Face Detection using Gabor-Feature Extraction and Neural Networks
Version : 4.1

1- Extract All files in Work folder under Matlab

2- In order to run the program you must have Image Processing and Neural Networks Toolboxes

3- Type main in the command window

   For the first time , The program automatically create
A) Feed-Forward Network (net.mat about 3.5MB)
B) Image Database (imgdb.mat about 11MB)
C) Gabor Filters (gabor.mat about .5MB)

4- Click on "Train Network" from the menu

5- Click on "Image Scanning" from the menu

6- Select a file for example 'im1.jpg'
   The program can only detect faces about [27 18] pixels in the photo
   , if detect any

Best Wishes

   Omid Sakhi

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omid.sakhi@gmail.com
REFERENCES :

Papers :

[02] Gabor Wavelet Based Pose Estimation For Face Recognition - B. Gökberk, L. Akarun, E. Alpaydin - Bagaziuni.
[03] A Gabor Feature Classifier for Face Recognition - C. Liu H. Wechsler
[04] Gabor Feature Based Classification Using the Enhanced Fisher Linear Discriminant Model for Face Recognition - C. Liu H. Wechsler
[05] Gabor-Based Kernel PCA with Fractional Power Polynomial Models for Face Recognition C. Liu
[06] Gabor Wavelet Associative Memory for Face Recognition - H. Zhang, B. Zhang, W. Huang and Qi Tian
[07] Neural Network-Based Face Detection – H.A. Rowley, S. Baluja, and T. Kanade
[08] Rotation Invariant Neural Network-Based Face Detection - H.A. Rowley, S. Baluja, and T. Kanade
[09] A Novel Gabor-LDA Based Face Recognition Method , Uni. Science and Technology of China
[10] Independent Component Analysis of Gabor Features for Face Recognition - C. Liu
[14] Face Detection Based on Skin Color Using Neural Networks , American University of Cairo
[15] Human Face Recognition Based on Singular valued Decomposition and Neural Network , International Islamic University of Malaysia

Books :

[16] Image Processing Toolbox for using with Matlab , Release 14
[17] Neural Networks Toolbox for using with Matlab , Release 14
[20] 2D Object Detection and Recognition , Yali Amit , MIT Press

Images in Tran Set and Samples Belong to :

[01] Rowley-Baluja-Kanade Face Detector , Author: Scott Sanner
[02] Face Recognition By Atle Nes