

### Abstract

The goal of this paper is to build an emotion detect system which can analyze basic facial expression of human. In this study, a frame of emotion recognition system is constructed, including face detection, feature extraction and facial expression classification. In part of face detection, a skin detection process is adopted first to pick up the facial region from a complicated background. Through the feature detection of lip, mouth, and eyes, eyebrow, those feature points are found. Moreover, the changing of these facial feature points, the characteristic values of emotion state are computed. The experiment has shown that the proposed strategy is effective.

Keyword : facial expression, emotion recognition, GMM,