URN etd-0407109-183702-87
Author Yen-Shao Chen
Author's Email Address No Public.
Statistics This thesis had been viewed 72 times. Download 0 times.
Department
Year 2007
Semester 2
Degree Master
Type of Document Master's Thesis
Language zh-TW.Big5 Chinese
Title Design and Implementation of A Real-Time Face Recognition System
Date of Defense 0000-00-00
Page Count 66
Keyword
face detection
face recognition
principal component analysis

Abstract
This thesis addresses a real-time face recognition system, which can recognize the faces of human beings instantly from the images and also identify the users. The proposed system consists of the face detection and the face recognition subsystems. In the face detection subsystem, it uses the facial color filter to partition the possible facial color areas, and then applies the connected component labeling procedures to localize the objective faces initially. After this, the system will use an ellipse mask to verify where the exact face is in the image, and then normalize these faces blocks for the later faces recognition procedures. In order to recognize the faces, the principal component analysis method is adopted to determine the eigenface space of each face. After constructing the database of the weight vector for all sample faces, one can use the magnitude of the Euclidean distance between the objective and every sample to determine which face sample is the closest and the resultant one. From experimental results, it is seen that the proposed real-time face recognition system has fast and precise recognition abilities. The proposed system in this thesis can be applied to access control systems, security systems, the human-machine interaction systems and service robots.
Advisory Committee Ming-Yuan Shieh - advisor

Files No Any Full Text File.
Date of Submission 2008-07-23