

BRANCH = INFORMATION TECHNOLOGY (2012)

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Title: WEB PORTAL FOR B.E PROJECT

Project Guide: MRS. SHREE JANI

Keywords:

Abstract: The current system deals with manually collecting data related to different projects. The system we have designed replaces the current practice of project topic searching, selecting appropriate technology and gathering necessary help by a modern, sophisticated, online, user-friendly system. Our system gives guidelines for appropriate topic selection based on different area of interest and provides necessary help for developing the project. The system guides the student to select the appropriate project which suits their strengths and interest and even develop their programming skills. This system contains the topics for projects from various categories, organized in a systematic manner. It is also supported by an easy search which makes it easy for students and professors to view topics. System contains messaging where students and project -guides can interact and discuss about respective projects. Other features like uploading project topics, innovative ideas, and project co-ordinators can put important notices/schedules about the projects and also online help is available. For outhouse projects the external guide can interact with internal guide and respective project group The security of data made available through this system has been given priority. The administrator has to be authenticated by the use of a secure password.

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Title: EASY CENTRALIZED ADMISSION PROCESS FOR ENGINEERING

Project Guide: Mrs. Vaishali Jadhav

Keywords:

Abstract: Our aim is to develop an application to help students choose their desired field and college of interest and to guide them effectively through the Engineering admission process. One of the major problems faced by students is to take right decision regarding the branch of engineering they wish to pursue. To ease their selection process the system uses data mining techniques. More specifically it helps students choose colleges based on several factors like marks, fees, location, infrastructure etc. For this, the system analyzes real data corresponding to student enrollment into different engineering colleges across various universities over the past few years. Based on this analysis a recommendation system is being proposed. The user is verified as he logs into the system. He then has an option to choose a branch in engineering of his choice or if he isn't sure of which branch would suit him he can go in for a psychometric test. This test consists of few sets of randomly generated questions. At the end of the test certain graphs and pie charts showing the appropriate branch is generated. User can again take the psychoanalysis test if not satisfied with the result. He then selects a particular branch and a list of all colleges offering that particular branch is generated. User is then asked to input more details like his CET/AIEEE score, university, gender, category etc. and a more filtered lists of colleges is generated to which he can send his application. This list is generated using data mining techniques of classification, clustering and prediction. For the same a record of cutoffs and percentiles of the colleges over the past few years is considered. From the list the user can choose any college and view details of it regarding the college infrastructure, faculty, student crowd,

canteen and other facilities. The portal also provides a counseling facility to those who require guidance in choosing the right career ahead. For this the user can schedule an appointment with various career guidance experts. The system also guides the user through various centralized admission procedures by the university. It constantly updates the dates of filling online application, submission of application form, lists put out by the colleges etc.

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Title: FOODLE

Project Guide: Prof. Winnie Main

Keywords:

Abstract: Restaurants are one of our favorite premises. With no regard to the actual reasons for visiting restaurants, a customer will order and wait for the ordered meals. However, it is common of customers complaining about not being satisfied with the services offered. There are many reasons leading to this dissatisfaction including delay in taking orders and serving meals. The issue of being entertained late could be solved with advanced technologies of placing orders of their meals. The advent of the **Foodle** application has made it possible to book food from an android enabled handset independent of the user's location. This requires the handset to have an active GPRS connection during the entire process from viewing the menu till providing the confirmation. It is important that the people involved in the food booking process have access to the most up-to-date version of the menu, kept vigilant on the various offers and their requests must be served fast in real-time. In this project we propose an application for viewing and ordering food from the menu. This methodology is developed for the **Foodle** – Food Booking System project which aims to automate the processes of ordering food, search restaurant with preferences, view restaurant reviews. The objective of the project **Foodle** is to develop an application whereby customers can order food, obtain it from any location at any time using Android phones. The emerging technology behind m-commerce, which is based on the Wireless Application Protocol (WAP), a secure specification that allows users to access information instantly via handheld wireless devices such as mobile. By definition, **Foodle** is an integrated system, developed to assist restaurant management groups by enabling customers to immediately order food on their own from anywhere on the go using this application.

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Title: An Expert System for Disease Diagnosis in Agriculture

Project Guide: Ms. Nazneen Ansari

Keywords:

Abstract: In the field of agriculture, accumulation and integration of related knowledge plays an important role in improving the yield of the crop. Majority of the losses in agriculture are due to diseases occurring in the trees or plants. Agriculture experts are the common source to obtain information about the various diseases and pests affecting the plants. 'An Expert System for disease diagnosis in agriculture' concentrates on diagnosing the diseases affecting Coconut tree. It will help the coconut growers to identify the various diseases affecting coconut trees and provide a remedy for the same by the means of a website.

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Title: PERFORMANCE EVALUATION OF HRM SYSTEM USING DATA MINING

Project Guide: Mrs. Nazneen Ansari

Keywords:

Abstract: It is crucial that companies, especially in the fast growing economy of India, maintain a high quality of human capital so as to achieve an edge over their competitors. This has led to the introduction of Human Resource Management practices which when integrated with the overall strategy of any organization ensures employee job satisfaction, loyalty and provides better returns to the organizations in terms of ROI (Return on Investment). This study describes how a Data Mining framework based on the clustering algorithm K-means and the classifying decision tree algorithm C4.5 can be used to evaluate the performance of employees and generate useful rules that would facilitate decision making for such a Human Resource Management System in an IT based company.

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Title: DATA MINING FOR ELECTRICITY CONSUMPTION SYSTEM

Project Guide: Ms. Vaishali P. Jadhav

Keywords:

Abstract: This system describes a methodology that was developed for the classification of Medium Voltage (MV) electricity consumers into different clusters and allotting them an appropriate tariff plans depending on their consumption. Starting from a sample of data bases, resulting from a monitoring campaign, Data Mining (DM) techniques are used in order to discover a set of a medium voltage consumer's typical load profile and therefore, to extract knowledge regarding the electric energy consumption patterns. In the first stage, data is preprocessed and then several clustering algorithms are applied on the formatted data and clusters are formed. In second stage, a classification model is developed in order to classify new consumers in one of the obtained clusters formed in the first stage based on some predefined rule sets. Finally, the interpretation of the discovered knowledge is presented and the tariff plans are allotted to the consumers according to their consumption pattern. The consumer is free to change his tariff plan as per his electricity consumption requirements.

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Title: M-WALLET

Project Guide: Ms. Nitika Rai

Keywords:

Abstract: M-Wallet is an alternative mobile based payment solution that aims at replacing current payment solutions like credit cards and/or debit cards and cash with a simple Short Messaging Service (SMS) based solution that would work on all mobile phones irrespective of the network carrier and the manufacturer. Transactions can also take place between consumers that have subscribed to the service and merchants irrespective of their subscription. A user can register for this service by signing-up using his mobile number which will be verified and will act as the unique ID of the user. The M-Wallet then creates a virtual account for the user with zero initial balance. The account needs to be recharged using a bank deposit using NEFT or by going to the M-Wallet outlet. A user of the M-Wallet system can then use the virtual account to make payment to payee. Payment can be made irrespective of whether the payee is an M-Wallet user or not. The system provides various security features to avoid misuse by unauthorized users.

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Title: SEQUENTIAL PATTERN MINING FOR MUSIC RECOMMENDATION SYSTEM

Project Guide: Mrs. Vaishali P. Jadhav

Keywords:

Abstract: Data mining techniques have been widely applied to extract interesting patterns from transaction datasets in many areas such as customer shopping behavior analysis. In this project, we find sequential patterns representing songs that are frequently associated or added together by a listener. Sequential pattern mining deals with data represented as sequences (a sequence contains ordered sets of items). Sequential patterns indicate the correlation between transactions. The problem of finding sequential patterns is concerned with extracting inter-transaction patterns. In sequential pattern mining, the input data is a set of sequences in which a sequence represents a list of transactions. Each transaction is a set of items. The output is a set of sequences that occur most frequently. Application of data mining techniques in music recommendation results in interesting and useful patterns. These can be used to recommend music which interests the user. This project presents results of the work in applying sequential pattern mining algorithm on songs playlist dataset. This would result in an output sequence of songs that follow certain patterns when added by various users. The user may consider songs similar to his liking based on related albums, artists and even other listeners with similar taste for music. The system not only recommends the user a list of songs that he could consider but also informs the user in which sequence were the songs frequently added. The user also has an option to add an entire playlist which consists of a list of most frequent songs.

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Title: BRAIN TRAINER

Project Guide: MRS. SHAINA UTREJA

Keywords:

Abstract: 'Brain Trainer' is an application for Android 2.3.3 (Gingerbread) to develop logic skills, mathematical abilities and vocabulary. Our aim is to build an integrated suite of challenges on diverse topics. Individuals can also use it for various competitive examinations and test their mental skills.

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Title: EDGE ADAPTIVE IMAGE STEGANOGRAPHY BASED ON LSB MATCHING REVISITED

Project Guide: Mrs. Prachi Raut

Keywords:

Abstract: Steganography is the art and science of hiding information by embedding messages within other, seemingly harmless messages. Image steganography is the most popular of the lot. In image steganography a secret message is embedded into an image as noise to it, which is nearly impossible to differentiate by human eyes. One of the common techniques for this is based on manipulating the leastsignificant-bit planes by directly replacing the LSBs of the cover-image with the message bits. LSB method achieves high capacity but it is vulnerable to slight image manipulation such as cropping and compression, Chi-square statistical attack, RS analysis, Sample Pair analysis, Weighted-stego(WS) analysis and Structural steganalysis. LSB matching (LSBM) employs a minor modification to LSB replacement. If the secret bit does match the LSB of the cover image then, +1 or -1 is randomly added to the corresponding pixel value. Therefore the common approaches used to LSB replacement are totally ineffective at detecting the LSBM. Unlike LSB Replacement and LSBM, which deal with the pixel value independently, LSB matching revisited (LSBMR)

uses a pair of pixels as an embedding unit in which the LSB of the first pixel carries one bit of secret message, and the relationship (oddeven combination) of the two pixel values carries another bit of secret messages. In such a way, the modification rate of pixels can decrease from 0.5 to 0.375 bits per pixel (BPP). The typical LSB based approaches, including LSB replacement; LSBM and LSBMR deal with each given pixel/pixel pair without considering the difference between the pixel and its neighbours. The pixel value differencing (PVD) based scheme is a kind of edge adaptive scheme, in which the number embedded bits is determined by the difference between the pixel and its neighbor. The larger the difference then the larger is the number of secret bits that can be embedded. PVDbased approaches can provide a larger embedding capacity. This project will implement an edge adaptive scheme explained in, which is an improvement to the LSB replacement method.

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Title: E-PLANT IDENTIFER

Project Guide: Mrs. MINAL LOPES

Keywords:

Abstract: 'E-PlantIdentifier' is a software system that will allow automated identification of plant species based on their respective leaf shapes. In this system, a digital image of a leaf of a particular plant is captured by a camera, this image act as an input to the system. Then the software system uses its own image processing tools and algorithms to extract details from the image like its structural organization, shape and various other features based on shapes. These features are then used to compare with pre-existing leaf images in the database. Upon successful matching of the leaf with existing images in the database, a detailed description of that corresponding plant is provided to user. Otherwise, that particular plant is considered as new species on which further studies and research can be done.

Author: Royston D'silva 59
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Title: HUMAN FOLLOWING ROBOT

Project Guide: Mr. Pramod Shanbhag

Keywords:

Abstract: A robot is a machine that performs activities like humans and some specially engineered can perform activities which human cannot perform like working in the areas of heavy radiation. Also the robot is very robust, versatile and accurate in performing every task entrusted to it. It can also act autonomously i.e. take decisions on its own and perform various runtime activities. Human following robot as the name suggests follows the target human. It uses short range Infrared Sensors (IR Sensors) to detect and keep a track of the human. Receivers mounted on the robot helps it to keep track of the human by finding the exact position of the target. The two DC motors mounted on the robot helps the robot to move as well as change orientation. The microcontroller is programmed to cause motion in forward, backward, left and right direction. In addition, the robot gives an alarm once the human target goes out of the range.

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Title: IDS Framework for Cloud Computing Networks

Project Guide: Mrs. Vandana Patil

Keywords:

Abstract: The Internet is the world's largest network of networks .When we access resources offered by the Internet, we don't really connect to single physical entity called the

internet but to a network that eventually connects us to the server. The server in return responds to the request thereby granting access to the required resource. These networks are susceptible to a variety of attacks and threats. Safe and secure networks have become the necessity of the modern age telecommunication. One of the important tasks for the security professionals is to develop a system which can prevent the neighbouring servers from being attacked by a similar signature. The proposed system provides a frame work which aims at reducing the above attack and thus protecting the networks from single point failure attack. In this system, each of the IDS (Intrusion Detection System) has a Cooperative Agent. This co-operative agent does the work of notifying all other servers in order to safeguard them and the resources they provide from the above mentioned attack. It does so by generating and sending alerts to the servers it is linked to. While the proposed system may increase the computation as compared to a pure snort based IDS, it ensures resistance to the single point failure attack and also helps in providing a more secure network system capable of withstanding the attack launched.

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Title: VIDEO ANNOTATION USING EMBEDDED AUDIO FOR CONTENT BASED VIDEO RETRIEVAL

Project Guide: Prof. PURNIMA TAWDE

Keywords:

Abstract: The number of multimedia documents distributed on the Internet as well as in personal and organizational collections is growing at an enormous rate, which has brought extensive attention on multimedia data management and search. Today there is need for videos to be searched based on its content. The knowledge about the content of the videos comes from the metadata of the content. The metadata can be stored along with the videos as annotations. Many of the video sharing websites now support the system of “tagging” the videos. These tags are given by the user when he uploads the video on the website or added by website manager later some time. These tags thus help in classification of the videos into various genre or categories such as sports, finance, movies, commercials, news etc. but this system of manual classification is not efficient as it is practically impossible to tag all the videos available on the internet. This has given rise to the need of automatic and unsupervised classification and annotation of videos. This project deals with a system that performs unsupervised, automated classification and annotation of videos based on its embedded audio content. The classified and annotated videos can be later searched and retrieved, when a user inputs a keyword.

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Title: QUICK AID SYSTEM

Project Guide: Mr. Vaibhav Kala

Keywords:

Abstract: With the onset of the Open Handset Alliance (OHA) many mobile phones are carrying Google Android Platform. This has paved in the way for the development of new applications which come into handy and have the support of the available features of the mobile handsets. Android is a software platform and operating system for mobile devices. It is based on Linux kernel. Android allows writing managed codes in Java language. ‘Quick Aid’ is a GPS based ANDROID mobile application providing location based services wherein a person using an Android client will be able to access information about nearby important emergency locations and services like hospitals, ATMs, Police-Stations, Veterinary Hospitals, Blood Banks, Gas Stations stored on a server. The information required will be displayed on the Google map. The application also provides the facility of sending email or

SMS to the desired service. The application allows the Client to pass his current location (in latitude and longitude) through GPS service on the handset and helps him search the required information like contact number, address of emergency services and also gives the distance of that place from user's location. Android client will send a HTTP request to a Google map based server for retrieving the positions using GPS and the server returns the position and information about the location. Quick Aid is developed in Eclipse IDE with an Android plug-in, Android SDK 2.3 for Windows and WAMP server for backend support (database). 'Quick Aid' is a very handy and useful system for medical emergencies as hospitals within short distances can be located, besides it will also help in life threatening situations with the pinpointing of nearby police stations and can also help in easy recovery of cash by providing a list of ATMs in the vicinity. Moreover the client can also avail particular services by email or SMS, such as taking appointments etc.

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Title: ENHANCED TRANSACTION SECURITY

Project Guide: Ms. Purnima Tawde

Keywords:

Abstract: The internet has become an inseparable and an unavoidable part of our lives lately. The increasing use of the web has in turn increased its importance. Millions of users are using the web for communication and carrying on monetary transactions electronically. On the Internet, transactions must be secure from end to end. Thus, a few important security revolutions should be taken into account before sending confidential information over the Internet. In this project few techniques for enhancing the transactional security for a banking website are proposed. Description of a new technique called as the 3D CAPTCHA which provides better protection from bots is also given. A new concept of multiple language supported virtual keyboard is also considered which will avoid the key stroke logging attack. Other banking features of sending messages and emails to the users immediately after they perform any transaction are also included. Implementation of proposed system includes two domains Web domain and security domain. Experimental evaluation of the proposed algorithms to demonstrate their effectiveness in different attack scenarios is presented in this project.

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Title: LOCATION BASED MOBILE ADVERTISING

Project Guide: Mrs NITIKA RAI

Keywords:

Abstract: The location based information and advertising project is developed with an intention of reducing the hassles faced when user moves to a new location. As android enabled handsets are readily available and GPS is an efficient system, information services can easily be accessed. The customer is required to register with the Location based service provider following which he can login through the android enabled cell-phone and access the variable services. The application provides information regarding various deals going on in the area of the mobile device, the offers of various merchandise, based on the user's current location. The user is not charged for using the application. The revenue is generated through advertisements which are location based. The application provides a single platform for multiple vendors to place their advertisements simultaneously on the web. Also the user gets an opportunity to view vendors based on the product selected.

Author: Urvin Shah (77)
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Title: VIRTUAL DIETITIAN

Project Guide: Ms. Purnima Tawde

Keywords:

Abstract: "Virtual Dietitian" is a phenomenal new website that helps users find out their current fitness levels and also provides an in detail guideline of how to improve it. It contains a database of over 10,000 foods with complete Macronutrient breakdown on each food. It also contains a comprehensive database of all possible exercises and their respective caloric expenditure. The combined use of these in the users "fitness diary" helps the users track the amount of calories they consume in the day, which will in turn be used to provide the users with demo graphs that shows weight loss, gain or maintenance patterns. The website uses scientifically proven formulae to calculate Basal Metabolic Index (BMI), Basal Metabolic Rate (BMR) and exact amount of calories required by the individual to lose, gain or maintain weight. Thereby, this site provides a completely customized plan that caters to every individual.

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Title: GSM BASED LAN MONITORING AND CONTROLLING SYSTEM

Project Guide: Prof. Joanne Gomes

Keywords:

Abstract: The most highly demanding task in the field of IT industries is the efficient computer network management. There are many urgent issues or requests related to such networks which network manager needs to solve immediately for avoiding any kind of interruption. But sometimes, network managers may be situated at different places, so in such cases, it is not possible to resolve any urgent issues with the office network task. Thus in order to solve such problems, in this project, we describe the architecture of a tool for network management using GSM modem. In concern, computers are grouped together to form a network. To manage and control the activities of the network, while being in the office, is an easy task. But, while admin is away from the office, the task of network management becomes difficult. Here our project comes into view. Consider a LAN setup with the server machine connected to GSM modem. The interaction between the admin and the clients happens through the server. The GSM based LAN monitoring and controlling system, is a server based software application, that provides ability to send and receive SMS through GSM network and communicates through standard TCP/IP protocol. The software is capable of sending the SMS to the network administrator on his mobile device and thereafter the corrective action can be taken by the network administrator by sending a SMS in a prescribed format. The GSM based LAN monitoring system will control the activities of client's PC from mobile. The system has processes such as shut down, process list, broadcasting message and net view modules to trace and keep track of various client activities. The targeted users are situated in the labs of colleges and various other organizations.

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Title: PERSONAL BUDGET MANAGEMENT SYSTEM

Project Guide: Ms. Nazneen Ansari

Keywords:

Abstract: This software is collective domain software. By that it means that the software is made on three platforms: Cell phone, PC, Website. The main gist of the software is to allow users to themselves calculate their budgets. Though it was not possible previously as it

required professional help, which is expensive; it is possible through this software. The software aims at helping every user to analyze his expenses, compare his income with them, compare his previous expenses with the present ones and curb his unnecessary ones. This allows the user to smartly increase his savings and also he can create a budget plan for the next accounting period. This period may be a year, or a month or a week. The cell phone application is for the sole reason to remove the load of remembering the expenses on a day-to-day basis. This application will allow the user to enter his daily expenses as and when he/she does it. Then it can be synchronized to the website. The PC application is a standalone application. By this it means that the application does not depend on the net for its functioning. It can run on its own without the net holding it up. The PC application also allows the user to enter expenses and do comparisons etc. like the mobile application. Apart from this it also has a calendar in built which keep track of certain key events that will keep reminding the user about certain payments. Also there is a option to connect to the net too. So this application is a standalone or internet backed. This application is also provided with the option to synchronize with the website. The Website/Web-server is like the backbone of this application. The phone is always in connection with the website. The website is mainly for the reasons of backup of data and removing anomalies in dates. The site also generates charts along with reports on expenses and savings for the easy analysis and creation of budget plan. On the whole it is an application that has good use and will be needed and should be used by every single person to make his spending and saving plan/strategy appropriate for the betterment of his life.

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Title: HAND GESTURE RECOGNITION SYSTEM FOR HCI

Project Guide: Ms. Minal Lopes

Keywords:

Abstract: The field of Human Computer Interaction is still developing and has a lot of future scope for both developing applications and performing research. Based on this is a small field called Gesture Recognition, which involves the recognition of human gesture by machines. It is known that actions speak more than words, thus there is a need to capture those actions and make them legible to computer, which unlike humans does not possess thinking capability. We do not aim to give the computers the thinking capability as of artificial intelligence, rather we aim to give them computational ability to isolate and recognize the gestures. The applications of Gesture Recognition include Facial Mood Detection, analyzing human movements in combat, sign language recognition for differently abled people, etc. Current methods of interaction involve the traditional mouse and keyboard inputs to communicate with the system that is obviously tedious and time consuming. Using something as natural as gestures is much better and intuitive. This project is being developed to enhance the ways the users interact with machines making it easier and a lot more fun. Our aim is to utilize the developments in the areas of computational intelligence, pattern matching, and machine learning fields and incorporate them in our project.

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Title: OFFICE Wi-Fi

Project Guide: Joanne Gomes

Keywords:

Abstract: The project 'Office Wi-Fi' acts as a service provider for employees of an organization for various office activities via Wi-Fi network. It acts as a new platform which can be used by the admin to interact with the employees & vice versa. It provides a new communication platform for interaction between employees & the management. Using the said system employees will get real time alerts & updates of the enterprise on their mobile

phones within the office. Employees will be allowed to register for various activities conducted through the mobile Important office materials or information documents can be viewed by the users through this application. Also employees can access the canteen menu & also place order using Office Wi-Fi application.

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Title: Knowledge Based Clinical Decision Support System

Project Guide: Mr. Kartik Kothari

Keywords:

Abstract: A clinical decision-support system is any computer program designed to help healthcare professionals to make clinical decisions. There are several benefits to use CDSS, such as accurate diagnoses, disease prevention, and alerting adverse drug events. One of the greatest hurdles a care provider faces is availability of proper information at the point of care. This becomes more critical if the patient is in emergency condition and fighting with his life. A clinician needs to be able to capture, store and receive clinical data. More often than not clinicians have patients in various physical locations that are geographically apart. It helps him immensely if the data is available to him from all locations in one place. This system aims to bring out the solution architecture to be used to cater the care provider with full control of his patient's data along with alerts. The system supports Artificial Neural Networks (ANN) which can process incomplete data by making educated guesses about missing data and improves with every use due to its adaptive system learning. In addition, since input data might be incorrect, this component supports data cleaning function and provides reliable data to inference engine. Secondly, to efficiently handle dynamic data from user feedback, we design the system with the help of A.I.M.L or Artificial Intelligence Markup Language.

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Title: NetInspect Using Data Mining

Project Guide: Nazneen Ansari

Keywords:

Abstract: Router misconfigurations are common and can have dramatic consequences to the operations of a network. Misconfigurations can have adverse effects on the security of an entire network or even cause global disruptions to Internet connectivity. Most methods of dealing with this involve comparing with rules, but configurations are not the same for all networks. Our project aims at utilizing Data Mining algorithms to learn the specialized router configurations for particular routers and applying these rules to identify network misconfigurations.

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Title: BuildAppApplication

Project Guide: Mr. KARTIK KOTHARI

Keywords:

Abstract: This project is an iPhone application that enables the owner of the company to have a consolidated view of all of his projects on his iPhone also it provides the users, mainly customers to access information about the development and any other notices about their properties. The project is divided into two parts i) Accessing the data by owner of the company. ii) Accessing of data by the users. Updating the data: The administrator shall update data into his mySQL database manually. The data shall be in the form of pictures of progress of a particular site , any text or document stating an announcement in the particular page or the particular section of the application. Accessing of data: The Owner: The owner

of the company shall be able to access the information regarding the sale of his projects on his iPhone. The User: The users shall be able to access information related to the organization. The various topics shall include home, projects, upcoming projects, contact us and about us. Customers of the organization are given a user id and a password. Using this id and password customers can then authenticate themselves and view progress of their properties. The projects shall be divided into residential, commercial and retail. Also the each project shall have sub topics like about, location, layout plan, floor plan, amenities and images.

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Title: Multi Language Encryption Technique-MULET

Project Guide: Ms. Vandana Patil

Keywords:

Abstract: Cryptography is the science of secret writing. Computer applications need to protect their data from unauthorized access. We don't want people snooping on our data (we want confidentiality) and we don't want someone changing data without our knowledge (we want to be assured of our data's integrity). Such data transmitted over network is subject to all sorts of nefarious attacks. Again, cryptography provides solution using encryption and decryption techniques. A wide variety of techniques have been employed for encryption and decryption but cryptanalysis has simultaneously cracked these encryption techniques from time to time. The use of a multilingual approach in cryptography is not prevalent. In our project we propose an algorithm that focuses on encryption of plain text over a range of languages supported by Unicode. The user has an option to send the cipher text either in Hindi, English, Marathi or Gujarati. Thus MULET enhances security over other encryption algorithms.

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Title: SMART E-STORE DEVELOPER (SED)

Project Guide: MR. VAIBHAV P. KALA

Keywords:

Abstract: Smart E-Store Developer is an automated e-store/e-mall building application located on World Wide Web mainly focused towards attracting small and medium sized businesses and retailers. Retailers who wish to expand their business with the help of internet can visit our portal and we build store/mall for them, they can customize e-stores with the help of the tools and templates which will be made available by us. They don't need to purchase expensive and service specific software to go digital. Moreover they need not buy separate internet domains to host their Web sites. Retailers can customize the store according to their requirements, they do not need any technical knowledge or specialized expertise for customization of the store due to a strong graphics based framework providing various toolbars with varying functionality. The Portal provides a user friendly graphics based interface to both retailers and their customers for the ease of working. Providing services alone is not sufficient and there must be a means by which the clients can reach out the Administrator, with their difficulties. A feedback system module will serve this purpose.

Author: Cajetan Rodrigues 73
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Title: CREDIT CARD AUTHENTICATION AT POS TERMINALS

Project Guide: Mrs. Prachi Raut

Keywords:

Abstract: Our project basically aims to provide a strong authentication scheme using biometrics (i.e. thumbprint) so that no one else (except the authorized users) can use the card. In this way, even if the card is lost/stolen, no other person will be able to purchase anything from the POS terminals using the lost/stolen card. Biometrics is the strongest form of authentication, but biometric information is very sensitive information. Once compromised, it is compromised for life. Therefore, we also integrate Visual Cryptography in this scheme, to protect the biometric information of the users. Visual Cryptography is a provably secure (unbreakable) image protection technique. We use it to encrypt the fingerprints.

Author: COLIN THOMAS 57
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 BEN JOHN 12

Title: iPad Restaurant Application

Project Guide: Mr. Pramod Shanbhag

Keywords:

Abstract: The iPad restaurant application aims at replacing the conventional menu system which is time consuming and old fashioned. This application makes use of the Wi-Fi technology. Wi-Fi is a mechanism for wirelessly connecting electronic devices. A device enabled with Wi-Fi, such as a personal computer, video game console, or digital audio player, can connect to the Internet via a wireless network access point. An access point (or hotspot) has a range of about 20 meters (65 ft) indoors and a greater range outdoors. Multiple overlapping access points can cover large areas. Meal orders can be taken on an iPad, which will have the complete menu offered by the restaurant/hotel. In special dishes, a new dish can be presented every day, as the Chef’s choice, and also the most popular dish of the day, these dishes may be offered at a certain discount. On selecting from the normal menu, the user gets to view all the categories from such as, starters, main course, drinks, desserts, etc. Each menu item, under any of the above categories comes with a description of the item, ratings given by previous customers, a large image for better knowledge of the dish, and the cost of the item. Each dish is also differentiated as either Veg / or Non-Veg. Once the order is confirmed and sent, the customer has 10 minutes (this time period may be changed) to either cancel or alter his/her previous order. If the customer has not changed or cancelled it, the order which is now in the kitchen, will be serviced to the respective table. Video entertainment / NEWS can be streamed on to the iPad so that the customer may not feel idle. The customer could also use the iPad provided by room service for reserving a table. Thus we can conclude that Wi-Fi technology plays a major role in the iPad restaurant application. Our system is much faster and beneficial compared to the existing system.

Author: VISHAKHA SAWANT 41
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Title: STAFF WELFARE FUND MANAGEMENT

Project Guide: MR. SATISH SALUNKHE

Keywords:

Abstract: Welfare includes anything that is done for the comfort and improvement of employees and is provided over and above the wages. Welfare helps to retain the employees for longer duration. Our project Software Welfare Fund Management is basically for the welfare of the staff members. Here units are collected from the staff members and are put into the bank. Over the years the value of the unit increases which ultimately is beneficial to the staff members. By this policy the members can also apply for loans at a rate decided by the respective bank. At the end of each financial year, the staff members are given a report of their accumulated funds and units are distributed amongst them accordingly.

Author: Aditi Sawant 40
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Title: AUTOMATED FEEDBACK SYSTEM

Project Guide: Mr. Satish Salunkhe

Keywords:

Abstract: This project aims at the study which is used in triangulation of participants and methods in which the practice of feedback will be seen from the perspectives of students and teachers collected from the quantitative data (questionnaires) and qualitative data (open-ended items in questionnaires). The application will evaluate the answers given by the students, staff, HOD and principal based on the feedback (which will be given by a no. 1 – 9) and a report will be generated for all the staff members .also the notifications regarding this will be given to the staff, HOD, principal and higher authorities by e-mail. There will be hierarchical level of security where in the higher levels will have access to all lower level of data generated. This feedback report will be checked by the higher authorities and they can give counseling to the college staff based on those statistics.

Author: Prajyoti Lopes (8)
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Title: DOCUMENT CLUSTERING

Project Guide: Ms. Nazneen Ansari

Keywords:

Abstract: Document clustering has been a rich research area, resulting in algorithms for grouping a fixed or streaming corpus when topic labels are unknown or pre-defined. Text document clustering is one of the emerging and most needed clustering techniques used to cluster documents with regard to similarity among documents. It is used widely in digital library management system in the modern context. In clustering, ontology algorithm occupies increasingly a significant role in knowledge and semantic web management. There is a tremendous proliferation in the amount of information available on the largest shared information source. Fast and high-quality document clustering algorithms play an important role in helping users to effectively navigate, summarize, and organize the information. Recent studies have shown that partitional clustering algorithms are more suitable for clustering large datasets. The K-means algorithm is the most commonly used partitional clustering algorithm because it can be easily implemented and is the most efficient one in terms of the execution time. Here k initial "means" are randomly selected from the data set and then k clusters are created by associating every observation with the nearest mean. The centroid of each of the k clusters becomes the new means. Above steps are repeated until convergence has been reached. Thus it organizes your search results into topics. With an instant overview what's available, you will quickly find what you're looking for.

Author: Sayali Pai 24
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Title: MEDICAL STORE MANAGER

Project Guide: Ms. Winnie Main

Keywords:

Abstract: A pharmacy is a basically a store where people purchase medicines and other products. Traditionally, pharmacists used to do the work of billing and inventory management manually. However, with the advent of latest technologies, one can ease the manual labour and complete his job faster. Medical Store Manager is software which aims to help the pharmacists to carry out their day to day transactions efficiently and also reduce the processing time to update new additions. It is very essential to track expiry items prior one month or before, only then pharmacists can return these products back. To find the product is also another risky job. So a proper system is required. Pharmacists need fully fledged

software to maintain their day to day transactions. Apart from this they require regular updates on stock, supplier wise cash transaction, daily sales report.

Author: Sandra Ponganthara (33)
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Nikita Rebello (36)
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Title: SFIT LIVE

Project Guide: Mr. Satish Salunkhe

Keywords:

Abstract: S.F.I.T. Live is a website to be used by members of St. Francis Institute of Technology. It will allow members to perform various tasks and get involved in current activities of the college. The students once registered to the site will be able to participate in discussions on the site. They can post queries which will be answered by teachers. Students will be able to download all resources and materials related to academics, view all current news notices or important updates about college. Students can view their placement status and stay updated with placement related activities. The students will be able to view their attendance and also participate in quiz given by faculty. The teachers can upload documents, reply to queries posted by students, view event related details, can upload placement related documents and conduct quiz. The administrator is responsible for approving the request of user and registering them. The admin can perform activities like monitoring the site, updating the information, sending notifications and emails to members.

Author: Algotar Rahul 1
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Title: ENGLISH LEARNING SOFTWARE

Project Guide: Mrs. Shaina Utreja

Keywords:

Abstract: We are living in a age where it is very important to learn and converse in English. Still there are very rural places and also places in urban areas where the computers are available but they struggle with English language. Since this is free software it can be made available anywhere at any time. We are preparing a project named as "ENGLISH LEARNING SOFTWARE" where in we can teach the new English learners the various grammatical concepts of the English language which will enable the user to get well versed with the same. The aspects that would be addressed are providing the user with the respective grammatical tutorials, training and tracking students progress by generating grades after the completion of test. The technology encompasses aspects derived from various fields of study including computer science & education. For implementing this project we will use JAVA 1.7.0.

Author: Jerin Thankappan (67)
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Title: INTELLIGENT PROFILE MANAGER

Project Guide: Mr. KARTIK KOTHARI

Keywords:

Abstract: An Intelligent Profile Manager is a system which changes mobile profile automatically and intelligently. The user just needs to specify rules. Based on this user's specified rules and behavior mobile profile will be changed automatically. IPM is of great advantage especially when mobile profiles are to be changed on daily basis. Thus IPM application will make the profile changing activity hands free which will benefit the user thus not compromising on etiquettes.

Author: Melrick Menezes 18

Sushant Murdeshwar	19
Ishan Pandey	25
Ashish Pandit	27

Title: REAL TIME MEDIA ORGANIZATION USING CLOUD COMPUTING

Project Guide: Mrs. Prachi Raut

Keywords:

Abstract: Our Project “Real Time Media Organization using Cloud Computing” is an application that aims at faster sharing of files between a GPRS/wifi/3G enabled android mobile phone and a PC or Laptop or a PDA. This is done by synchronizing both the devices using cloud computing. The operation of the android software is a simple drag dropping to click of a button. The files once kept in the decided folder will synchronize to the cloud server online and provide the data sharing through one’s personal account. This particular account is accessed through a web based environment, which can be accessed by any device that supports internet. This project aims to create an application which will make sharing of files faster and easier for any user. It will be as easy as copying a file to a folder from the mobile and then later viewing the same file from the same folder but using a different device. This advance technology will provide a faster and much secure way of keeping one’s data intact and share them with ease. Also the aim lies within to resolve the issues of a cable transfer and other data sharing involving limitations with range of the devices.