ANDROID APPLICATION FOR REMOTE DOOR LOCK SYSTEM IN COLLEGES

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**PROBLEM STATEMENT:**

- This project deals with the design and implementation of a surveillance system using a security camera to remotely open/close the Raspberry pi door lock system of laboratories in educational institutions via a mobile application.

**PROBLEM DESCRIPTION:**

- The proposed security system captures video footage and transmits it via a WIFI to a static IP, which is viewed using a web browser from a dedicated a smart device in the admin console.

- The camera streams live video and records the motion detected parts in the cloud and/or in the system shared folder for video analysis.

- The video analysis result causes a notification to be sent to the mobile application which in turn controls the raspberry pi to open/close the door lock system.
EXISTING SYSTEM

• Conventional surveillance systems in educational institutes in the city allows video footage to be recorded for security purposes.

• Opening and Closing(locking) the labs are done only using the conventional lock system which requires the respective authority to go to the location.

• A centralized control room is present for viewing the live recorded footage to detect and react to any incident occurring in viewing environment.
PROPOSED SYSTEM

- A Raspberry pi fitted door lock is used so as remotely control opening and closing mechanism via the mobile application.

- A security camera is used for surveillance of the labs from which live footage is sent to the admin console.

- Video analysis is done on the footage to detect motion and human presence.

- Notification is sent to the mobile application 24/7 when presence of motion is detected.
MOTION DETECTION

START

INITIALISATION

IF
FLAG == 1

NO

IMAGE ACQUISITION

IDLENESS DETECTION

NO

IF
IDLE

MARK FLAG=0

YES

SEND NOTIFICATION

RECORD NOTIFICATION
THANK YOU