The design and implementation of the face classifying system hinges upon and is organized around getting the user and the program to carry out, a correct sequence actions and processes of creation of the settings, to put in place the various pivotal prerequisite elements for an effective face classifying operation. The process of classifying faces is divided into stages. These stages are:

1. Setting up the partitioning of the face dataset into a training face images set and a test face

images.

1. Training the computer, that is getting the computer to set up an applicable internal representation model of a classifier based on the training set.
2. Selecting an image from the test face image
3. Test the chosen image against the classifier to get a nearest image in the training set and displaying it

In the first step the user clicks on the ‘Partitioning For Images’ drop down box and selects the method of partitioning. The options are either Middle Split or Interleave.

Before there is any implementation of these options the program clears the C:\UWA\Computer Vison\Project\TrainingFaceDataSet’ and the ‘C:\UWA\Computer Vison\Project\FaceDataSet’ with their Person subfolders of any image files they may hold. Then the option is implemented

In Middle Split the computer goes through the s folders in the ‘C:\UWA\Computer Vison\Project\FaceDataSet’ directory and copies the first 5 images in each of the s type directories into the corresponding person directory in the

‘C:\UWA\Computer Vison\Project\TrainingFaceDataSet’ folder and the last five in the s type directory into the corresponding person directories in the ‘C:\UWA\Computer Vison\Project\TestFaceDataSet’.

In Interleave the computer goes through the s folders in the ‘C:\UWA\Computer Vison\Project\FaceDataSet’ directory and alternately copies every odd image in the s type folder into the corresponding person directory in the

‘C:\UWA\Computer Vison\Project\TrainingFaceDataSet’ and every even image into the corresponding person directory in the ‘C:\UWA\Computer Vison\Project\TrainingFaceDataSet’ folder.

This stage may in fact be left out by the user, but the image layout partitioning would what-ever it was previously.

In the second step the user clicks on the ‘Train On Image Gallery’ button. The computer then goes through each of the images in the ‘C:\UWA\Computer Vison\Project\TrainingFaceDataSet’ folder

to internally create an applicable image classifier model.

In the third step the user clicks on the ‘Load Image’ button. A load image dialog box is displayed. In it is displayed the ‘TrainingFaceDataSet’ and ‘TestFaceDataSet’ directories. The user then selects the ‘TestFaceDataSet’ and then from inside it one of the person type directories and then from inside it an actual image. This image is then displayed in the left image box.

In the fourth step the user clicks the ‘Test for face with nearest match’ button. The computer then compares the image selected against the elements of the applicable classifier model, in the process displaying in the right image box a representative face image from the training set the computer is testing the chosen image against and finally ultimately displaying the face which is the closest match