

DEPARTMENT OF INFORMATION TECHNOLOGY

FINAL YEAR

PROJECTS

(YEAR 2016-17)



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# 01. E-AFFILIATION SYSTEM

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**Problem Statement:** - Dr. Babasaheb Ambedkar Technological University, with its headquarters situated at Lonere, is now a statutory State Technical University established by Government of Maharashtra through special Maharashtra Acts Nos. XXII of 1989 and XXIX of 2014. The university has been accorded the status of an 'affiliating' university of the entire State of Maharashtra from March 2, 2016, by the Act No. XXIX of 2014. The University wants to introduce an Online Affiliation system in order to reduce factors like time, manpower and paperwork etc. which are involved in offline Affiliation process. Currently, there is no such existing system in the University which ensures these constraints to be fulfilled. This Online Affiliation System takes the data from the colleges, coordinates the data and maintains it.

**Abstract:** - This project is developed for the engineering colleges of Maharashtra who are seeking affiliation under Dr.Babasaheb Ambedkar Technological University, Lonere. The main purpose of E-Affiliation System is to fulfil the basic primary requirement of the affiliation process which is to collect data from the colleges. The System also ensures the data to be accessed by the committees which are involved in the decision-making body of the Affiliation process. The System provides easy user-interface for filling the details. The admin of this system can access all the data received by the system. The System can also maintain the data records of the affiliated colleges over years. The System also ensures the security of the data that is provided by the colleges. Windows, MSSQL-Server, ASP.net have been used for hosting and maintaining the database and server that

completely meets the objectives of the project.

**Result:-** The E-Affiliation System enables the colleges to provide all the information without visiting the university, stores the data securely and this data remains accessible to the University for further evaluation of affiliation.

**Conclusion:-** E-Affiliation System provides a user-friendly environment for the colleges seeking affiliation under Dr.Babasaheb Ambedkar Technological University, Lonere. E-Affiliation System guarantees to save University's time which also reduces the manual efforts, paperwork, and risk of data loss.

**Future Scope:** -The future idea of this project lies in the automation of the entire Affiliation process. The Committees involved in the Affiliation process can communicate among themselves regarding the reports of colleges thus allowing the whole affiliation process to be automated.

## 02. E-GOVERNANCE SYSTEM

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**Problem Statement:-** How to check the status of our application when any higher authority is on leave? If any student or else wants to see our application is approved or not, the application will be a leave application, Remuneration application etc, then he/she must have to go there for the further procedure. If anyone of higher authority is on leave then applicant has to wait till they not join.

**Abstract:** –"E-Governance" Project is developed for students and teachers at University level. In this project, we tried to cover all the academic applications related to students and teachers, by

making it automated and online. By using the E-Governance application, it will get easy for students to see the progress of our application and any higher authority for any required application. It saves time, money and provides security.

**Results:** –We can check our application is approved or rejected in short, ‘status’ of our application. The concept can be extended to communication outside the office as well.

**Conclusion:** –Reduce the manual work. “Going paperless” can save money, boost productivity, save time and secure privacy. To provide a friendly environment to students and teachers to Log In to in their account anytime anywhere.

## 03. WEB BASED STUDENT AND ALUMNI PORTAL

**Guide:-** Dr. S. M. Jadhav

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**Problem Statement:** - To design a web portal that will serve as a common platform between students, alumni, and all the faculty members. It should serve the purpose of building up of an Alumni Network of the University and providing a better way for interaction with the alumni.

**Abstract:** - Student & Alumni Portal for any college is very important. It has been setup to increase interaction, knowledge sharing and networking among the alumni, students, and faculty. The primary goal is to connect the alumni with the faculty and existing University students with

the help of alumni web portal where they can have communication with existing students and University's faculty members. This portal is designed using HTML, CSS and Bootstrap framework. The server side programming language used is PHP. The database used is MySQL. This portal requires all the users to register and create an account. Accounts are created according to different roles such as Student, Faculty, HOD, Alumni and Administrator. This website provides sections for displaying 'news and announcements' and 'DBATU Achievements'. A user with the role of HOD or Administrator can posts updates in the 'News and Announcements' and 'DBATU Achievements' section. All the users can then view the updates. Another section designed is the 'Discussion Forum' where all the alumni, faculty and students can upload posts about any topic. A 'Job Portal' further provides the students a medium for getting various updates on current industry trends, Internship opportunity, sponsored projects and various referral opening in the corporate world. The portal also consists a 'Giving Back' section which encourages the alumni of the University to provide any kind of contribution from their side which can be helpful to their alma mater. This allows the Alumni to contribute in the form of arranging guest lectures, providing scholarships and any kind of financial help. A 'Distinguished Alumni' section has been designed to identify all the alumni of the University who have achieved the highest level of success in their fields. This information can prove to be very helpful for the University. A section 'Alumni Meet' has been designed to notify all the alumni of any upcoming alumni meets and also to maintain records of all the alumni meets thus organized. The portal has been designed in a way to create communication between the alumni, student and the faculty.

**Result:** - The Student & Alumni Portal is, thus, implemented using four modules: Student Module, Alumni Module, Faculty Module and Administrator Module. The Student Module enables students to register to the system, login, search friends, view or edit profile and view discussion forum and job portal. The Alumni Portal enables alumni to register to the system, login, search friends and upload posts on the job portal. The faculty of the university can search and view students and alumni profiles. The site administrator has the right to view the profile of all the users and edit or update the site contents.

**Conclusion:** - According to the given problem statement, the web portal hence created can now be used as a platform for communication between the students, alumni and faculty members of the university. The portal also provides the users with additional features such as job portal, discussion forum, and information about the distinguished alumni. Thus, the portal helps the university to build a strong network with its alumni and eventually with the co-operate world.

# 04. CORRUPTION CONTROL THROUGH BUDGET MAINTENANCE

**Guide:- Prof.S.V.Bharad**

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## **Problem Statement:-**

- A common citizen cannot know how the process is going on exactly from the starting Level to the ending level regarding budget utilization.
- Knowing level by level information is very difficult for a common man in this system.
- The system doesn't provide facility to track all the information of funds and funds Related works.
- The system doesn't provide any facility to involve people to give their feedbacks and Opinions directly.

**Abstract :-**The main aim of this project is to maintain the flow of the money released by the state government of a particular financial year and intern control corruption. It provides the whole information about the money released to a department, accordingly department wise and works wisely. It also provides the information about utilization of the allotted money in detail. The motto of this project is information transparency. Because of this, a common citizen can also play a vital role in controlling the corruption.

**Result:-**The motto of this project has been satisfactorily fulfilled. The developed system was much user-friendly and transparent than the existing system. It was observed to be more interactive for the users and hence it also promotes to the Government's aim of Corruption free India.

**Conclusion:-**The Corruption control through budget maintenance was successfully designed and is tested for accuracy and quality. During this project, we have accomplished all the Objectives and this project meets the needs of the organization. The developed system will be used for searching, retrieving and generating information for the concerned requests.

1. Easy retrieval of information.
2. User-friendly screens to enter the data.
3. Portable and flexible for further enhancement.
4. Web-enabled.
5. The fast finding of information requested.

## 05. DBATU HOSTEL MANAGEMENT SYSTEM AND CHECK-IN CHECK-OUT PORTAL

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**Problem Statement:-**In our University Girls Hostel, all the processes that is whether Hostel Admission Process, Students Record Keeping Process or Hostel Check-In Check-Out Process are done manually in paper format. For leaving hostel premises too, they need to do the entry in outing Register/Ledger. All these works are still recorded in Registers or Ledgers. Since it is an Engineering University so this kind of outdated systems is not expected here. In today's world, even agricultural documentation works are done on the computer system. Maintaining Registers/Ledgers is not as simple as it seems. They do not last long and very difficult to search within. So we decided to automate this system.

**Abstract:-**In this project we are explaining about Check-in Check-out Software developed for implementation in University Girls Hostel including Hostel Management System. The highest goal of this software is to make Check-in Check-out process and Hostel Management System, so fitting, so natural, so convenient that anyone can use it without even thinking. It will save much more time of the user as well as the administrator. One of the goals of Check-in Check-out Software is to eliminate the Register entry process for admission purpose or leaving the hostel premises due to any special cause. This software will make register entry process more simple, safe and efficient



by using the one-time registered data of the students. Eventually, the vision of our software induces a new way of thinking about Hostel Admission & Leave Record ledger, one that takes into account the new technology-savvy user and allows them to keep track of their record whenever they want.

**Result:-** Now the students can submit Hostel admission form on the system. Hostel allotment process has been made fully automated according to government norms. The very tedious work that is sorting of all the forms has been totally eliminated. Check-in Check-Out system has been totally automated. Now Rector/Students can track or check their previous records within seconds.

**Conclusion:-** This software will make hostel admission process very fast and smooth. It will eliminate the old age days Register entry system. Rector or the students can track all the respective information about any student or hostel related issues within a click. Records of even previous 10 years can be accessed very easily and within seconds which was absolutely not possible in Register or Ledger System.

## 06. SPORTS MANAGEMENT SYSTEM

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**Problem Statement:-** The "Sports Management System's" objective is to manage the activity of many sports at a time. It also manages the selection activity of students to college Sports event and to state level events. The users will consume less amount of time when compared to manual paperwork through the automated system. The system will take care of all the servicing activity in a quick manner. Data storing is easier. It will be able to check any report at any time. Paperwork and manual work are reduced. The system is user-friendly and easy to use.

**Abstract:**—"Sports Management System" Project is developed for students and teachers at University level. In this project, we tried to cover all the sports event of DBATU and its detail like schedule, updates and co-ordinator info by making it online. By using the application and website, it will get easy for students to get news and team status of any sport. It saves time and effort also.

**Results:**—We can check the live score of the match, match schedule, and venue, latest updates of all sports and co-ordinators information of all sports events.

**Conclusion:**—A Sport Management System is not only rewarding but it also helps the programmer to quickly organize the sports event and list in short interval of time. It reduces the manual work. "Going paperless" can save money, reduce efforts and time. To provide a friendly environment for students to login in your account anytime anywhere. This system is user-friendly and easy to use allowing us to keep track of all our favourite sports or team(s) anywhere on the go.

## 07. PAYROLL MANAGEMENT SYSTEM

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**Problem Statement:** – Companies currently have low attendance at face training in some cases and in others they find it boring, long and a waste of time. So use of new technologies can result in finding them motivating and dynamic, and increase the attendance. The system is used for payroll transactions by the company specifically Derf's Manpower and General Services, Phils. It will not employ in any other company other than Derf's Manpower.

**Abstract:** – It is understood that we are tired of managing thousands of odd papers, pay slips, payroll reports, and salary details and so on. Imagine that we have a payroll processing system which will generate our payslips and payroll reports within seconds. We can help others for automated payroll system by developing a customized payroll application that suits your special requirements. The payroll system is the heart of any Human Resource System of an organization. The solution is to take care of the calculation of salary as per rules of the company, income tax

calculation and various deductions to be done from the salary including statutory deductions like Income tax and provident fund deductions. It has to generate pay-slip, cheque summary, and MIS reports.

**Results:** – The main aim of this project has been satisfied. The developed system was much user-friendly, easy to understand and transparent than the existing system. It stores up to date information of the employee. It was observed that the system is more interactive for the users.

**Conclusion:** – Payroll System software developed for a company has been designed to achieve maximum efficiency and reduce the time taken to handle the payroll activity. In that system, the employee can easily put feedback through online support. It is designed to replace an existing manual record system thereby reducing the time taken for calculation and for storing data.

## 08. AGRICULTURE ANDROID APP

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**Problem Statement:** – Smallholder farmers and agricultural labourers in rural areas reliant on rain-fed agriculture and with limited access to formal insurance products. Finally, farmers may lack access to credit to be able to finance modern agricultural technologies (e.g. drip irrigation, newer pesticides) that allow them to manage rainfall and risk from pest outbreaks.

**Abstract:** – The agricultural information system provides its users and researchers to get on-line information about, the crop, statistical details, and new tendencies. The main features of the information system include information retrieval facilities for users from anywhere in the form of obtaining statistical information about fertilizer, research institutes and researchers, land availability, diseases, suitable soil concentration for the corresponding crops, statistical information about exports and etc. In addition, this provides individual information about Intercrops related to main crops. The system allows the retrieving facilities but also the updating facilities to the

authorized persons in the corresponding institutes.

**Results:**– We can check the information about the crops, fruits, vegetables from this app and we can also get the information related to the Agriculture at any time by opening this application.

**Conclusion:** – This project is an initial proposal to show that this kind of information system is forcible. The real benefit of this type of information system to agricultural based when it becomes operational as planters, importers, exporters, researchers, will have access to up to date information. In addition to that, all the major Institutes should be provided with internet access and the necessary human resource personals to make this project a reality.

## 09. ENGINEERING COLLEGE AUTOMATION AND SCHEDULING SYSTEM

**Guide:- Prof. V. J. Kadam**

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**Problem Statement:** - College Automation is the necessity of the current time. Manually maintaining the records of the college students is very tedious and time-consuming task. Automatic Timetable generator has become the necessity of current time. In the organization, the management of that timetable is very important. Thus, regulating the records of students is a vital part of planning timetable. Maintaining records and preparing the timetable is a very tedious work which is faced by the timetable co-ordinator. So managing the event using the desktop application provides the event planners ease in organizing the event.

**Abstract:** - The title of the project is Engineering College Automation And Scheduling System. So we can say the core purpose of designing "College Automation System" is to manage the task related to the college students and to reduce time to search appropriate candidates in college view. This is defined as an application that aims to all the levels of management providing information within an organization. This system can be used as an information management system for the college. For a college student and HOD, the Administrator creates login id and password, using this student and HOD can access the system to either update or view some information from the

database. Timetable creation and college automation are very tedious and time-consuming tasks. To create timetable it takes lots of patience and man hours. The timetable is created to organize lectures in college. To create timetable it requires lots of time and manpower. In our project, we have tried to reduce these difficulties of maintaining student's records and generating timetable. By using this project we are able to reduce the time require to generate time table and generate a timetable which is more accurate, precise and free of human errors.

**Result:** -In this project Admin, Students, HOD can access the system. Admin can update the college automation information and view the information. Also, he can create a timetable. Student can update or edit his information and also view the details. In HOD module the HOD can only view the details.

**Conclusion:** - The expanded functionality of today's software requires an appropriate approach towards software development. The project entitled as Automation and Scheduling System is the system that deals with the issues related to a particular institution. This project is successfully implemented with all the features mentioned in system requirements specification. The application provides appropriate information to users according to the chosen service. The project is designed keeping in view the day problems faced by a college. This particular project deals with the problems of managing a timetable and maintaining student's records and avoids the problems which occur when carried manually.

## 10 .MACHINE LEARNING WITH KEYSTROKE DYNAMICS

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**Problem Statement:** - The majority of computer systems employ a login ID and password as the principal method for secure access. Traditional authentication system only authenticates the user

on the basis of password he/she typed. It does not check whether the password being typed by genuine user or imposter. Thus, our problem statement is to authenticate the user with his /her typing rhythms and patterns for the password which is one of behavioral biometrics, using machine learning approach. For that purpose, we are going to develop a unique biometric template of the user's typing pattern for future authentication and distinguishing from the imposter.

**Abstract:** - As this is an era of security where most of the systems require an efficient user authentication. User authentication based on typing patterns offers many advantages over traditional approach in the domain of cyber security, including data acquisition without extra hardware requirement, continuous monitoring as the keys are typed, and non-intrusive operation with no interruptions to a user's daily work. Keystroke dynamics can be characterized using timing (such as the key down time for each key, latency between consecutive keys, and typing speed, etc.) For this system, step first is to collect the data related to typing pattern of the user. This is done by keeping track of the time of key pressed and key released event occurs during typing the password. In next step, we are extracting the feature from collected data. Feature extraction includes calculating Dwell time (the time a key pressed), Flight time(the time between "key up" and the next "key down"), Hold time, Special key pressed by user(the left shift key, the right shift key, or the caps-lock key) etc. and store it in database. After completing feature extraction, we are using machine learning algorithm based on the principle of outlier selection for training and authentication. Initially first five login attempts are used for only training purpose after that the machine learning algorithm play role for distinguishing genuine user and imposter based on his /her typing patterns.

**Result:** - Every time when user login to the system after completing training, machine learning algorithm analyses data and calculates affinity of currently provided input data with data collected from previous login attempts based on Euclidian Distance. Computes outlier probability in order to determine the class of user. Output Class 1 specifies genuine user, on the other hand, Class 0 specifies imposter. In the case of false rejection (when genuine is considered as the imposter), the user is prompted to enter one-time password sent via email.

**Conclusion:** - On the basis of results, we concluded that it is possible to use machine learning approach for authenticating the user based on keystrokes. As there is greater affinity in keystroke dataset of the same user, the algorithm provides us with the correct result. Another reason for the successful execution of the algorithm is that even if there is a slight deviation in keystroke dataset of the user, it gives access to genuine users which cause to reduce false rejection rate (FRR).It is independent of physical keyboard used by the user.

**Future Scope:** - In future, we can extend it for a mobile application which uses the virtual

keyboard. Training and learning time of algorithm can be drop to just first three login attempts. We are also testing it for web based application as a software solution to authenticate the user. Correctness and accuracy can be increased by increasing numbers of feature to be extracted from collected data e.g. a pressure of the key press. Furthermore, Keystroke dynamics can also be used for identification of the emotional state of the person as his/her keystroke dataset may vary with emotional state. In addition to that, we can use keystroke dynamics for gender classification too.

## 11.ENSURING DISTRIBUTED ACCOUNTABILITY FOR DATA SHARING IN THE CLOUD

**Guide:- Prof. S. V. Bharad**

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### **Problem Statement:-**

The concept of the cloud computing model is that customer's data, which can be of individuals, organizations or enterprises, is processed remotely in unknown machines that users do not own or operate. The convenience and efficiency of this approach, however, comes with privacy and security risks. A significant barrier to the adoption of cloud services is the user fear of confidential data leakage and loss of privacy in the cloud. The process of protection of users data begins from the stage the user starts his cloud experience. The user has to manually identify the cloud provider that meets his privacy requirements, and this is often the significant burden for end-users. Also many more problems arise after storing data on the clouds.

**Abstract:-** Cloud computing enables highly scalable services to be easily consumed over the Internet on an as-needed basis. A major feature of the cloud services is that user's data are usually

processed remotely in unknown machines that users do not own or operate. While enjoying the convenience brought by this new emerging technology, user's fears of losing control of their own data (particularly, financial and health data) can become a significant barrier to the wide adoption of cloud services. To address this problem, in this project, we propose a novel highly decentralized information accountability framework to keep track of the actual usage of the user's data in the cloud. In particular, we propose an object-centred approach that enables enclosing our logging mechanism together with user's data and policies. We leverage the JAR programmable capabilities to both create a dynamic and travelling object, and to ensure that any access to user's data will trigger authentication and automated logging local to the JARs. To strengthen user's control, we also provide distributed auditing mechanisms. We provide extensive experimental studies that demonstrate the efficiency and effectiveness of the proposed approaches.

**Index Terms-** Cloud computing, accountability, data sharing.

**Result:** - To achieve accountability along with security and privacy of data on the cloud we intend to develop a system based on Cloud Information Accountability Framework. This approach uses the programmable capability of JAR (Java Archives) files to automatically log the usage of the user's data by any entity in the cloud. Users will send their data along with any policies such as access control policies and logging policies that they want to enforce, enclosed in JAR files, to cloud service providers.

**Conclusion:** - To achieve accountability along with security and privacy of data on the cloud we intend to develop a system based on Cloud Information Accountability Framework. This approach uses the programmable capability of JAR (Java Archives) files to automatically log the usage of the user data by any entity in the cloud. Users will send their data along with any policies such as access control policies and logging policies that they want to enforce, enclosed in JAR files, to cloud service providers. Any access to the data will trigger an automated and authenticated logging mechanism local to the JARs. It will also record the error correction information sent by the JARs, which allows it to monitor the loss of any logs from any of the JARs. Also, if a JAR is not able to contact its central point, any access to its enclosed data will be denied. It will also allow the data owner to not only audit his content but also enforce strong back-end protection if needed. And the most important feature is that it enables the data owner to audit even those copies of its data that were made without his knowledge. Indexing will be performed on the JAR files which will be accessed by the user.



## 12.E-STORE

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**Abstract:-** The business-to-business aspect of E-store is the most visible business use of World Wide Web. The primary goal of an E-store site is to sell goods and services online. This project deals with developing an E-store website for the sale of the merchandises which is required by our university. It provides the user with a catalogue of different electrical, plumbing, stationary and other products for purchase in the store. In order to facilitate the online purchase, a shopping cart is provided to the user. The system is implemented using a 3-tier with a backend database, a middle tier of PHP, and a web browser as the front end client. In order to develop an E-store website, a number of technologies must be studied and understood. This includes multi-tiered architecture, server and client-side scripting techniques, the programming language such as PHP, relational databases such as MYSQL. It is a virtual retail store where merchandise is sold, usually a product on the retail basis at business-to-business level. It draws on technologies such as inventory management systems, EDI, OTP, electronic funds transfer, supply chain management and mobile commerce. This is a project with the objective to develop a basic website where a consumer is provided with a shopping cart application and also to know about the technologies used to develop such an application.

**Result: -** In this project, the users are provided with an e-store website that can be used to buy merchandises online. To implement this as a web application we used PHP as the technology. PHP has several advantages such as enhanced performance, scalability, built- in security and simplicity. To build any web application using PHP we need a programming language such as HTML5, CSS, Bootstrap and so on. MySQL was used as back-end database since it is one of the most popular open source databases, and it provides fast data access, easy installation, and simplicity. The user

can select as many products as per his/her requirements to the cart and/or he can add as many of the same. We have added 78 products in all belonging to the plumbing, electrical, stationeries and other categories. If at all the admin is required to add more products apart from the existing product list, he/she can do it very efficiently. Finally, the user can place the order of all the products that he/she has already added in the cart and as per the availability, all the merchandises will be provided to the user.

**Conclusion:-**The internet has become a major resource in modern business, thus electronic shopping has gained significance not only from the entrepreneur's but also from the customer's point of view. For the entrepreneur, electronic shopping generates new business opportunities and for the customer, it makes comparative shopping possible. A good shopping cart design must be accompanied with user-friendly shopping cart application logic. It should be convenient for the customer to view the contents of their cart and to be able to remove or add items to their cart. The shopping cart application described in this project provides a number of features that are designed to make the customer more comfortable. E-store helps in understanding the creation of an interactive web page and the technologies used to implement it. The design of the project which includes Data Model and Process Model illustrates how the database is built with different tables, how the data is accessed and processed from the tables. The building of this project has given us a precise knowledge about how PHP is used to develop a website, how it connects to the database to access the data and how the data and the web pages are modified to provide the user with a shopping cart application.

## 13. INNOVATION IN E -ATTENDANCE

**Guides:-**            **Dr.S.M.Jadhav, Prof.V.J.Kadam**

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**Problem Statement:** – Most of the universities still have manual attendance system. These

systems are time consuming and require manual input from the faculty which is not flexible due to high risk of losing the attendance logs.

**Abstract:** – We propose a system that works on an attendance system using biometrics that authenticates the user and marks his/her attendance in the easiest way possible. The current system involves lots of paperwork due to manual attendance by the faculty and even the RFID card based attendance system provides scope for proxy attendance. The proposed system is user-friendly and complete wireless system that is accessible to students, admin, faculties and parents using a web portal which includes features like timetable generation, daily attendance report, weekly feedback mechanism, pending approvals for admin and much more. Windows, SQL-Server, PHP, Android has been used for hosting and maintaining the database and server that completely meets the objectives of the project.

**Result:** – The proposed system is tested in our university for two classes each of 80 students. It works very well with accurate results. The biometric device does not accept any entry after an end class is triggered from android device. It also updates the data and displays analyzed attendance in the best way. The report of each student is obtained in their respective logins and the overall result can be viewed on the admin panel.

**Conclusion:**– In this project, a web portal is presented for monitoring attendance. It offers portability, time-consumption, accuracy and user-friendly approach. It can be implemented in all classrooms connected to a wireless network. Moreover, parents are notified for their wards progress via SMS or e-Mail. Even Admin can approve the pending approvals of students in case of manual attendance by faculty and even for arranging extra lectures at runtime.

**Future Scope:** - In future, our system needs to follow all steps in SDLC to produce more accurate results. Admin could take some decisions based on the weekly feedback provided by the students like automatically arranging for the extra lecture in the case of off lecture and both faculties are notified for the same. This system could be developed to get runtime ward present status to parents.

# 14. TIME TABLE SCHEDULING USING GENETIC ALGORITHM

**Guide: - Prof.V.J.Kadam**

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**Problem Statement:**– How to prepare automatic timetable of the academic year in college? If anyone wants to generate the correct best possible schedule of lectures and subjects with respective faculty then this software is pretty convenient for them. It gives you the lecture timing, date, faculty along with subjects.

**Abstract** :-A college timetable is a temporal arrangement of a set of lectures and classrooms in which all given constraints are satisfied. Creating such timetables manually is the complex and time-consuming process. By automating this Process with computer assisted timetable generator can save a lot of precious time of administrators who are involved in creating and managing course timetables. Since every college has its own timetabling problem, the commercially available software packages may not suit the need of every college. Hence we have developed the practical approach for building lecture- course timetabling system, which can be customized to fit to any colleges Timetabling problem. This project introduces a practical timetabling algorithm capable of taking care of both strong and weak constraints electively, used in an automated timetabling system. So that each teacher and student can view their timetable once it is finalized for a given semester but they can't edit them.

**Results:** –We can generate correct time table considering all needful respective aspects automatically in very less time with no effort.

**Conclusion:**–Reduce the manual work. “Going paperless” can save money and help the environment. It provides a friendly environment to the administrators. The software also saves the precious time of administrators who are involved in creating and managing course timetables.

# 15. EMERGENCY ALARM AND HEALTH CARE MANAGEMENT SYSTEM

**Guide:** - Mr. Patil Mohan P.

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**Problem Statement:** -It is very important to maintain efficient software for doctors, medicines, and patients. This application provides a way to record this information and to access these in a simple way.

**Abstract:** - The main intention of introducing this system is to increase the scope of options available to the users regarding their health care. Every sort of task is performed by the system, such as registering people of various categories (such as physicians, patients, and medicines), inquiries, and complaints etc. reducing much of time consumption and rigorous attempts to obtain them. Also, the latest information is available to the users regarding the prescribed medicines and their particulars, physicians followed by their appointment details. This system is as simple as using the personal computer. Since, the end user computing is developing in our country. It is beneficial to both Health centres and the patients. Every step is clearly defined and help is provided throughout the application to the user. Even the exceptions are handled well to avoid confusion. Physicians and health centres can get much out of the system. The system uses the patient details such as personal details followed by their residence for two vital alternatives

- To find the details about the medicines.
- To find out the nearest physician and the procedure for consulting them.

Another key feature of this system is the emergency alarm that it provides to the users to recall them about their appointments or the status regarding their product delivery. It also intimates user regarding the consumption of their medicines on time.

**Result:-**

- The system is useful in various ways as the information about the patients who are taking

the services from the health centre all the details are already stored in the database, so the service is done in no time.

- All the information about the drugs is also maintained in the database.
- It's excellent feature of emergency alarm helps users intimated about the intake of medicines, upcoming appointments, and the delivery status

**Conclusion:** -The need for this Application is to computerize the application processing and servicing the Patients request through automated modules is most necessary and now inevitable. As we have already seen that the need cannot be emphasized for the further development of this system is only timely and helpful to users as well as to the medicines and the physicians, the system defined in the above script is up to date and caters to all kinds of requests to provide the better service to the patients, being developed in java it is also flexible modularized highly parameterized and hence can be easily deployed by any other application because of its componentized approach. Based on the various parameters and properties files everything from the look and feel to the functionalities can be customized. Thus, this project is developed from the beginning with reuse in mind and implicitly uses several design patterns. The architecture of this project is such that it suits the diverse and distributed nature of the Health Care Applications.