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Web Content Management System & its Application

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Abstract - This research paper is about Web Content Management system. During the past ten years the web has brought about some major changes in terms of creation and maintenance as well as modification of content online. Hence, this is where Web Content Management System has played a critical role. Web Content Management System enables an organization/ a developer to seamlessly create, edit, review and publish electronic text on websites.

Hence, the research paper discusses the need, the implementation along with the future enhancements of the Web Content Management Systems.

Keywords - Website, Software Tools, Utilities, Database, HTML, PHP, MySQL , CMS – Content Management System, WCMS – Web Content Management System

I. INTRODUCTION

In the past three decades, there has been a drastic fall in the cost of IT hardware especially CPU and memory. This led to large databases and documentation systems at a very low cost. This originated the birth of WCMS. In the early days, CMS was programmed in C++ and run on commercial databases like Oracle which is why only big-budget websites could afford using CMS. Then, with the creation of the dynamic HTML engine, PHP in 1997, WCMS became stable, cheaper and easy to use for home users.

II. WHAT IS CMS ?

A CMS is a system that provides a way for different users to interact with and control access to data through a common interface. It is a system that facilitates the creation, retrieval and modification, organization, deletion as well as maintenance of information in digital fashion including raw, semi processed or fully processed content handling text, images/graphics/animation, audio/video etc.



III. WHAT ARE THE TYPES OF CMS

There are different types of CMS for different types of content.

- Web CMS

A web content management system (WCMS) enables a user to create or amend a web page without the need for the requisite technical skills.

- Enterprise CMS

These systems or 'enterprise content management systems' (ECMS) handle the content, assets, records and other information which defines the structure and hierarchy of an organisation.

- Mobile CMS

The rapid growth in the mobile technology industry has led to an increasing demand for systems which can manage content for smart phones, PDA's, mobile phones and other handheld devices which led to the use of Mobile CMS.

IV. WHAT IS WCMS

A Web Content Management System (WCMS) is a program that helps in maintaining, controlling, changing and reorganizing the content on a web page. WCMS is typically a software tool used by both technical and non-technical staff to manage the creation of structured web pages for a web-based experience such as an internet website, Intranet or Extranet solution.

V. WHAT ARE THE FEATURES OF WCMS ?

The key features of a WCM system are:

- The ability to design and organize websites to provide effective and efficient access to relevant and latest content.
- The ability to control and prepare the content for publication, including creating and controlling content evaluation and approval before publication on the website.
- The automation of key parts of the publishing process.

VI. WHY IS WCMS IMPORTANT ?

The need for establishment of a properly designed and implemented CMS is because the website complexity in today's world has increased. A website has become a portal rather than just a showcase or information repository.

Hence, any website content must be constantly and instantly updated and must be up all the time with zero tolerance for errors and bad information.

To summarize, the needs of having a Web CMS :

- To reduce cost of maintenance of web content
- To easily update web pages of a website

VII. INTRODUCTION OF PROJECT

The website provides all the details regarding the college including different departments, activities, news and updates and other information.

The purpose of the project is to make a clear, efficient as well as extremely attractive website.

Web Content Management System is used in the department section of the project to reduce the number of pages and to handle data using admin rights.

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The various functions supported by the system are:

Add Department: The admin panel asks for the

- Department name
- HOD's message
- Academics
- Labs
- Placements
- Other information

The admin panel then adds this information in the database. The website retrieves this information from the database when the user checks the website.

Delete Department: The admin panel asks for the name of the department name and deletes the department for the admin.

Change Department name: The admin panel asks for the department name and asks for new department name and changes it for the admin.

VIII. IMPLEMENTATION OF WCMS IN PROJECT

WCMS has been of major use for the department section of the website. WCMS was used to generate a single page for the department and the content of the page are retrieved from the database depending on ID of the department. For eg; Electronics department has been given ID equal to one. When the link to the electronics department is clicked, the data related to ID equal to 1 is retrieved from the database. In the same way, data related to ID equal to two is retrieved for computer department.

The Admin page is used to control/access the information on the database from the title of the page to the department menu details to news and updates.

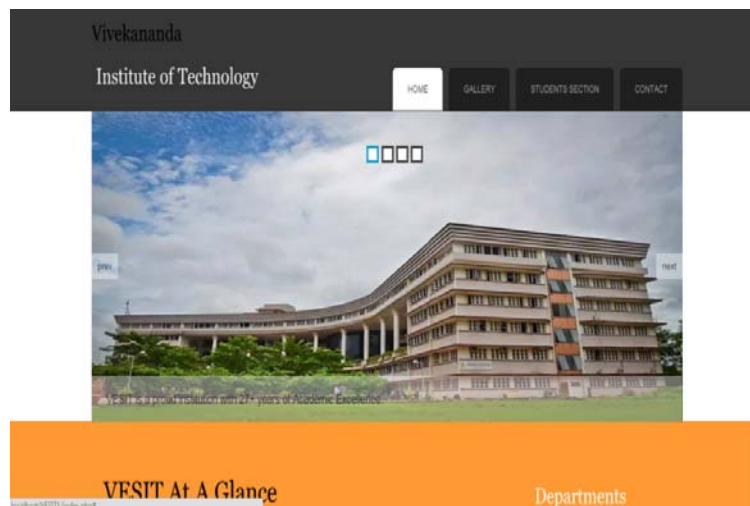


Fig 1.1 : Home Page



Fig 1.2 : Home page

localhost/vesit1/dept.php?id=1

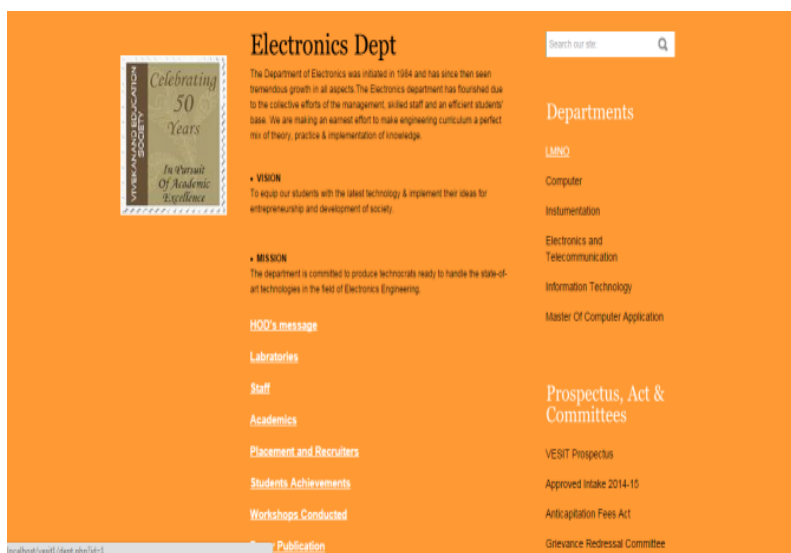


Fig 2.1 : WCMS in department section

localhost/vesit1/dept.php?id=2

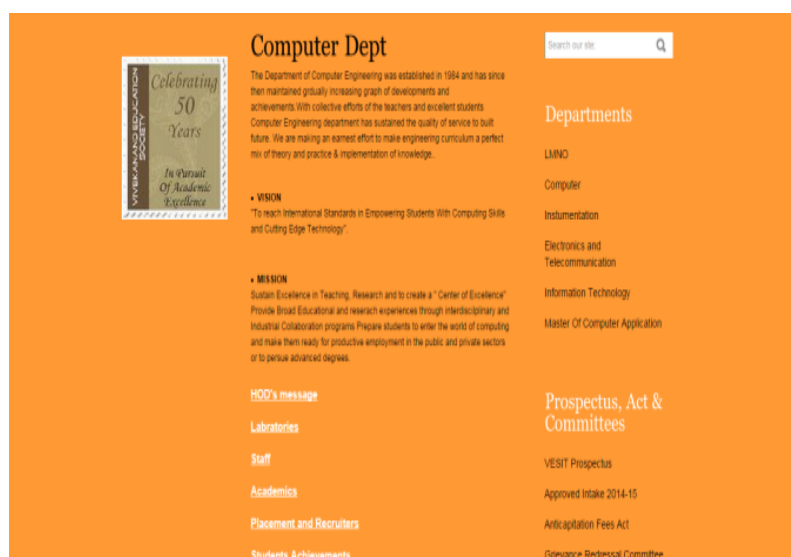


Fig 2.2 : WCMS in department section



Fig 2.3 : Department List Page

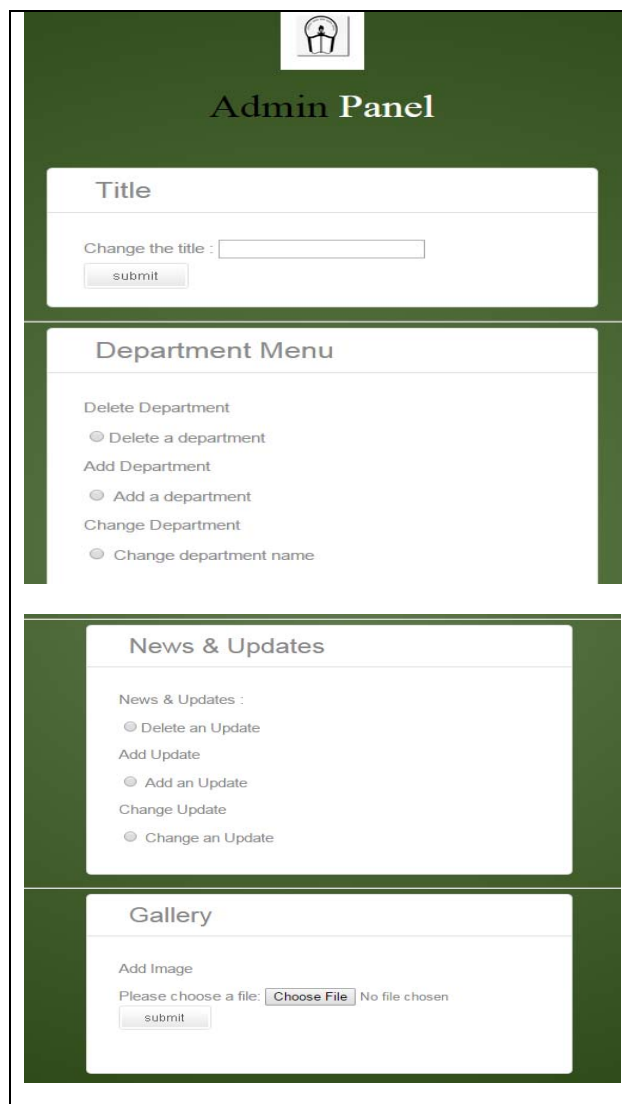


Fig 3 : Admin Page

IX. THE FUTURE

In future Open Source CMS, will be more prevalent, powerful & easier to use. More and more people are joining together to help improve the overall performance and experience of working with CMS. Future of content management lies in being handled with the cloud approach, whether it is private or public, for any infrastructure.

Some additional functionality can be applied to support CMS users, including:

- Detailed, customisable web statistics
- A link checking routine run as a service across the whole site
- Implementation of a "web accelerator" to effectively hide the database string in the urls. This would reduce load on the server as redirects do, but allows more simple use of urls.
- A further higher degree of content accessibility can be maintained.

X. CONCLUSION

CMS works effectively when the web application is going to be used for management of contents instead of any complex business logic.

Maintenance of a web application dealing with huge amount of data is very tedious and not economical. CMS proves to be very effective and efficient when projects are concentrating more on maintenance of data. Still CMS is not a perfectly ideal solution for a complex web application.

A good WCMS can facilitate businesses to better control their web content, making it more responsive in today's dynamic business environment.

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