

Training and Placement Portal

Dr. Ram Joshi¹, Mrinal Chaudhari², Pratiksha Gaikwad³, Savani Kadam⁴, Sheetal Kanthale⁵

¹Dept. of Information Technology, JSPM's RSCOE, Tathawade, Pune.

²³⁴⁵(Student, Dept. of Information Technology, JSPM's RSCOE, Tathawade, Pune.)

Abstract - The software for the training and placement cell of a college is a need for the students and the institute management for the purpose of proper placement and training of the students of the institute. It helps the students to provide their profiles to the training and placement cell of the institute, update their respective profiles with their gradual approach towards course end). Also helpful to get to know about the companies coming for the on campus/off campus/pool/group pool categories of campus interviews. Also used get to know about tests conducted by the HR.

Key Words: SVM (Support Vector Machine), Training, Placement

1. INTRODUCTION

The earlier system was not computerized, transactions in the previous system were done manually by maintaining records. It takes much time for a placement officer to collect and approve the details of students. There is poor communication between students and placement officer. Students may not obtain the desired information. It is difficult to coordinate students, companies, and interviews. The proposed system is a web-based application. The system allows students to access details of recruitments. The system allows students to access any material posted by various departments. Recruiters can access the student details. It is easy for one to access desired information through the well-defined interfaces. For the purpose of training and placement of the Students.

This application will perform various tasks for student administrative authority. This project helps a better student support and time-saving factor. The various types of reports will be available quickly without any effort.

Training and placement provide infrastructural facility to conduct the group discussion. This project is aimed at developing a web portal for training and placement.

Campus placements are conducted in all colleges for all the education fields. Various software and other sector companies are conducting campus recruitment process for selecting candidates. When campus selections are conducted in colleges the students have to provide their curriculum vitae to the concern TPO officer for attending the campus interviews. This routine process is maintained manually. Many colleges have automated system but have some limitations. Students uploaded their CVs early in the year, leaving them as it is in time. Lists were produced for each company based on the present information. Students have to

check their mail regularly. Searching is done based on the company criteria and requirement. The student will get notify rough mailing only.

The students were not being made aware of the T&P activity other than placements. The information like company technical question paper, Resume Format, Job details are not available to the student. There was no record kept of the past students and their working status. There was less communication between the student with the Training and Placement department. So that this can be improved by designing Advanced software.

2. RELATED WORK

Teacher recruitment and placement should be based on the needs of the particular educational institution. It should not only be based on the teacher's rank but should also be based on several criteria such as teaching experience, educational background, major, and subject the teacher is capable to teach. If a teacher were recruited based on the need of the educational institution, it would be a factor that supports the success of the educational program in that region. The AHP Method is developed, it is a decision-making method which takes into account one's privacy or preference values by putting priority score in the form of matrix criteria, computing the choices, and obtaining the percentage of each choices.

The best choice is the priority score with the highest percentage. [1]The popularity AHP in decision making approach is creating multi-criteria decision-making (MCDM) that involves qualitative data. The method uses a reciprocal decision matrix obtained by pair wise comparisons so that the information is given in a linguistic form. In the pair wise comparison method, criteria and alternatives are presented in pairs of one or more referees (e.g. experts or decision makers). Using AHP method improves credibility of decision making. Process of decision making by comparing criteria with other can guarantee the result decision. AHP methodology can used for individual competencies by comparing the current key competencies rankings with results from last year to see if their have been any changes in the rankings as a result of changes in the company's strategy. The concept shows the suitability in applying each strategy under different degrees influenced by the factors tested. Analytic Hierarchy Process (AHP) helps decision maker to create a ranking by concerning the critical aspect. The AHP [3][4], also uses a principle of hierarchic composition to derive composite priorities of alternatives with respect to

multiple criteria from their priorities with respect to each criterion. It consists of multiplying each priority of an alternative by the priority of its corresponding criterion and adding over all the criteria to obtain the overall priority of that alternative.

3. DESIGN AND WORKING

The first step was database design. A complete database required for the implementation of this project was designed. The project was designed based on a framework. Business entities layer: It identifies all the entities used in the project. Business logic layer: This layer operates on the business entity to achieve the goals. Data access layer: This layer serves as an interface between backend and the services. All modules and user interface was built in this step. Development was done using Java. The database was constructed in MySQL.

companies and their placement drive details such as number of vacancies, criteria, CTC etc. uploaded by the respective HR. Student can appear for online test initiated by HR of any Company and view the result declared by HR.

3.1 Support Vector Classification Algorithm:

Support vector machine (SVM) proposed by Vapnik and Cortes have been successfully applied for gender classification problems by many researchers. An SVM classifier is a linear classifier where the separating of the hyper plane is chosen to minimize the expected classification error of the unseen test patterns.

SVM is a strong classifier which can identify two classes. SVM classifies the test image to the class which has the maximum distance to the closest point in the training.

SVM training algorithm built a model that predicts whether the test image falls into this class or another. SVM requires a huge amount of training data to select an effective decision boundary and computational cost is very high even if we restrict ourselves to single pose (frontal) detection. The SVM is a learning algorithm for classification. It tries to find the optimal separating of the hyperplane such that the expected classification error for unseen patterns is minimized.

For linearly non-separable data the input is mapped to high-dimensional feature space where they can be separated by a hyperplane. This projection into high-dimensional feature space is efficiently performed by using kernels. More precisely, given a set of training samples and the corresponding decision values $\{-1, 1\}$ the SVM aims to find the best separating hyperplane given by the equation $WT x+b$ that maximizes the distance between the two classes.

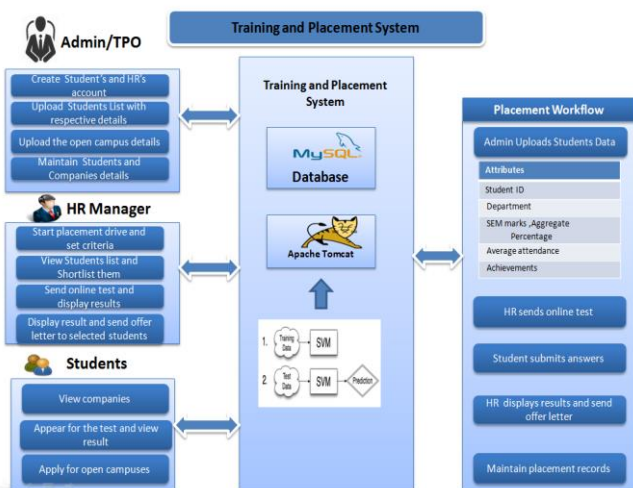


Fig.1 Architecture diagram for training and placement portal

The portal’s content structure and working fulfill a number of basic criteria as follows: Users involved for exploring the various features, scope, and constraints of the system. This project is helpful for Student administrative authority Companies HR, Documentations writers also. Admin/TPO can register all final year students of various departments with their academic records marks, attendance etc. Using SVM Admin evaluates the students based on specific attributes. Due to this, the Students who have a good score in specified attributes will appear at the top of the list. Whenever HR finds any requirement in his company. He will start the placement drive and mention the respective details such as a number of vacancies, criteria, CTC. Then HR views the Students list uploaded by the Admin and Selects students for the test who get fit into the criteria such as percentage. Then these selected Students will be sent the test link for online test. Students answer the questions asked in the test. Shortlist student and send offer letter Based on the answers submitted by the students HR displays the result and send the offer letter to the short-listed students. Student can view

3.2 Modeling For Training And Placement Portal:

Use Case Diagram Training and Placement Portal shown in Figure 2 consists of four actors. Actors involved in this System are student ,HR,TPO and Admin. The person who will need the information to make decisions, particularly related to students placements.



Fig.2 Use Case Diagram for training and Placement portal

4. CONCLUSIONS

This system can be use as an application for college to manage the student information concerning placement. It also helps company coming for campus recruitment to see student details. Before coming for campus, company can get information about eligible students along with interested students. This web portal will perform various tasks for student administrative authority. This web portal helps the student for better support and time saving factor. The various types of reports will be available quickly without any efforts, it also reduces the work pressure of the T&P cell staffs.

REFERENCES

- [1] Saaty, L Thomas , Decision-making with the AHP: Why is the principal eigenvector necessary, Eu ropean Journal of Operational Research , page 85–91, Elsevier Science B.V.
- [2] Alonso, Jose Antonio and M Teresa Lamata , Consistency In The Analytical Hierarchy , International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems Vol. 14, No. 4 445 – 459 , World Scientific Publishing Company.
- [3] Triantaphyllou, Evangelos and Stuart H. Mann[1995], Using The Analytical Hierarchy Process for Decision Making In Engineering Application: Some Challenges, Inter'l Journal of Industrial Engineering: Applications and Practice, Vol. 2, No. 1, pp. 35-44,
- [4] Alonso, Jose Antonio and M Teresa Lamata [2006], Consistency In The Analytical Hierarchy, International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems Vol. 14, No. 4 445–459 , World Scientific Publishing Company.