

## **Q6 Report**

**Experimentally deduced a threshold parameter to classify an image being in the dataset or not**

**Recorded the variation of the following results with variation of threshold**

- 1. False negatives - if the image is one of the last 4 images of first 32 persons and the squared distance between eigenvectors is greater than threshold then this image is recorded as a false negative**
- 2. Wrongly recognised - if the image is one of the last 4 images of first 32 persons and the squared distance between eigenvectors is less than the threshold but not correctly identified then this image is recorded as wrongly assigned**
- 3. False positives - if the image is of the last 8 persons of the dataset and squared distance between the eigenvectors is less than threshold then this is recorded as a false positive**

**The best result is observed for threshold equal to 1800 and the result are as follows -:**

- 1. False negatives = 26**
- 2. False positives = 3**
- 3. Wrongly recognised = 1**

**Where total images = 208**

**And correctly classified = total - false negatives - false positives - wrongly recognised  
correctly classified = 178**

**Note - Refer the html published report to view the results and code**