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**COMSATS University Islamabad**

**Abbottabad, Pakistan**

**Assignment**

Project proposal

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**INTRODUCTION**

We are designing automatic attendance system using face detection. The system needs or required video recording device. It detects the face and mark attendance accordingly. This system will prevent unnecessary wastage of time that is usually wasted in form of class roll calls. In the Automated Attendance System, the process flow is initiated by being able to detect the facial features from a camera or a picture stored in a memory.

**Advantage of project**

1. The system will automate the attendance system of all educational institutes.
2. It will be useful in preventing proxy attendance.
3. It will save time up to at least 5 minutes per class.
4. It is the most efficient way of marking attendance.
5. There is no margin of mistake as there is in manual system.

**MOTIVATION BEHIND THIS PROJECT**

Attendance is taken during lectures and how much time it takes? The use of ID cards or manually calling out attendance and writing it down on sheets is not productive and efficient. This system will detect the number of faces on the class and will also identify them by comparing with stored pictures in database.

**Project background**

In the Automated Attendance system, the process flow is initiated by being able to detect the facial features from a camera. The algorithm processes the image captured and identifies the number of faces in the image by analyzing from the learned pattern and compare them to filter out them rest. This image processing uses multiple algorithm that takes facial features and compare them with known database.

Functional requirements:

1. Fee payment:

Student will pay the fee which can be through various means.

1. Student registration:

Student will generate a registration request and after verification student will be registered.

1. Student login:

Student will be provided with login id and password through which he/she could use the functionalities of the system.

1. Update student:

Student status will be updated through this system.

1. View student:

Student status will be viewed by admin and teacher and the student itself.

1. Delete student:

Student data will be deleted under several conditions.

1. Search student:

A particular student will be searched through this system by admin and teacher.

1. Teacher registration:

Teacher will be registered upon the request that the teacher make to be registered as a teacher.

1. View teacher:

Teacher will be viewed through this system by admin any time he/she desires.

1. Update teacher:

The system will be able to update status of any teacher.

1. Delete teacher:

Teachers data could be deleted through this system any time the admin desires but under some proper criteria.

1. Search teacher:

Admin can search teacher any time.

1. Manage timetable:

The system will be able to generate time table by selecting the available room, teachers and students.

1. View timetable:

Timetable will be viewable to teacher, admin and students and through timetable students will be able to view their concerned teacher.

1. Mark attendance:

The system will mark attendance by scanning student faces and comparing them against the saved ones in database.

1. View attendance:

Attendance will be visible to teacher, students and admin.

1. Update attendance:

Teacher and admin will be able to update the attendance under some predefined criteria.

1. Notification:

The system will be able to generate notification of attendance and other activities of students and send it to admin and student’s guardians.

1. Feedback:

Teacher will provide feedback against student and vice versa and will be visible to the admin and student’s guardian.

1. Log out:

The system will also provide the functionality of logging out of their accounts from the system to teachers and admin.