**MINI PROJECT – II**

**(2019-20)**

# Face Detection and Recognition

# 

**SYNOPSIS**



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**About the Project:**

To make a face recognition program, first we need to train the recognizer with dataset of previously captured faces along with its ID, for example we have two person then first person will have ID 1 and 2nd person will have ID 2,  so that all the images of person one in the dataset will have ID 1 and all the images of the 2nd person in the dataset will have ID 2, then we will use those dataset images to train the recognizer to predict the 1 of an newly presented face from the live video frame

Break the program into 3 major part:

a)Dataset Creator

b)Trainer

c)Detector

**Project scope:**

The scope of image processing will involve scanning the heavens for other intelligent life out in space. Also new intelligent, digital species created entirely by research scientists in various nations of the world will include advances in image processing applications. Due to advances in image processing and related technologies there will be millions and millions of robots in the world in a few decades time, transforming the way the world is managed.

**Motivation:**

The motivation behind this project is that facial detection has an amplitude of possible applications. From common household objects like digital cameras that automatically focus on human faces to security cameras that actually match a face to a person’s identity. Webcams are often used as a security measure for locking a personal computer.

**Future Prospects:**

The future image processing applications of satellite based imaging ranges from planetary exploration to surveillance applications.

Advances in image processing and artificial intelligence will involve spoken commands, anticipating the information requirements of governments, translating languages, recognizing and tracking people and things, diagnosing medical conditions, performing surgery, reprogramming defects in human DNA, and automatic driving all forms of transport.

**Requirements:**

1. **Hardware:**

* Processor: Pentium II, Pentium III, Pentium IV or high
* RAM :- 4GB or higher

1. **Software:**

* Python (2.7, 3.6 version)