

**CATALOGUE OF B.E. PROJECT REPORTS
BATCH 2009 - 2013**

BRANCH - INFT

ABSTRACTS

LIBRARY AND INFORMATION RESOURCE CENTRE
ST. FRANCIS INSTITUTE OF TECHNOLOGY (ENGG. COLLEGE)
BORIVALI WEST, MUMBAI 400103

Introduction

The Library and Information Resource Centre team is happy to bring out this catalogue listing B. E. Project Reports submitted by the 2009-2013 batch students to the Institute. This document covers abstracts of 37 projects submitted by 2009-13 batch students and are listed in alphabetical order under each year by the project title. Each entry of the project provides the bibliographical details, such as authors (with PID number), title, page numbers, year of submission, supervisor name, keywords (wherever applicable) and abstracts. Accession Numbers have been provided to enable the user to locate a specific entry in this catalogue.

Hope you will find this document useful. We would be happy to have your comments and suggestions, if any, to improve this catalogue further.

Updated on: 27/03/2014

Library and Information Resource Centre Team

1. Agri – Data Mining by Jerishma Britto, Swapnil Carvalho and Pritam D'souza
2. Audio Fingerprinting by Shrenik Ganatra, Mayur Mehta and Yash Shah
3. Audio Steganography by Samantha Burboz, Sheldon D'souza and Jason Rodrigues
4. Bleu's Clues by Aishwarya Bakhshi, Ankita Salgaonkar, Benolda Selvan and Nancy Nadar
5. Captcha Cracker Breaking Test based Captchas by Shanu Salunkhe, Priyanka Sodhani, Merrill Serrao, Priyanka Sylvia Barretto
6. Capture and Convert – an Android Application by Jinesh Kampani, Anand Parulekar, Akhil Pawar and Bhavir Shah
7. Cloud Based Student Support System by Atharva Tere, Shelton Nazreth and Winston D'souza
8. College Feedback System by Harshil Patel, Pooja Shah and Nitin Salvankar
9. Compression of Software and Automatic Online Update by Hussain Delhiwala, Shraddha Pawar and Gauri Prabhu
10. Data Mining to improve Selection and Enhance Human Capital: a case-study in high technology industry by Ernest Pimenta and Keval Shah
11. Deep Web Data Extraction for individuals by Roshni Joseph, Raylisa Vaz, Precilia Louis and Pritti Dinis
12. Dynamic Thumbnails by Albert Montero, Noel Faroz and Neeraj Fernandes
13. E-Commerce Platform Development by Mallika Naik, Neel Pal, Mitesh Keni and Russel Gonsalves
14. Foreign Object Detection using Image Processing and Data Mining Techniques by Daryl Rodrigues, Georgio Cheruvelil, Dwayne Fernandes and Prathamesh Chodankar
15. Forgery Detection using Motion Blur Estimation by Himani Desai, Sneha Salvi and Dhvani Zatkia.
16. Graph Mining using GSPAN Algorithm by Nakita Fernandes, Nelson Pinto, Rufus D'souza and Harshal Patil
17. Hands-free mouse action for disabled people by Alcina D'cunha, Claudia D'souza, Anju Tuscano and Neel Chitalia
18. Implementation of Controlling IP Spoofing using Inter Domain Packet Filter (IDPF) by Ravi Trivedi, Ronika Kapadia, Viraj Kelbaikar and Royson Mendonca
19. Implementation of Principle Component Analysis & Singular Value Decomposition (in facial expression detection) by Steffi Chettiar, Sherin Samuel, Sania Gonsalves and Swapnil Solanki
20. Instrumental Music Maker using CMAC by Paras Dedhia, Janice D'souza, Connel Crasto and Brian D'souza
21. Intelligent ERP Package for College by Pallavi Hariyan, Manoj Mandhan, Welborn Machado and Jamie Lobo
22. iSearch-Search around the Web by Vineet D'cunha, Vivek Henriques and Sheldon Dmello
23. Issue Tracking System by Dharmendra Vishwakarma, Swanand Wagh, Steffi Chettiar and Sumit Jain
24. ITSA Portal by Siddharth Mehta, Vikas Khinchi, Keith Menezes and Jason Godinho

25. Multimedia enabled virtual class room for distance learning by Vivian Lobo, Pinnk Dagli and Niral Rawal
26. Network Monitoring by Careyann Rodrigues, Barry Rumaio, Conrad Pinto and Anvay Walawalkar
27. Online Cross-Platform App Development Suite by Nishad Gurav, Pranav Desai and Hatim Dahodwala
28. Opinion Miner by Ankita Mande, Gauri Patekar, Ami Desai and Anusha Fernando
29. Palm Print Recognition using PCA Algorithm by Nihal Sequeira, Yash Wagle and Vikrant Cornelio
30. Password key transferring in Steganography by CAPTCHA through MMS technology by Benita Pereira, Blessina Gonsalves, Prachi Fargose and Jolita Rodrigues
31. Quality of service for next generation networks by Anna Asir Banisha M.A., Susan Amala Celes, Indu Iyyunny and Thazhatha Joyna Joy
32. Railway Passenger Flow Forecasting using data mining by Ankit Gandhi, Julius D'souza and Maneend Chatrath
33. Staff Welfare Fund Management System by Diljoy Athaide, Jaimin Shah, Cleton Fonsca and Atharva Joshi
34. Source-Code: keep it safe and secure by Suryaprakash Gupta, Chris D'souza and Prabesh Prabhu
35. Two-factor authentication and session management using Bluetooth by Abhishek Patole, Ashishkumar Dubey, Amit Lopes and Loveson Colaco
36. Voice-enabled web browser for partially disabled by Abhinav Vijaykumar, Keshav Agarwal, Aldrin D'souza and Shreyas Kulkarni
37. Web Vulnerability Scanner by Dinesh Choudhury, Jatin Bhoir and Sanket Shah

BRANCH = INFORMATION TECHNOLOGY

1) Title: AGRI - DATA MINING

Author: Jerishma Britto (02)
Swapnil Carvalho (04)
Pritam D'souza (14)
Jordan Gonsalves (22)

Project guide: Ms. Nazneen Ansari

Keywords:

Abstract: Data mining is the process that attempts to discover patterns in large data sets. It utilizes methods at the intersection of artificial intelligence, machine learning, statistics, and database systems. The overall goal of the data mining process is to extract information from a data set and transform it into an understandable structure for further use. Application of data mining techniques in agriculture proves to be beneficial. In this work, an attempt has been made to show how data mining integrated with agriculture including pest, pesticide and various climate parameters that are useful for pesticide usage and better management. This project describes the frame work; which provides results based on current & historical data. It suggests best suited pesticides for the crop, along with climate suited for the crop cultivation & information on soil. The outcomes will reveal result of information related to agriculture including pesticides, crop cultivation, soil classification & climatic condition information which would then on prove of great use to farmers.

Acc. No. PR 862 / INFT 397

2) Title: Audio Fingerprinting

Author: Mr. Shrenik Ganatra

Mr. Mayur Mehta

Mr. Yash Shah

Project guide: Ms. Grinal Tuscano

Keywords:

Abstract: An audio fingerprint is a compact content-based signature or a representational hash that summarizes an audio recording. Audio Fingerprinting technologies have attracted attention since they allow the identification of audio independently of its format and without the need of meta-data or watermark embedding. Other uses of fingerprinting include: integrity verification, watermark support and content-based audio retrieval. There are currently a handful of well-known and robust audio fingerprinting algorithms developed by companies for a variety of uses. Our aim is to develop a fingerprinting algorithm that is accurate, robust, effective and reliable. It shall be useful to a wide variety of audiences right from home users to businesses.

Acc. No. PR 852 / INFT 387

3) Title: AUDIO STEGANOGRAPHY

Author: SAMANTHA BURBOZ 091093
 SHELDON D'SOUZA 071026
 JASON RODRIGUES 081096

Project guide: Ms. NITIKA RAI

Keywords:

Abstract: The Audio Steganography software is used to hide text data in an audio file. The input to the software is a carrier wave audio file and the text data that is to be hidden. The result produced by the software is a stego file. The size of the stego file is the same as the original carrier file. Modifying bits of the audio file and embedding and extracting the data are the important stages in the software. The robustness of the software depends on extracting the data from the stego file. The software is developed using Matlab. The software takes the carrier file and the text from the user. The Information is hidden using LSB algorithm This software keeps the data secured form the intruders even though they trace the audio file which contains the confidential data.

Acc. No. PR 857 / INFT 392

4) Title: BLEU'S CLUE

Author: Aishwarya Bakhshi 05
 Nancy Nadar 45

 Ankita Salgaonkar 55

 Benolda Joseph Selvan 57

Project guide: Ms. Nazneen Ansari

Keywords:

Abstract: Our project is a PC game application, which provides a source of leisure to gamers. The aim of the project is to create an interesting and addictive environment to capture the attention of people of all age group. This game tests the logical ability of the gamer with the speed and accuracy with which the gamer proceeds through the game. The scoring depends on the gamers ability to complete the game within the given time period. Each level, of the four available, provides a whole new level of difficulty to test the extent of the gamers thinking ability. The technology used is HTML with JavaScript which has a whole new insight to gaming technology. The application will provide a whole new and enjoyable environment in the gaming experience.

Acc. No. PR 841 / INFT 376

5) Title: CAPTCHA CRACKER: Breaking Text-based CAPTCHAs

Author: Ms. Priyanka Sylvia Baretto

 Ms. Shanu Salunke

 Ms. Merrill Serrao

 Ms. Priyanka Sodhani

Project guide: Ms. Amrita Mathur

Keywords:

Abstract: The Complete Automated Public Turing test to Tell Computers and Humans Apart (CAPTCHA) was designed to keep bots or scripts from performing work meant to be done by humans only like signing up for accounts or voting in a poll. These CAPTCHAs come in many forms |they may be image, audio or text based. However, in effort to make CAPTCHAs easy to compute, many flaws creep into its design. Using these and simple

Machine learning techniques a malicious programmer can write a program to crack CAPTCHAs, defeating their very purpose. The only way to gauge the strength of a CAPTCHA is to hire someone to crack it for you. Such resources, however, are not available to small time bloggers and e-business owners. The CAPTCHA Cracker is an intelligent, intuitive, powerful captcha evaluation tool that can be used by anyone who wants a quick analysis of the strength of a captcha. It uses image processing and machine learning Techniques to crack commonly used text-based CAPTCHAs. This software also provides developer tools that can be employed to increase the scope of the project as time passes.

Acc. No. PR 850 / INFT 385

6) Title: CAPTURE AND CONVERT-AN ANDROID APPLICATION

Author: Jinesh Kampani	64
Anand Parulekar	65
Akhil Pawar	66
Bhavir Shah	67

Project guide: Ms. Shree Jani

Keywords:

Abstract: The prime objective of “**CAPTURE AND CONVERT**” which is an android application is to scan the images captured through a camera or by opening an image stored in gallery and converting it into an editable text file. The project makes use of a GPRS/Wi-Fi enabled android mobile phone. The application will first select an image from gallery or capture an image via camera and can be cropped according to the user requirements. The image will be subjected to various modification techniques such as binarization, deskewing, removing noise etc. for enhancing the text area of the subjected image. After the pre processing stage the image is then subjected to main processing job i.e. to convert image into text. The user also has an option of saving the converted text into a text file that can be used for various purposes.

Acc. No. PR 866 / INFT 401

7) Title: CLOUD BASED STUDENT SUPPORT SYSTEM

Author: Atharva Tere (58)

Shelton Nazareth (38)

Winston Dsouza (17)

Project guide: Ms. Vandana Patil

Keywords:

Abstract: The aim of the project “**CLOUD BASED STUDENT SUPPORT SYSTEM**” is to automate college administration system across colleges for students over unified cloud system by providing them facilities to compute their attendance, percentage and avail of real time college related notifications. A major focus of this project is to facilitate the communication between college students and various industries interested in campus recruitment. Students often find it difficult to manage administrative things like managing their attendance or to keep track of their percentages. The system proposed here will automate these things so that students will keep getting timely updates about their attendance or any other performance. Teachers can update all the parameters through their own homepage that too in real time. Another important thing that students come across in their life is the placement procedure which is quite tedious as there is no automation and a large amount of data is to be managed. This system will give a customized homepage to industries interested in campus placement to get information about students in many colleges. HR representatives can directly contact students they are interested in and set up interviews.

Acc. No. PR 851 / INFT 386

8) Title: College Feedback System

Author: NITIN SALVANKAR 091092

POOJA SHAH 091096

HARSHIL PATEL 091078

Project guide: Mr. Mahesh Mali

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. There will be hierarchical level of security where in the higher levels will have access to all the lower levels 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.

Acc. No. PR 863 / INFT 398

9) Title: Compression of Softwares and Online Automatic Update

Author: Mr. Hussain Delhiwala 101254
 Ms. Shraddha Pawar 091103
 Ms. Gauri Prabhu 091081

Project guide: Ms. NITIKA RAI

Keywords:

Abstract: Windows has a line of operating systems produced by Microsoft for use on personal computers, including home and business desktops, notebook computers, and media centers. Windows is known for its improved stability and efficiency over the 9x versions of Microsoft Windows. It presents a significantly redesigned graphical user interface, a change Microsoft promoted as more user-friendly than previous versions of Windows. But after a computer is booted an end user has to spend plenty of hours installing all necessary applications and clicking on next button every time a dialog box appears which is annoying and time consuming and completely user dependent. The CD or any portable device contains a hypertext application (Wizard) designed for users. They can choose the software as per their requirement. The CD contains softwares in compressed form. At the time of installation, softwares can be custom configured or optionally automatic. A manual is also provided as a help file to guide the user.

Acc. No. PR 859 / INFT 394

10) Title: Data mining to improve personnel selection and enhance human capital: A case study in high-technology industry

Author: Ernest Pimenta (49)
 Keval Shah (59)

Project guide: Mr. Pramod Shanbhag

Keywords:

Abstract: The quality of human capital is crucial for high-tech companies to maintain competitive advantages in knowledge economy era. However, high-technology companies suffering from high turnover rates often find it hard to recruit the right talents. In addition to conventional human resource management approaches, there is an urgent need to develop effective personnel selection mechanism to find the talents who are the most suitable to their own organizations. This study aims to fill the gap by developing a data mining framework based on decision tree and association rules to generate useful rules for personnel selection. The results can provide decision rules relating personnel information with work performance and retention. An empirical study was conducted in a semiconductor company to support their hiring decision for indirect labors including engineers and managers with different job functions. The results demonstrated the practical viability of this approach.

Acc. No. PR 846 / INFT 381

11) Title: DEEP WEB DATA EXTRACTION FOR INDIVIDUALS

Author: PRITTI DINIS (11)
 PRECILLA LOUIS (32)
 ROSHNI JOSEPH (33)
 RAYLISA VAZ (60)

Project guide: MS. GRINAL TUSCANO

Keywords:

Abstract: World Wide Web has more and more online Web databases which can be searched through their Web query interfaces. All the Web databases make up the deep Web (hidden Web or invisible Web). Often the retrieved information (query results) is enwrapped in Web pages in the form of data records. These special Web pages are generated dynamically and are hard to index by traditional crawler based search engines, such as Google and Yahoo. Deep Web contents are accessed by queries submitted to Web databases and the returned data records are enwrapped in dynamically generated Web pages (they will be called deep Web pages in this paper). Extracting structured data from deep Web pages is a challenging problem due to the underlying intricate structures of such pages. Until now, a large number of techniques have been proposed to address this problem, but all of them have inherent limitations because they are Web-page-programming-language dependent. As the popular two-dimensional media, the contents on Web pages are always displayed regularly for users to browse. This motivates us to seek a different way for deep Web data extraction to overcome the limitations of previous works by utilizing some interesting common visual features on the deep Web pages. In this project, a novel vision-based approach that is Web-page programming- language-independent is proposed. This approach primarily utilizes the visual features on the deep Web pages to implement deep Web data extraction, including data record extraction and data item extraction. We also propose a new evaluation measure revision to capture the amount of human effort needed to produce perfect extraction. Highly accurate experimental results provide strong evidence that rich visual features on deep Web pages can be used as the basis to design highly effective data extraction algorithms.

Acc. No. PR 861 / INFT 396

12) Title: DYNAMIC THUMBNAILS

Author: Mr. Noel Faroz (18)

Mr. Neeraj Fernandes (20)

Mr. Albert Cosme Monteiro (36)

Project guide: Ms. Vandana Patil

Keywords:

Abstract: The whole idea how operating systems are designed is constantly changing. Different companies always strive to make their operating system more interactive and user friendly, along with keeping it simple. This is not a very easy task to be done, since operating systems involve various aspects such as the look of the icons, the browsers, etc. In this project we change the way in which we view files. The conventional thumbnail allows us to get a very brief knowledge of what the particular folder contains. Dynamic Thumbnails allows us to view more detail of the contents of the folder. It allows us to do so without having to open the folder at all. We use Visual Studio to create a new Explorer using vb.net technology. Application of this explorer allows us to make the whole interface of an operating system more interactive and interesting. In this task, we must first study the computer language called vb.net. This is an important step as Dynamic Thumbnail Explorer is written

in vb.net. Along with vb.net, DotnetBar is also used to create Metro User Interface. The Dynamic Thumbnails system to be developed consists of an option where in the user can choose whether he wishes to turn on or turn off dynamic thumbnail previewing on offset. User has the privilege to also turn off Image gallery as well. Application also bags in with various other features such as Web Browser, Themes, and Changing Views etc. The application helps in browsing web within the application itself without having the need to switch between windows. A variety of themes are available to user for his/her comfort. Three different kinds of folder views are also made available to user.

Acc. No. PR 855 / INFT 390

13) Title: E-COMMERCE PLATFORM DEVELOPEMENT

Author: MALLIKA NAIK (37)

RUSSEL GONSALVES (23)

NEEL PAL (39)

MITESH KENI (30)

Project guide: Mr. VAIBHAV KALA

Keywords:

Abstract: Based on our understanding of kaya skin clinic's requirements the work will be divided into the following categories: a. E-Commerce Integration with the current website

b. E-Commerce Integration via Social Media Webchutney proposes using the existing Drupal framework. From the current website, sections would be integrated to the E-commerce module. The evolved website will then have a separate Shop Online section + Cross references to buy online from sections like Services, Products and Kaya Smiles. The tasks involved broadly cover: □□Re-structuring the database □□Re-structuring the Information Architecture □□Fresh Design for E-Commerce Section to meet the desired user experience

□□Front End integration □□Back End development of proposed modules and: □□Integrating the sections of current website with E-Commerce □□Data Entry □□Development of tools and applications □□Social Media Integration for E-Commerce. The website modules will be developed keeping in mind the brand guidelines, identity and desired look & feel. The designs and technical development of the modules will be undertaken by Webchutney. The website will be built with W3C standards and basic web-norms will be considered during each phase of project life cycle. The modules will be built taking into account compatibility and integration with the existing framework.

Acc. No. PR 854 / INFT 389

14) Title: Foreign Object Detection using image processing and data mining techniques

Authors: Daryl Rodrigues 52

Georgio Cheruvelil 07

Dwayne Fernandes 24

Prathamesh Chodankar 09

Project Guide: Mr. Pramod Shanbhag

Abstract: The project 'Foreign object detection using Image processing and data mining techniques' is an in house project. The aim of our project is to provide a mechanism by which we can detect the non-registered cars for a given parking lot and prohibit them from parking in the respective area.

A vehicle is recognized by the ANPR systems and immediately a search is triggered in the database to check if the vehicle exists in the database or not. The search is made efficient by using data mining techniques. Depending on the result of the search, the vehicle is allowed/not allowed to park.

Acc. No. PR 835 / INFT 370

15) Title: FORGERY DETECTION USING MOTION BLUR ESTIMATION

Author: Ms. Himani Desai (16)
Ms. Sneha Salvi (56)
Ms. Dhvani Zatkia (64)

Project guide: Prof. Joanne Gomes

Keywords:

Abstract: The widespread availability of photo manipulation software has made it unprecedentedly easy to manipulate images for malicious purposes. Image splicing is one such form of tampering. In recent years, researchers have proposed various methods for detecting such splicing. Some of these techniques use statistics and measures which are robust to blurring. This work implements a novel method presented in [2] of detecting splicing in images, using discrepancies in motion blur. It uses motion blur estimation through image gradients in order to detect inconsistencies between the spliced region and the rest of the image. When motion blur is introduced into a spliced image it is done depending on the perception of the person creating forgery and hence it is unlikely to be completely consistent with the blur in the rest of image. This work uses this fact to present a solution to this tampering detection problem. This work uses motion blur to develop a new measure to assist in inconsistent region segmentation in images that contain small amounts of motion blur. This algorithm will provide good segmentation of regions with inconsistent motion blur and help in detecting if image if forged.

Acc. No. PR 837 / INFT 372

16) Title: GRAPH MINING USING GSPAN ALGORITHM

Author:

MR. RUFUS D'SOUZA
MS. NAKITA FERNANDES
MR. HARSHAL PATIL
MR. NELSON PINTO

Project guide: Ms. NAZNEEN ANSARI

Keywords:

Abstract: Data mining is the analysis step of „Knowledge Discovery in Databases“ process. It is the process that results in discovery of new patterns in large databases. Data mining utilizes methods from Artificial intelligence, statistics and databases management systems. The main objective of mining is to process the raw data in human understandable format. Structure mining or structured data mining is the process for finding and extracting useful information from semi- structured data sets. The growth in use of semi-structured data sets has created new opportunities in field of data mining. Graph Mining is a powerful method to represent the data. As the name suggests the output of this type of mining is in the form of graphs. There are many methods for pattern mining in graphs; the most frequently used are Apriori-based approaches like the frequent sub graph (FSG), etc. Pattern Growth approach is an upcoming technique for Pattern mining. GSPAN algorithm is based on this approach. GSPAN is a Graph- Based Substructure Pattern Mining algorithm that uses Depth first search trees. Our project will implement the Gspan algorithm for Graph mining. In the proposed system, a set of data sets e.g. supermarket will be first represented in the form of graphs. The graph will have a canonical DFS code. This code will be the same for its isomorphic subgraph. Then there will be construction of a tree using depth first search algorithm. Using gspan we will try to derive the best results in the set. The advantages of using Gspan is that it eliminates the duplicates candidates hence saving time for processing and is cost efficient.

Acc. No. PR 864 / INFT 399

17) Title: HANDSFREE MOUSE ACTION FOR DISABLED PEOPLE

Author: Alcina Dcunha (13)
Neel Chitalia (08)
Claudia D'souza (20)
Anju Tuscano (62)

Project Guide: Ms. Minal Lopes

Keywords:

Abstract: The design of traditional interfaces relies on the use of mouse and keyboard. For people with certain disabilities, however, using these devices presents a real problem. This project is an attempt to develop a Motion tracking and Speech recognition for hand free mouse-pointer manipulation for disabled people. Movement of the pointer is achieved by tracking the motion of the head, while button-actions can be initiated by issuing a voice command. Foremost in our mind was the goal to make our system easy to use and affordable, and provide users with disabilities with a tool that promotes their independence and social interaction.

Acc. No. PR 834 / INFT 369

18) Title: Implementation of Controlling IP Spoofing Using Inter Domain Packet Filters (IDPF)

Author: Ronika Kapadia 091086
Royson Mendonca 091088
Ravi Trivedi 091084
Viraj Kelbaikar 091116

Project guide: Ms. Amrita Mathur

Keywords:

Abstract: Various IP spoofing based attacks are a serious threat to the legitimate use of the Internet. Prevention mechanisms are thwarted by the ability of attackers to forge or spoof the source addresses in IP packets. By employing IP spoofing, attackers can evade detection and put a substantial burden on the destination network for policing attack packets. This can be overcome by an interdomain packet filter (IDPF) architecture that can mitigate the level of IP spoofing on the Internet. A key feature of the scheme is that it does not require global routing information. IDPFs are constructed from the information implicit in Border Gateway Protocol (BGP) route updates and are deployed in network border routers. The condition under which the IDPF framework correctly works is that it does not discard packets with valid source addresses. Extensive simulation studies have shown that, even with partial deployment on the Internet, IDPFs can proactively limit the spoofing capability of attackers. In addition, they can help localize the origin of an attack packet to a small number of candidate networks.

Acc. No. PR 849 / INFT 384

19) Title: Implementation of Principle Component Analysis(PCA) and Singular Value Decomposition(SVD) in facial expression detection

Author: Steffi Chettiar (06).
Sania Gonsalves (22)
Sherin Samuel (54)
Swapnil Solanki (56)

Project guide: Ms. Grinal Tuscano

Keywords:

Abstract: Even after more than two decades of input device development many people still find the interaction with computers an uncomfortable experience. Efforts should be made to adapt computers to our natural means of communication: speech and body language. Our aim is the proposal of a real time vision system for its application within visual interaction environments through facial expression detection using general-purpose hardware and low cost sensors, like a simple personal computer and an USB web-cam. The basis of our project is to develop a system which extracts the face portion from the image supplied by a web-cam and recognize the expression.

Acc. No. PR 860 / INFT 395

20) Title: Instrumental Music Maker Using CMAC

Author: Janice Alisha D'Souza (21)
Brian D'Souza (19)

Paras Dedhia (14)

Project guide: Ms. Vaishali Jadhav

Keywords:

Abstract: An Instrumental Music Maker Using CMAC (Cerebellar Model Articulation Controller) is software designed to convert any audio file into an instrumental one. The objective of audio source separation is to separate sound mixtures into individual streams based on the sources. It has many potential applications, one of which is in a system for perceptually-based search and retrieval of audio data from multimedia databases. The architecture of the system is based on a cerebellar-based (CMAC) fuzzy neural network. It is a class of sparse coarse-coded associative memory algorithms that mimic the functionality of the mammalian cerebellum. A fuzzy neural network is a learning machine that finds the parameters of a fuzzy system (i.e., fuzzy sets, fuzzy rules) by exploiting approximation techniques from neural networks. The Instrumental Music Maker to be developed consists of modules like pitch estimator, signal reconstruction and component cancellation. The system consists of a multimedia database which includes samples of each of the different musical instruments used to compose a song. The system then compares the input audio file with the database and selects the appropriate instrument from it and finally generates an instrumental song.

Acc. No. PR 836 / INFT 371

21) Title: INTELLIGENT ERP PACKAGE FOR COLLEGE

Author: Manoj.R.Mandhan	42
Welborn Machado	40
Pallavi Hariyan	32
Jamie Lobo	38

Project guide: Mrs. Nazneen Ansari

Keywords:

Abstract: The ERP system is developed for a virtual college wherein several isolated modules such as OFFICE, EXAM CELL, ACCOUNTS, PLACEMENT CELL, and I.T DEPARTMENT are interconnected at one particular system. One of the advantages of this system is that all the employees either working or non-working from the different modules get access to the data i.e. the integrated data, as per their designation and requirements. The college uses this integrated data for its analysis and decision-making. Integration of ERP and BI helps to create a Computer-based system designed to process an organization's transactions among different modules to facilitate integrated and real-time planning and progress of the college. Business intelligence helps in generating information in order facilitate decision making by making dashboards or to assist with other aspects of someone's job. The system gives administrator the right to decide the data and services of the system the guest should or should not be able to access. This system is a first time venture in our college and is an attempt to improve the management and flow of data in college.

Acc. No. PR 843 / INFT 378

22) Title: iSearch-Search Around The Web

Author: Vineet D'cunha (Roll No 09)
Sheldon D'mello (Roll No 12)
Vivek Henriques (Roll No 26)

Project guide: Mr. Mahesh Mali

Keywords:

Abstract: The project proposes and implements a GPS Aided Photo Search System to identify landmarks through their photos captured by phone cameras. User need to take a picture of the landmark he/she wants to know with Android phone and upload the picture to our system. In the project we describe an image-based approach to finding location-based information from camera-equipped mobile devices. We introduce a point-by-photograph paradigm, where users can specify a location simply by taking pictures. Our technique uses content-based image retrieval methods to search the web or other databases for matching images and their source pages to find relevant location-based information. In contrast to conventional approaches to location detection, our method can refer to distant locations and does not require any physical infrastructure beyond mobile internet service & simply a web service for information store. Also the Google API can be used to display navigation for the specified image - location on the Google maps.

Acc. No. PR 847 / INFT 382

23) Title: ISSUE TRACKING SYSTEM

Author: Dharmendra Vishwakarma 091117
Sumit Jain 091108
Swanand Wagh 091110
Steffi Chettiar 091106

Project guide: Ms. Nitika Rai

Keywords:

Abstract: The project 'Annual Maintenance Contract (AMC) System for Computers' is an in-house project. AMC Desk is a proven, comprehensive, yet cost effective and user friendly service management software solution tailor-made for the services division of an organization. The AMC Management System is a web based application that can be accessed throughout the organization. This system can be used for logging flaws against a module, assigning flaws to individuals and tracking the flaws to resolution. There are features like email notifications, user maintenance, user access control, report generators etc. in this system. The software is fully integrated with CRM (Customer Relationship Management) and developed in a manner that is easily manageable, time saving and relieving one from manual works Apart from online complaint registry mechanism, complaint scheduling to the service engineer both through email and SMS, quotation generation, information on offers and schemes to customers both over mail and SMS, AMC renewal reminders including AMC/Warranty form creation, product information to customers and MIS reports like AMC Renewal, service history, employee productivity etc., are available to

enhance customer satisfaction. The existing system is made more efficient by housing additional functionalities and improved technologies. Depending on the issue, appropriate invoice is generated and delivered to customer.

Acc. No. PR 853 / INFT 388

24) Title: ITSA PORTAL

Author: MR. SIDDHARTH MEHTA
MR. KEITH MENEZES
MR. VIKAS KHINCHI
MR. JASON GODHINHO

Project guide: Mr. VAIBHAV KALA

Keywords:

Abstract: In any community there is a need of proper management of information. Also there is a need of an efficient mechanism by which notifications regarding the events organized in the community, activities carried out by the community and general messages can be sent to the members irrespective of their physical location. Similarly the IT department of SFIT is a community and like any other community it needs to be connected. One way of being connected is by sharing of information and that is where our community portal comes into the picture. "Portal" has in the recent two years become an increasingly popular term being mentioned and discussed in the IT sector and many organizations. In short, it is a web system that provides the functions and features to authenticate and identify the users and provide them with an easy, intuitive, personalized and user-customizable web-interface for facilitating access to information and services that are of primary relevance and interests to the users. The portal for IT department will have all essential information that an IT student at SFIT could use not only during his Four years of engineering but also during the later stage of his IT career. The organization of this dissertation report is as follows:

Chapter 1: Introduction This chapter presents a brief introduction about the Itsa Portal. This includes description, problem formulation, relevance, scope and objective of the project. **Chapter 2: Review of Literature** This chapter presents literature review of various technologies used in development of the portal. **Chapter 3: System study and Analysis** This chapter presents the information regarding the proposed system, requirement analysis and requirement specification. **Chapter 4: Analysis Modeling** St. Francis Institute of Technology, Mumbai -103 2012-2013 This chapter presents the overall view of working of the project in the form of diagrams like Deployment diagram, Functional Modeling and TimeLine Chart. **Chapter 5: Design** This chapter presents the details about the Architectural Design and User Interface Design. **Chapter 6: Implementation** This chapter presents the in-depth information about the Implementation and Working of the project. **Chapter 7: Results and Discussions** This chapter presents the results and discussions of the output of the project in the graphical format. **Chapter 8: Conclusions** This chapter presents the conclusions inferred from the results obtained after the implementation of our project. **Chapter 9: Future Scope** This chapter suggests the future scope of the project-'ITSA Portal'.

Acc. No. PR 845 / INFT 380

25) Title: Multimedia Enabled Virtual Classroom For Distance Education

Author: Mr. Pinank Ketan Dagli (Roll No: 08)
Mr. Vivian Brian Lobo (Roll No: 31)
Ms. Niral Pravin Rawal (Roll No: 46)

Project guide: Ms. Vandana Patil

Keywords:

Abstract: The intricate construction of online educational systems lies within three principal activities: Design, Implementation and proper Post-implementation Assessment. There is not enough knowledge or experience in those aspects. Efficient execution of these three major activities necessitates the use of design and educational models to achieve the

Cost and time efficiency, as well as high academic quality. Utilization of online educational systems would benefit from a structured approach to design, implementation, and student's assessment. We propose a general formulation of model as well as a framework for finding such patterns, so that it can improve the online educational systems for both teachers and students – allowing for more accurate assessment and more effective evaluation of the learning process. E-learning is one of the emerging needs of the information age. Therefore a lot of potential is seen in distance learning development. Virtual environment interface to E-learning systems have recently appeared on the Internet. Using virtual reality environment, the applications appear to be promising to E-learning tasks more nature and interactive. Also for Future Scope, using this technology, it is possible to get a sense of three dimensional environments and level of user immersion. Extensible 3D (X3D) is the most common tool for building 3D viewing and browsing of e-learning systems. In this project the benefits of virtual reality environment using X3D in e-learning applications are demonstrated.

Acc. No. PR 848 / INFT 383

26) Title: NETWORK MONITORING

Author: Mr. Anvay Walavalkar (63)
Mr. Barry Rumao (54)
Ms. Careyann Rodrigues (51)
Mr. Conrad Pinto (50)

Project guide: Prof. Joanne Gomes

Keywords:

Abstract: Network Monitoring is an application which is primarily aimed at monitoring the LAN network of any organization who wants to enforce explicit control over their clients, employees or students. It also enhances the capabilities of the network administrators to enforce certain restrictions on their users, monitor continuously the content that their clients are having access to by grabbing their screenshots after a certain time interval. It is capable of operating in any type of network environments. The features of this project are that it enables the administrator to monitor the clients PC's as well as start, stop and kill client process. This application can also be used for E-learning purposes. E-learning is a process wherein the server activities can be viewed by one/all/few client systems. This is achieved by reversing the process of monitoring and enabling the clients to only views the server screen.

This concept motivated us to develop software with dual purpose - Network Monitoring as well as E-Learning.

Acc. No. PR 839 / INFT 374

27) Title: ONLINE CROSS PLATFORM APPLICATION DEVELOPMENT SUITE

Author: Mr. Hatim Dahodwala (12)
Mr. Pranav Desai (17)
Mr. Nishad Gurav (31)

Project Guide: Prof. Joanne Gomes

Keywords:

Abstract: Online Cross Platform App Development Suite provides a solution for developing an application for various different mobile operating systems, i.e. development of an application in cross platform environment. This enables developers to write code once and use it to quickly build apps for every major smart phone thus reducing development effort. Core Technologies that developer will require to know to develop mobile applications include HTML5, CSS and JavaScript. Every developer will have a profile to easily manage his projects. Application developed will be converted to native application using CORDOVA Framework. Developed applications can be published on app markets. We propose to take the development platform online by using open web technologies thereby making it easily accessible. Using Cross platform frameworks for development has shown considerable cost reductions. These findings can be used to further reduce cost by taking the platform to the cloud.

Acc. No. PR 830 / INFT 365

28) Title: Opinion Miner

Authors: Ankita Mande
Gauri Patekar
Ami Desai
Anusha Fernando

Project guide: Ms. Vaishali Jadhav

Abstract: Generally, search engine retrieves information using Page-Rank, Distance vector algorithm, crawling, etc. on the basis of the user's query. Page-Rank is a link analysis algorithm used by the Google internet search engine which assigns a numerical weighting to each element of a hyperlinked set of documents, such as the World Wide Web. Its purpose is to measure the relative importance within the set. A web crawler is a computer program that browses the World Wide Web in a methodical, automated manner or in an orderly fashion. But the problem involved is that the links retrieved by the search engine may or may not be exactly related to the user's query. The user has to check all the links to know whether the needed information is present in the document. Thus it becomes tedious and time consuming.

The proposed tool 'Opinion Miner' focuses to cluster different documents based on subjective similarities and dissimilarities. It uses on the concept of opinion mining based on k-means algorithm and distance measure based on term frequency & web document frequency. Opinion mining refers to the application of natural language processing, computational

linguistics, and text analytics to identify and extract subjective information in source materials. It takes an opinion from the user on the results given by search engine in different web documents in response to user's multiple queries. It downloads the pages in background, which saves user's time for searching some particular information. Thus it provides best results for the precise search by giving a mined search links. The working of Opinion Miner involves keyword extraction, key word clustering, web document clustering and web document categorization. This tool help user to easily extract relevant data by giving an opinion in three categories such as positive, negative or neutral.

Acc. No. 832 / INFT 367

29) Title: Palm Print Recognition

Author: Yash Wagle	(091119)
Vikrant Cornelio	(091113)
Nihal Sequeira	(091070)
Ronak Shah	(091097)

Project guide: Mrs. Grinal Tuscano

Keywords:

Abstract: Palmprint-based personal identification, as a new member in the biometrics family, has become an active research topic in recent years. The rich texture information of palmprint offers one of the powerful means in the field of personal recognition. In this paper, a novel approach for handprint identification is proposed. This idea inspired us to implement a well known linear projection techniques, namely Principle Component Analysis (PCA) to extract the palmprint texture features. Firstly, region of interest is segmented through hand's key point's localization, and then PCA algorithm is used to extract the palmprint features. A hierarchical neural network structure is employed to measure the degree of similarity in the identification stage. Experimental results show that the designed system achieves an acceptable level of performance.

Acc. No. PR 858 / INFT 393

30) Title: PASSWORD KEY TRANSFERING IN STEGANOGRAPHY METHODS BY CAPTCHA THROUGH MMS TECHNOLOGY

Author: Prachi Fargose	(25)
Blessina Gonsalves	(30)
Benita Pereira	(48)
Jolita Rodrigues	(53)

Project Guide: Prof. Minal Lopes

Keywords:

Abstract: The Multimedia Messaging System (MMS) allows a user of a mobile phone to send messages containing multimedia objects, such as images, audio or video clips. On the other hand establishing hidden communication is an important subject of discussion that has gained increasing importance nowadays with the development of the Internet. One of the methods introduced for establishing hidden communication is steganography. Therefore

steganography in MMS is an interesting idea. One of the problems in steganography methods is the security of transferring password key used for steganography between sender and receiver of secure data. In this paper a new method is proposed for solving this problem using CAPTCHA method through MMS messages. In this method the password key is spoken in an audio file and the data are hidden in the image by this password key. Then the image and audio files are inserted in a MMS message and sent to the receiver. Therefore the human receiver can recognize the password from the audio file and extract the data from the image using this password, but the computer cannot recognize the spoken word from the audio file and extracting the password. By this method the user does not need to memorize any password for extracting the data. This method has been implemented in J2ME programming language.

Acc. No. PR 833 / INFT 368

31) Title: QUALITY OF SERVICE FOR NEXT GENERATION NETWORKS

Author: Anna Asir Banisha M.A. (03)
Indu Iyyunny (33)
Susan Amala Celes (60)
Thazhatha Joyna Joy (61)

Project guide: Ms. Minal Lopes

Keywords:

Abstract: The Next Generation Network (NGN) is an IP-based network aimed at supporting the still growing use of real-time multimedia applications on a wide variety of infrastructures, from mobile to fixed. Quality of Service (QoS) is a major part of the NGN, allowing guaranteed bandwidth and assured arrival of packets. This project looks at the Quality of Service solutions both in NGN and in development elsewhere to determine whether these solutions are capable enough to support the requirements set by real-time applications. Our aim is to improve the QoS aspects in the NGN, thereby developing new functions to guarantee performance, offer security, and avoid jitter and to allow the respect of real-time constraints. A network monitoring system must typically be deployed as part of QoS, to insure that networks are performing at the desired level.

Acc. No. PR 840 / INFT 375

32) Title: "Railway Passenger Flow Forecasting"

Author: Ankit Gandhi
Julius D'souza
Maneend Chatrath
Dhwanee Kamdar

Project Guide: Prof. Vaishali Jadhav

Keywords:

Abstract: By analysing the limitation of current passenger flow forecasting approach, we

present a new approach to forecast railway passenger flow based on spatio-temporal data mining. It means that in our project we will check the number, time and place of the passenger tickets and using that information we will reschedule the trains and assign appropriate routes. Our approach first collects spatial and temporal data to form our database. Then this data is pre-processed according to the formats we require. For this pre-processing we will use various techniques such as association, clustering, patterns and correlation. Once we have our pre processed data then we can use this information to forecast time sequence of target object using statistical principles. Then we figure out the spatial influence of neighbouring and finally combine the two forecasting results using linear regression. This will help us to determine the best possible schedule for the trains and hence, we can reschedule the existing ones. Our analysis will use classification, linear regression and summarization with existing approaches that do not consider the spatial influence and temporal influence together; our approach has better forecast accuracy and is much more efficient also.

Acc. No. PR 831 / INFT 366

33) Title: STAFF WELFARE FUND MANAGEMENT SYSTEM

Author: Cleton Fonseca (27)

Diljoy Athaide (04)

Atharva Joshi (34)

Jaimin Shah (58)

Project guide: Mr. Mahesh Mali

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.

Acc. No. PR 842 / INFT 377

34) Title: SOURCE CODE: KEEP IT SAFE AND SECURE

Author: SURYAPRAKASH GUPTA 101262
CHRIS D'SOUZA 081024

PRABESH PRABHU 091080

Project guide: Ms. AMRITA MATHUR

Keywords:

Abstract: A new method for software program protection by information sharing & authentication technique is proposed. In this scheme we will share a secret source program among a group of participants. Each of them holds a camouflage programs to hide a share. Each camouflage program will hold a secret source program, thus resulting in stego-program. Each stego-program will still be compiled and executed to perform its original functionality. The security will be further enhanced by encrypting source program with secret key which not only can prevent the secret program from being recovered illegally but also can authenticate the stego -program provided by each participant. The secret program will only be recovered when all the participant supplies correct stego- program and correct key. During the recovery process we can check the stego-program have been tempered or not incidentally/ intentionally. This scheme can be applied to software programs for copyright protection, secret hiding in software program for covert channel, etc.

Acc. No. PR 856 / INFT 391

35) Title: TWO FACTOR AUTHENTICATION USING BLUETOOTH DEVICES

Author: MR. ABHISHEK PATOLE
MR. AMIT LOPES
MR. ASHISH DUBEY
MR. LOVESON COLACO

Project guide: Mr. Vaibhav Kala

Keywords:

Abstract: Generally a username and password combination is alone used for authentication of the user. But, if due to some circumstances the password is known by an intruder, there no other way to find out if the information is compromised or not. To protect the information another form of authentication should be used to ensure full security. In today's time Bluetooth technology is one of the most popular and most used technology. With the help of Bluetooth present in our mobile devices, the user can be authenticated. The MAC address of the Bluetooth is unique and can be used for authentication. Bluetooth also makes it compulsory for the user to be within 10 meters range of the computer providing added security. A user only has to register his username-password and Bluetooth MAC address to start using this service. Once a user is logged in, he can access his information as usual. If a user walks out of the range, his Bluetooth device will not be detected. Therefore, he is automatically logged out and his information is saved. This web application provides with two factor authentication using a username-password combination and a Bluetooth device. The main features of our web application are: • Registration of the user's MAC address. • Session Management • Resetting the MAC address of Bluetooth. • Automatic logging out and save changes, if Bluetooth device is not detected in range. • Encryption of password and MAC address while saving in database.

Acc. No. PR 838 / INFT 373

36) Title: Voice Enabled Web Browser for Partially Disabled

Author: Mr. Abhinav Vijaykumar
Mr. Aldrin D'Souza

Mr. Keshav Agarwal
Mr. Shreyas Kulkarni

Project guide: Mrs. Vaishali Jadhav

Keywords:

Abstract: Speech Enabled Web Browser is an Internet browser designed for users who wish to access the Internet in a non-visual or combined auditory and visual way. This includes blind or partially sighted users, people with dyslexia or learning difficulties, and users who are learning new languages. A broad range of users, not only those with disabilities, will have enhanced choice, convenience and control in accessing the information age. With increasing technology, people are getting used to comforts. Hence all people due to the ease of use will freely use this browser. It considerably reduces the effort required to type and also the effort required to read. Currently, the speech browsers available for use are few and mostly under-developed. They provide limited functions and are not commonly used. Speech technology has now advanced to the stage where it offers great promise for human-computer interaction in a variety of applications. Applications have to be chosen and engineered very carefully, however, with human factors given full consideration, if real gains are to be achieved. In particular, the early, popular belief that speech was somehow a 'universal' medium – better in all respects than all other media – is too simplistic. At the same time, speech is notable for its absence in current multimedia systems. Speech offers unique advantages over more conventional media. The ultimate goal is an all-purpose system with which one can interact conversationally as we do with one another. For many easily imaginable applications (e.g. interacting with a system in the dark, while one's hands are otherwise occupied, or if one is handicapped or at a remote site), direct speech control over what we otherwise control by keyboard or mouse is essential. But even where keyboard or mouse would be accessible, their limited fit to human capabilities means that it may be more natural and comfortable to interact conversationally, by speech.

Acc. No. PR 844 / INFT 379

37) Title: Web Vulnerability Scanner

Author: Jatin Bhoir	(66)
Dinesh Choudhary	(65)
Sanket Shah	(67)

Project guide: Prof. Shree Jani

Keywords:

Abstract: Web Vulnerability Scanner (WVS) is a security tool used to analyze the security issues of the web server and web sites. Web Vulnerability Scanner helps the web server administrator to examine and enhance the security of the same. WVS tool is server independent and so can run on any web server i.e. Windows and Linux. It is scripted in PHP language with HTML language used for designing. Because tool is built in PHP, we used advanced functionalities provided in PHP as well as the code and size of tool compact or less. Source Code has been completely encrypted using different PHP encrypting functionalities. This tool can be very much useful for security researchers and also to users having knowledge on how to manually patch vulnerabilities from the web sites and even helps in knowing the security of the web server on which our site has been stored. Besides

some additional tools will be added to check the open ports of the site and scripts to direct upload any format file to the desired location and also change its permission easily. **Web Vulnerability Scanner includes features like:** □ Gives the related security information of web server. □ Simplified File Manager view. □ Console provides various Windows and Linux functionalities. □ Port Scanner will give the information of all opened ports on the web server.

Acc. No. PR 865 / INFT 400

Project Guide Index:

Name of the Project Guide	Serial Number
Amrita Mathur	5, 18, 35
Grinal Tuscano	2, 11, 19, 29
Joanne Gomes	15, 26, 27
Mahesh Mali	8, 22, 33, 34
Minal Lopes	17, 29, 31
Nazneen Ansari	1, 4, 16, 21
Nitika Rai	3, 9, 23
Pramod Shanbhag	10, 14
Shree Jani	6, 37
Vaibhav Kala	13, 24
Vaishali Jadhav	20, 32, 36
Vandana Patil	7, 12, 25