

# Process Automation

Shivshankar Rajput, Vinal Agrawal, Tanmay Singhai Jain, Sakshi Sharma

Computer Science Engineering, Acropolis Institute of Technology and Research, Indore

## I. Abstract—

This system gives the very efficient way of placement of students. In this system the student does their registration very simple manner the placement officer can easily get the information of students. The system gets easy access to the eligible student. According to that system notify the students. How many students gets placed that will be shown by the various graphs. The system also helps the college to maintain records of current and previous students also. The system gives records to college for alumni meets. Placement officer prepares the schedule of all activities regarding the placement. the company provides the criteria who students are eligible automatically they notify. Student, TNP staff, TPO get the required information. Those students have registered all of them are eligible for this system.

## II. Introduction—

Web based training and placement system automate the system. This system helps to the student's staff and college There are traditional notice boards in the colleges due to this the no of students can't get the information within the time limit to overcome this limit this system plays and vital role displays the notices within the time limit. The system itself fully automatic it sends SMS, Emails to the students. According to that whatever number of students get placed, the various graphs generates. Students store their information in the system the student's information access by college company. According to the company criteria, the student

selected and notify by the SMS, email. Who students come in the company criteria only that students are eligible for the placement.

### A. Problem Statement

Now a day, student joins the college for better education as well as for better placement for their future. The placement activities plays very important role in student career and building college reputation. In the current system all training and placement activities are done manually, there are more chances of error. It is very time consuming activity for collecting, managing, updating student data as number of student increases. The notice board is old method of informing student about the placement activities. The training and placement officer has to short list according to company requirement. It is required to design of a computerized student automation module to speed up capabilities.

### B. Scope

Student can create the account and update their information. Notifications are send to the student about various companies their criteria and placement drive circular, etc. The benefits of this automated system are as follows:

1. Easy to collect and manage student data.
2. To increase the accuracy and efficiency of placement procedure.
3. Reduce the paper work.
4. Analysis of overall placement activities.

### C. Objectives

To avoid the problems arising in the existing system we are developing online training and placement system to make interactive,

automated and effective work of placement activities.

### III. Literature Survey—

A paper on “Generating Placement Intelligence in Higher Education Using Data Mining” gives that a university is an institution of higher education and research which grants academic degrees in a variety of subjects and provides both undergraduate education and postgraduate education. University performs various activities like enrolling the students, conducting classes, conducting special workshops of different subjects, conducting placement etc. This paper is going to describe the activity related to placement, placement cell, and student database.

1. K-Means Clustering: K-Means is one of the simplest unsupervised non hierarchical learning methods among all partitioning based clustering methods. It classifies a given set of  $n$  data objects in  $k$  clusters, where  $k$  is the number of desired clusters and it is required in advance.
2. J-48 Algorithm: C4.5 is an algorithm used to generate a decision tree developed by Ross Quinlan. C4.5 is an extension of Quinlan's earlier ID3 algorithm. The decision trees generated by C4.5 can be used for classification, and for this reason, C4.5 is often referred to as a classifier. It induces decision trees and rules from datasets, which could contain categorical and numerical attributes. The rules could be used to predict categorical values of attributes from new records. C4.5 builds decision trees from a set of training data in the same way as ID3, using the concept of information entropy. This paper presents solution to two main problems related to segregation and prediction.

In the paper titled “Performance Analysis of Undergraduate Students Placement Selection using Decision Tree Algorithms” put up that we could use decision tree algorithms to predict student selection in placement. This paper describes how the different decision tree algorithms used to predict students performance in placement. Decision tree algorithm, tree shaped structure that represent decision sets. They generate

Rules which are used for the classification of data.

### Decision Tree Algorithms:

ID3 (Iterative Dichotomiser): It works on the principle of the Occam's razor and used to create the smallest possible decision tree. It takes all the attributes which are unused and promotes the calculation of entropies which are used to measure the informative of node. It also scans and chooses the attribute which has the entropy is less or when information gain is large.

### Successor of ID3:

C4.5 is a popular algorithm which is used for the generation of a decision trees. It is an advanced level of the ID3 algorithm which is designed to overcome its limitations. The decision trees generated by this algorithm are used for prediction and it is a classifier of statistical type.

A paper on “Android based Training & Placement Automation”, the system focuses on the automation of the training and placement cell and profile matching.

Observing and controlling the progress of the selection process and communicating with different eligible candidate via SMS or Email notification. For accessing the data on android platform we are using JSON. This system reduces the human efforts and maintaining large amount of data efficiently. The System focuses on the automation of the training and placement cell and profile matching. Observing and controlling the progress of the selection process and communicating with different eligible candidate via SMS or Email notification. For accessing the data on android platform we are using JSON. This system reduces the human efforts and maintaining large amount of data efficiently.

### Nave Bayes Classification Method

The nave bayes classifier technique is based on the bayesian theorem. It is particularly used when dimensionally of the input is high. Nave Bayes can often more sophisticated classification method. First step of the nave bayes classifier is to classify the objects and

to classify new cases as they arrive that means to decide to which class label they belongs based on the currently existing system.

### System Architecture

The project aim is to develop Online Training and Placement system .The training and placement system gives more easiness to the users so that they can add and retrieve information quickly. Once user opens this system all the schedule/events are available to everyone. There are six types of user admin, current student, alumni, training and placement officers, training and placement staff, departmental staff and companies. The administrator is the master user having most of priorities than other users and has different functions like updating, viewing and approval for various application forms. Page Layout There is two types of student current student and alumni. The current student can view and enter information i.e. do registration edit their CV's online, update them constantly. Student can very flexibly search for and view company and vacancy details[. A separate registration and profile will be done for alumni student. Alumni are kept in contact by an automated notification by email messages or SMS .They can post queries, reply queries, this will be helpful for current students. The administrator provides access to different users like TPO, TnP staff and departmental staffs each are provided with different features and security. TPO give an approval to edited information by the student, search the eligible student based on company criteria and can generate the list send email to eligible student.

The TnP staffs are very important they provide the approval and conformation to students. Find student based on skill or extracurricular activities, put online notices schedule and events. The company have to get register so that their information like the URL, contact, information, paper, vacancies will be provided. The web server to manage a performance the TnP activities efficiently. The database stores the whole data related to TnP system. Automated email system or SMS is used to notify the each student and other modules of system. the forum is

platform provided to all users for communication to each other.

### System Design

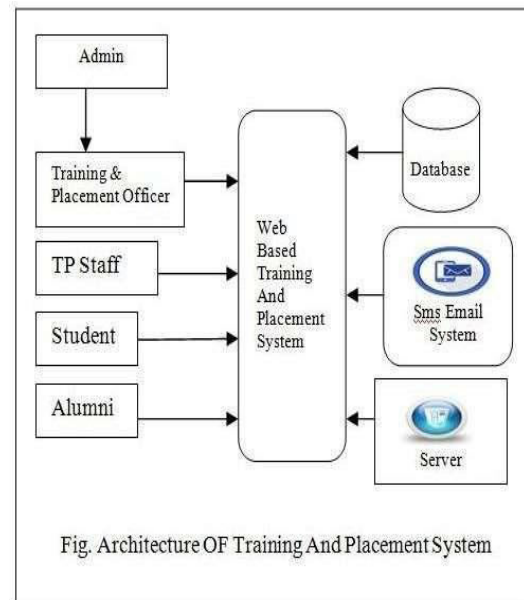


Fig. Architecture OF Training And Placement System

Fig. 1  
Architecture of  
Training and  
Placement System

Web Based Training and Placement System: is a centralized system where TPO, TP Staff, Student, Alumni are the Users of the system. In the architecture of training and placement system there are three admin namely TPO, Department staff and TNP staff. All these are contributing for control of system. The TPO is the main admin of the system. The another important parts of the training and placement system are student, company and forum for which system designed. In student there are further two types first is regular student an alumni. For this different strategy is used rules are there in the system. And hence there are separate class for it above mentioned all are min component of architecture. Web server and database is used in system to store data Database is the main part of the this system. Automated email system is also provided in it for easily inform to the student. In this system automatically information regarding with campus is send it to student. In overall architecture data is stored and then as per rule

and condition data is obtained and further more processing applied on it such as making report and sending mail to student.

Here students create their username password with unique PRN Number, email Id and Mobile Number.

#### A. Students

Students are the main component of the system according to the company criteria students get notify by SMS and email. to participate in the placement.

#### B. TPO

TPO is the main Admin and having overall control on the system.

#### C. TP Staff

These are the staff members of every department which are members of the system

#### D. Alumni

These are students who passed out from institute but further they are eligible for the placement procedure they also notify by the SMS and email.

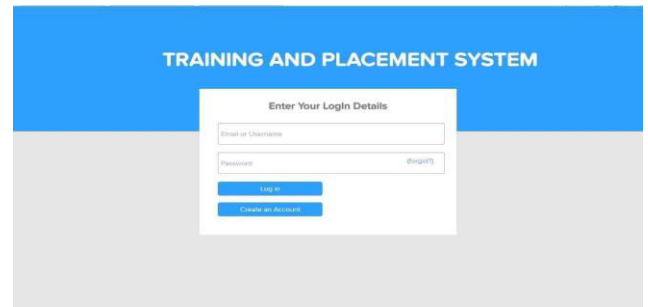


Fig 3: Login Form

Here TPO and Students login into the system. Then they will access hole the system. Full access of the system is given to the TPO of the college. The system will be handle by the TPO.

### IV. Results

Following snapshots shows the implementation results of the proposed system.



Fig 2:  
Registration  
Form

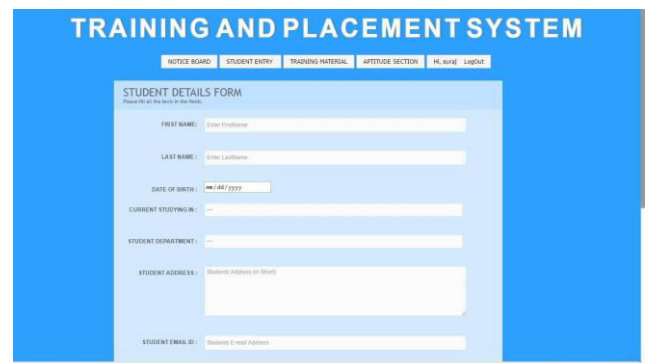


Fig 4: Student Home Page

In this home page student see the notification about the placement which is given by the TPO. Students fill the student detail form in which they fill all academics detail and their personal information. The branch wise training material is provided to the students student can download the training material according to their branch which is useful for their placement. Aptitude section is also provides to the student in which the can read the aptitude questions and also they can see the answer of the aptitude questions.

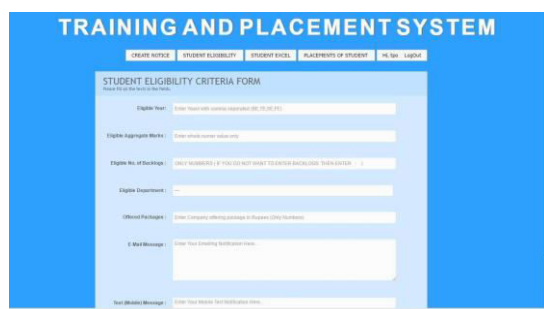


Fig 5: TPO Home Page

In the TPO home page TPO create the notice which is shown to the students' home page. After that There is student eligibility form which is filled by the TPO according to the eligibility form TPO inform to the studnets those are eligible for the placement also TPO send the SMS to the students. TPO notify students by uploading the excel sheet to the system according to the excel sheet it will notify to the students finally TPO create the report how much students get placed and how much students till not placed.

#### V. Conclusion—

The developed System can guarantee to keep the records are safe and privacy which is stored in database. It convert unstructured data into Structured data and sorted format. It is very helpful, reliable and performs well functional to get an alert message and emails on cell phone. Also this system helps us to take the record of alumni. The overall performance of the system is shown by graphs. All the record stored in excel format. According to company criteria TPO Just enter the requirement of company and according to that the list of eligible student get display and TPO notify them.

#### VI. References

- [1] Bhansali, M., & Kumar, P, 2013, An Alternative Method for Facilitating Cheque Clearance Using Smart Phones

Application. International Journal of Application or Innovation in Engineering & Management (IAIEM), 2(1), 211-217.

- [2] Shen, H., & Coughlan, J.M, 2012, Towards A Real Time System for Finding and Reading Signs for Visually Impaired Users. Computers Helping People with Special Needs. Linz, Austria: Springer International Publishing.

- [3] Bhavani, S., & Thanushkodi, K, 2010, A Survey On Coding Algorithms In Medical Image Compression. International Journal on Computer Science and Engineering, 2(5), 1429-1434.

- [4] Bhansali, M., & Kumar, P, 2013, An Alternative Method for Facilitating Cheque Clearance Using Smart Phones Application. International Journal of Application or Innovation in Engineering & Management (IAIEM), 2(1), 211-217.