**Assignment 6**

Develop a python code to detect any object using Haar cascade classifier.

Python code:

# Importing all required packages

import cv2

import numpy as np

import matplotlib.pyplot as plt % matplotlib inline

# Read in the cascade classifiers for face and eyes

face\_cascade = cv2.CascadeClassifier('../DATA / haarcascades / haarcascade\_frontalface\_default.xml')

eye\_cascade = cv2.CascadeClassifier('../DATA / haarcascades / haarcascade\_eye.xml')

# create a function to detect face

def adjusted\_detect\_face(img):

face\_img = img.copy()

face\_rect = face\_cascade.detectMultiScale(face\_img,

scaleFactor = 1.2,

minNeighbors = 5)

for (x, y, w, h) in face\_rect:

cv2.rectangle(face\_img, (x, y),

(x + w, y + h), (255, 255, 255), 10)\

return face\_img

# create a function to detect eyes

def detect\_eyes(img):

eye\_img = img.copy()

eye\_rect = eye\_cascade.detectMultiScale(eye\_img,

scaleFactor = 1.2,

minNeighbors = 5)

for (x, y, w, h) in eye\_rect:

cv2.rectangle(eye\_img, (x, y),

(x + w, y + h), (255, 255, 255), 10)

return eye\_img

# Reading in the image and creating copies

img = cv2.imread('../sachin.jpg')

img\_copy1 = img.copy()

img\_copy2 = img.copy()

img\_copy3 = img.copy()

# Detecting the face

face = adjusted\_detect\_face(img\_copy)

plt.imshow(face)

# Saving the image

cv2.imwrite('face.jpg', face)

 Detected pic