

附件二：中文摘要格式與範例

論文題目

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摘要

摘要中的每一段落一開始要空兩個字元，字體為12的標楷體，英文為Times New Roman，中文行距為單行間距(或固定行高20點)，與前段距離為0行，與後段距離為0.5行。

接下來為範例：近年來生物認證技術逐漸普及，例如人臉辨識、虹膜辨識、指紋辨識、掌紋辨識、語音辨識等等。在這之中以人臉辨識最為廣泛使用，因為使用者並不需要穿戴額外的裝置，也不需要和受測裝置有任何接觸，只需要透過基本的攝影照相裝置，就可以得到辨識所需要的資料，因此，人臉辨識可以說是生物認證技術中最方便的方法了。

本論文提出以Radon Transform為基礎的即時人臉辨識系統。本論文在人臉偵測方面，利用了OpenCV的人眼偵測結果，來定位出人臉所在位置以及界定的臉部大小，再透過Radon Transform來判斷此人臉是否為正面影像。而在人臉辨識部分則是以PCA來降低資料的維度，接著再利用LDA的特性來提高特徵向量的鑑別性，藉此增加不同的類別中特徵向量間的相異性，最後將此影像特徵向量與資料庫內的資料向量做 $\cos\theta$ 夾角的比對，當 $\cos\theta$ 的值越大，代表此影像為資料庫的候選者之一。

實驗的部分，本論文使用自製人臉資料庫，一共15人，有300張影像，分別在四種不同的光源下拍攝，並且拍攝五種不同臉部角度的影像。其中10人為人臉資料庫樣本和內部測試樣本，並以不同數量的影像建立不同的人臉資料庫，剩下的影像當作內部測試的樣本，結果顯示內部資料庫辨識率能達到100%。

關鍵字：○○○、○○○

附件三：英文摘要格式與範例

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ABSTRACT

摘要中的每一段落一開始要空2個字元，字體為12，英文為Times New Roman，英文行距為單行間距(或固定行高20點)，與前段距離為0行，與後段距離為0.5行。接下來為範例

In recent years, the bio-authentication technology such as the face recognition, iris recognition, fingerprint recognition, palm print recognition and voice recognition becomes popular. Among the face recognition is the most widely be used, because user don't need to wear other devices and don't need to contact with these devices. We can take the all information needed for face recognition only by use the simple camera, Therefore, the face recognition could be the most convenient recognition of the bio-authentication technology.

We proposed the real-time face recognition system based on the Radon transform. In the face detection, we use the eyes detection result of the OpenCV to find the where is the face and what size of the face. And then we use the Radon Transform to decide the human face is front face or not. In the face recognition, we use the PCA to reduce the data dimension and then we use the LDA to improve the discrimination of feature vectors to increase difference between different class feature vectors. Finally, we take this image of feature vectors to use the $\cos\theta$ compare with the database. If the value of the greatest of the $\cos\theta$, it means this image is the human in the database.

In the experiment section, our face database is created by ourselves to perform all the simulations. The face database is contains 15 individuals, 300 images from four different light sources and five different perspective. We use 10 individuals

附件三：英文摘要格式與範例

(different image number) as training patterns, other images as testing patterns, the results show the best recognition rate can achieve 100%。

Keyword:○○○、○○○