An Integrated Automated Web Based Academic Smart System

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Abstract— A design of suitable automated system for filling and managing the academic details plays vital role in an educational institute. Our system also taken care of administrative actions required during management of academic details. All the administrative action depends on the hierarchy of administrative actions required during management of academic details in an organization. Web application for college automation to start paperless work permanently. This web application will make college smarter. Centralized data which will store important information & files in a file server. It also focuses on the implementation of task engineering without disturbing the role hierarchy and their access rights policy. It also provides additional data services like notification, performance of the automated system and gives satisfaction to the users.

Index Terms—Automation; PHP; Smart System; SQL; Training and Placement; Web Application; Web based.

I.   INTRODUCTION

A web application is a distributed application which can be used by many million users accessing or retrieve the information or data and interact with each other at the same time anywhere and anytime. Web application which will be use for our day to day life such as online banking, online shopping, mailing, education learning and training, business transaction and many more. To outline the supportive framework with a specific goal to make simplicity to the client.

As it has been already seen that desktop application used only one person at a time but web application is used by million users at same time. Management of many things on

manually is quite difficult task. Web application basically runs on the internet and they communicate with more than one computer and network or server. By understanding the importance and scope of requirement, we have proposed efficient systematic, secured access and sophisticated user

friendly automated system. In this paper, online dynamic web application for the college or institute for managing many of thing for all the department such as data sharing, online notice board, news, training and placement student filtration, research and development, alumni panel. To propose new paperless web application for the college or

institute, which are converting the physically or manually paper based work into the online paperless work system.

Organizing of the paper in this as section I describe Introduction, section II describe the literature survey, section III describe the proposed work, section IV describe the overall design, section V describe conclusion and section VI describe reference.

II.   LITERATURE SURVEY

All researches have aimed to develop and provide the generalized solution to monitor and maintain the various work of department of the college or institutes are automation in various task. Automation work are reducing the staff shortage, eliminating human error, increase productivity, reducing cost and improvement of the performance and accuracy of the human capabilities of the size , weight, speed. This can provide up to date information of the system which can improve the efficiency of the college management record and reduce the space between the student and college. The major contributions to these topics are summarized below:

Sourabh Valia, Satinderjit Kaur Gill[1]proposed the system for framework for web base student record management system using php. A data framework was essential in gathering all information also data of all staff or part in one association to be in one spot. This framework was centered on recording and updating the information. The objective of the paper was giving the online interface for student and expanding the effectiveness of the college and administration.

Priya Patil[2]proposed the system for conversation of paper based system to paperless work using the front oriented module. Managing access control and task completion using the type role hierarchy based access control model implementation of services like notification, performance evolution.

Mr. Nitesh Rathod, Dr. Seema Shah[3]proposed the system online training and placement system automates activities training and placement cell that provided opportunities to student communities to used collective intelligence to increase the selection ratio and eases out of

process creation of management information automatically.

Er. David A. Botwe, Er. Joseph G. Davis[4]presented the paper on compassion of web application development technology using the open source software and proprietary software. The comparison involved the three major technology namely: java server page (jsp), Active Server Page (asp)and PHP (hypertext preprocessor).

K. Sridevi and Dr. R. Umarani [5]presented the paper on web personalization approaches involved actually creating web pages, that are unique per user or using the desires of a user to determine what web documents to retrieve. Personalization can be done to a group of specific interested customers, based on the user visits to a websites.

Amandeep Kaur and Mrs. Shailja Kumari[6]describe the Secure databases has become increasingly crucial in all application areas.The Transposition-Substitution-Folding-Shifting encryption algorithm (TSFS) is a symmetric database encryption algorithm that is a expansion technique to provide high security.

Akashat Mantra and Naina SRohra[7]proposed the Engineering Admission Counseling system which will be used to automate the student admission process and other forms that the student submits for a particular request by introducing the concept of artificial intelligence in the existing system.

III. PROPOSED SYSTEM

Web Application for College Automation to start paperless work permanently. Centralized Data which will store important information & files (Notes, Presentations, PDFs, Documents & images) in a file server. Smarter because student will get notices online from department authority, student will get news directly from HOD's & Principal in their news inbox, smart data share will allow faculties to share educational information like (PPT's, Documents, PDFs & images) so that student can download the same data over the internet anywhere and anytime. Research & development will show all the information regarding each and every research & development that completed or currently in progress.

Fig.1. General Architecture of Academic Smart System.

The aim and objective of Academic smart System are as following:

Aim :
- To Provide Student as well as Teacher registration and login.
- Teacher or Faculty can upload and download Note related Subject.
- Faculty can upload Notices about Exam and Event.
- Student Filtration can be done according to company wise criteria.
- Recently Pass out student can access this System.
- To make System more Secure.
- Increasing Efficiency of College record Maintains.

Objective:
- Improvement of control and performance
- Save Time.
- Save Cost.
- Option of Online Notice and News.
- Lecture Notes.
- Student Filtration for company recruitments

Purpose.:

The purpose of this system is to design college real time web application which contain day-to-day information about the college as well as improve the efficiency of college record maintains and decrease space and improve interface between student and faculty.

Table 1. Comparison Between Existing system and Propose system.

Basic Parameter	Existing System (Paper Base System)	Proposed System (Paperless System)
Method	Paper Base	Paperless
Data Access	Slower	Faster
Performance Evaluation	Manual	Automated
Speed of performance	Slower	Faster
Center Data Repository	Manual	Automated with secure
Record Maintains	Manual	Automated with secure
Access Time	Slower	Faster
Administrative action	Slower	Faster
User Hierarchical Maintains	Manual	Faster
User Friendly	No	Yes
Use of E-learning & Disable Student	No	Yes
Access Time of Notice & News	Slower	Faster

IV. OVERALL DESIGN

There are five modules are for college automation.
1. College system layout student panel
2. College system layout for faculties
3. College System layout for HOD
4. Alumni Panel
5. Training and Placement student Filter

Module 1: *College system layout for student panel:*

Fig.1. Smart college system layout (Students)

It includes all the commands related to student module. It helps in filling and managing academic details online. Actions not performing manually and password based security is present in this module. Special types of commands are here to access various data, files. Data is in the form of word, images, and videos. Permission for accessing the resources is highly depends on the hierarchy present in the organization. Student can access various data given by their respective lecturer of their department and their HOD.

In this module, firstly student registered their name. They provided with their specific login-id and their password. The name gets verified by different co-ordinates of respective department. Next command is for authentication which is taking place after login performing by various Students. Authentication is for verifying whether the students are registered or not. After getting authenticated, student have complain box. Inside this, they can complain regarding any issues we are facing in the college. Student can complain to HOD or Principal directly. Smart Data provides the very efficient way for access any data. It includes various files in form of images and videos. Student can access any data very easily by just clicking on download option.
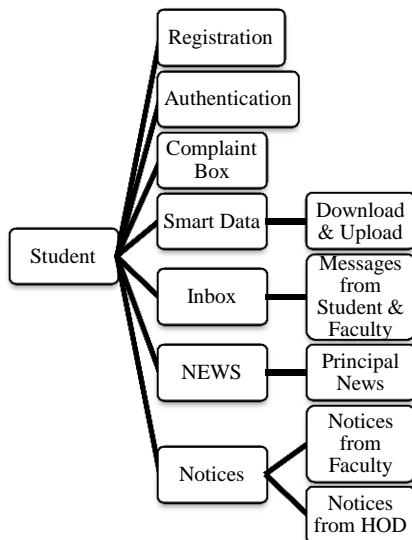
The news command includes all the news provided by principal of the college. All the news along with their dates find here. Notices related with HOD and any faculty is found by clicking on this command. It is totally online notice board. It includes the urgent notice. It may include time-table, seminar schedules, academic performance of various subjects, holiday homework, vacation tasks notice and many more things. Inbox includes personal message form faculties and classmates of the respective department. But only the students from same department can communicate with each other. Respective students can send message to any faculties of their respective department.

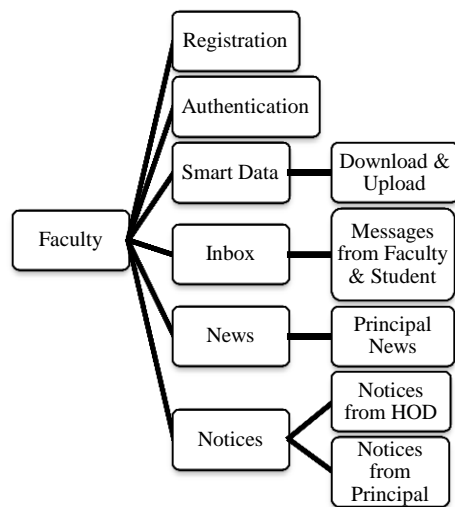***Module 2:*** *Smart college system layout for faculties:*

Fig.2. Smart college system layout (Faculty)

Same as the layout of previous module, this module is approximately identical as student module. It also includes Registration and authentication. Smart Data downloading of Data includes various text, PDF files, images, and videos. The Data can access any time anywhere which improves the quality of education. Faculties can fetch data after many years if it's needed. They can upload files after scanning it. Inbox includes message from faculties and Students. Evaluation of student performance become easily. Under News, the Faculties can receive the news from Principal. Notices include all the urgent notice given by HOD and Principal of the college. It speeds up the administrative actions and controlling power.

Module 3: *Smart college System layout for HOD*

This module helps in speedup action and controlling power. This frame work is essential in gathering data of all staff or part in one association in one spot. It will help in supplant the HOD to keep as record as stock for different purposes. After performing successful authentication certain services provide by our system. Accuse from various faculties and students are collected under complaint box.
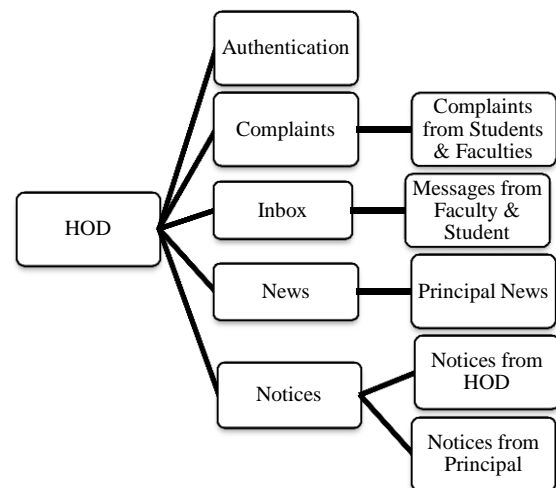

Fig.3. Smart college system layout (HOD)

Complaint regarding any issues from department present inside this. Personal message from faculties and student present inside inbox. HOD can easily fetch data here. All the news from principal to HOD related to organization present under this module. Urgent notice from the HOD of other department and notices from principal to HOD present inside online notice board.
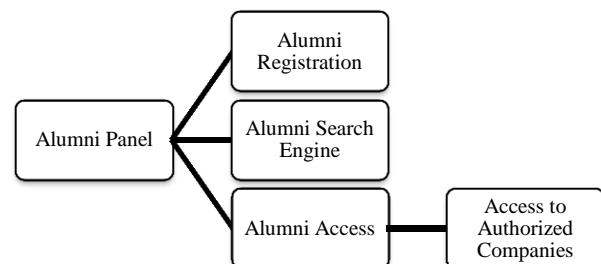
Module 4: *Alumni Panel*

Fig.4. Alumni panel for websites

Inside the panel includes the entire database related to academic details of pass out students. By utilizing this framework, Training and Placement officer can check the status of pass out students in past provided that with current status. Module provides the services to college of the entire pass out students. Alumni registered their qualification. After getting verified they provided with special login-Id and Password.

Investigation of particular pass out students is found inside alumni search engine .Only Training and Placement officer has authority to search them. Specific login-id and password is provided to some authorized companies. They can access the information regarding any students and can fetch any details of pass out students very efficiently. After getting verified they provided with special login-Id and Password. Investigation of particular pass out students is found in alumni search engine by Training and Placement

Officer. Inside this module Specific login-id and password is provided to some authorized companies. They can access the information regarding any students and can fetch any details of pass out students very easily.

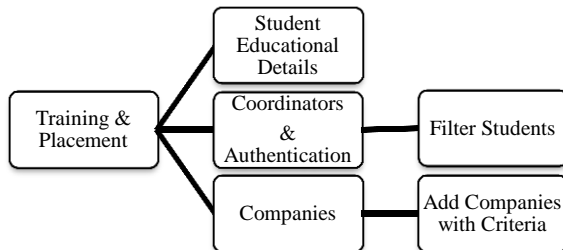***Module 5:*** *Training and Placement student Filter:*

Fig.5. Training and placement students filter

Training and Placement module plays very vital role in smart college system. It computes all computation regarding to Training and Placement which were not in proposed system. In proposed system the paperless work done by Training and placement department. They were used to update paper work daily by keeping students records. To reduce the overload, this module is to be developed as it has sub module as Student Educational Details which contains the entire database related to examination results and update the students qualified exams results records for future purpose, as well as student's personal information to contact them. There would be on student coordinator who has the authority to access student's information and updated the information according to his performance. If any company would like to take a campus interview in college and that company decided the certain criteria then that coordinator filters the students from student's education details according to pre-decided criteria it will be done on one click action. This overcomes the existing system. Also training and placement department updated the upcoming company's information with minimum selection criteria which is very easy to see students and apply online for it.

V. CONCLUSION

An automated integrated web based academic smart system helps to monitor and control remotely. The single system handles the information of departments securely and easily. The system is quit smart since it provides all information online. The system is used as the platform in educational institutes and provides all information online as well as highly security so that only authorized person can access the system and no one can hack the system.

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