# WEB BASED ACADEMIC SMART SYSTEM USING ASP.NET

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*Abstract:* The main purpose of this web application to provide single solution for college administration at one place. In real life, information spread in the form of physical display board and handwritten paper. So idea is to change this information in digital format and easy to access and at one point. You can get all information like document safety, e-learning, online exam, Administration etc. and exchange more reliable and secure information between all users connected to this web application. Web application can make two way communications between server and client machine with the help of ASP .net and SQL server. This is one of the fastest and convenient ways to implement such application in education industry to go towards digitation.

*Index Terms -* **ASP .Net with C#, SQL Server, Web Application, IIS, three tire architecture, Framework Class Library, Common Language Runtime.**

## I. INTRODUCTION

A web-based application is any program that is accessed over a network connection using HTTP, rather than existing within a device's memory. Web-based applications often run inside a web browser. However, web-based applications also may be client-based, where a small part of the program is downloaded to a user's desktop, but processing is done over the internet on an external server.

Web Forms are pages that your users request using their browser. These pages can be written using a combination of HTML, client-script, server controls, and server code. When users request a page, it is compiled and executed on the server by the framework, and then the framework generates the HTML mark-up that the browser can render. An ASP.NET Web Forms page presents information to the user in any browser or client device.

By understanding the importance and scope of requirement, we have proposed efficient systematic, secured access and sophisticated user friendly automated system. Real time 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, E-learning, Exam, Attendance. The delivery of a Learning Training or Education program by electronic means. E-learning involves the use of a computer in some way to provide Training, Educational or Learning material.

## II. LITERATRE SURVEY

All development has aimed to provide the accurate solution to observe and maintain the various work of department of the college or institutes are automation in various task. Automation is required to increase productivity, reduce costs, eliminate human error, reduce labour shortage, high degree of accuracy, performing tasks that are beyond human capabilities of size, weight, speed, endurance, etc.

Pulakesh Roy [1] proposed the system for .NET Framework which is pronounced as DOT NET is a partially open source freeware software for framework developed by Microsoft that is primarily runs on Microsoft Windows. .NET Framework includes a large class library which is known as the Framework Class Library (FCL) and across the several programming languages it provides language interoperability. Programs which written for the .NET Framework execute in a software environment, which is known as the Common Language Runtime (CLR), which is basically an application virtual machine that provides the services such as the security system, management of memory, and handling the exception.

Atul Mishra [2] proposed the system for Critical Comparison of PHP and ASP.NET for Web Development. An importance of ASP.NET for development of web application (WA) which was developed as a part of a module's assessment. These languages have been evaluated for development of WA functional requirements and features.

Priya Patil [3] 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.

Wiwin Susanty, TaqwanTamrin, Ahmad Cucus [4] proposed the system for Document management System Based on Paperless. Which were effectively and useful in an office to streamline in the process documentation. The main benefit was that user can find needed information quickly, so it can help to process faster, better, cheaper and reduce environmental impacts.

Aishwarya Gunjal, Deepankar Kotwal, Shubham Bhadke, Puspendu Biswas [5] proposed the system for Online Examination System. This Online Examination System is a web based solution, which allows any institute to arrange, conduct and manage examinations via an online environment.

Akashat Mantra and Naina SRohra [6] proposed the Engineering Admission Counselling system which used to automate the student admission process and other forms that the student submits for a particular request by artificial intelligence in the system. In this attention has been given to the psychological aspects of the process-especially the accompanying stress and confusion experienced during the decision making process.

## III. PROPOSED SYSTEM

ASP .Net and MSSQL are two ways to make your site dynamic. The real beauty of ASP .Net, SQL Server, JavaScript, and CSS is the wonderful way in which they all work together to produce dynamic web content: ASP .Net handles all the main work on the web server, SQL Server manages all the data, and the combination of CSS and JavaScript looks after web page presentation. JavaScript can also talk with your ASP .Net code on the web server whenever it needs to update something (either on the server or on the web page). ASP .Net is a robust, Server-side, Semi open source scripting language that is extremely flexible and actually fun to learn. SQL Server is the standard query language for interacting with databases. SQL Server is a Semi open source, SQL database server that is more or less free and extremely fast. SQL Server is also cross platform.

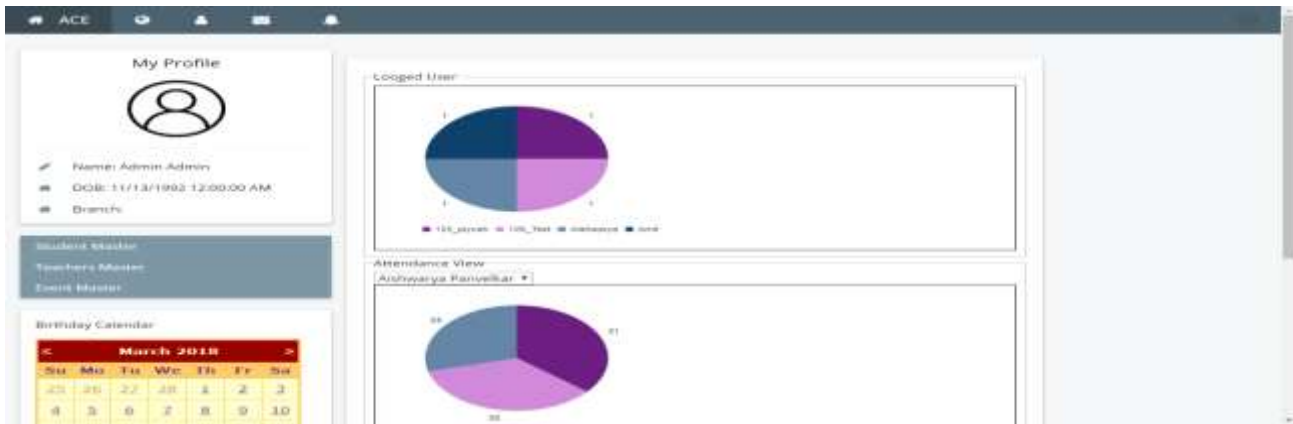

Fig.1: General Architecture of Academic Smart System.

| Basic Parameter | Existing System | Proposed 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 |

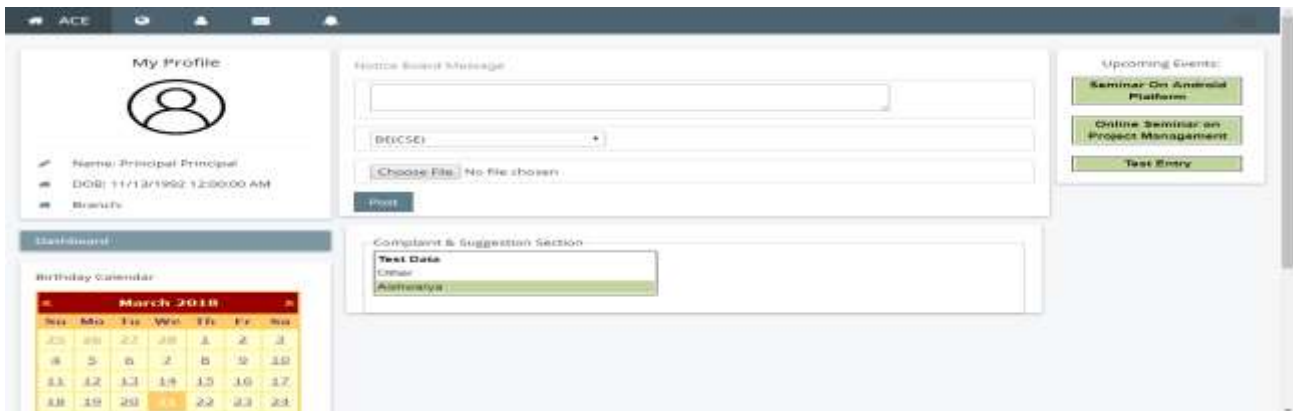| Access Time of Notice& News | Slower | Faster |
|---|---|---|

There are six modules are for college automation.

*A.* Admin Panel :

In admin panel we can see different links like Student Registration, Manage Facility login, Manage E-Learning Portal, Manage Document, Add photos etc. and main Role of admin is to manage complete portal. In this admin can see dashboard and manage website at one click. In admin panel admin can create different login account for student, Faculty, HOD etc. and communicate login details to user for security purpose we can't provide registration on user end.
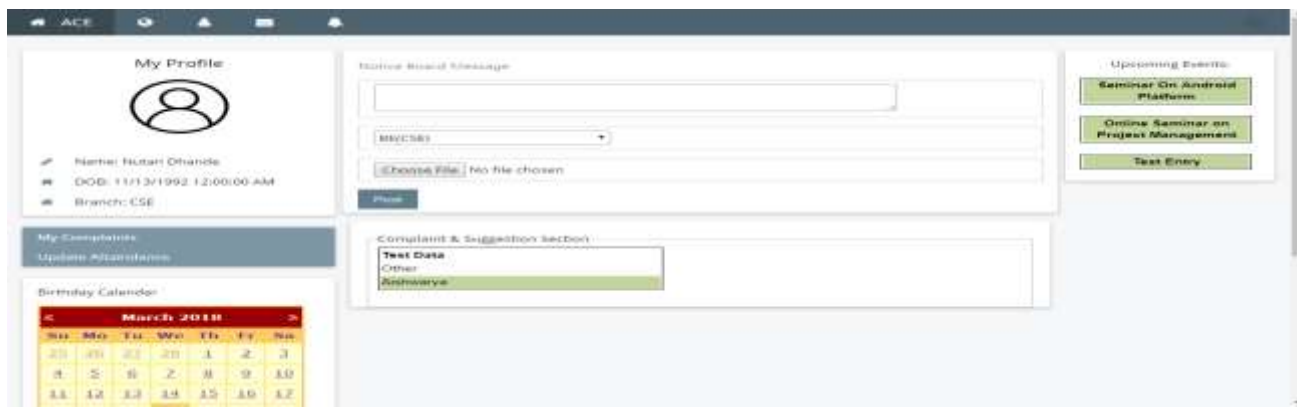


*B.* Principle Panel

In principal panel we can see Complaints, Dashboard, Upcoming Event, DMS, E-Learning, Photo Gallery and Send Notices to faculty etc. In this module Principal can also send communication/Notification to faculty. Also Principle can see dashboard with information in the form of chart with different combination to fetch details in systematic format to analysis easily.
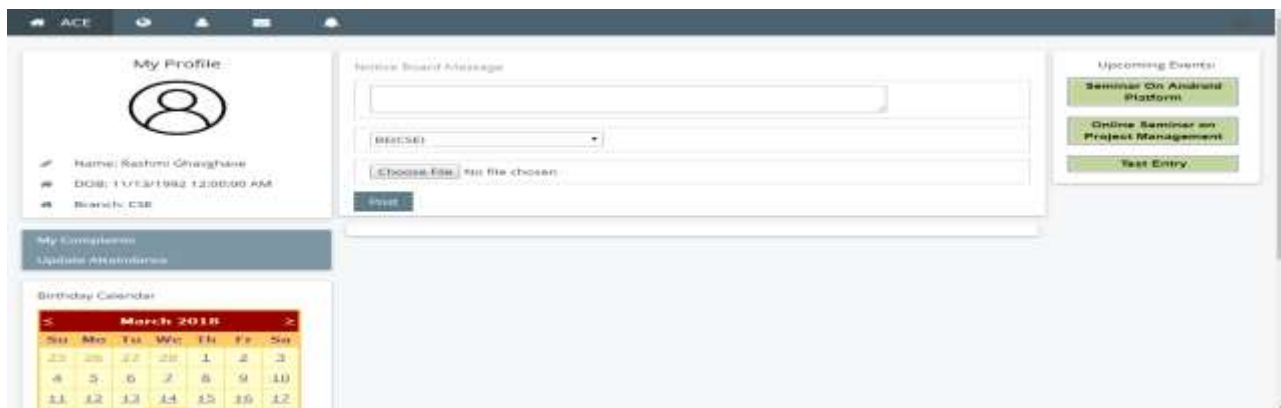


*C.* HOD Panel

In HOD Panel we can see Complaints, Dashboard, Upcoming Event, DMS, E-Learning, Photo Gallery and send notification to faculty and student. In this panel HOD can see complaints of faculty and also send Notices to student and faculty.
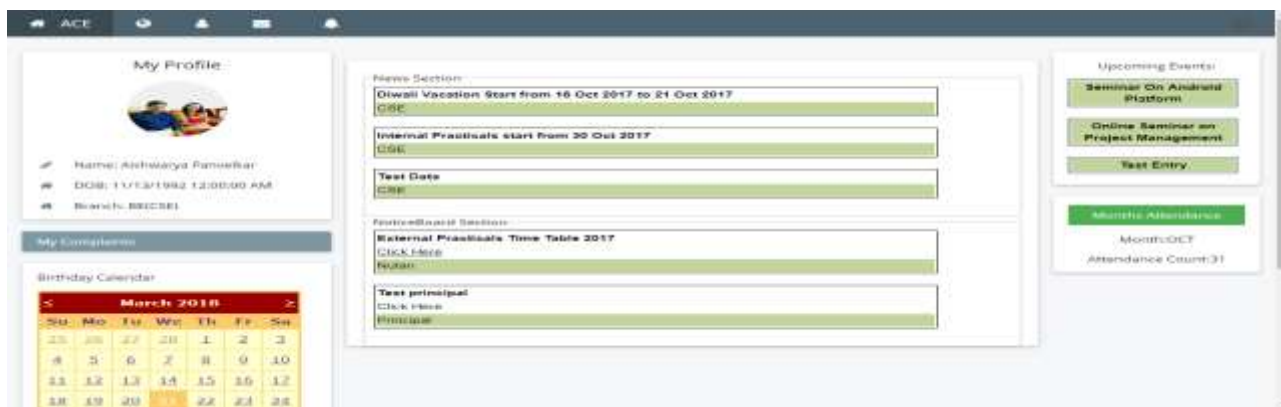
## D. Faculty Panel

In Faculty Panel we can see Complaints, Upcoming Event, DMS, E-Learning, Photo Gallery, Attendance and send complaints to HOD. Also faculty can log a complaint and send to HOD. In this faculty can upload attendance of each student month wise.



## E. Student Panel

In Student Panel we can see Complaints, Upcoming Event, DMS, E-Learning, Photo Gallery and send complaints to HOD, Birthday Calendar etc. In this section student can log complaint online and check photo gallery. Check events and notification from faculty and HOD. Also download study material and check online tutorial video in eLearning section and solve exam and earn certificate.



## F. E-Learning Panel

E-learning involves the use of a computer in some way to provide Training, Educational or Learning material. In this module student can access online courses, study material, Question bank and give online exam to earn certificate in that topic. E-Learning also helps in cost effective and save time, learning 24/7 and gets information at one place.



## IV. OBJECTIVE

1. To provide a Login to each and every user to maintain security.
2. To provide online upload and download important notes from anywhere any time.
3. To provide the online reach to student and higher level authority to modify and provide data.
4. To increase the information to student at one click on website as well as mobile browser.
5. To decrease the time spends on non-value added task and to access and deliver notices.
7. E-Learning module is cost effective and saves time.
8. Learning 24/7, anywhere.
9. Get all notification on one place in digital format.

## V. CONCLUSIONS

Web Based Academic Smart System Using Asp.Net is dynamic web based application helps to improve day to day activity securely and smartly with less manual intervention and such web application can be access from any place with less efforts. With the help of this application educational institute can provide information in digital format to each and every person in secure and on time.

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