IMAGE   WHITENING

Steps Involved:

- Importing of Libraries :
  1. Matplotlib
  2. CV2
  3. Numpy
- Load the image
- Convert the image into grayscale
- By converyting an image into grayscale we convert a multidimensional array image into single one
- Hence get the array structure of the image (img[])
- Normalization of image by dividing the array img by 255 and get new array img_norm[] with all values between 0 and 1
- Now finding out the mean of the array img_norm and subtracting it from the array img_norm so we have now array with zero centred
- Finally dividing the array by its variance
- So got a modified array im0
- Now adding the array with a number such that can be comparable to the old image
- By using syntax:
  np.hstack((im0,img))
  we are joing two images side by side and hence easily comparable

- Results:
  We got an array im0 with all its value much near hence resultant image is having all the pixels with less intesity variation.

New image   original image(after grayscale)
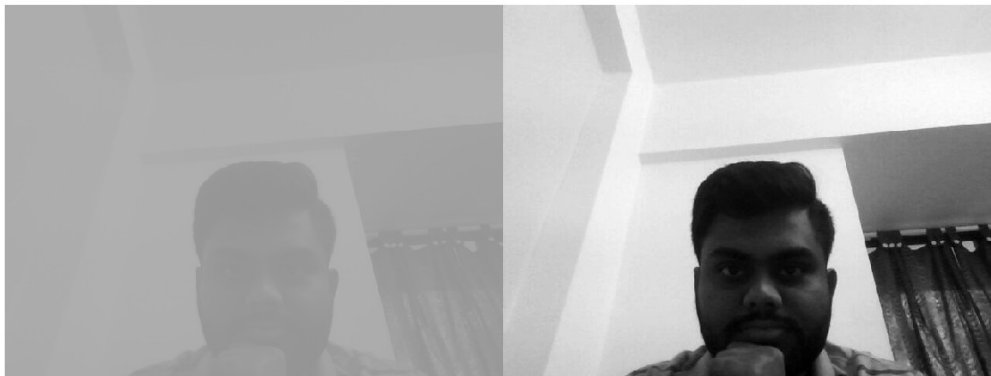
- Problem:
  Cant achieve the required results because of very less intesity variation and hence cant able to distinguish between features of image.

- Aim:
  To have quite significant intensity variation between the pixels of image.

#The main motive behind whitening images is to get rid of correlation among raw data.