

International Journal of Advanced Research in Computer and Communication Engineering

Vol. 10, Issue 5, May 2021

DOI 10.17148/IJARCCE.2021.10562

Digital Campus Management

Vivek Prajapati¹, Rahul Kuvlekar², Sumit Vaghmode³, Kiran Pillai⁴, Professor Dr. Deepak Dharrao⁵

BE Student, Computer Engineering Indira College of Engineering and Management, Pune, Maharashtra, India¹⁻⁴

Professor, Indira College of Engineering and Management, Pune, Maharashtra, India⁵

Abstract: The term "digital campus construction research" refers to the creation of a campus in an infinite math space on the Internet. It is a digitalization of campus resources in the real world, allowing different resources to be integrated and generating an ecology. The virtual campus interacts powerfully with the physical campus, improving the efficiency of campus operations and promoting the university's long-term development. This paper introduces the study and creation of a virtual digital campus based on the web platform, using the wisdom campus system as an example. We begin by discussing the history of virtual digital campuses and the creation of wisdom campuses, before outlining the research. The system's design and development. Finally, we propose in our country, there are issues with the creation of digital campuses, and the corresponding solutions are presented.

INTRODUCTION

A "Digital Campus" is a virtual learning environment based on digital data, computer technology, and network infrastructure. It recognizes the data. the gathering, processing, integrating, storing, transmitting, and education, research, management, and other applications campus technology services, to ensure that educational resources are available.

fully utilized Hardware resources are the foundation of this procedure. The digital campus, in particular, employs modern information technology and tools to achieve digitalization from the environment (such as devices and classrooms), as well as resources. (for example, books and lectures), to activities (for example,

services and management). On the basis of conventional wisdom, it creates a digital area on campus to expand time and space. To extend the functions of the real campus, there is a need for more room. increase the efficiency of the typical campus This article introduces the "wisdom campus" system, a cutting-edge information management platform that encompasses campus life, education, and activities. It brings new ideas to the table. conditions for both research teams and students on the project a group. The wisdom campus mode is created by the system. Students' innovation projects are also beneficial in the long run. information development on campus In the meantime, incorporates emerging technologies such as the internet of things and three-dimensional modeling For the purposes of digital modelling and mobile web, Platform for campus-based innovation projects.

Limiting the current scheme:

-The current scheme requires manual labor.

-Many divisions are expected to perform a range of activities which need a lot of paper work.

- -Notices are distributed by class manually in the college class or projected on the notice board.
- -No automation and centralization of records exists.
- -Loss of documentation is likely to occur, since paperwork is by meeting face to face, workers engage with HOD.
- No Lost and Found Provision.
- -Usage of paper and other tools unnecessarily.
- -Maintenance is complicated and needs time.
- -Record monitoring is repetitive work.
- No Lost and Found Provision.

The suggested Wireless Smart Campus framework is completely automated. The Smart Campus is both a smartphone application and a web application. It uses Android smart phones and online services on computer systems. The main goal is to establish and provide information about grievances, any placement practices, general notifications, and significant notices about all departments to students.

The main objective of Smart Campus growth is to provide a simple way not only to automate all a college's operations, but also to provide the highest authority of the college with the finest information regarding every part of the college. Smart Campus offers an enticing atmosphere where users can conveniently manipulate information and data about students and employees. So we may assume that the main aim of the "Smart Campus" design is to handle the task of college students/teachers and to reduce the time to search for relevant college-related details. The full structure of the college campus and all its divisions are given by Smart Campus. The work of all the departments is synchronized by

Copyright to IJARCCE



International Journal of Advanced Research in Computer and Communication Engineering

Vol. 10, Issue 5, May 2021

DOI 10.17148/IJARCCE.2021.10562

Smart Campus. It reviews all aspects of a college, its students, classes, departments, news, facilities and other cocurricular activities.

The best way to handle all a college's activities is the Smart Campus. It is a value-added service provided by Smart Campus that makes it easier for colleges to manage college, faculty and student-related functionality. With the advent in technology, paperwork in any single sector is being greatly reduced. With the implementation of this application, without the use of a medium like paper, an entity can function efficiently. Hence, for any organization, this will prove to be a very useful application. Other developers will also be encouraged to render this Android application in other languages as more and more students and teachers find out about the use of this application, which will boost education in different ways.

IX.EXISTING SYSTEM

Since the retrieval is not user-friendly, the new method data is very sluggish and knowledge is not effectively maintained. The use of certain technologies can be nuanced and time-consuming. Such systems must be operated by a professional for the system should be managed and upgraded, which can once again be very expensive.

All report generation calculations are performed manually, so there is a higher risk of errors. Here the faculty has to suffer a lot through the calculation and it can cause a lot of trouble if there is a failure of any paper. Because of exaggerated calculations, this is often time-consuming. There are some miscalculations even after that, which is challenging for the teachers. These calculations also impact the students' grades, which will eventually lead to their percentage. The mechanism from which the input is taken is not incredible enough. The points of view of each one of them and not every understudy is taught by these frameworks. Since innovation is well-ordered, we need to Using this development to achieve a beneficial outcome in ample time

IX.LITERATURE SURVEY

[1] Cloud-Based College Management Information System for Autonomous Institute.

Author:- Rajesh Shah, Makhan Kumbhkar.

Description:- This paper is aimed at developing an Cloud based College Management System (CMS) that is of importance to either an educational institution or a college. The system (CMS) is Cloud based application that can be accessed throughout the institution or a specified department. This system (CMS) is being developed for Christian Eminent College Indore ,MP,India to maintain and facilitate easy access to information. For this the users need to be registered with the system after which they can access or modify data as per the permissions given to them. CMS is a Cloud based application that aims at providing information to all the levels of management with in an organization. This system can be used as a knowledge/information management system for the college. For a given student/staff (technical/Nontechnical) can access the system to either upload or download some information from the database.

[2] A Research Paper on College Management System

Author:- Lalit Mohan Joshi .

Description:- This paper is aimed at developing an Online Intranet College Management System (CMS) that is of importance to either an educational institution or a college. The system (CMS) is an Intranet based application that can be accessed throughout the institution or a specified department. This system may be used for monitoring attendence for the college. Students as well as staffs logging in may also access or can be search any of the information regarding college. Attendance of the staff and students as well as marks of the students will be updated by staff. This system (C.M.S) is being developed for an engineering college to maintain and facilitate easy access to information. For this the users must be registered with the system after which they can access as well as modify data as per the permissions given to them.

[3] University Portal, the Door of Digital Campus.

Author:- Sun Jianhong Li Junsheng.

Description:- In recent years, there are many papers have discussed how to develop the digital campus and IT in education and most of universities of China have invested a large of money on it. After years of development, many people have been aware of the primary drawback in the development that is many universities focus on the hardware development, but ignore to develop software. Many universities on digital campus and IT in education development are still in the situation of low-level development and redundant investment. As a result, there is still no a larger-scale alliance between universities of China for developing a common digital campus platform. In this paper, we will analysis the drawback existing in many universities. And then we will shows our fundamental research work on the popular University Portal development based on web 2.0.

Copyright to IJARCCE



International Journal of Advanced Research in Computer and Communication Engineering

Vol. 10, Issue 5, May 2021

DOI 10.17148/IJARCCE.2021.10562

[4] Information Portal System for a Digital Campus based on Information Architecture.

Author:- Anubha Jain, Swati V. Chande.

Description:- Web technologies advancement has resulted in abundance of data in higher education information systems leading to problems of data sharing and communication. A digital campus information portal system integrates all the information resources and applications of a university into a single website. A well implemented campus information portal system is a key to higher education's competitiveness. This paper discusses how information architecture methodology directs the creation of campus information portal system to result in greater satisfaction amongst the users. The information portal system of a typical Indian University is taken as an example.

[5] Campus Information Portal based on Portal Technology.

Author:- Hongping Chen , Jinhong Li , Qizhi Sun

Description:- In order to solve the problems of the present University information system, this paper presents a campus information portal solution based on Portal technology, which divide the campus portal system into four layers.' base layer, data layer, application layer and presentation layer. This architecture to provide basic services of traditional school information systems and campus portal-specific single sign-on, data synchronization, application integration and personalization services and other junctions. Base layer includes hardware, system software, network infrastructure and Email, Www, FTP and other basic services, data layer is formed by the database and LDAP, application layer contains the ESB, unified authentication and the application system, presentation layer consists of the portal and browser. The presentation layer and application layer exchange information in the form of Portlet

IX.PROPOSED SYSTEM ARCHITECTURE

In today's technological environment, the use of the Internet and the World Wide Web has revolutionized knowledge delivery and the ability for users to act on that information. Computers and mobile devices are also influencing our lives in more ways than we are possibly aware of, such as computerized administration, maintaining knowledge of educational institutes, universities, and other institutions, and the list goes on. If management requires details, he checks the records of students, employees, and others. It is difficult to prepare manual work in order to store information about all pupils, teachers, and other personnel.

The Digital Campus system that has been proposed is completely automated. Smart Campus is both a smartphone and web application. It makes use of Android-based mobile phones as well as web services on computer systems. The primary goal is to produce and provide information to students about grievances, placement events, general notifications, and relevant notices from all departments.

The primary contribution of this principle is the design and implementation of a college management system based on web. Collaborative learning tends to be an advancement for teaching and learning whose time has come. It will make a student consciously participate in the creation of their own minds. The main objective of the Smart Campus is essentially to obtain learning advantages on handheld devices, particularly mobile devices, which enable learning materials to be accessed and shared anywhere and at any time. Not only will the application allow students to receive admin updates, but it will also help employees by providing a simple system to connect with students and remind them via web portals about upcoming submissions and events. Smart Campus' proposed architecture is a simple but powerful integrated network that links all of an institution's different departments, such as management, attendance, staff information, and several more advanced modules. There are five user forms in the application: student, instructor, H.O.D, admin, and principal. Each user class will have its own application view, corresponding to its type. According to their classification or forms, they may have rights and have the ability to post stuff on the application so that other people can see it if they are supposed to see it or have permission. We also have different characteristics so that at one location they can have all the academic items and details. For H.O.D. and principal, we will have functionality to look at and monitor all the operations over the applications. The system, in general, ensures that all of the data it holds is secure.

Copyright to IJARCCE



International Journal of Advanced Research in Computer and Communication Engineering

Vol. 10, Issue 5, May 2021

DOI 10.17148/IJARCCE.2021.10562



Fig-System Architecture



IX.ALGORITHM OF PROPOSED SYSTEM

- 1. Searching Algorithms :-
- A. Linear Search.B. Binary Search.
- 2. Sorting Algorithms :-

3.

- A. Selection Sort.
- B. Quick Sort.
- C. Merge Sort.
- Recommendation Algorithms :-
- A. Content Based Filtering

Copyright to IJARCCE



International Journal of Advanced Research in Computer and Communication Engineering

Vol. 10, Issue 5, May 2021

DOI 10.17148/IJARCCE.2021.10562

IX.ADVANTAGES OF PROPOSED SYSTEM

- 1) The application provides user friendly interface for the students to access the web application.
- 2) It may be utilized both on and off campus at a university.
- 3) It provides the facility for the staffs to create their own account.
- 4) The uploading and downloading of the files and other documents is very easy.
- 5) Web application is Secured.

IX.RESULTS



Fig:-frontpage



Fig:-studentHome



International Journal of Advanced Research in Computer and Communication Engineering

Vol. 10, Issue 5, May 2021

DOI 10.17148/IJARCCE.2021.10562



Fig:-teacherHome

HARRING CONTRACTOR



Fig:-HODhome



Fig:-Viewmarks

CONTRACTOR OF STREET, STRE



International Journal of Advanced Research in Computer and Communication Engineering

Vol. 10, Issue 5, May 2021

DOI 10.17148/IJARCCE.2021.10562

VIII.CONCLUSION

A "Digital Campus" is a virtual learning environment based on digital data, computer technology, and network infrastructure. It recognizes the data. the gathering, processing, integrating, storing, transmitting, and education, research, management, and other applications campus technology services, to ensure that educational resources are available. Fully utilized Hardware resources are the foundation of this procedure. The digital campus employs modern information technology and tools to achieve digitalization from the environment (such as devices and classrooms), as well as resources. It Can Help Student and Teachers in various ways.

It will be very useful in many ways like viewing timetable marking attendance uploading assignments.

IX.ACKNOWLEGMENT

We thank Thomas A. Powell for assistance with HTML & CSS from his journal The Complete Reference HTML & CSS Fifth Edition because of him our project and the manuscript improved greatly. We would also like to show our gratitude to Dr. Deepak Dharrao Professor at Indira College of Engineering and Management for Sharing their pearls of wisdom during this research and we thank Dr. Priya Pise, Prof. Sumit Harale, Prof. Tushar Pinjan, Shailesh Sir for their insights .although any errors are our own and should mot tarnish the reputations of these esteemed persons.

REFERENCES

[1] Automated Attendance Monitoring System using Android Platform International Journal of Current Engineering and Technology, Accepted 10 April 2014, Available online 25 April 2014, Vol.4, No.2 (April 2014).

[2] Mobile Based Attendance Marking System Using Android and Biometrics International Jou0rnal for Innovative Research in Science & Technology| Vol. 1,Issue 1, June 2014| ISSN (online):2349-6010.

[3] Thomas A. Powell, The Complete Reference HTML & CSS, Fifth Edition, May 2010.

[4] Steven Helzner, The Complete Reference PHP, First Edition, July 2008.

[5] Herbert Schildt, The Complete Reference C# 4.0, Second Edition, Sep 2006.

[6] Herbert Schildt: Java The Complete Reference, seventh Edition, Tata McGraw Hill, 2007. [7] Reto Meier, Professional Android 4 Application Development, First Edition, Sep 2012.

[8] Information Technology Co., Ltd. Qingdao DongHe Android Programming [M] Beijing: Electronic Industry Press, (2012).

[9] D. Wang, "Android web development and detailed explains of applications", Beijing: The People's Posts and Telecommunications Press, (2012).

[10] Jijina N, Vishnu Ravi G. S. Viswanatha Rao, — An Android Powered Wi-Fi

Network—,International Journal of Computer Science And Mobile Computing. [11] Rajesh Shah, Makhan Kumbhkar (2015), "Cloud-Based College Management Information System for Autonomous Institute", Volume 5, Issue 5, May 2015 ISSN: 2277 128X.

[12] Lalit Mohan Joshi (2015), "A Research Paper on College Management System. International Journal of Computer Applications", (0975 – 8887) Volume 122 – No.11, July 2015.

[13] Ankit Bansal, Ajit Rana, Akhil Bansod, Prafulla Baviskar (2015), "Mobile Based Campus Information Retrieval Android Application", IJCSMC, Vol. 4, Issue. 3, March 2015, pg.158 – 164.

[14] S.R.Bharamagoudar, Geeta R.B., S.G.Totad (2013), "Web Based Student Information Management System", International Journal of Advanced Research in Computer and Communication Engineering Vol. 2, Issue 6, June 2013.

[15] Mr.Nilesh Rathod Dr.Seema Shah Prof. Kavita Shirsat (2013), "An Interactive Online Training and Placement System.

[16] Imran Tamboli, Amit Kanbarkar, Akshay Kotasthane, Arunkumar Patel, Sagar Rajebhosale, "Twilight- An Academic Web Portal for Department", published at: "International Journal of Scientific and Research Publications, Volume 2, Issue 5, May 2012 Edition.

[17] Shilpa Bilawane, Pranali Jambhulkar (2015), "Information System Based On College Campus" International Journal Of Engineering And Computer Science ISSN:2319-7242 Volume 4 Issue 3 March 2015, Page No. 10852-10855.

[18] H.K. Maji, M. Prabhakaran, and M. Rosulek, "Attribute-Based Signatures," Topics in Cryptology - CT-RSA, vol. 6558, pp. 376-392, 2011.

[19] Garima Pandey, Diksha Dani Android Mobile Application Build on Eclipse" International Journal of Scientific and Research Publications, Volume 4, Issue 2, February 2014 1 ISSN 2250-3153.