# BIOMETRIC ENABLED WEB BASED FALSE PROOF PLACEMENT ANALYSIS AND TRACKING SYSTEM

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## Abstract

The goal of the project is to make an application for the Placement Officer's "web-based placement analysis and tracking system." With the right login enabled, the system is an application that can be accessed and used efficiently across the enterprise. The placement officers in the college can handle the student information related to placement using this system as an application. Our idea offers students a platform that will enable them to find employment that fits their needs and skill set. If the students are passionate about the software or hardware field, then they will get the job notification based on their interest. In this project, we will use Finger print based attendance system using IOT, and the placement coordinator can download the attendance list from our web portal. The placement officer can view the registered students' data from our web portal. An important part of the idea is the automatic email system that tells everyone what their status is in the online portal and which companies they've sent applications to. Shortlisted students will receive emails from the placement officer following the completion of each round of the hiring process. Since websites can now be accessed from a wide range of devices, such as desktops, laptops, tablets, mobile phones, etc., there are many ways to get to them.

**Keywords:** Web Development, Placement Portal, Admin, Students, Biometric.

## 1.Introduction

As there are so many placement activities taking place around them, engineering students in their final or third year of college start to feel the pressure of the placement season. They are curious about their employment prospects and what they may do to increase their chances. This is when the placement officer is helpful. Students receive crucial information from the administration on how to get ready for the placement season. Placement is a crucial part of every educational institution, especially when the majority of labour is still done by hand.

Our project's major goal is to analyse and keep track of students' placement drive performance. The placement coordinator must gather the information of the students as well as that of those who are qualified for the aptitude test and subsequent rounds in order to deploy this application. Although the existing system is computerised, the Training and Placement Cell cannot use it. The student data in the current system is kept in Excel sheets. The placement coordinator finds it difficult and occasionally inaccurate to manage and preserve student data manually. We presented a new approach named "web-based placement analysis and tracking system" to get around these restrictions.

This project's primary goal is to upgrade the system by adding new functionality. With proper login credentials, the suggested system can be accessed from anywhere within the organization. To manage student information regarding placements, the college's placement cell might use this system as an application. The student's file contains information about them, such as their name, address, and educational and professional background. As the number of students rises, it is also harder to gather, manage, and update student data. Students can access and view their opportunities on this portal. The system will have many account types for various user types, including administrators and students. Each student receives a profile that includes the login information for the site. In this approach, the workload of college employees or professors is less affected by issues brought on by human error and time loss when performing all tasks manually.

## 2. Literature Survey

The present placement cell projects and procedures take a lot of time. Many analytical problems are brought on by human involvement. These mistakes lead to substantial maintenance problems and student dropouts because of faults in the system. Documenting and categorising are incredibly difficult when done manually. The system becomes expensive and ineffective as a result of these analytical techniques' difficult administration and high analytical costs. It offers a straightforward user interface for the quick collection and upkeep of all kinds of student data. For the benefit of both students and faculty, accurate, current information about students' academic journeys must be created and managed. The majority of manual labour is done by humans in the current system. The contact between the student and the administration has a maximum number of human faces. The foregoing issues make it time-consuming because every procedure takes longer. The records were saved in modified Access sheets, which caused the sorting problem. Searching was difficult because the files weren't stored in a hierarchical way. These issues made the update confusing and challenging [1].

The current system only uses hand labour for all processes. Placement officers keep track of students' information. It is necessary to manually complete any updates or changes to a student's profile. This is hard to do; it takes a lot of time, doesn't keep data safe, requires more people, and uses a lot of paper and space. This process is hard to do when there are more users. If information is needed, the placement officer and the student must talk to each other. If a new company wants to do a placement, the placement officer and his staff have to look through the student information and find the right people for that placement [2].

Another issue that affects students is that they may have missed out on opportunities since they were not made aware of the placement activities that were taking place in their institutions. Due to how hard it is for them to work together, there is also a big communication gap between the students and the placement officers. The current system is ineffective since it was unable to receive acknowledgement from the students who attended a specific drive. As a result, there is often a lot of misunderstanding at the last minute. The placement officer has a lot of work because everything is done manually [3].

To increase the effectiveness of student management in the face of an enormous volume of information, a student information management system is necessary. This method makes it possible to manage student information scientifically, quickly, and efficiently, which lessens the workload of management. In order to achieve the systematisation, standardisation, and automation of student information relationships, a typical student information management system will be created in this work [4].

In 2016, they did a study on. This project only lets people sign up once. The placement cell calls companies to tell them about their students and let them look at their resumes. The word "disadvantages" is used to talk about the bad things about something. As stated in, notifications can only be sent via email [5].

In order to determine whether our project will be helpful to students and the placement officer, we also conducted a poll. According to our placement officer, it will be effective and valuable. And 82% of the students approved of our product, with the results of their input shown in the Fig 2.1 and Fig 2.2.

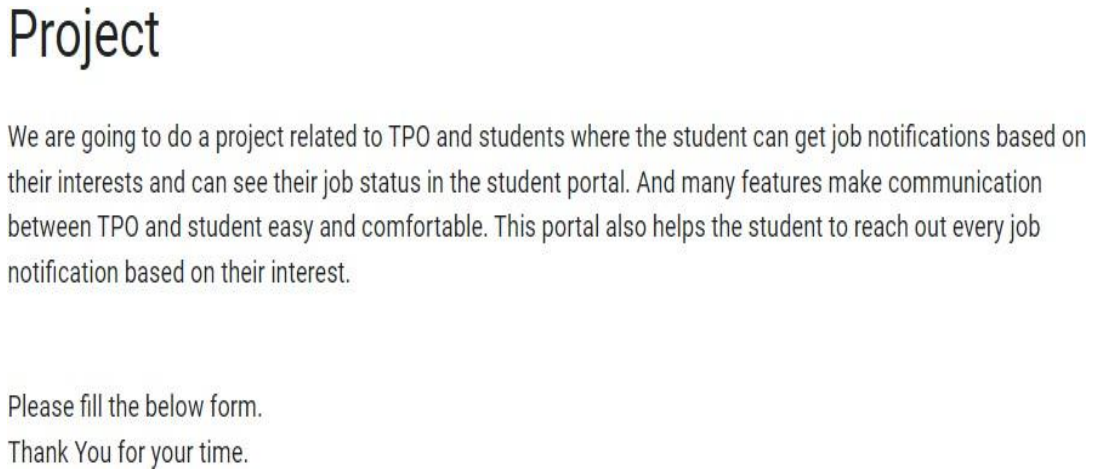


**Fig. 2.1 Student Survey Question**

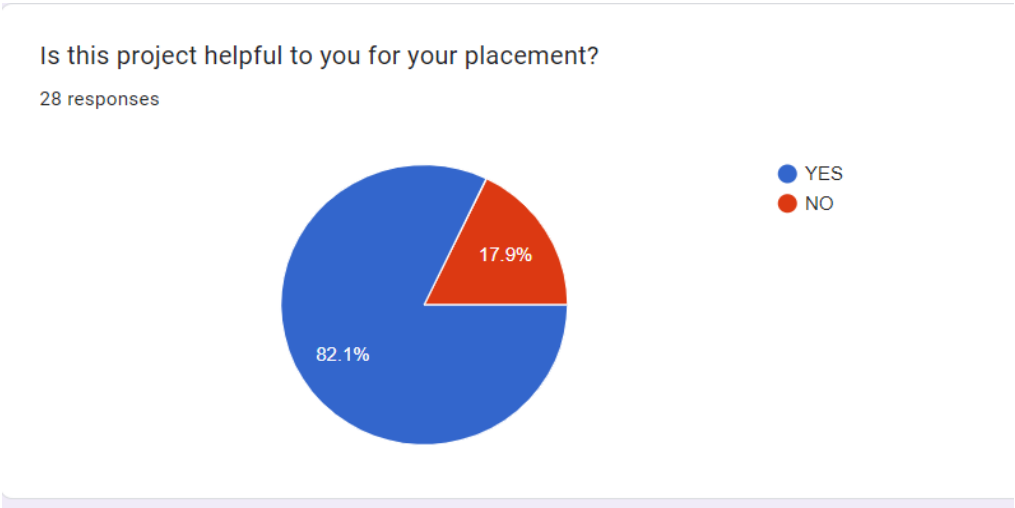


**Fig. 2.2 Student Survey Response**

## 3. System Analysis

All processes are currently handled manually. Officers in charge of placement manually update student data. If there are any changes or adjustments needed to any student's profile, they must be made manually. Maintaining the student data and corporate details is a highly challenging duty for the placement coordinator because it takes a lot of time, there is a lack of data security, it requires additional manpower, etc. When the number of users rises, this becomes extremely challenging for the placement coordinator. The below Fig. 3.1 represents the system analysis for current system.

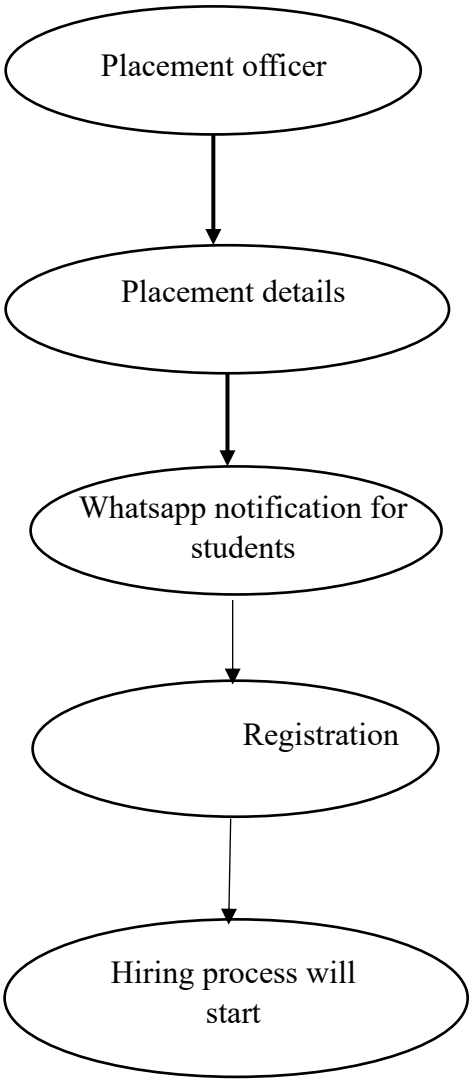


**Fig. 3.1 System Analysis for current system**

## Drawbacks

1. When there are many concurrent placements of notifications, there may be misinterpretation or notification loss.
2. A placement officer must spend a lot of time gathering information about registered students.
3. Making an excel spreadsheet of the students that attended the placement drives takes a lot of work.

## 4. Proposed Methodology

Through the suggested placement system, users should find it easier to contribute and retrieve information quickly. The suggested web-based online placement analysis and tracking system aims to do away with all the shortcomings of the current approach. It will upgrade the system with a few extra functions. The Internet has emerged as students' primary knowledge source in the modern era. On their websites, major organisations, institutions, and universities provide information on job opportunities. The placement Officer(PO) can use this system to log in to the administrative portal and view student data, including resumes, as well as add jobs and job descriptions. The student's preference for a job can be added to the student portal. The job description and registration form are delivered to the student mail and student portal if the job description and preferences match. Block diagram for proposed system can be shown in Fig. 4.1.

The following features are included on the suggested website:

1. This project was created with the intention of providing students with a platform to locate a suitable career that matched their interests.
2. First, students can select whether software or hardware is more interesting to them.
3. The placement officer can keep track of each student's information.
4. In the student portal, students can check the progress of their upcoming campus.
5. Establishes a suitable line of interaction between the student and the placement officer.
6. The website provides up-to-date information on which companies are visiting the campus, making it easier for students to get current information quickly.
7. Admin can view and download the biometric attendance of the student during the hiring process.
8. After completion of every round hiring process student will get the notifications through mails.

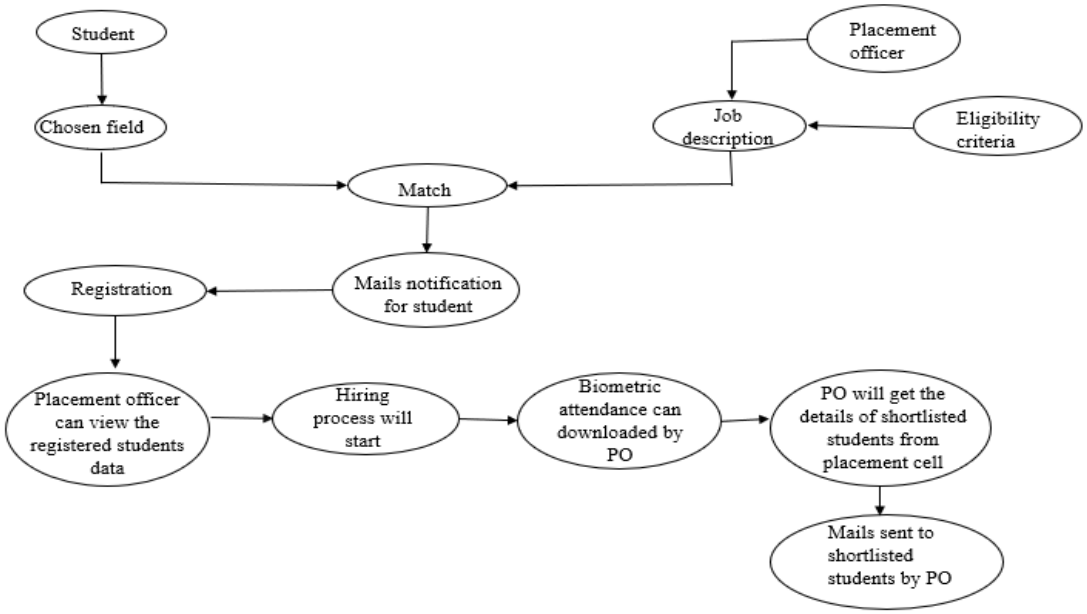


**Fig. 4.1 Block diagram for proposed system**

## 4.1 Designing a Webpage for the Proposed System

There are two modules on the website: an admin module and a student module. The login page is the same for each module. A login ID and password field can be seen on the login page. Users should log in to the web portal by entering data in that field.

### 4.1.1. Admin Module

The administration of this project is crucial. He oversees running this system. In this module, the administrator must login using a username and password. After doing so, he will be taken to the dashboard, where he can view all the information about each student. The administrator can add the companies that are presently hiring as well as provide details about the organisations and the packages they provide through our website. Admin can view the registered student's data and also directly download the attended students list those who are attended for the placement drive from the admin portal. The administrator has the authority to authorise students and can upload materials and look up student information. Admin can send the mails and messages for the shortlisted students.

### 4.1.2. Student Module

The student should be able to access the list of organisations actively recruiting and the schedule for various recruitment campaigns after logging in. They can manage their profile by entering all pertinent information. They build their profile by inputting their personal and academic details and uploading their résumé. Students who are qualified for the company will be notified of the upcoming opportunity and invited to apply. Students can also change their password, update their information, search for details, verify their information, and read items uploaded by the administrator.

## 4.2 Fingerprint based Attendance System using IOT

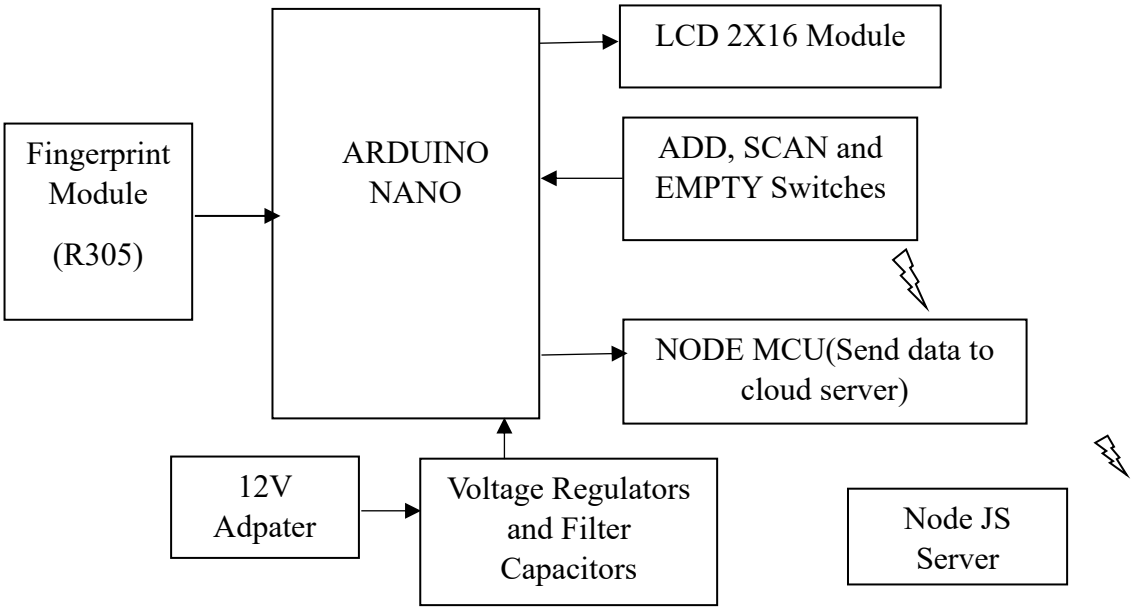


**Fig. 4.2 Block diagram for Finger Print based Attendance System**

## 5.Technology Used

1. HTML
2. CSS
3. JavaScript
4. React JS
5. MongoDB
6. Node JS
7. Express JS

**6. Results:** The following screenshots shows the implementation of proposed system

The student's and admin login page as shown in below Fig. 6.1, this page allows him/her to access his account by entering his/her login information.

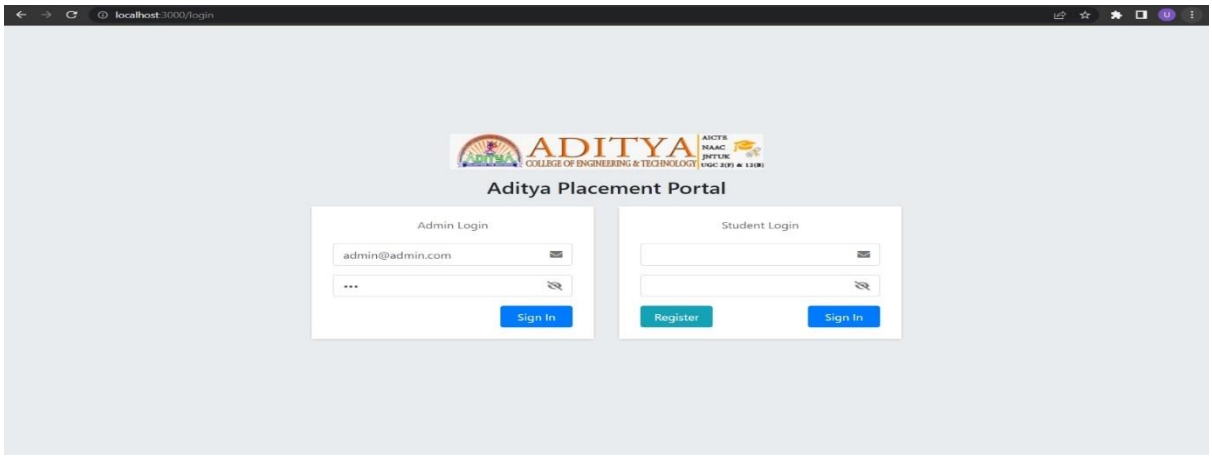


**Fig. 6.1 Login page for Admin and Student**

Admin can check the overall number of students, the number of hiring firms, and the number of active companies as shown in Fig. 6.2.

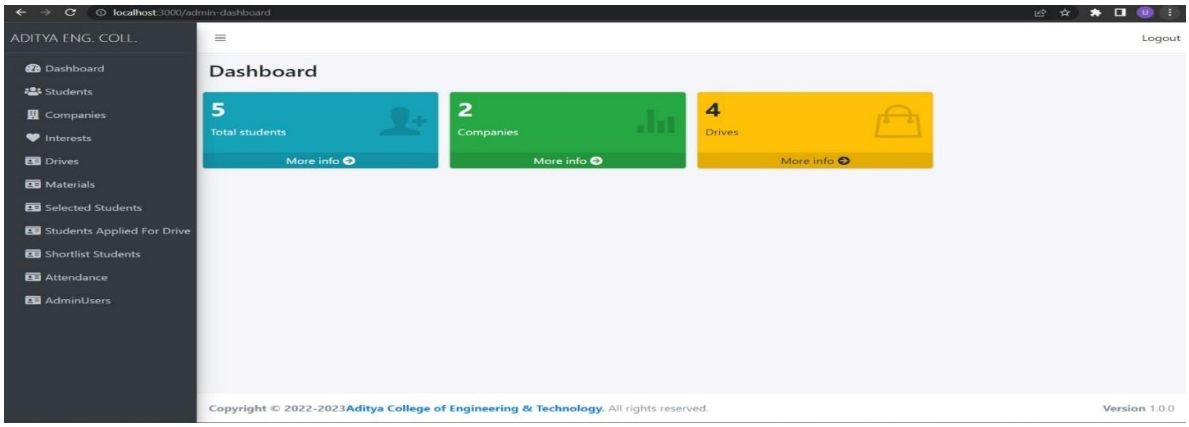


**Fig. 6.2 Admin Dashboard**

Admin can add the students as shown in below Fig. 6.3.

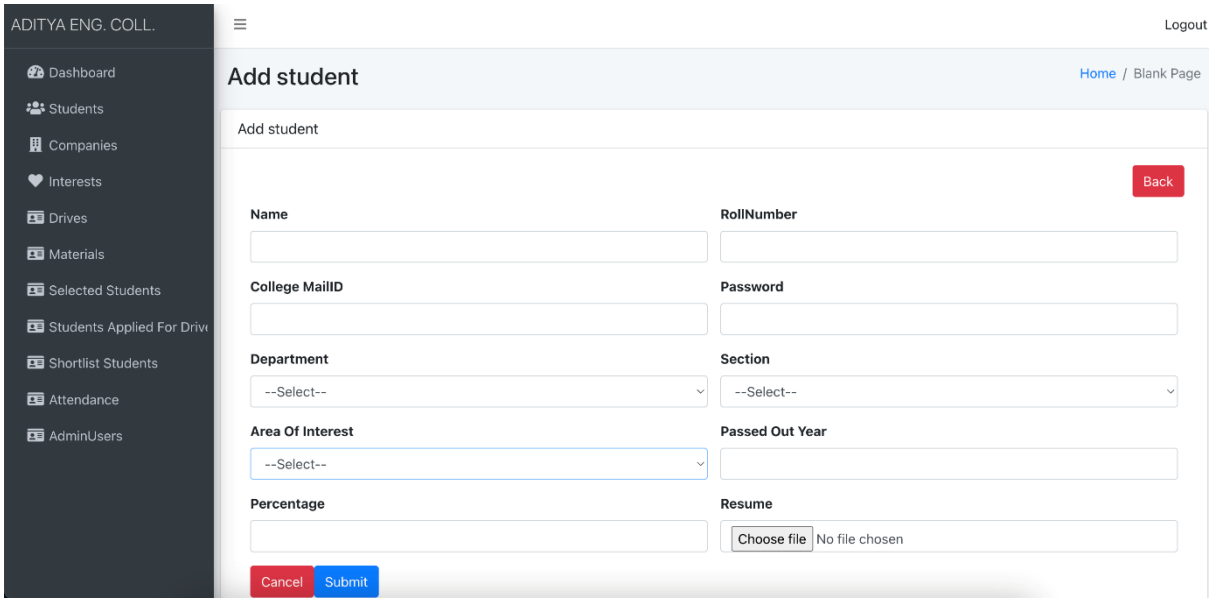


**Fig. 6.3 Add Student**

Admin has added the companies shown in Fig. 6.4 below.

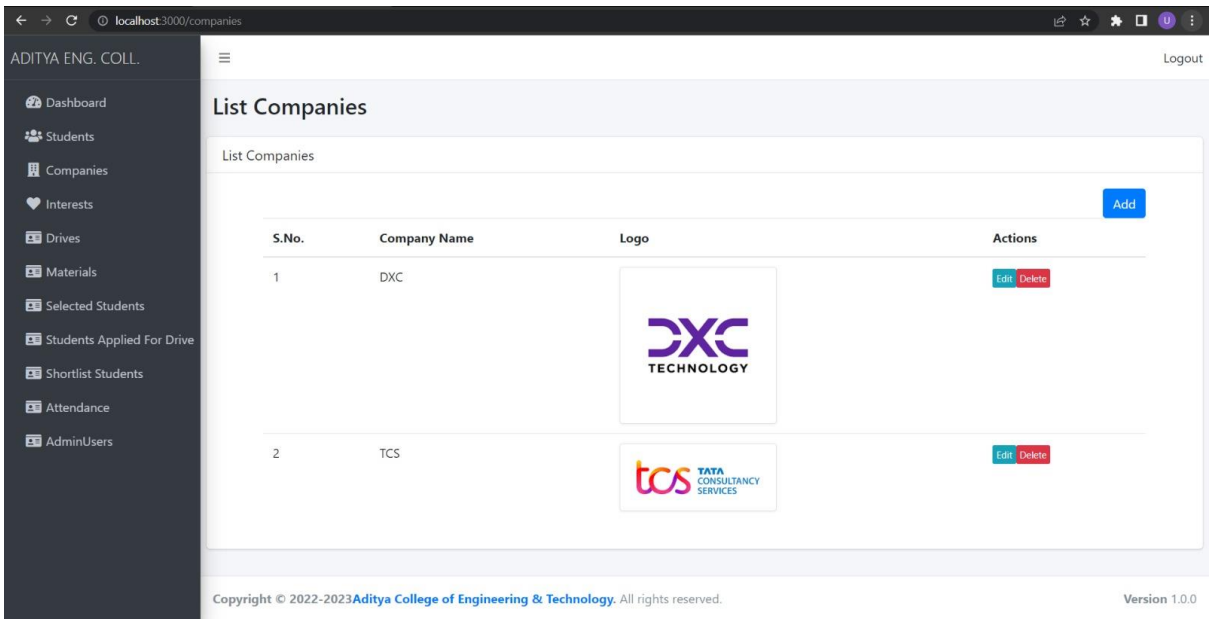


**Fig. 6.4 List Companies**

After completion of adding company by admin, admin can view the list of drives that are currently active for hiring the students as shown in the below Fig. 6.5.

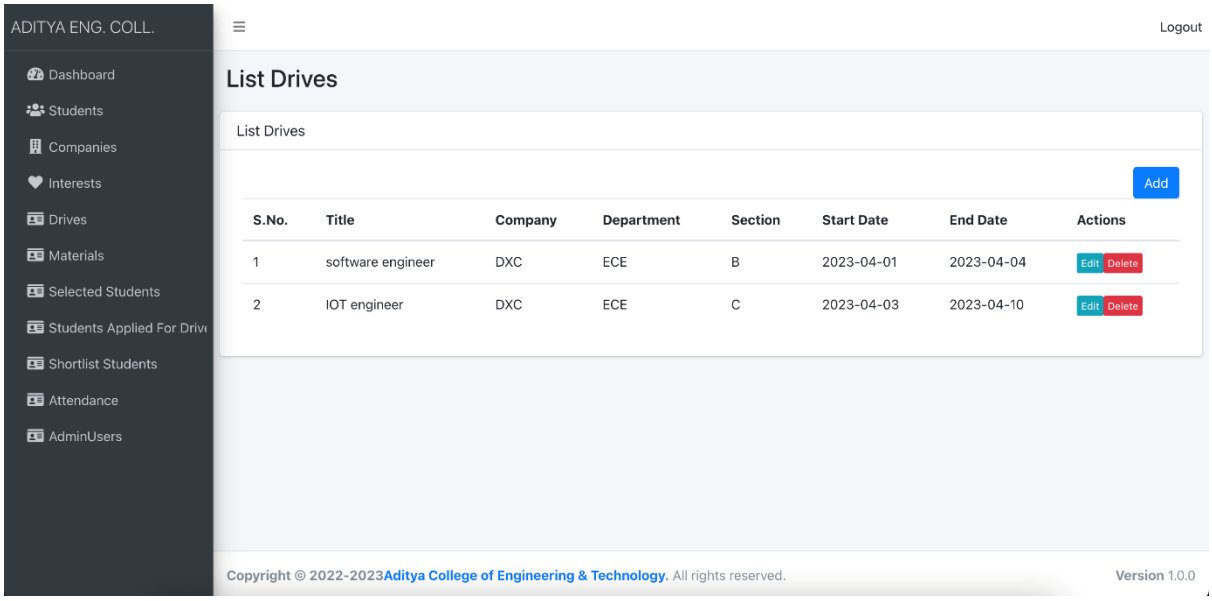


**Fig. 6.5 Drives List**

Admin or faculty can add the materials from admin page as shown in below Fig. 6.6.

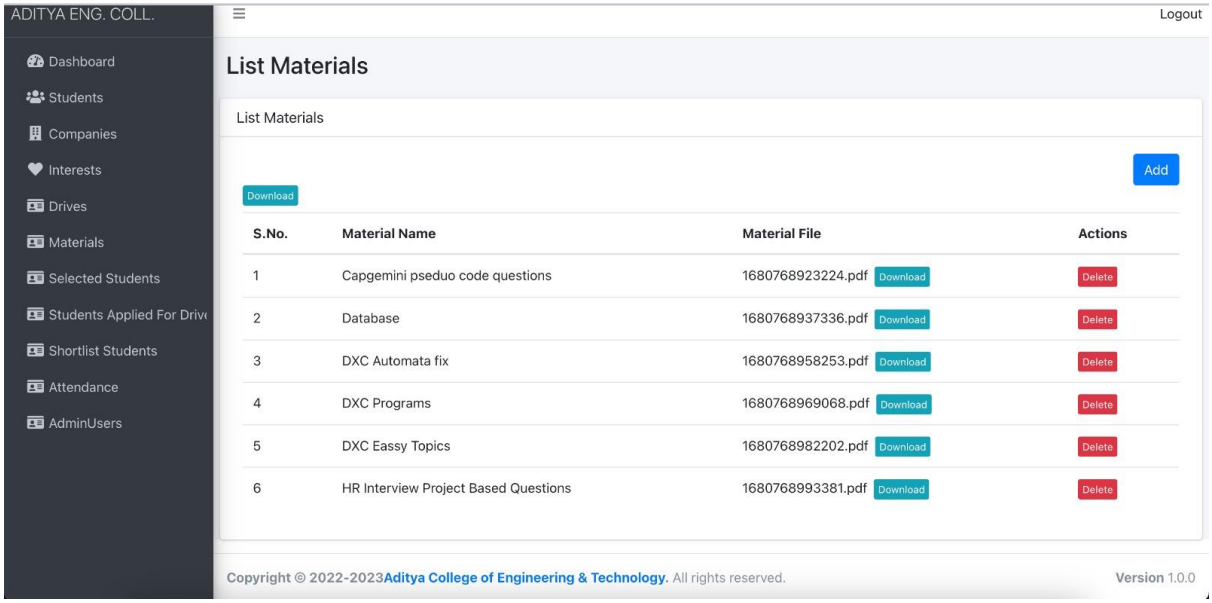


**Fig. 6.6 Materials**

Admin can add the previous year selected students List from admin page that will be visible in the student page as shown in Fig. 6.7.

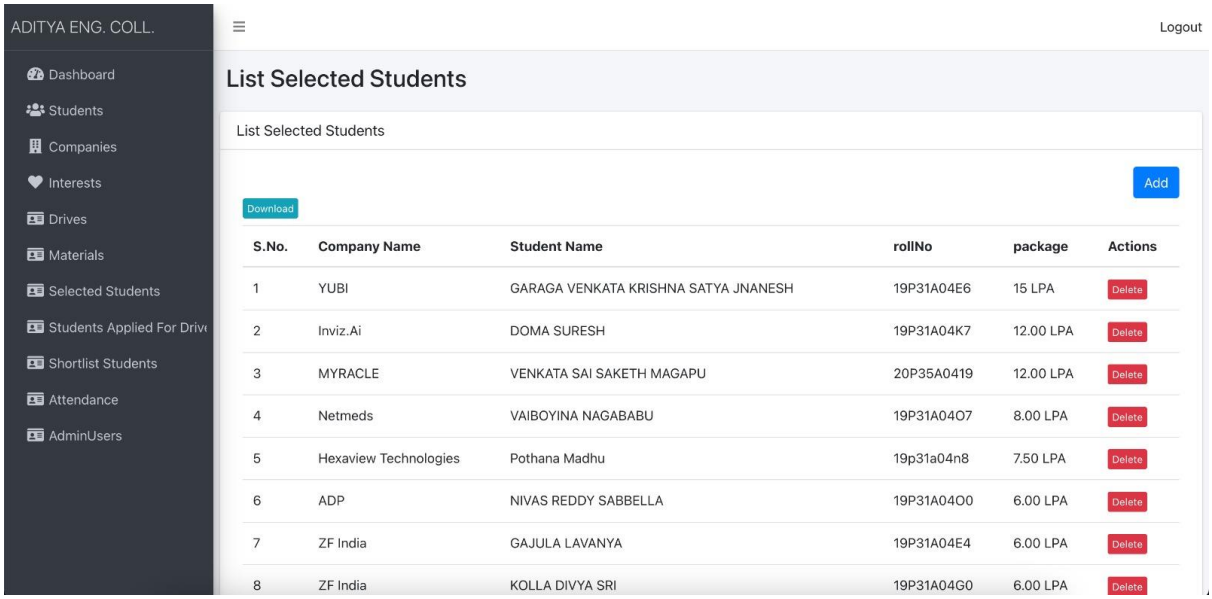


**Fig. 6.7 Previous year selected students List**

Admin can view the registered student's data in admin portal as shown in Fig. 6.8.

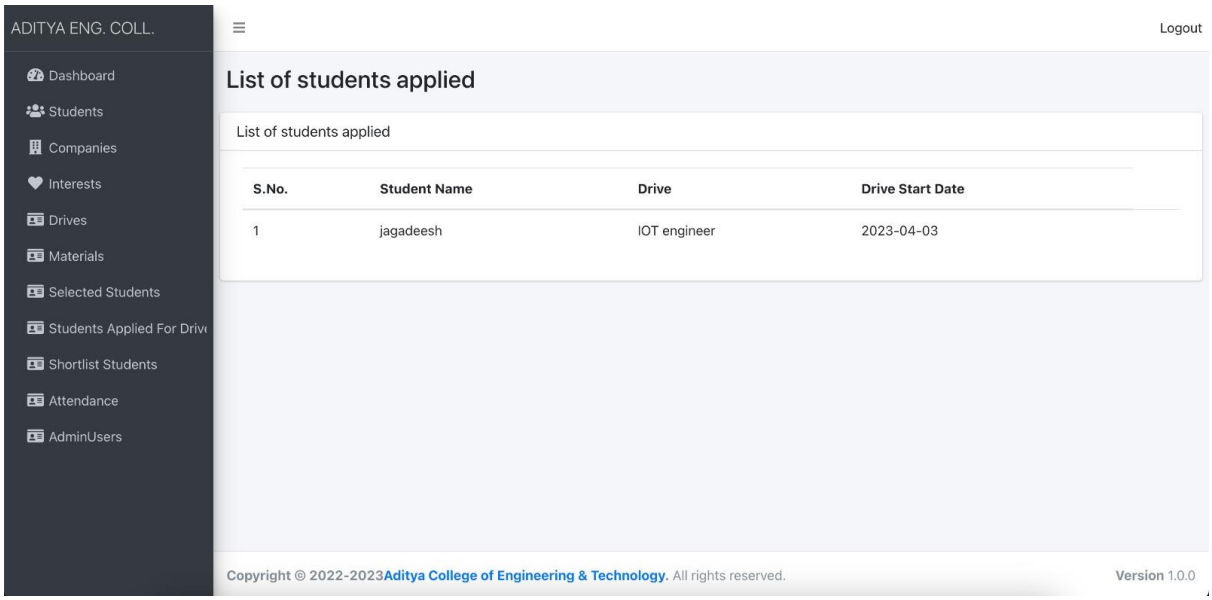


**Fig. 6.8 Registered Students List**

Shortlisted students will receive emails from the placement officer following the completion of each round of the hiring process as shown in Fig 6.9.

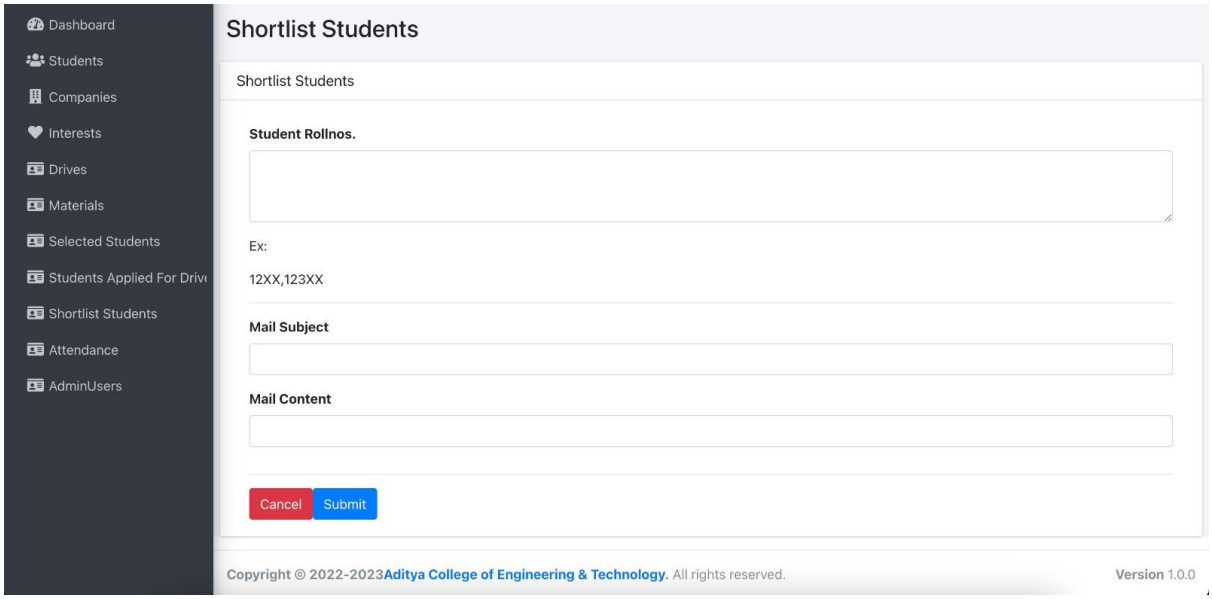


**Fig. 6.9 Sending mails to Shortlisted students**

Admin can add number of admin users from admin web page as shown in below Fig. 6.10.

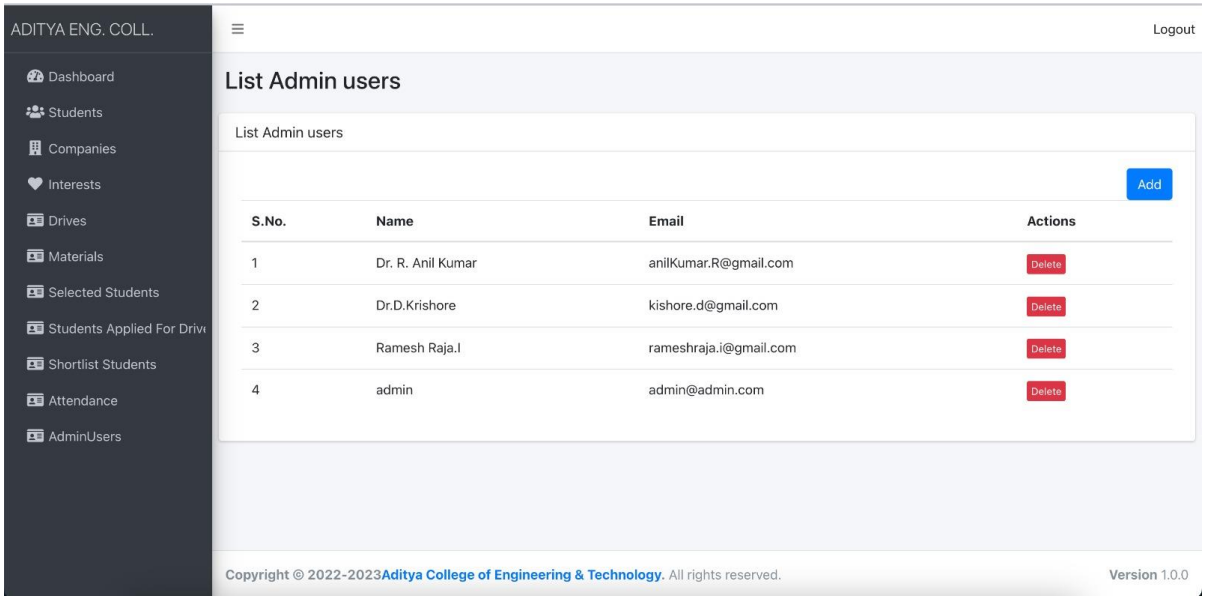


**Fig. 6.10 Admin Users**

At the time of hiring process placement officer will take the biometric attendance from the students and that will be viewed by the admin from the admin page as shown in below Fig. 6.11.

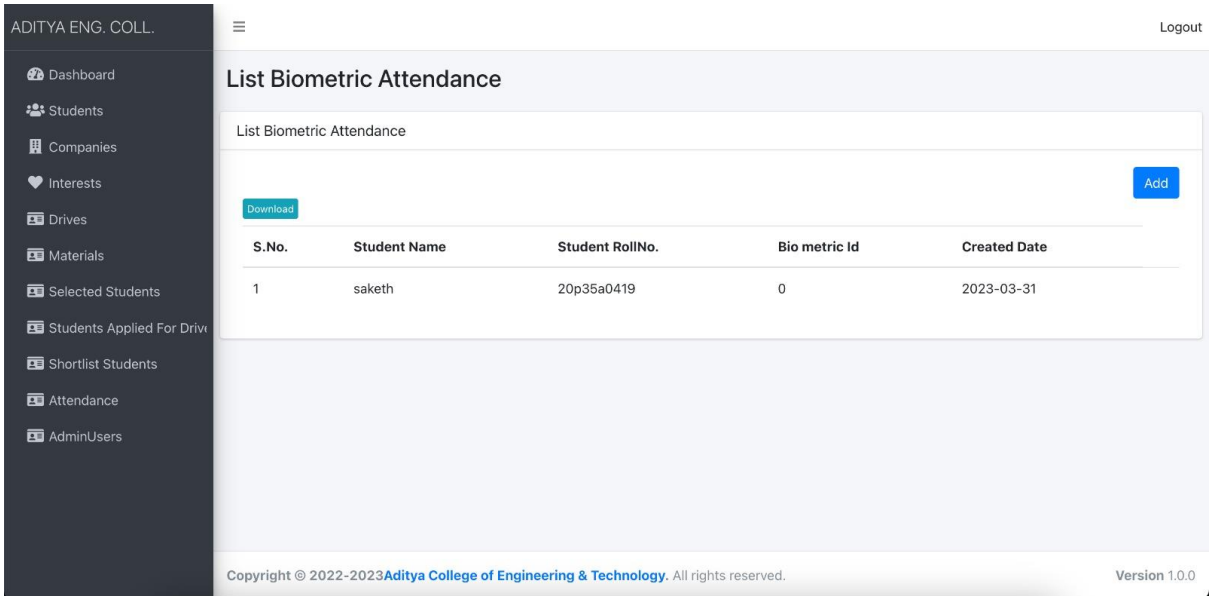


**Fig. 6.11 Biometric Attendance**

If student is new then the students must be register from student page as shown in below Fig. 6.12.

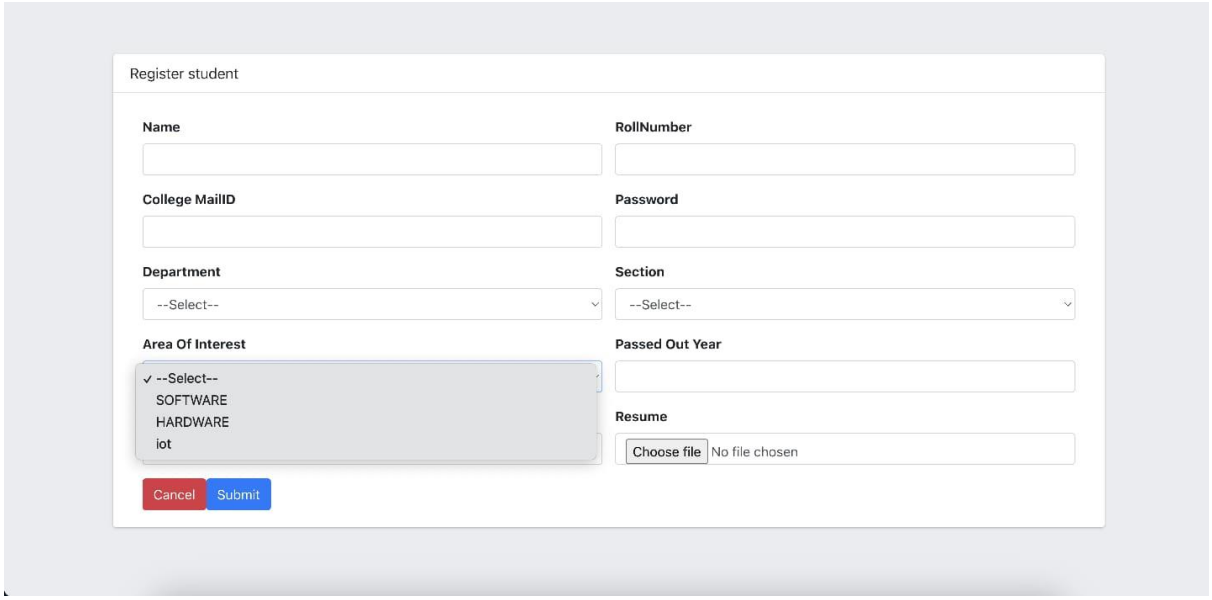


**Fig. 6.12 Student Registration Page**

The student dashboard will show up if the student login successfully. The student may enter his or her personal and academic information here. In addition, he has access to the job notifications as shown in Fig. 6.13.

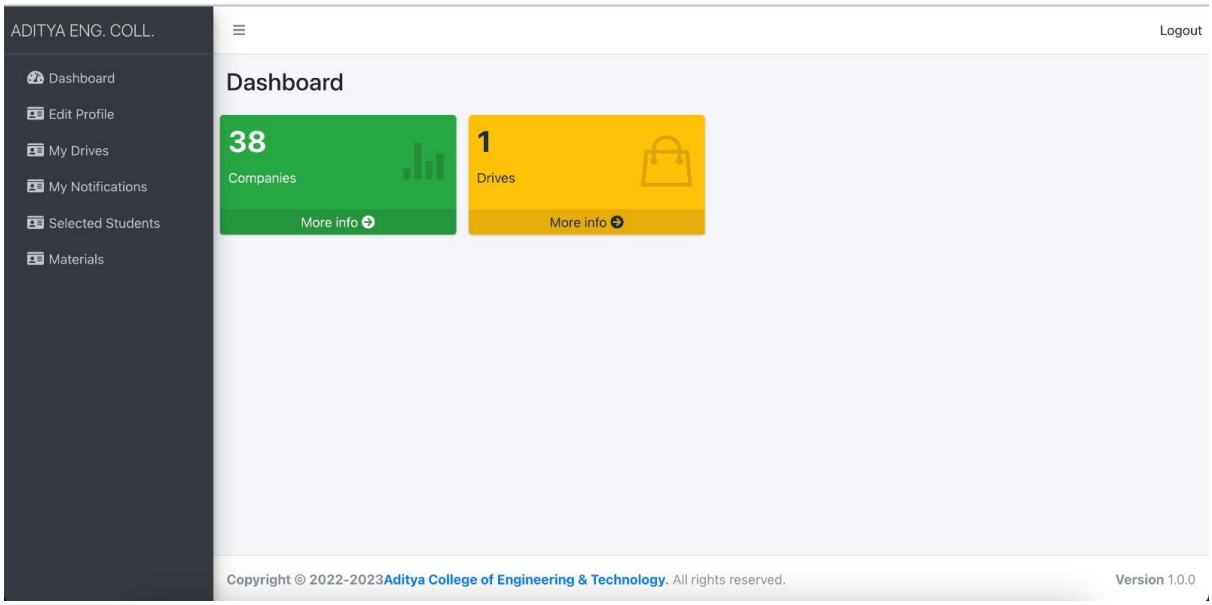


**Fig. 6.13 Student Dashboard**

Students will get the drive notifications from admin as shown in below Fig. 6.14

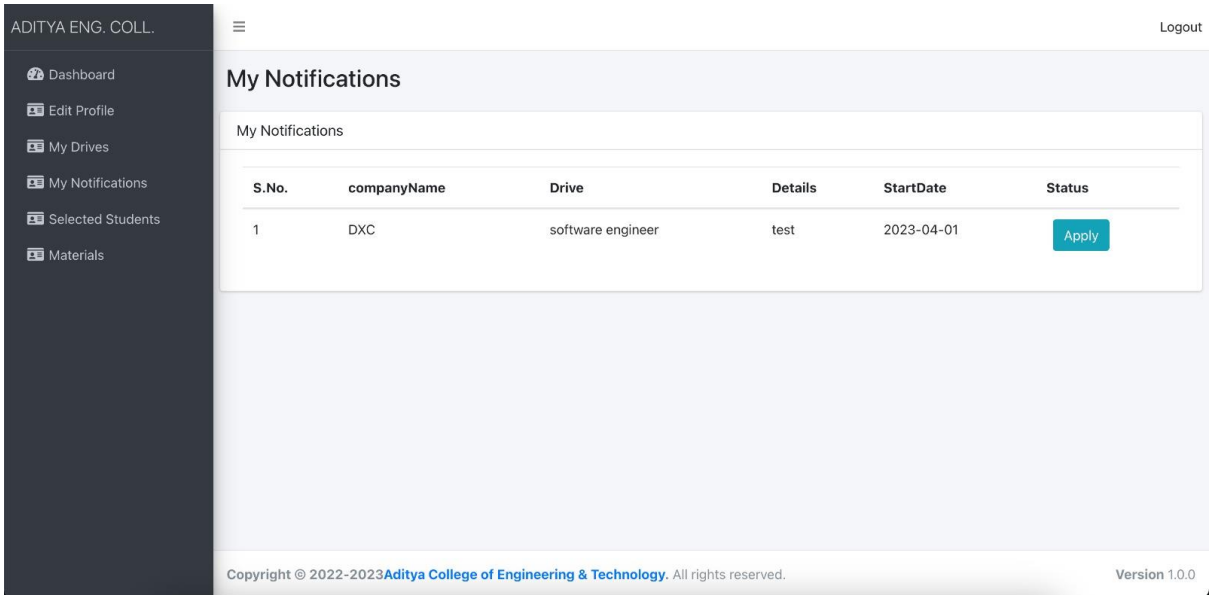


**Fig. 6.14 Drive Notification**

Students can edit their profile as shown in Fig. 6.15.

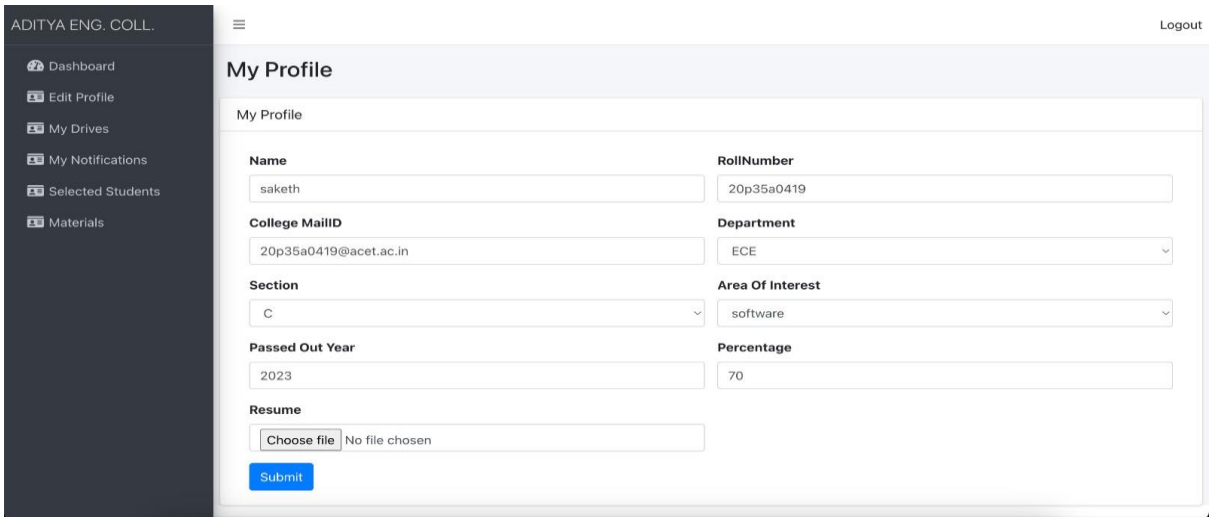


**Fig. 6.15 Student Edit Profile**

After giving power supply the biometric device can be shown in below Fig. 6.18.


**Fig. 6.16 Initial Position of Biometric device**

We can add the Fingerprint of the user by pressing the add button as shown in below Fig. 6.17

**Fig. 6.17 Adding Fingerprint**


After adding Fingerprint of user, it will generate the Particular Fingerprint ID for the user as shown in below Fig. 6.18.

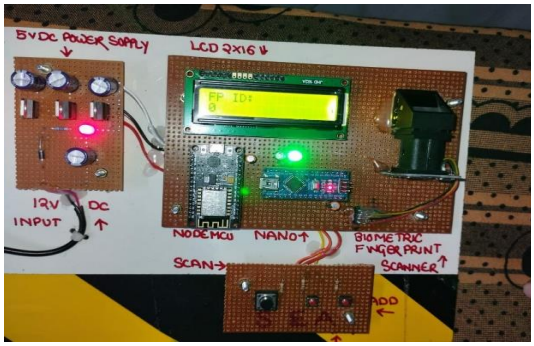


**Fig. 6.18 Generating Fingerprint ID**

## 7.Conclusion:

College placement managers face numerous challenges when it comes to handling student information. It is more challenging because complete information management is required, allowing for the creation of a web-based solution to address the issue. The input from the system is more precise. Accessible, precise data is available. It increases the dependability of systems and software by ensuring security. We believe our project will help a lot of students in the future because administrators can check which businesses students have applied to and been accepted into. We draw the conclusion that the proposed strategy will address the system's flaws as a result.

## 8.Future Scope:

There is a chance to generate graphs on placement procedures on the bases of the database. In future there is a scope for staff/coordinators to change their passwords, we can add an alertdomain for the sake of students and, we can add Feedback from students to faculty. In future we can add Company information through company page links, we can add Chatbot for clarifying our doubts.

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