**MINI PROJECT – I**

**(2019-20)**

# Multi Face Recognition

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**SYNOPSIS**



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**About the Project:**

Face recognition is the task of identifying an already detected object as a known or unknown face. Often the problem of face recognition is confused with the problem of face detection Face Recognition on the other hand is to decide if the "face" is someone known, or unknown, using for this purpose a database of faces in order to validate this input face.

Face detection involves separating image windows into two classes; one containing faces (turning the background (clutter). It is difficult because although commonalities exist between faces, they can vary considerably in terms of age, skin color and facial expression. The problem is further complicated by differing lighting conditions, image qualities and geometries, as well as the possibility of partial occlusion and disguise. An ideal face detector would therefore be able to detect the presence of any face under any set of lighting conditions, upon any background. The face detection task can be broken down into two steps. The first step is a classification task that takes some arbitrary image as input and outputs a binary value of yes or no, indicating whether there are any faces present in the image. The second step is the face localization task that aims to take an image as input and output the location of any face or faces within that image as some bounding box with (x, y, width, height).

**Motivation:**

* + - **The purpose of doing this project is to provide better security protections because we are living in a world full of threats and our priority is to provide best facility to our family whom we care the most.**

**Future Prospects:**

* + - **For security purpose, this project can be used in many places like collages, defence and hospitals e.t.c.**

**Requirements:**

1. **Hardware:**
   * + **Minimum 4Gb ram**
     + **Minimum Intel i3 processor**
2. **Software:**
   * + **Python**
     + **Anaconda**