

# Design and Development of Anna University Bit-Campus College Website:: Online Leave Application for Faculty Using Web Services

Mohamed Tharik<sup>1</sup>, Dr. A. Valarmathi<sup>2</sup>

<sup>1,2</sup> Department of Computer Applications

<sup>1,2</sup> Anna University, Tiruchirappalli, Tamil Nadu, India

**Abstract-** *The college website has been developed for our college (AUBIT) in an effort to make it as attractive and dynamic as possible. Compared with existing one look & feel of the website and all the pages in the website are connected with database and made it as a completely dynamic one in order to reduce the administrator's work and easy maintenance of the website. The college website was developed with a goal to provide a user friendly environment and to establish a bridge between students, faculties, administrators of the college and all other beneficiaries those who are visiting the college website to get up to date information regarding college activities.*

*The website has been developed in our college in an effort to make it as attractive and dynamic as possible. Compared with existing one all the pages in the website is connected with database and made it as a completely dynamic one. The faculties leave application system developed specifically for the college administration. The "Online Faculty Leave Application System" system is major thought of faculty leave portal for online. It easily will take the leave for faculty. The administrator is easily managed all faculty leave information. Online system methods through which the faculties can apply CL's, RH, OD's and etc so that the handling would be easy and also reliable. The needs are met easily and quickly than personal meetings.*

*The main objective of the proposed system is to decrease the paperwork and help in easier record maintenance by having a particular centralized Database System, where Leaves and Notices are maintained. The proposed system automates the existing system. It decreases the paperwork and enables easier record maintenance. It also reduces chances of Data loss.*

**Keywords-** Look & Feel, Dynamic page creation, Faculty Leave Application System (OFLAS), Centralized Database

## I. INTRODUCTION

The College Website consists of collection of Web Pages, images, videos and other digital assets that is hosted on

one or several Web Server usually accessible via the Internet as well as the Cell Phones. The pages of websites can usually be accessed from a common root URL called the Home page. The URLs of the pages organize them into a hierarchy. The College website requires attractive design and proper arrangement of links and images, which enables a browser to easily interpret and access the properties of the site. Hence it provides the browser with adequate information and functionality about the College.

The website has been developed in our college in an effort to make it as attractive and dynamic as possible. Compared with existing one all the pages in the website is connected with database and made it as a completely dynamic one. The faculties leave application system developed specifically for the college administration. The "Online Faculty Leave Application System" is major thought of faculty leave portal for online. It easily will take the leave for faculty. The administrator is easily managed all faculty leave information. Online system methods through which the faculties can apply CL's, RH, OD's and etc so that the handling would be easy and also reliable. The needs are met easily and quickly than personal meetings.

The Faculty Leave Application System (OFLAS) designed to automate the process of faculty's administration and faculty's leaves management. This system maintains the information of all the faculties of Anna University, Tiruchirappalli.

In the existing paper work related to leave management, leaves are maintained using the attendance register for staff. The staff needs to submit their leaves manually to their respective authorities. This increases the paperwork & maintaining the records becomes tedious. Maintaining notices in the records also increases the paperwork.

The main objective of the proposed system is to decrease the paperwork and help in easier record maintenance by having a particular centralized Database System, where

Leaves and Notices are maintained. The proposed system automates the existing system. It decreases the paperwork and enables easier record maintenance. It also reduces chances of Data loss.

This website is contains faculty leave information. It's providing a interface between head of the department and faculty. These all status will be send to faculty via mail. The faculty will enroll the leave application through this site and that faculty leaves details to be stored in department database. The all department to be maintain separate databases and frequently upload an individual faculty leave to appropriate databases. It's a GUI based application and user friendly. Through this System administrator (i.e., The Dean, Head of Department) maintain the faculty leave information and approval or not approval for faculty leave. The administrator to be generate a excel report for faculty leave information. It is purpose of document maintenance for every year.

### 1.1. SCOPE AND OBJECTIVES

- To change the look and feel as well as the logic of the website in an efficient way by making it as a dynamic one in order to reduce the administrator's work and easy maintenance of the website.
  - To Provide user friendly environment for students, faculties, administrators (higher officials) of the college and all other beneficiaries those who are visiting the college website to get up to date updates.
  - Dynamic Part for the website is going to be designed for web hit count, TEQIP, placement, alumni, each departments' page which includes vision & mission, PO's & PEO's, faculty profile, timetable, placement and alumni informations, news / events / circulars posts made by several departments and as well as for the gallery. So that all these pages are governed and monitored easily by the administrator.
  - To provide user friendly environment for admin or faculty to get up to date information regarding leave status via OFLAS.
  - To automate the existing leaves management in educational institutes.
  - To decrease the paperwork and enable the process with efficient, reliable record maintenance by using centralized databases, thereby reducing chances of data loss
  - Every day leave information is updated in to database using a user friendly GUI. This will reduce the work in Head of department. It's more flexible to access information.
  - To providing good communication between faculty and administrator.
- This provides a way to maintain the Faculty information and can handle the major tasks easier.
  - To have an RDBMS as a back end for the processing of the system and Administrator can take decision for Approval or Not Approval.

## II. RELATED WORK

1. S.R.Bharamagoudar, et al., "Web Based Student Information Management System" - International Journal of Advanced Research in Computer and Communication Engineering – Vol. 2, Issue 6, June 2013.

Student Information Management System (SIMS) provides a simple interface for maintenance of student information. It can be used by educational institutes or colleges to maintain the records of students easily. The creation and management of accurate, up-to-date information regarding a students' academic career is critically important in the university as well as colleges. Student information system deals with all kind of student details, academic related reports, college details, course details, curriculum, batch details, placement details and other resource related details too. It tracks all the details of a student from the day one to the end of the course which can be used for all reporting purpose, tracking of attendance, progress in the course, completed semesters, years, coming semester year curriculum details, exam details, project or any other assignment details, final exam result and all these will be available through a secure, online interface embedded in the college's website. It will also have faculty details, batch execution details, students' details in all aspects, the various academic notifications to the staff and students updated by the college administration. It also facilitate us explore all the activities happening in the college, Different reports and Queries can be generated based on vast options related to students, batch, course, faculty, exams, semesters, certification and even for the entire college.

2. Sayali Dombe, et al., "Autoupdation of SIP Protocol Log in Wireless Network for Application in Faculty Management System" - International Journal of Advanced Research in Computer Science and Software Engineering – Vol. 5, Issue 5, May 2015.

In every Colleges there are various scheduled activities happening on day-to-day basis like Attendance record, Notice circulation, Attendance Report generation, Leave application, Meeting Alerts etc. All these activities are recorded today on paper and report generation is manual and tedious job. Faculty Attendance is recorded manually i.e., they give on-register attendance. This system usually increases the complexity, also at any point of time only one faculty can

record his/her attendance which thereby takes a long time. Similarly, for the student's attendance record on paper record has to be maintained for each class. Leave Applications also needs to be manually approved every time and notices are to be displayed each time on the notice board.

To overcome the complex and manual systems we have decided to come up with the technologically advanced Android App. This App would work on Wi-Fi system and record the faculty attendance through the Wi-Fi network using SIP protocol and can be used by the college staff members on their personal Android Phones.

3. Rashmi Chahar, et al., "Intelligent Online Education Transformation System" - IJCSI International Journal of Computer Science – Vol. 10, Issue 2, No 2, March 2013.

This paper presents a novel approach for on-line education system. The intelligent on-line education system is an asset to the Sharda group of institution, India developed as an in-house project. It gives the faculties on-line attendance monitoring on the basis of on-line time table, on-line leave fillings, manage substitute lecture, help desk and complete learning management system to create assignments, quiz and give study material with marking. The system supports student to view attendance, marks, manage assignments and quiz. On other hand the administrative part includes creation of courses, enrolls student, register faculty, assign subjects, manage and create time table, overall help desk management system. The system is completely discussed in the paper considering above points.

### III. SYSTEM ANALYSIS

#### 3.1 EXISTING SYSTEM

Before developing the dynamic website for the college, it contains large no of static pages, each information need to be posted or updated in the website by changing the source being coded, needs to handle huge data without a database and the college administrator follows manual procedure in which faculty should be apply leave for documentary. At the end of each month Head of department will calculate leaves of every faculty member which is a time taking process and there is a chance of losing records.

Faculty Leave Application System is operated manually and it has some limitations. The major tasks that are being handled are administration of faculties, updating faculty details, processing faculty leave applications and generating leaves reports. In the existing system all the information of faculties will be maintained in paper based records. So any

information about the Faculties can be found by searching vast records. There is a problem to maintain Faculty Information in the manual process. So, these are the limitations in the existing system.

#### Disadvantages:

- Administrator needs to change the main source for displaying the information of day-to-day activities of the college such as post of circulars, news, events, TEQIP information, special event images etc.,
- Handling large amount of files without database such as profile of the faculty, all other information being posted in the website in the form of PDFs, DOCs and images.

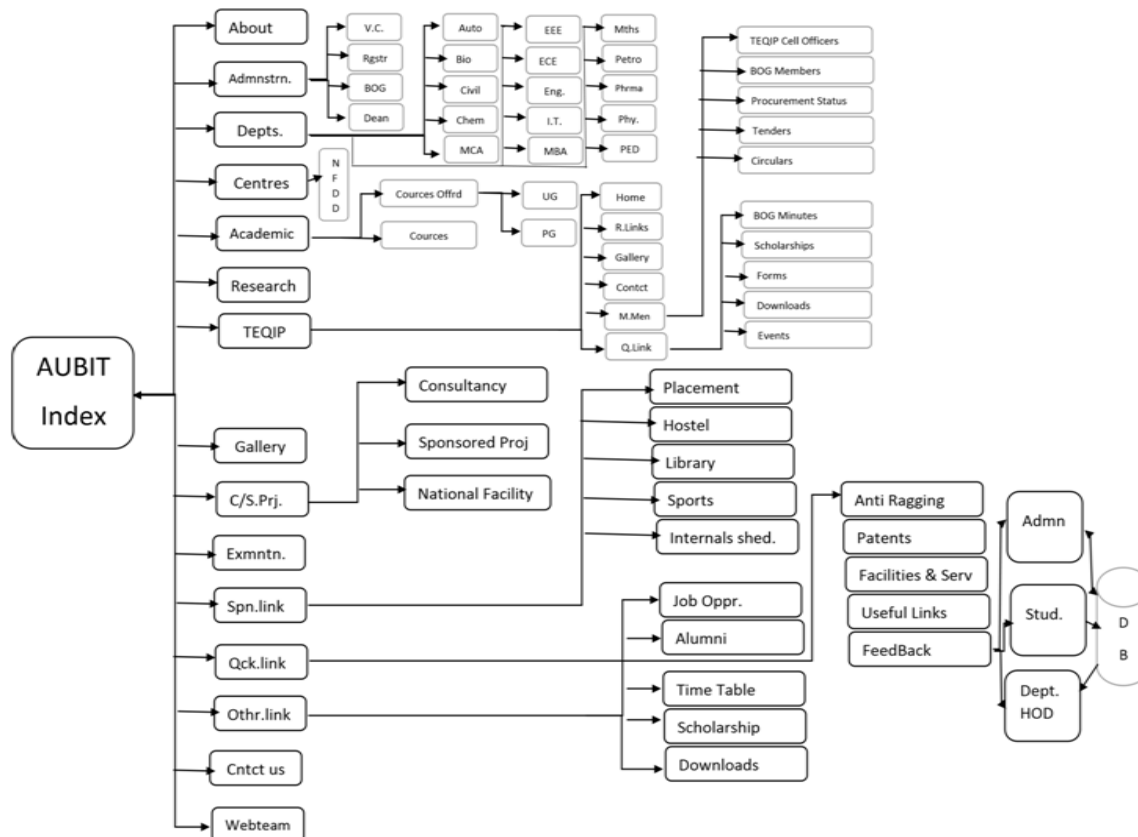


Fig. 3.1.1. System Architecture

**3.2 PROPOSED SYSTEM**

Dynamically created website for the college allows the administrator to make any updations of the day-to-day college activity easily via admin login which contains separate form for the post of department information such as timetable & faculty profiles, events, news, circulars, TEQIP, placement and gallery etc., The files & data are easily maintained using a separate database for each. The number of pages in the website is decreased largely without any missing of information so that it is easy for the administrator to maintain.

The Faculty Leave Application System (OFLAS) designed to automate the process of faculty’s administration and faculty’s leaves management. This system maintains the information of all the faculties of Anna University, Tiruchirappalli.

OFLAS was specially designed to manage the faculty’s information. This serves as a tool for better management of Anna University faculty’s information. The main emphasis of this project is to develop an efficient web enabled application that can automate the needs of Faculty Information Management. This is aimed at automating the existing manual system for quick information processing, generating statistical reports and to serve as a repository of

data for better information exchange and future retrieval. This provides a way to maintain the Faculty information and can handle the major tasks easier.

**Advantage**

- The files & data available in the website and the information being posted in the website are maintained in a separate database for each by the administrator
- Eliminates the use of paper leave application forms
- Is cost efficient
- Provides GUI and Digitalization
- Easy to maintain in Centralized Database
- Leave applications can be submitted via network
- Leave application can be approved easily and notified to respective staff
- Both the leave applicant as well as the approver can view the balance leave and past leave applications
- Calculate the number of leaves taken on monthly/yearly basis

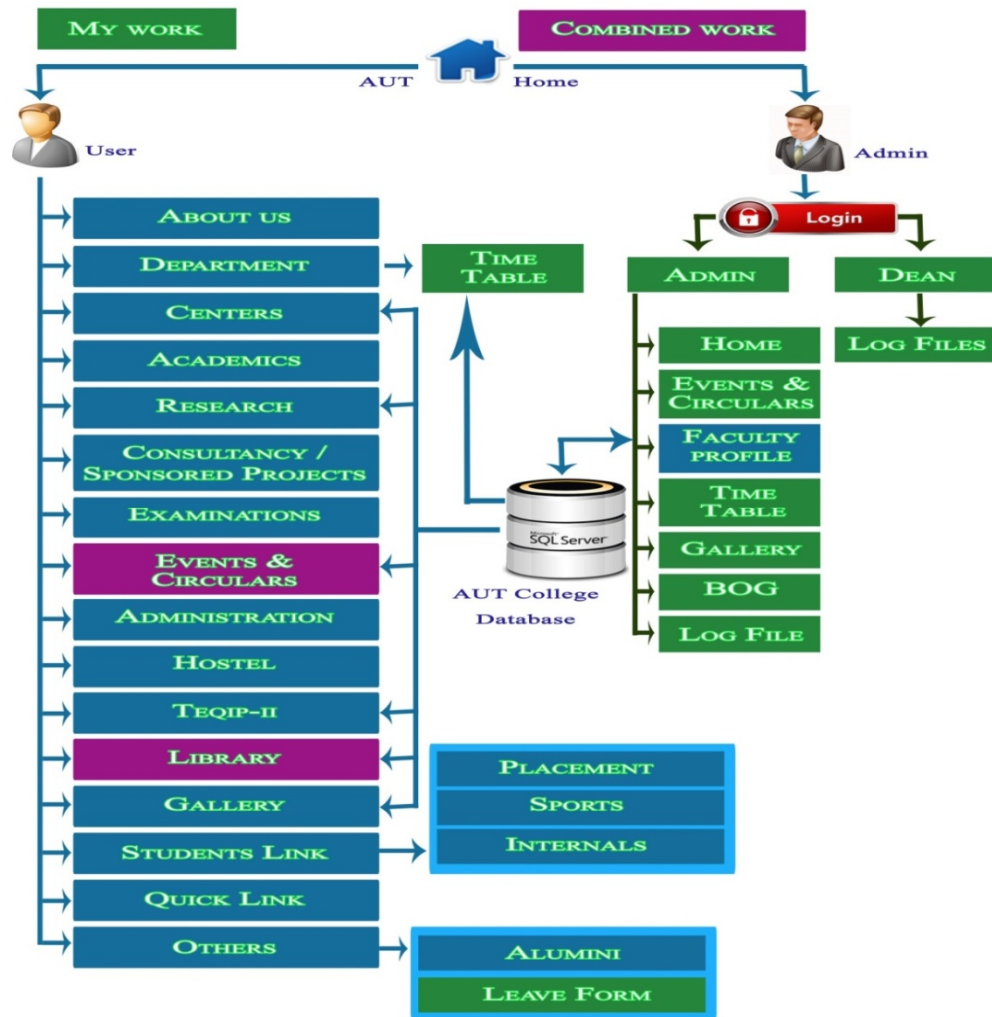


Fig. 3.2.1.1 Overall System Architecture (AUBIT)

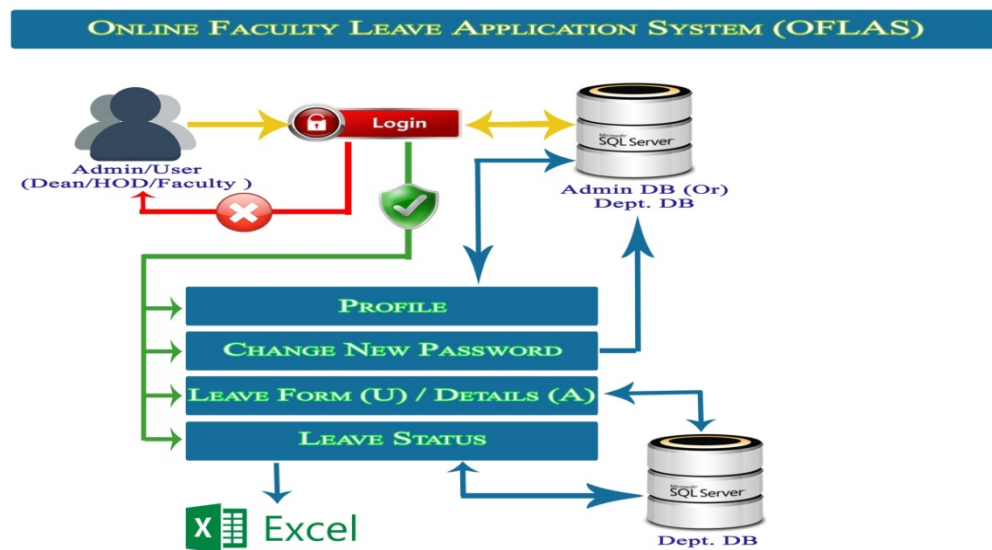


Fig. 3.2.1.2 System Architecture OFLAS

### 3.3. MODULE DESCRIPTION

#### 3.3.1. Home Page:

The home page of the college website is an index page which contains information about the college such as vision and mission, news, events and circulars posted by various departments, gallery and it also contains several important links which holds a detailed information about placement, sports, hostel, teqip, alumni, centers for NFDD, consultancy & sponsored projects, examinations, etc., on navigation.

#### 3.3.2. Administrator Profile:

This module contains briefer information about the institution's administrators: the dean and server admin details such as their name, department name and their designation.

#### 3.3.3. Registration:

This module contains administrator to be enroll the new information about the college. It consists of four sub registration modules.

1. Upload Events/Posts/Circulars
2. BOG Profile
3. Time Table
4. Gallery

REGISTRATION module helps the admin to register their academic as well as the department details for events/posts/circulars, BOG profile, time table, gallery etc...

#### 3.3.4 Registration Details:

This module to provide a excel report and manage the log data from database. It's contains administrator to view, edit and delete the information about the relevant details from database. It consists of five sub registration details modules.

1. Upload Events/Posts/Circulars Details
2. Faculty Profile Details
3. BOG Profile Details
4. Time Table Details
5. Gallery Details

#### 3.3.5 LOG Details:

This page provides an authentication login report (i.e., session start period and session end period). It's hold information about username, department name, designation,

session start date and time and session end date and time.

#### 3.3.6 Leave Application (Online Faculty Leave Application System)

##### 3.3.6.1 User Pages (Faculty Pages)

###### 3.3.6.1.1 Profile:

This module contains briefer information about the faculty such as their user id, their name, department name, their designation and college name.

###### 3.3.6.1.2 Leave Form:

This is the first phase of Faculty Leaves Application and it forms a foundation for further processing. This facilitates for data capturing of faculties who are applying for leaves. This serves as a unique template for faculties of various departments of Anna University. This includes employee id, leaves, period, purpose, academic year, semester, contact number, and alternate arrangements.

This module gives faculties information which are applying for leaves according to the given dates and allows the user who change the leaves information such as period from, period to etc.

###### 3.3.6.1.3 Leave Status:

This module allows user to generate a complete report of leaves according to the user id and department. This report includes user id, faculty name, department, designation, purpose and etc.

##### 3.3.6.2 Admin Pages (The Dean / HOD Pages)

###### 3.3.6.2.1 Profile:

This module contains briefer information about the faculty such as their user id, their name, department name, their designation and college name.

###### 3.3.6.2.2 Leave Registration Details:

This module display the faculty leave information who have currently applied leave based on department wise. The administrator will check the full details using view detail info button and after will check it to update the leave status approval or not approval.

In this module Head of the department will have permissions to look after data of every faculty member of their

department. HOD can view data in the form of reports and get it in the form of print out. Reports can be displayed based on day, month. HOD can approve/ not approve leave through this application and he can view leaves information of every individual.

In this module HOD can easily manage classes schedule for that day. And Dean can approve/ not approve leave through this application and the dean can view leaves information of every individual department.

### 3.3.6.2.3 Leave Status:

This module allows user to generate a complete report of leaves according to the department. This report includes user id, faculty name, department, designation, purpose and etc.

### 3.3.7 Events / Circulars / News:

In this module all the day-to-day activities of the college such as the events, news, circulars and placement details can be viewed here. This module is connected to database, the administrator posts the events / circulars / news in the corresponding form which can be retrieved and viewed here. This module can be insert, edit, view by the admin. Events are auto deleted based on the expiry date of an event.

### 3.3.8 Library:

This module contains the complete activity and the information about the library which consists do's and don'ts, proquest, e-journals, magazines, working hour of library, recent activities, gallery, contact, staff profile, digital library, use links and web OPAC, etc.,

## IV. CONCLUSION

In the existing system, maximum work had been done manually and need to change the source for any updations in the website which takes time for any changes in the system. Since the website contains large number of static pages handling large amount of files without database is a tedious work for the administrator and difficult to maintain. In the current website developed the files & the data are easily maintained using a separate database for each. The number of pages in the website is decreased largely without any missing of information so that it is easy for the administrator to maintain.

The OFLA System for various types of departments with multiple hierarchies can help in reducing paperwork, help

achieve error free tabulation and calculation of leaves.

### Limitation

- The leave status cannot be cleared until and unless the HOD approves/ rejects the application.
- The staff cannot cancel the leave application once made.
- The system will fail if the server fails, but the data will remain stored in the database.

## REFERENCES

- [1] S.R.Bharamagoudar, et al., "Web Based Student Information Management System" - International Journal of Advanced Research in Computer and Communication Engineering – Vol. 2, Issue 6, June 2013.
- [2] Sayali Dombe, et al., "Autoupdation of SIP Protocol Log in Wireless Network for Application in Faculty Management System" - International Journal of Advanced Research in Computer Science and Software Engineering – Vol. 5, Issue 5, May 2015.
- [3] Rashmi Chahar, et al., "Intelligent Online Education Transformation System" - IJCSI International Journal of Computer Science – Vol. 10, Issue 2, No 2, March 2013.
- [4] Manisha Jailia, et al., "Data Mining: A Prediction for Performance Improvement in Online Learning Systems" - International Journal of Advanced Research in Computer Science and Software Engineering – Vol. 3, Issue 7, July 2013.