

Software Systems Lab

CSP203

Project Proposal

Prerna Garg
Entry No. 2016csb1050
Email: gargprerna10@gmail.com

CONTENTS

I	Smart Attendance using face recognition	1
II	Speical Purpose Portal	1
II-A	Information portal for students . . .	2
II-B	Portal for Improvising the Technical Culture	2

I. SMART ATTENDANCE USING FACE RECOGNITION

Objective:

The aim of this app is to improvise the attendance system used in college using one click of a camera for an entire class and detecting students through face recognition algorithms. The students will be notified when their attendance is below 75.

Design:

1. Login ID for professors
2. Database Entity would be course name, registered students, sample pictures(2-3), attendance record
3. The professor can login, select the course, take a picture of the class and attendance will be automatically taken.

Advantages:

It completely eliminates the possibility of proxy in any class and makes the attendance procedure handy.

Technology:

We will use following technologies for the application:

- 1) Android Studio
- 2) Java
- 3) OpenCV face recognition routine
- 4) xml

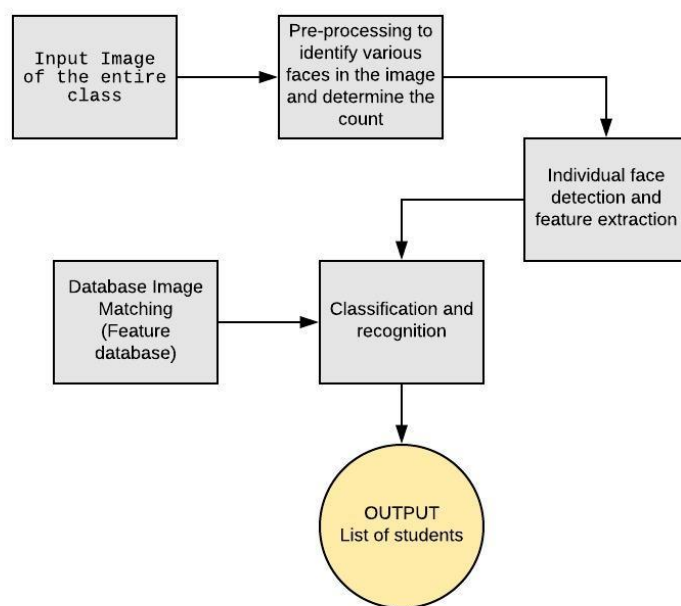


Fig. 1. Block Diagram for Face detection in image with multiple faces

II. SPEICAL PURPOSE PORTAL

This part of the project proposes closely analysed solutions to several problems faced by the professors and the students in IIT Ropar. It also includes few smart ways to create a better technical culture in the college and aims at devising efficient and smart solutions to all different kinds of problems. We will use following technologies for the application:

- 1) PHP, MySQL
- 2) HTML,CSS,JavaScript
- 3) and more...

A. Information portal for students

A student use portal for storing all relevant information like Internships/Useful Softwares/Online Courses and Tutorials at one place.

Objective:

The aim of this portal is to organize all the relevant information currently floating in whatsapp groups and emails on a separate portal accessible to all students of IIT Ropar. The target information includes universities with internship opportunities for freshmores and sophomores, useful sites for downloading all kinds of softwares and source links to all useful tutorials and videos that may come handy to a student at any point in his BTech career.

Design:

Every student and professor has a authenticated profile through which he/she can post as well as view relevant information in a well structured manner along with keyword search facility.

Advantages:

All the important information can now be safely stored, wisely used and easily accessible to everyone. The students bagging internships off-campus can share their search experiences that can significantly help the juniors. There are hundreds of websites that offer downloading some software. It is a huge waste of time looking for the best one. But through this portal any student can post the useful links accessible to any other student. So next time you need to install a cryptic routine , Here we are!!

B. Portal for Improvising the Technical Culture

Our college needs to improve the current technical culture. Most students start good projects only in their fourth semester, due to which their resume for second year internships is just equipped with all sorts of small assignments scaled to look like a poject. The software community also has big proejects that are mostly not useful for students upto first 3 semesters. The idea is to create a student-professor college level portal where students can be advised by the professors to study topics that may not be a part of the curriculum and also suggest small projects that student may start in their initial semesters under their guidance. Any student starting any project can be made public to ensure a self-motivating component helping other students to aim higher than just a degree

Objective:

To create a portal for improving technical culture in IIT Ropar through small technical projects for freshmores and sophomores outside the course curriculum.

Design:

An authenticated profile for students and the professors where the professors can post project ideas, knowledge requisites and sources and the students can view projects, find their interest and actually start learning.