**ABSTRACT - Automatic Attendance System**

* **BY TEAM SUS PPL**

We have created a attendance system that is used to detect face and attendence and compile it through an email.

Modules for different features:

* Check camera:

It is used to detect faces in grayscale and it captures images from the video. We have determined the face recognition box dimensions. Cascade classifier also has been used.

* Capture faces:

Here we have to give user input in the form of roll no and name. It captures the positive images and the limitation is only 100 or below. We save the captured images in the dataset folder as a csv file to train these images.

* Train faces.

This module adds the count of positive images and discards negative images

* Recognise faces and attendance:

This module for recognizing the trained faces and counting the attendance.

* Automatic Email:

We used yagmail to send mail to the respective email id by using the calculated attendance.

Modules imported/used:

* Open cv
* Numpy
* Pandas
* CSV
* Yagmail

Algorithm for face recognition:

* Haarcascade:

We used this algorithm to detect faces in an image or video.

* Cascade Classifier:

We use this as it has an inbuit training feature with several hundred of positve sample views of a particular object and arbitary negative image of the same size.