K. J. Somaiya College of Engineering, Mumbai-77
(Autonomous College Affiliated to University of Mumbai)

IC-02 Report on Internship Work

Name of Student		Rushabh Bid , Tanmay Dhaundiyal , Roshni Soni					
Year of Study	TY	Branch	IT	Div.	A	Date	25/07/2019
Internship Organization / Department		IT Department			Internship Duration		
Internship Supervisor		Ms. Suchitra Patil			Internship Supervisor's mail & contact		suchitrapatil@somaiya.edu

Please describe your internship work in space provided below

Internship Area / Project Title:

Automated Attendance System (Image Processing)

Work done in brief:

Internship was done to build a system which aims to automate the attendance and defaulter management process by counting the attendance of students through scanned attendance sheet using image processing and store the data in an excel sheet. Furthermore, functionality to automatically send an email to defaulters regarding their low attendance. The system was developed in three modules.

1. Attendance count from attendance sheet

   Requirements:
   - Initial excel sheet with tables of subjects, Student names according to division and attendance up to the previous month.

   Input:
   - Scanned Image of attendance sheet (Multiple sheets can be done at once).
   - Semester (Even or Odd).
   - Year (SE, TE, BE).
   - Month for which the attendance sheet is being uploaded.
   - Division.

   Output:
   - Excel Sheet with attendance added for a particular month and subject.

2. Send Email to attendance defaulters

   Requirements:
   - Excel sheet with the email of each student/student's parent.

   Input:
   - Excel sheet of the class that has to be checked for defaulters.

   Output:

- Mail sent to defaulters.

3. User Interface
   The user interface is the screen which takes all the inputs through two different forms for update attendance and send defaulters mail to perform respective functions.

The entire system is built as a Python2 flask application employing image processing techniques.

4. Resources / Tools used:

Python, OpenCV, Flask, SMTP

Key learnings from the internship:

Image processing by traversing through the image pixel by pixel.
Automated email system.
Excel updating through python

Sign of Student/s:

Sign of Internship Supervisor

Sign of DIC