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LEARNING AND INFORMATION RESOURCE CENTRE

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ABSTRACTS

Title : GRADIENT BASED IMAGE QUALITY ASSESSMENT

Author: SWAPNA A, PRATIK MAHAJAN

Project Guide: MR.SANTOSH CHAPANERI

Abstracts: Objective quality assessment has been widely used in image processing for many years. The Structural Similarity (SSIM) is used, under the assumption that the HVS is highly adapted for extracting structural information from a scene, and simulation results have proved that it is better than PSNR (or MSE). But SSIM deficiency is that all pixel locations are considered to have same importance. Hence FSIM was introduced where it gives importance to visual information along with structural information which is the main criteria according to HVS, but unfortunately the mathematical computation is difficult which gave rise to the development of GSIM. GSIM overcame the drawbacks of both SSIM and FSIM but it has a drawback that chromatic information is not accounted hence, there was development of an improved method which is called Edge-based Structural Similarity (ESSIM). Experiment results show that ESSIM is more consistent with HVS than PSNR, SSIM, FSIM and GSIM as

it is mathematically easy to compute, it considers the chromatic information and edges are given more importance as compared to other positions.

Acc.No.PR1620

Title : Truth Discovery using Gaussian Truth Model

Author: Umang Bhatt, Viraj Dhuru, Rochelle Fernandes

Project Guide: Dr. Deepak Jayaswal

Abstracts: In this era of big data, the online user generated content grows exponentially. This data is generated through a variety of channels such as social networks, blogs, etc. The data could be regarding anything from price, votes, height of Mount Everest, etc. An important feature of this data collection is its wide variety i.e. data about the same object can be collected from a variety of sources. Also the data could be from spammers or other faulty sources. For example, the top search results returned by Google for the query 'the height of Mount Everest' include '29,035 feet', '29,002 feet', '29,029 feet' and so on. Among these pieces of noisy information, which one is more trustworthy or represents true facts? Unfortunately, there is no guarantee for the correctness of the information obtained. To tackle this problem, truth discovery i.e. identification of true values is vital. Hence, we implement a truth discovery algorithm to find the true values from conflicting sources. Based on Bayesian probabilistic model, we implement Gaussian Truth Model (GTM) which considers the dependencies among source quality, truth and claimed values. Results obtained for the datasets show that our algorithm works better than existing methods.

Acc.No.PR1616

Title : Propeller LED Message Display

Author: Lenin Fonseca, Vinit Gaikar, Arunlal Gupta, Rollins Miranda

Project Guide: Ms. Pallavi Patil

Abstracts: The Propeller LED Message Display works on the principle of an optical phenomenon called the persistence of vision which works in the background to reproduce a sequence of visual images in a motion picture. Most of the existing display grids consists of large number of LEDs and hence consume a lot of energy. In the present work, virtual grids are used in order to reduce the number of LEDs. Virtual grids are formed by placing eight LEDs serially on a propeller. The propeller is subject to rotation at high speed to create virtual grids for displaying short messages which can be used in advertising and in marketing campaign as a display device. As compared to the conventional dot-matrix displays the POV display consumes less power.

Acc.No.PR1622

Title : Implementation of Electric Bill Estimator and IoT based Appliance Monitoring System

Author: sangram nalawade, shreyas patel, vikas mishra, dev shah

Project Guide: Ms. MONIKA CHEEMA

Abstracts: Electrical energy consumption analysis plays a major role towards improving energy efficiency and deciding the cost of energy use. The existing model gives an automatic energy meter reading and instant billing based on GSM technology. Internet of Things (IoT) is an emerging field and with rapid technological advancements, IoT based smart systems are being developed in various fields. The main idea of the proposed project is to monitor the power consumption at appliance level, upload it on the server and establish the remote control of any appliance through the mobile application via IoT cloud. The proposed system calculates the power consumption of various electrical devices and respective cost using a micro-controller and displays it on user device application. The user can analyze the power consumed by an electrical appliance and can control the appliance via mobile application, which helps in energy conservation. Thus, using advanced technology such as IoT, more energy efficiency can be achieved.

Title : Generic Dual Band Impedance Transformer

Author: Kaustubh Prabhu, Pallav Rathore, Shaun Rodrigues, Gautami Satgouda

Project Guide: Mr. Inderkumar Kochar

Abstracts: To block unwanted signal or interference, to improve the overall circuit performance, remove spurious response and to enhance selectivity, an impedance transformer with an inherent and
selectable transmission zero is synthesized. The considered load has unequal complex impedances at two uncorrelated frequencies. To implement the required impedance transformer, a transmission line, two shunt stubs and an N stage T network are used. The parameters of the transmission lines and stubs are so chosen that neither extremely high nor extremely low values will be obtained. The use of a well-designed T network improves the low-frequency impedance bandwidth. The dual-band transformer with a transmission zero has been fabricated on an FR-4 substrate and tested using a Vector Network Analyzer.

Title : Asymmetrical Dualband Microstrip Bandpass Filter

Author: Eroal Dabre, Rohit Devadiga, Gerald Lopes,

Project Guide: MR. INDERKUMAR KOCHAR

Abstracts: Microwave filter design remains a fascinating field for research despite number of methods being available for it. Current research is driven by the need to fabricate filters within a limited space with cost constraints. Modern wireless devices supporting multiple services require the use of multiband bandpass filters with the possibility of asymmetric frequency response. In this project, we intend to design an inexpensive asymmetric dual-band Bandpass filter using microstrip lines and coupled lines based on Modified Richards Transformation. The filter is been implemented on an FR4 substrate and its performance is been validated through measurements on an appropriate Vector Network Analyzer.

Title : Harmony Search for Feature Selection in Speech Emotion Recognition

Author: Pankaj Chauhan, Gaurang Date, Neha Nagarkoti

Project Guide: Mr. Kevin D'souza

Abstracts: Selecting significant features out of large dimensions of the original speech features is an integral part of accurate speech emotion recognition. In this paper, we proposed an automatic speech emotion classification system based on a harmony search algorithm as a feature selection strategy. First, an audio signal is divided into small frames of 20 ms and MFCC features are extracted from each frame to generate an original feature set. We employed Harmony search to derive local feature subsets for each pair of emotions. Selected subsets and original sets evaluated based on 10 fold cross-validation accuracy. Finally, each local feature subset is fed to corresponding one-against-one SVM classifier, and the majority voting method is used to classify each emotional recording. Experiments are conducted on the EMODB and IITKGP-SEHSC databases, demonstrating that size of each subset reduced to 50% of the size of original feature set, however, the accuracy remained almost same as original ones.

Title : Reduction of Noise Content in Video Signals

Author: Akshata Bhat, Revati Ghorpade, Shruti Naik

Project Guide: Mr. Vaqar Ansari

Abstracts: Elimination of noise content from the video signal is one of the fundamental operations to be performed in order to enhance the quality of the video signal. Videos, being a series of frames, transmitted continuously at a specified rate depict the motion of an object by virtue of persistence of vision of the human eye possess strong correlation between pixels of the neighboring frames, as well as adjacent pixels in the same frame. Thus, in order to determine the position of pixels in the frames, distance calculation is necessary.
Unlike the commonly preferred Euclidean Distance Method or the City Block Distance method, the Quaternion representation involves estimation of the color difference in the RGB color plane. This along with the luminance differences are combined to obtain the distance between two pixels in the neighboring frames. These Quaternions are the vector representation of pixels in the 4D plane, but its application in this implementation is limited to the RGB plane. This along with the luminance differences which are calculated based on the intensities of the pixels are combined to obtain the distance between two pixels in the neighboring frames.
Denoising the frames affected by impulse noise is achieved by the applying threshold to the contaminated frames whose color distance is calculated by the proposed method. The pixels declared noisy on this basis are eligible for further processing while the noise-free pixels remain unaffected. For the treatment of the noisy pixels, median filter in 3D space is applied along with the concept of weights whose assignment depends on the proximity of the neighboring pixels from the current one. Further, criteria like PSNR and MAE are computed to determine the accuracy of the obtained results.

Title : PRINTING FROM A USB FLASH DRIVE WITHOUT USING PC

Author: NEETA SANCTIS, HISHAM AHMAD, DEEPIKA SENGUPTA, GAURAV RODRIGUES

Project Guide: Ms.SAVITA KULKARNI

Abstracts: USB data transfer is widely used in present scenario. But PC (Personal Computer)/Laptop is required to transfer USB data. It is not possible to carry PC/LAPTOP everywhere. In this project USB to USB data transfer is achieved without involving PC/LAPTOP. Raspberry pi is used for data transfer. The system is also capable of printing the data directly from USB. LCD (Liquid Crystal Display) is configured for displaying the result. A Hex Keypad is used for selecting the type of operations such as copy, paste, print, delete etc. Being portable and battery operated is an added advantage of this system. It is an embedded solution to a practical problem. Also, we can send the data over the internet by connecting our USB Bridge to the internet.

Acc.No.PR1634

Title : Image Resolution Enhancement using Deep Learning

Author: Drishti,Rao, Rohan,Suresh, Stefen,Rosario, Swapnil,Samant

Project Guide: Dr. Ravindra Chaudhari

Abstracts: The purpose of this proposed work is to produce an image of higher quality with higher resolution compared to the original input image, using Super Resolution technique for Deep Learning. Deep learning is a standard machine learning model which needs to be taught to make an accurate prediction based on the given inputs. Deep learning enables the computer to resolve this task by breaking the desired complicated mapping into a series of nested simple mappings, each described by a different layer of the model. In recent years, supervised learning with convolutional neural networks (CNNs) has seen huge adoption in computer vision applications. Comparatively, unsupervised learning with CNNs has received less attention. The aim of the project is to create a convolutional neural network to obtain a super-resolved image from a single input image. The model thus built shall perform an end-to-end mapping between the low and high-resolution images. It will be based on a convolutional neural network (CNN) that takes the low-resolution input image and produces the high-resolution output image. The network shall be extended to cope with three color channels simultaneously and show better overall reconstruction quality.

Acc.No.PR1635

Title : Music Emotion Recognition Using Acoustic Gaussian Mixture Model

Author:Rutuja Girmal,Jitali Kamat,Sayali Martal,Pooja Nair

Project Guide:Mr. Santosh Chapaneri

Abstracts:Music conveys emotions/moods and arouses them in the listener which is why it is fascinating for people across the world. The music libraries have grown immensely and are easily available due to their digitization in recent times. This has led to a rapid increase in the music information retrieval research for automating systems in order to search and organize music and the related details. Common ways for search and retrieval are using genre or artist for sorting of songs which is easier to quantify and hence received more recognition in music information retrieval. In this work, we describe a generative approach for modelling music emotion while concentrating specifically on the valence-arousal (VA) dimensions of emotion. This generative model, called Acoustic Emotion Gaussians (AEG), considers the subjectivity of interpretation of emotion in a better manner by using probability distributions in the valence-arousal space thus making it possible to customize an emotion based music information retrieval system. It generalizes the mapping of music to emotion. The model can also incorporate additional details such as user feedback using adaptation techniques. It learns

a collection of latent feature classes from the available data to connect the acoustic and the affective Gaussian Mixture Models that are associated with the acoustic and the emotion spaces respectively. The entire process is easy and straight forward. It involves light-weight computations for prediction of emotion and hence can be used in real time for analyzing the distributions of an audio. Thus, this framework can be used for various applications including both general and personalized recognition and music retrieval systems based on emotion.

Acc.No.PR1627

Title : Hand Gesture Recognition in Real Time for Automotive Systems

Author:Dhanvin Mehta, Jay Jani ,Henson Fernandes,Rahila Dhuka

Project Guide:Ms. Shilpa Chaman

Abstracts:In Real Time Hand gesture recognition Automotive interface system (RTHA)using hand gesture recognition is developed to handle the media player in automotive. The system presents some low complexity algorithms and fast gesture recognition scheme to reduce the gesture recognition complexity and be more suitable for controlling real-time media in automotive systems. In this project, a vision-based system is employed to classify the hand gestures for human–machine interface application in the car. Two interconnected modules are employed: one module detects a hand in the region of interaction and performs gesture recognition and another module does the task of selection of music from the media player using Raspberry pi. The feasibility of the system is demonstrated using a challenging RGBD hand gesture data set collected under settings of common illumination variation and occlusion.

Acc.No.PR1628

Title : DESIGN OF PLANAR WIDE STOPBAND BANDPASS FILTER USING MICROSTRIP COUPLED LINES AND STUBS

Author:Benita Ashley, Nishita Asolkar,Peter Baby,Kelvin Castellino

Project Guide:Mr. Inderkumar Kochar

Abstracts:In modern wireless communication systems, bandpass filters with a wide stopband are essential for the design of transceivers. In this project, the design of wide stopband bandpass filter is carried out using microstrip coupled lines and stubs. Multiple transmission zeros are generated by adjusting the electrical lengths of these parallel coupled lines and open-circuited stubs. This allows us to suppress spurious frequencies. Hence there is a control on the position of transmission zeros using this design methodology. To extend the stopband bandwidth, one or more transmission zeros can be distributed on different harmonic frequencies. In this project a wide stopband bandpass filter centred at 1 GHz with suitable

transmission zero/s on a Rogers substrate. The performance parameters of the filter have been measured using a Vector Network Analyzer.

Acc.No.PR1610

Title : Night Vision Robot

Author:Swapnil Shinde, Guddi Tyagi, Amruta Tawde, Tushar Rane

Project Guide:Dr. Gautam Shah

Abstracts:The advent of technology has brought a revolutionary change in the field of robotics. The main objective behind developing this robot is for the surveillance of human activities in the war field or border regions in order to reduce infiltrations from the enemy side. The robot consists of night vision wireless camera which can transmit real time videos of the war field in order to prevent any damage and loss to human life. Military people have a huge risk on their lives while entering an unknown territory. The proposed system has a metal detection module which is used to detect the metals and also it has firing mechanism used to fire the target object. The robot will serve as an appropriate machine for the defense sector to reduce the loss of human life.

Acc.No.PR1632

Title : Cover Song Identification

Author:Dhikesh Karuvankandy, Shreyas Menon, Manoj Molankar, Shyamsundar Gupta

Project Guide:Mr. Santosh Chapaneri

Abstracts:Interest of people in music has been increasing tremendously since ages and the scenario remains the same even today. More and more people have found and acknowledged their love towards music and have contributed a lot towards the development of Music industry. A recent trend has started of singing covers to the original music. “Cover song” is the generic term used to denote a new performance of a previously recorded track. For example a cover song may refer to a live performance, a remix or an interpretation in a different music style. Love for cover songs have increased as people sometimes find it better

than the original track. Our project aims to identify the cover songs available for every track by calculating distance between them. We intend to study the use of DTW for calculating distance and check for its Precision and Accuracy. To improve the Precision, Accuracy and Time complexity we use SiMPle (Similarity Matrix Profile). We first divide songs into subsequences and then find distance between them using MASS (Mueen's Algorithm for Similarity Search) which is the fastest known technique to calculate distance. It makes use of 'subsequence similarity join' which significantly reduces the computational time and provides better results.

Acc.No.PR1617

Title : Movie Recommendations Using Collaborative Deep Learning

Author:Ritesh Sawant, Omkar Sawant, Mukul Veerkar, Tejas Surve

Project Guide:Dr.Deepak Jayaswal

Abstracts:Large amount of options are provided to a user, usually more than one can manually evaluate. Most of this data proves to be redundant for the user as it is not specific to user's choices. This overload of information may cause the user to stop using the service being provided. Recommendation systems came into existence for this purpose of providing user specific information to all the users. Collaborative filtering makes recommendations based on the user's past activities but this method is inefficient when the data is sparse. There are many other methods used in recommendation systems but Collaborative deep learning provides the most precise outputs.

Acc.No.PR1640

Title : INDUSTRIAL GREENHOUSE MONITORING SYSTEM USING WSN

Author:Vishal Shetty, Kadambari Shinde ,Harshada Sawant, Faizan Shaikh

Project Guide:Ms Namrata Mankad

Abstracts:Even though technology has developed to a greater extent, very few technologies are meant for GREENHOUSES which is one of the major concerns as it is related to food which is a basic need for living organisms. Data Acquisition of the environmental parameters is one of the major concerns in a GREENHOUSE. A Wireless Sensor Network (WSN) can be used for this concept which provides a solution for monitoring the environmental conditions precisely. Thus, the intention is to use the concept of WSN for GREENHOUSES which is a network, consisting of few nodes connected in star topology, interfaced using zigbee s1 (IEEE 802.15.4) module having sensors like soil moisture sensor (0 to 100%) , air

temperature (-40 to 80℃) and humidity sensor (0 to 100% RH) to sense the environmental conditions. The data acquired is serially sent to gateway which is connected to internet. With the development in IoT, the data acquired at the gateway is sent to the cloud for storage. The mote is designed & through hardware & software optimization power consumption of the mote is reduced leading to a mote having 8.33% of power required for the mote with zero power optimization. Thus the intention of implementing a wireless network providing optimum profitability, sustainability and protection of land resources was satisfied.

Acc.No.PR1643

Title : Industrial Monitoring using WSN

Author:Hansel Lobo, Sanil Lopes, Sherwin Minez, Aishwaria Pillai

Project Guide:Ms. Namrata Mankad

Abstracts:Industrial monitoring is done conventionally in many manufacturing plants the two conventional monitoring systems are wired monitoring and wireless monitoring. Wireless monitoring is far more advantageous over wired monitoring systems since they are easy to setup, troubleshoot and maintain. In WSN each sensor node is independent and processes the data collected from the sensors at node itself hence is energy efficient and faster.

Now very few industries setup Wireless sensor networks (WSN) in their workshops as the cost of these systems are high. The purpose of this project is to provide a low cost integrated sensor system consisting of various sensors. Industrial operations produce many by products which can be hazardous to the health of workers working there.

Wireless monitoring has a disadvantage that the data is transmitted and processed at the remote desk and may take time to calibrate the issues if the desk is offline. Now the WSN processes the data at node itself. This project contains solution to this problem, since the node here will collect the data from the sensors, processes it and sends it to remote desk.

The system includes a set of sensors such as DHT22, BMP 180, MQ5. A is the microcontroller used along with these set of sensors. The sensed data consists of temperature, pressure, humidity, fire and gas detection. The project senses industrial temperature in the range of -40 degrees to 125 degrees (+-2%) degrees, humidity in the range of 0% to 100% and pressure up to 10000 hpa along with fire and gas detection.

Acc.No.PR1613

Title : Classification of Photographic Images based on Perceived Aesthetic Qualities

Author:Gaurav Dhyani ,Supriya Dravid, Esha Gandhi, Sayali More

Project Guide:Dr. Ravindra Chaudhari

Abstracts:The aesthetic qualities of an image are the key components to its perception. Although aesthetics of an image is highly subjective, it is related to the arrangement of visual features throughout the spatial domain of the image. The composition of these features in the

image decides its perceptual aesthetics. Our project uses an approach where each image from the training data set would assist the Classifier learn about the aesthetic ratings of these images with the help of features extracted from them. We have chosen basic features that play vital role in the perception of image quality. Every feature that is being extracted has its own significance contributing to the judgment of its quality rating of aesthetics. The classifier would then be capable of approximating the quality of input photos with the help of learning algorithm SVM that makes the classifier capable of doing classification or categorization operation.

Acc.No.PR1611

Title : Smart Supermarket

Author:Ashutosh A Sharma, Darshan P Shah, Harshit B Sharma

Project Guide:Ms.Namrata Mankad

Abstracts:One of the most vexing things while shopping in a supermarket is the amount of time one has to wait in a queue at the billing counter before checking out of the supermarket. This project intends to reduce that waiting time of the customers by developing a system which consists of an Android application for quick scanning and payment of the consumer items, as well as an Arduino setup for security purposes. A customer will have to scan the QR (Quick-Response) code of the product he wishes to by via the application itself, and then make appropriate payments. Once the customer has scanned all the products he wishes to buy, the list of products will be sent to Firebase(online Database) which will return an approximate value of weight of the products purchased so as to prevent theft. Android Studio will be used to develop the Android application. Different users need to be distinguished at the time of their payments, hence the management and modification of user's data and their cart items will be handled by firebase. A microcontroller(Arduino) will be required to verify the weight of the products purchased by the customer. Thus a better and faster shopping experience will be provided to user.

Acc.No.PR1633

Title : Automatic Waste Segregator

Author:Nihaar Shah,Soham Save, Aakash Sheth, Steeven Bardeskar

Project Guide:Ms.Snehal Lopes

Abstracts:The aim of the project is to reduce human intervention in the process of segregation of waste while ensuring proper segregation of waste with minimal efforts. Segregation of

waste at household level is the need of the hour since segregating waste at the dumping ground is burdensome and usually ineffective. The project aims to develop a system which segregates dry, wet and metallic waste at the household level. Capacitive sensor works on the principal of detecting waste based on its threshold value thereby segregating dry and wet waste. Metal detector consists of an oscillator producing an alternating current that passes through a coil producing an alternating magnetic field. Once the waste is detected, the wipers help to move the waste above the respective bins and then the platform flips. Thus the waste is segregated.

Acc.No.PR1646

Title : Performance Analysis Of Routing Protocols In MANETS

Author:Shreya Hunur, Pranay Hanamshet, Vikrant Labdhe, Pranav Lohare

Project Guide: Mr. Ramjee Yadav

Abstracts:Mobile ad hoc networks (MANETs) are networks that consist of wireless nodes. These nodes are mobile and self-configurable. MANETs do not have any fixed infrastructure. Due to its dynamic nature, nodes can be added or removed at any time. The performance requirements of such a network depends on the routing algorithms used. Thus, the routing algorithms are a crucial part of designing this specialized network. This project presents performance evaluations and analyses for two routing protocol types: Proactive and Reactive routing protocols. As the no. of nodes increase or decrease, the significance in the change in nature of the system is an important entity to be duly noted. In real life MANETs, as the nodes are dynamic, their number will continuously change. And maintaining the trade-off is an important challenge that designers face. Similarly, when the velocity of the nodes change, the dynamics of the network change and it becomes extremely important to monitor the output of the system closely. This project shows the produced simulation results after evaluating the normalized routing load, packet delivery ratio, throughput and average end-to-end delay of a MANET under two different scenarios viz. variation in number of nodes and velocity of nodes. Number of nodes is an important parameter to judge a network's efficiency and effectiveness. Lastly, a calculated conclusion of the simulation results will be presented.

Acc.No.PR1619

Title : Simple Smart Parking System

Author:Sushant Govind , Nishith Gupta , Pratik Joshi, Ankit More

Project Guide:Dr. Uday Pandit Khot

Abstracts:Simple smart parking system can be used to park vehicle very easily and efficiently without any collision taking place. This system can be used by learner's, even the professionals. This system will first check whether there is enough space for parking the vehicle. If there's enough space the vehicle will get parked or else it will move in forward direction in search of new parking space. This system is controlled from smartphone of the user; where the user has to press the on button to start the system and off button to stop the system.

Acc.No.PR1612

Title : Smart glove for speech impaired people

Author:Swanand Tambe, Hitali Vernekar, Krutika Singh , Tanvi Singha

Project Guide: Ms.Savita Kulkarni

Abstracts:This device aims to help the speech impaired by reducing the communication gap between speech impaired and normal people. In this project a device is created to provide a system for hand gestures to be converted into words and sentences with few words. The project achieves this by using flex sensor as a transducer to convert the hand gestures into electrical signals. This electrical signals are detected with the help of a voltage divider circuit in which the flex sensor acts as variable resistance. This change in resistance is used to map the amount of bend to the corresponding gesture. The system also has an accelerometer to detect the amount of wrist movement. This enables the system to more accurately map the hand gesture to a word. By using this data of flex sensor and accelerometer a database of words is prepared and stored. This stored gesture is mapped to a signal that is sent to the voice unit. The system then compares the value of the input from the glove to these values to recognize a gesture. This recognized gestures mapped voice signal is sent to the voice unit and played on a speaker. The system has two parts data glove which has the flex sensor and accelerometer attached and the processing and audio output unit which compares the input values and plays the appropriate word or sentence.

Acc.No.PR1637

Title : Security System based on Iris Recognition

Author:Aalaap Buch, Matthew Burges, Blaise Cardozo, Samikannu Chetty

Project Guide: Ms.Pallavi Patil

Abstracts:In a biometric system a person is identified automatically by processing the unique features that are possessed by the individual. This project mainly aims for providing security to systems using iris recognition. Human biometrics used in security systems include fingerprint recognition, palm print recognition, iris or retina recognition, DNA, etc. Iris scanners are increasingly recommended as they are more secure compared to the conventional techniques used today. Various steps are involved in iris recognition such as image acquisition and segmentation, extraction of features and matching. In our project, image acquisition and segmentation, initial steps to extract the iris, is done by Circular Hough Transform. The extraction of iris features is done by using 2D Haar Wavelet transform and for matching we have used Hamming distance. The results obtained by taking average component of the Haar wavelet into consideration, which gave us an accuracy of 96.67%. for right iris images and 96.66% for left iris images.

Acc.No.PR1626

Title : <u>Drowsiness Detection</u>

Author:Aakash Parulekar, Sanchez Pathikulangara, Michael Patricio, Aurelius Peris

Project Guide:Dr. Gautam Shah

Abstracts:The main aim of the project is to develop a non-intrusive system which can detect fatigue of the driver and issue a timely warning. Since a large number of road accidents occur due to the driver getting drowsy, this system will help in preventing such accidents, thus, also preventing loss of money, property and, possibly, life. This system will monitor the driver's eyes using a camera and by developing an algorithm, we can detect symptoms of driver fatigue and alert the driver well before an accident can occur. The system will capture the driver's image before the journey and will compare this image with the current captured frame. The difference in the images can be used to detect if the driver is drowsy. This project will, therefore be helpful in detecting driver fatigue in advance which can be used to give a warning output in the form of sound and light.

Acc.No.PR1647

Title : <u>UWB MIMO Antenna</u>

Author:Royston Fernandes, Bryce Rodrigues, Rhea Henriques

Project Guide: Ms.Jovita Serrao

Abstracts:Abstract- This paper presents a compact MIMO antenna with high isolation for Wi-Fi, Bluetooth, Wi-Max and Ultra-Wideband applications. The proposed antenna system is composed of two identical structures each consisting of a central arm and two semi-annular rings, operating over 2.4-2.92 GHz and 4.2-10.6 GHz frequency bands. The antenna is designed using 1.6mm FR-4 dielectric substrate having a dielectric constant of 4.4and loss tangent of 0.02. S11 <-9.5dB is obtained over 2.4-2.92 GHz and 4.2-10.6 GHz which are suitable for Wi-Fi and Bluetooth (2.4-2.5 GHz), Wi-Max(2.6-2.69 GHz), UWB(4.2-10.6 GHz) frequency bands. High isolation is obtained using isolation techniques such as parasitic elements(PE) and three ground slots(GS). The measured isolation values are S12<-13 dB over the frequency band. The proposed antenna is fabricated and tested. The measured results agree with simulation results.

Title : AGE ESTIMATION USING FACIAL FEATURES

Author: OJAS DUDWADKAR, HITESH BANGERA, VENEEZA CARDOZO, KEAGAN CARNEIRO

Project Guide:DR. KEVIN NORONHA

Abstracts:We investigate the biologically inspired features (BIF) for human age estimation from faces. As in previous bioinspired models Gabor filters are used at all positions of the input image. We also propose to use Gabor filters with smaller sizes and suggest to determine the number of bands and orientations in a problem-specific manner, rather than using a predefined number. Evaluated on the ADIENCE database with 19,370 images of people of different age and ethnicities our approach achieves significant improvements in age estimation accuracy over the state-of-the-art methods. By applying our system to some Internet face images, we show the robustness of our method and the potential of cross-race age estimation, which has not been explored by any studies before.

Title : A Voice Guided Surveillance Rover with Hybrid Vision

Author:P. Aanchal Satyan, Janhavi J. Raut, Sayli N. Shinde, Pranay E. Shetye

Project Guide: Mr. VAQAR ANSARI

Abstracts:The proposed project is based on the rover designed to drive for use with surveillance in military based projects and increasing the awareness of security crises all over the world. This model is controlled wirelessly (via an access point) using the concept of virtual reality and have hybrid vision. The rover has a camera installed on it which will provide a live stream of the video that is being captured and the concept of virtual reality is being implemented to control it. The two cameras are mounted on the rover that is to provide visual information of the surrounding to the user in the form of panoramic view and Stereoscopic view. Stereoscopic vision in technical terms is the human vision because it includes 2 images i.e. the left eye image and the right eye image which are then merged together by the brain to form a 3-D image or give depth perception. This gives the user the feeling of being in the surrounding of the rover while actually being far from it. The rover is controlled through voice commands and from the internet using web interface provided through the main part of rover i.e. Raspberry Pi. The web interfacing to the Raspberry pi provides the live streaming and the voice commands are provided by the Google Voice Service. In addition to that, if main control system fails the rover is controlled through backup means by DTMF (Dual Tone Multi Frequency). The use of remote control technology in surveillance system has been addressed in this project.

Acc.No.PR1630

Title : Virtual Lab

Author:Pranit Bari, Sarvesh Dubey, Vishal Gupta, Navin Mahari

Project Guide:Dr. Uday Pandit Khot

Abstracts:Generally, in engineering curriculum power supply, function generator and Cathode Ray Oscilloscope (CRO) are most widely used instruments in the lab. But these instruments are non-portable and costlier for an individual to buy and carry on its own. So, we are aiming to develop a portable mobile lab (VIRTUAL LAB) which would be consisting of portable device (includes power supply and function generator) and an application in our smartphone as a CRO. This would be interfaced to device via bluetooth module. Along with it, the function generator and power supply will be digitally controlled by an application. The apps which are currently available works for the audio frequencies range only. So, fails to accomplish the other frequency range. Thus, the VIRTUAL LAB will reduce the total cost up to 75% approximately and will be portable enough to be carried by an individual one.

Acc.No.PR1615

Title : Eco - Friendly Air Ventilation System for Server Room Security

Author:Anindya Ghosh, Divya Gupta, Athulya James, Siddharth Banerjee

Project Guide:Dr. Uday Pandit Khot

Abstracts:Server room is one of the crucial spaces that require high security protection. All the important data and information of an organization are stored in server. In this project, smoke detector is used as fire detector for protecting the server from damages caused by the fire. Commonly, an organization needs to spend around $30,000 to $50,000 for the alarm system, but the system only alert the workers and does not protect the server and equipment. Even though there are some techniques for fire prevention, these are either not eco-friendly or the installation and maintenance cost is huge, thus not being economic. The objective of this project is to develop a fire detection and suppression system which is both eco-friendly as well as cost effective

Acc.No.PR1624

Title : Multipurpose Agribot

Author:Shivani Roy, Akshita Salian, Bhagyashri Shetti, Niyati Thaker

Project Guide: Ms.Quanitah Shaikh

Abstracts:In recent years, robotics in agriculture sector with its implementation based on precision agriculture concept is the newly emerging technology.It is designed to minimize the labor of farmers in addition to increasing the speed and accuracy of the work. In this project Agribot is designed for ploughing the field and sowing of seeds. In this machine, solar panel is used to capture solar energy and then it is converted into electrical energy which is used to charge battery, which then gives the necessary power. Arduino Uno is mounted on the robot which acts as the central processor.The Ultrasonic sensor enables efficient movement of Agribot at optimal distances between crops and their rows, specific for each crop type and servo motor controls the flap of seed sowing container. With the help of Bluetooth module, the Agribot can be operated manually in case of failure.

Acc.No.PR1636

Title : EXTRACTION OF VOICE AND MUSIC FROM AUDIO SIGNAL

Author:SWAPNIL PHALKE, JANAK PISHARODY, SONALI PARAB, AISHWARYA NAMBIAR

Project Guide: Dr.RAVINDRA CHOUDHARY

Abstracts:Music signal is a mixture of many component signals obtained from various instruments and the vocals. This mixture signal can be broadly classified based on how they lie in the complete signal span as low rank components (instrumental) and sparse components (vocal). The problem tackled in this project is, how can these two components be separated efficiently using some of the available techniques which are discussed. One such technique, Robust Principal Component Analysis, is executed here. In this process, first the Short Time Fourier Transform of the audio signal is computed which gives result in matrix format. The goal is to minimize the matrix using definition of Robust Principal Component Analysis. In order to achieve the minimization, an algorithm called Augmented Lagrangian Multiplier method (ALM) is used. The output of the algorithm is the low-rank component and sparse component. The obtained result when converted to time domain, two audio files are obtained. Quality of these audio files is based on the energy ratios that can be obtained in the form of parameters like Source to Distortion Ratio (SDR), Source to Interference Ratio (SIR), and Source to Artifacts Ratio (SAR) where source represents individual ground truth which forms the dataset. The dataset used here is MIR-1K dataset.

Acc.No.PR1631

Title : Sixth sense teaching aid

Author:Aniket Ghadi, Ninad Ketkar, Harsh Mehta,

Project Guide: Ms.Shilpa chaman

Abstracts: This project proposes a novel Sixth Sense Teaching Aid (SSTA) which incorporates sixth sense technology in projectors for educational purpose. The system mainly consisting of a projector camera and a PC, which is no longer limited to traditional, displaying or presentations but allow users to touch on any projected surfaces for interaction purpose. In our SSTA system, the graphical user interface (GUI) buttons are projected on any flat surface like wall and it deals with touch detection of the projected screen using red color parameter both for still image and real time images. The proposed touch detection algorithm is performed in two stages: 1) Feature extraction and button's touch detection using red color thresholding algorithm, by which the computational complexity of the following processing is reduced; and 2) performance of assigned operation according to touch action judgment. New born technology named Sixth Sense technology is also implemented in SSTA for getting relevant information from the internet, whenever we touch any projected figure or headline. An evaluation is performed on the projected GUI and the results demonstrate that the proposed SSTA system can do touch detection in real time with 97% accuracy which is demonstrated using a data set collected under different settings of illumination variation.

Acc.No.PR1629

Title : High isolation MIMO antenna

Author:Rohitkumar Yadav, Shubham Shastri, Praful Tufchi, Digambar Waghmare

Project Guide:Ms.Anjali Chaudhari

Abstracts: MIMO wireless technology is able to considerably increase the capacity of a given channel. By increasing the number of receive and transmit antennas it is possible to linearly increase the throughput of the channel with every pair of antennas added to the system. This makes MIMO wireless technology one of the most important wireless techniques to be employed in recent years. MIMO wireless technology is one of these techniques. Two element MIMO antennas for WLAN 5.2/5.8 GHz applications are proposed. Each radiating element is a monopole printed on the FR4 substrate. Since reduction of mutual coupling is a challenge in the design of MIMO antenna, this work shall focus on isolation enhancement. Analysis of the structure with respect to parametric studies shall be carried out. Stable radiation pattern shall be obtained. The design and simulation has been carried out in IE3D software. Antenna will be fabricated and tested using Vector Network Analyser.

Title : <u>Design Considerations for Washing Machine</u>

Author:Rohan unni, Ankit shambhwani, John thekkumpuram

Project Guide: Ms.Monika Cheema

Abstracts:With technological advancements, automation has become an advantage in today's manufacturing world. The use of automation has made it possible to use a small specimen and still get the desired results. The main idea of the proposed project is to design an ARM based process control for washing machine using simple buckets which are readily available. The objectives of this development are to design a simple control system using low cost mechanism to control the functions of the proposed specimen. In addition to this, we are making it more advance by providing it a wireless remote control to control the washing machine entirely. Thus, using advanced technology such as ARM, more efficiency can be achieved and that too at a low cost.

Title : <u>MIMO Triband Circular Microstrip Patch Antenna</u>

Author:Janhavi Patil, Melwin Mathew

Project Guide:Ms.Anjali Chaudhari

Abstracts:Multiple Input Multiple Output (MIMO) techniques have merged as a key technology for the next generation wireless communication systems because they enable very high data rate transmission. Unlike the Single Input Single Output (SISO) systems MIMO systems enhance the capacity and data rate of wireless transmission. In MIMO, multiple antennas are used at the transmitter and receiver sections. A circular microstrip patch antenna with tri-band operation is proposed for communication system. The study of bandwidth improvement is presented by introducing the slots on surface of circular patch. Also the study of improvement in isolation has been presented. The design and simulation has been carried out in IE3D software. Antenna will be fabricated and tested using Vector Network Analyzer.

Title : RFID Based Toll Collecting System Integrated With Parking System Using PIC Microcontroller

Author:ROYCE JOHN VADAKOOT , SHASHIKANT PRAJAPATI, SVILZOR PINTO, ASISHSIDDHARDHA.R.T

Project Guide: Ms.SAVITA KULKARNI

Abstracts:An efficient utilization of communication link between RF Modems over a wireless channel to facilitate vehicle monitoring, vehicle authentication and automated toll collection on the highway is proposed. The system is basically implemented to cut the amount of time for paying toll in large queues. The implementation is divided into the design of two modules- the Vehicle Module (Active Tag) and the Base Module. The two modules communicate via RF modem connected to each module. The vehicle module revolves around PIC 16F877A microcontroller. This module contains an LCD panel (16x2), keypad (4x3) interfaced to the microcontroller. Microcontroller contains user specific data associated with the vehicle such as available balance of the RFID Tag.

Title : Solar based assistive technology for voice impaired

Author:Ayush Misraa, Rishabh Dubey, Mitch Fernandes ,

Project Guide:Ms. Lakshmi G. Prabhu

Abstracts:Voice impaired people have difficulty in communicating with normal people because hand gestures used by them to communicate their information is not easily understandable; only trained people can understand these. Most expressions and emotions remains un-conveyed sometimes even misinterpreted. So hand gestures are not an effective method for the speech impaired people. To take care of this issue, an assistive technology can be used to enhance communication. This is done by using ATmega328 microcontroller. The assistive technology consist of specialized keypad in which each key corresponds to a pre-assigned recorded audio that can be played to convey the message by the voice impaired person.

Acc.No.PR1623

Title : Artificial Memory for Humans: Object Recognition and Retrieval

Author:Pratik Patekar, Durvakshi Nare, Chinmay Patil, Vishal Poriya

Project Guide:DR. KEVIN NORONHA

Abstracts:Today we are living in a digital world which is heading towards more advancement in technology. We are more enthralled by 'smart devices' and also desire that things we use in our daily life incorporate features that aid us to cope up with our hectic life. In this project, we are trying to model a device that can act as "Artificial Memory for humans" which remembers events for us, recalls the exact scenario and has an add on feature which not only eases our day to day life but also holds a splendour place in this smart world. This device will be capable of capturing the moments that we see which is not possible due to less accessibility of video phones and cameras. It would hold the capacity to classify the objects seen and later recognize them whenever needed by a user.

Acc.No.PR1638

BRANCH: CMPN YEAR: 2018

ABSTRACTS

Title : Intervention - Autistic Spectrum Disorder

Author:Smith Colaco, Akash Desarda,Nishad Mehendale

Project Guide:Ms. Priyanka Patil

Abstracts:Early intervention is critical for children with autism. Studying progress in children with autism spectrum disorder (ASD) is invaluable to therapists and medical practitioners to further the understanding of learning styles and lay a foundation for building personalized intervention programs.

The system uses data of children from an interactive activity based comprehensive intervention program for children with ASD. Entry profiles - based on characteristics of the children before the onset of intervention, and performance profiles - based on performance of the children on the intervention, are crucial to understanding the progress of the child. The system then uses these profiles to map the progress of the children.

The system will also include data developed from interactive activity performed by normal children to compare both the dataset and determine level of ASD & also categorized it. Then ultimately the system will give provide suggestions curated to every individual. Our study is an attempt to address the dataset size and problem of mining and analysis in the field of ASD. The novelty lies in its approach to analysis and findings relevant to ASD.

Acc.No.PR1526

Title : <u>Personality Prediction using CV analysis (HR Helper)</u>

Author:Jenal Parmar, Ashwina Pereira, Shalini Pereira

Project Guide:Mr. Shamsuddin S. Khan

Abstracts:Organizations need to ensure that they employ right person for right job. No organization is identical in terms of workforce, talent, environment, strategies and market type. And hence, one recruitment method cannot be applied to all. The system will help to reduce the HR department workload.

The system will help the HR department to easily shortlist the candidate based on the CV ranking policy. The HR needs to add the qualification and experience and also the other important aspects which are required for particular job position. This system will select right candidate for particular job profile based on the post requirements.

Candidate will register him/herself with all their details and will upload their own CV into the system which will be further used by the system to shortlist them for the position. Thus, the system will enable a more effective way to shortlist candidates from a large number of applicants providing expert workforce for the organization.

Acc.No.PR1562

Title : <u>AUTONOMOUS SELF LEARNING AGENT FOR COLLISION AVOIDANCE</u>

Author:SALOMIE PEREIRA , JENITA PREEMA SALDANHA, NEIL JOSEPH,

Project Guide:MR. SHAMSUDDIN KHAN

Abstracts:This project describes the design and implementation of robot control systems that feed the environment into its memory and use Q-learning algorithm, which is a model-free reinforcement learning technique. Specifically, Q-learning can be used to find an optimal action-selection policy. When the robot visits the same environment again it scans the environment using the sensors and camera. If the robot detects a new object, then it scans the object and perform image processing using OpenCV to determine whether the detected object is required or an obstacle. If the object is required, then pick the object and then drop it at the target location and if it's an obstacle then q-learning algorithm is performed by the robot.

Our main objective of this project is to implement q-learning in our robot so that the robot learns to avoid obstacles on its own through its previous experiences as normal humans do. The robot also has learnt to adapt in different environments by learning on its own. In addition to this, we have added one application to our main project. This is an intelligent robot which can be used for various purposes such as supermarket where the customer can choose which particular object to be picked up and the robot carries out this task. We have selected this robot for this process due to the reason it could save a lot of time and it could help people who can't do stuff on their own instead always depends on others (especially senior citizens and the disabled).

Title : <u>VIRTUAL AUDIENCE</u>

Author:Riya Khanna, Stallone Lobo, Tushar Patil

Project Guide:Ms.Bidisha Roy

Abstracts:AI enabled systems can process billions of data points concurrently and provide insights in minutes while understanding how patterns are created by data sources and ultimately learn to predict their behavior. Utilizing AI in decision making would enable business leaders and managers to reprioritize their outlook with more tasks being left to AI to do it on its own.

Virtual audience is a platform which provides a feedback on decisions performed. It could provide statistics and logic reasoning on how a customer could react to a consumer product or an application, customer view is viable. The system could provide an alternative solution if feedback is not accepted or it doesn't not seem fit to the user.

Virtual Audience system could be applied in the field of human behavior analysis and human behavior predictions. Virtual audience possess various applications in the field of Product manufacturing (consumer products), HR for an MNC, Marketing Strategies, Security, Consumer Strategies (Super market)

Acc.No.PR1533

Title : H.I.S.-Hands Free Interaction System

Author:Rupesh Sawant, Suprith Uchil, Yohann Pereira

Project Guide:Ms. Bidisha Roy

Abstracts:Hands free Interaction System(HIS) system considers the user to have limited mobility of their hands and legs, but can only move their head. The gestures performed by head movement are tracked. These gestures then serve as input to the application on the mobile. Using this input, various tasks are performed on the mobile.

We operate our mobile phones using our hands. This statement might sound quite trivial but what about the people who don't have a hand? How would such disabled people use a mobile phone? In order to bridge this gap between disabilities and mobile technology, a system can be developed which enables disabled people to interact and use the services a mobile device provides.

The Project aims to provide a solution for the disabled people by enabling said people to avail the various services a mobile device can offer using simple gestures. The target demographic for the system is disabled/ handicapped people. This system will provide a means of basic mobile operation. It will provide a platform for communication between other handicapped people.

Acc.No.PR1553

Title : Regyan Extracting And Combining Web Content

Author:varun maniar, soham thaker,

Project Guide:Ms. Safa Hamdare

Abstracts:Worldwide web has become the choice of many researchers to discover, learn and shar etheir ideas and knowledge about any topic. Information available is scattered all over the internet. Search engines give us numerous links relevant to our topic. Researcher’s job involves discovering new methods and verifying existing ones. In search of information they need to click on each link, read each web page and create a proper document according to their requirements.This method is time-consuming and researcher often misses crucial information.Our System aims at displaying all relevant information documented on a single page. Our System performs web data crawling, data pre-processing, data modeling and data clustering based on similarity of data.

Acc.No.PR1541

Title : Handwriting Recognition and Conversion to Digital Text

Author:Bhavesh Badwal, Aniket Chavan, Karan Koul

Project Guide:Ms. Nidhi Gaur

Abstracts:The project entitled Handwriting Recognition and Conversion to Digital Text deals with ability of a computer/mobile device to receive and interpret intelligible handwritten input from sources such as paper documents or photographs. The image of the written text may be sensed by optical scanning using a camera enabled mobile device or a scanner. This input image is preprocessed to eliminate noise and extract individual characters from the image.

A Convolutional Neural Net model is trained to classify these extracted characters from input images. The application then further converts this scanned handwritten input image into digital text. i.e. a string of characters.

Acc.No.PR1540

Title :Smart EHR System using RFID card

Author:Saloni Chauhan, Adinath Bajpai, Archana Mishra, Dylan James

Project Guide: Dr. Kavita Sonawane

Abstracts: EHR or the Electronic Health Record is a digital version of any patient's medical records. The entire history of patient's medical records is stored in a computer so that it can be accessed anytime and by anyone who is authorized to access. The concept of electronic health record saves a lot of time, resources as well as increases the accuracy of records by avoiding human errors. Computer based hospital information systems emerged in late 1960s. At that time they were primarily used for storing patient's medical details and accessing laboratory test results. These early systems collected clinical information, but their major purpose was to capture charges and not assist the physicians with delivering patient care.

The aim of developing this system is to implement smart electronic health record system that can be used by all doctors across the nation. This feature will connect the medical records of a patient that is generated in different hospitals. Along with it, additional features will assist the doctors in storing, accessing as well as analyzing the patient records. Smart card is used in this system. We all have a lot of cards in our wallet, be it ATM cards, debit cards or even a shopping card. The eHcard is one addition to your wallet. This card uses RFID technology

and will allow you to access all your medical records. Problem lists or medical records can be any healthcare organization's best friend or worst nightmare. eHcard can extend benefits to a healthcare organization. This practice will explore the use and maintenance of medical records with a special focus on how digital environment can add enormous functionality for sharing patient details and provide continuous care.

Using data mining approach the patient records will be analyzed to find out the occurrence of certain diseases. This could be used to alarm the doctor about whether a patient can be soon affected by a certain disease and must be given priority. Statistical display of blood reports will also help in patient record analyzing. The focus is also to secure patient records as they are highly sensitive and confidential. To ensure security, encryption of information is done by using Bcrypt hashing algorithm. Using a smart card or as we call it the eHcard will bring electronic ease to the hectic and crucial process of healthcare management by providing various benefits like increasing productivity, lowering costs, reducing medication errors, increasing transparency and fraud detection and easing the manpower shortage in healthcare.

Title :Wireless Home Based Health Monitoring

Author:Mubashara Shaikh, Mehvish Shaikh

Project Guide:Ms Nidhi Gaur

Abstracts:In this fast pace modern life, it is difficult for people to be constantly available for their near ones who might need them while they are suffering from a disease or any disorder. Chronic diseases have a significant influence on healthcare costs and are common among people. Changes in demographic structure and lack of health and social care personnel force us to study new innovations, which could provide a relief from these challenges. Seniors have to make frequent visits to their doctor to get their vital signs measured. Regular monitoring of vital signs is essential as they are primary indicators of an individual's physical well-being. These vital signs include:

1. Pulse Rate
2. Blood pressure
3. Body temperature
4. Body humidity etc.

In spite of tremendous improvement in communication link and progress in advanced communication technologies, there are very few functioning commercial Wireless Monitoring Systems, most of which are off-line. Currently the medical world faces two basic problems when it comes to patient monitoring, firstly the care takers need to be present bedside the patient and secondly the patient is restricted to bed and wired to large machines.

In order to achieve better quality patient care, the above cited problems have to be solved.

As the technologies are advancing it has become feasible to design home based vital sign monitoring system to display, record and transmit signals from human body to any other location. Therefore, there is a strong need for investigating the possibility of design and implementation of an interactive real-time wireless communication system. Wireless home-based health monitoring can be used to monitor the different parameters of a patient remotely.

The goal of the this project is to develop a low cost, low power, reliable, non-intrusive, and non-invasive vital signs monitor which collect different type of body parameters and the sampled parameters can be wireless transmitted to a physician, family members. The main part of our project is to design and build a sensing system to acquire accurate heart rate, blood pressure, and body temperature, body humidity readings. After processing, the needs to be transmitted and signal to be displayed. Measurement of vital parameters can be done and under risk developing situation can be conveyed to the physician with alarm triggering systems in order to initiate the proper control actions.

The scope of this project is to build a device for individuals over the age of 65 years or patients with chronic diseases. This limitation is added to simplify our project and ensure it is achievable with the restricted time and resources available. Considering the target subjects for this device, the most important feature of this device is that it must be easy to use. The methodology adopted for this project is to use non-invasive sensors to measure heart rate, blood pressure, body humidity and body temperature.

We propose to device system which raises alarms when the heart beat & the body temperature exceed the provided threshold value. This threshold value is defined by the programmer at the time of programming the microcontroller. This information i.e. the heart rate and the body temperature is then transmitted wirelessly to the doctor who may or may not be in the vicinity of the patient through GSM technique. The sensors measure the information and transmit it through Bluetooth Modem via Short Messaging Service (SMS).

This is a convenient process to monitor the patient's health conditions from any distance. Since we are using GSM technology, this makes the user to communicate for longer distances. This work provides real-time update of the patient's health to the doctor along with necessary preliminary action taken by physician in case of his absence. It reduces the frequent visits of the doctors to the patient in person and assistance to the patient in case of biomedical parameter change.

It can also be used in other areas such as-

To monitor patient in remote area or even when they are travelling.

Device can monitor the condition of a patient in pre-designed intervals and send continuous SMS to doctor’s mobile phone.

Device can be used in life line ambulances to monitor patient’s condition before reaching hospital.

Title : Football Player Performance Analysis and Market Value Prediction

Author:Richard Pariath, Shailin Shah, Aditya Surve,

Project Guide:Ms. Jayashri Mittal

Abstracts: This project is a performance analysis product that aims at identifying the current performance value of the player and along with that to be able to predict the possibility of growth in the future. The objective of this system is to help the coaches and team management at the grassroots as well as higher levels to identify the future prospects in the game of football without being biased to subjective conditions like club budget, competitiveness in the league, and importance of the player in the team or region. The most important decisions that team managers make, revolves player transfers; so issues related to player valuation, especially the determination of transfer fees and market values, are of major concern. Market values can be understood as estimates of transfer fees that is, prices that could be paid for a player on the football market. Hence the evaluation of players for transfer, scouting, squad formation and strategic planning is important. Our Player Performance Prediction system aims at solving this complex problem analytically and involves learning from various attributes and skills of a football player. It is based on a data-driven approach with multilevel analysis. We train our models to generate an appropriate holistic relationship between the players' attributes values, market value and performance value to be predicted. The results suggest that data-driven estimates of market value can overcome several of the crowd's practical limitations while producing comparably accurate numbers. The Prediction is also backed by the Sentimental analysis of the players which too has an important weightage in coaching and selection of players. We then compare the results and accuracy of different models and check the model which fits well for our problem. Our results have important implications for football managers and scouts, as data analytics facilitates precise, objective, and reliable estimates of market value that can be updated at any time.

Title : Sign Language Recognition

Author:Gaurav Chemburkar,Priyaank Chhadwa,Ashish Mishra

Project Guide:Ms. Sridari Iyer

Abstracts:Sign language is a method of communication which uses various hand gestures and movements. Understanding these gestures can be postulated as a pattern recognition problem.

Humans use different kinds of gestures and motions to convey different messages to other humans. This project represents a framework for a human computer interface capable of recognizing said gestures from sign language and providing a text output representing the meaning of the gesture. The proposed system will use convolutional neural networks and long short term memory networks to identify and learn the gestures which will help to minimize the communication barrier between signers and non-signers.

Acc.No.PR1536

Title :Music Recommendation System (ReaMu)

Author:Riesl Dsouza, Joshua Dsouza,Dallis Cordeiro

Project Guide:Ms. Ankita Karia

Abstracts: A recent study puts India at the top of the heap as far as reading is concerned and according to a survey on the Times Of India (TOI), the average Indian is spending more than 10 hours reading books per week.

Thanks to smartphones and e-books, more people are reading on-the-go and as technology continues to expand, the figures are expected to rise.

The greatest kick a reader can get while reading a book is when along with reading one can get the feel of watching a movie by playing instrumental music in the background. In addition to increasing one's concentration, it is also quite soothing and might put you in the right spirit and enhance the experience.

Our primary objective is to encourage people to take up reading by presenting them with a fresh and innovative technology which will make the reading experience more interesting and enhance a reader's experience by creating a tool that will be efficient and effective.

Basically, what this application will do is that it will play instrumental music in accordance with the emotion of the scene in an ebook.

We will aim at a well-chosen soundtrack that will create a literary atmosphere, and will also also drown out distractions so you can fully focus on the page in front of you.

Music can be a great back drop to a theme, especially while reading and this fresh and innovative technology will make reading experience more interesting and indulging since any book and the right music paired together is what most readers think is the best.

Acc.No.PR1530

Title : Color Code Detection

Author:Shruti,Walawalkar, Renuka,Sule,

Project Guide: Ms.Ankita Karia

Abstracts: In a time where everything is becoming digital, right from an app for ordering food to withdrawing money or for purchasing any household item, the need to increase digitization of every activity so as to ease out the human work has increased. The work of people especially interior designers, architects, home decorators or artists involves a lot of heavy swatches carrying from place to place. Furthermore, it is not feasible to record a color at one place and reproduce the exact same color with the exact properties at another place. Thus a color code detecting tool to calculate universally accepted code of a color is a need of such professionals. The app, 'Color Code Detector' will be linked with a hardware tool which will eliminate such issues. The unadulterated color will be fetched by the hardware device will be given to the Android app which will first store the specifics of the color i.e. the RGB code, Hex code, CMYK code and HSL values in the database for any further use at any time needed. With advancements in technology, creative professionals now use softwares for their work. The sharing feature of the app allows these professionals to use the codes detected digitally. The aim is to enable the designers to keep a track of the colors detected by them and eliminates the need of carrying different swatches and other heavy material since every piece of data will henceforth be collected by the app there by making it more convenient for the end users and replace the old tradition with a digital one.

Acc.No.PR1555

Title :TotBot:A parent-oriented consultant chatbot

Author:Mansi Shah, Niharika Shetty

Project Guide: Ms.Priya Chaudhari

Abstracts:Now-a-days the new age parents tend to seek knowledge or information from the internet that concern with the health of their babies through online healthcare services. They immediately turn to Google as soon as they need information regarding their child's health or lookup various articles online. The basic aim of this system is to bridge the gap between the health providers by proving instant replies to the questions posted by anxious parents. Chatbot is a computer program which conducts a conversation via auditory or textual methods. It interacts with human users. Further this system provides instant and relevant replies to the queries. The system will provide users with pediatricians near them. Apart from this the chatbot system will also suggest good preschools around their locations. Since trying to calm down a crying baby while simultaneously doing other activities isn't ideal for parents, TotBot will provide speech-to-text feature which allows the parent to speak to the device while tending to their baby.

Acc.No.PR1554

Title :Visual Gesture Recognition

Author: Nishitha Suvarna, Aditi Talpade, Zeena Mendonca

Project Guide:Ms. Vincy Joseph

Abstracts: A real-time technique is used for detecting the presence of finger and determining hand gestures. This application supports drawing of gestures and writing of English text over air in front of the mobile camera. The techniques and analysis presented in the proposed system are applicable to many other application fields requiring hand gesture recognition in visually challenging real-world settings. In this system, a combination of computer vision and convolution neural networks is used for detecting the gesture drawn and for recognizing it. The algorithm consists of two steps, the first is to locate the hand, then to seek for the location of fingertips. With these features, the correct recognition of each fingerspell is achieved. It does not require sensors or any hardware other than camera. The proposed system aims to provide easy accessibility of phones for visually impaired and elderly people through the gesture-based phone interaction mechanism and opening of existing applications on the phone based on the gesture drawn. Additionally, this system can be used for improving security in existing devices.

Acc.No.PR1549

Title :Blind Navigation

Author:Arun George, Shannelle Dsa, Glen D'souza, Brian Coutinho

Project Guide: Mr. Jerin Thankappan

Abstracts:Blind people are often taken by conditioners and parked vehicles while million people in India with blindness, according to 2011 census data.surprise by over-hanging branches, protruding air- navigating through unfamiliar terrain. There are 12 the greatest number for any country in the world, Computer engineers at the Indian Institute of Technology Delhi (IITD) have invented a smart cane that guides blind people around cities.Blind navigation is a system on belt (SoB) which is an Electronic Travelling Aid which is fabricated using micro-processor (raspberry pi), camera, buzzer and a vibrating motor to provide haptic feedback. They acquire obstacle distance measurements and the user can interpret the distance information as a tactile sensation. Distance is felt by the user in terms of the vibration intensity change. When obstacles are detected, the devices send different sets of vibrations through the belt to tell the user which direction the obstacle is. As people move

from left to right when they walk, vibrations detected on one side mean they should move towards the other. The device will also classify the type of obstacles in the form of staircase or pothole and notify the user accordingly.

Acc.No.PR1519

Title :VIRTUAL SHOE TRIAL USING AUGMENTED REALITY

Author:FORAM JOSHI, PRACHI LAD, VIDHAAN MAKIN

Project Guide:DR. KAVITA SONAWANE

Abstracts:The project focuses on Augmented Reality for footwear trial to offer reality augmentation experience to the end users. The user can virtually put a shoe of their desired size on his/her foot using only their phone camera. This system consists of novel functions like choosing shoe models, target detection, augmented footwear trial, taking camera shots of trial. The datasets will contain target database files (Shoe models) contained in Unity3D that will generate the target 3D model of the shoe on Android platform.

With regard to commerce, it would be desirable for the consumer to choose any model of shoes from this application and will be able to try them on looking through their phone camera. This would probably reduce costs and increase sales; since shops would not require storing every shoe model and the process of trying several models on would be easier and faster for the consumer.

Acc.No.PR1535

Title :Interactive Print Media using Augmented Reality

Author:Thelma Gomes, Winston Fernandes, Ashley Fernandes

Project Guide:Ms. Sweedle Mascarnes

Abstracts:Augmented Reality (AR) is one of the revolutionary technologies gaining fast pace in enhancing user interaction. The field of education is evolving day-by-day. It needs to keep accomplishing its goal of providing knowledge seamlessly. The use of mere images in print media such as textbooks, limits the understanding of the learner. A much more interactive approach is required to boost the overall learning experience. The existing systems are quite capable of delivering useful content such as 3D models by capturing these images. But they use special markers to track the camera's position, and more time is consumed in creating such models. This limits their potential to a certain extent as it is not feasible to create markers for all kinds of images. This research work focuses on developing an Android

application using Marker-less AR technology. The proposed system encompasses image recognition using the mobile camera, rendering relevant YouTube videos pertaining to the image, and their superimposition in augmented view. The main aim of this system is to enhance the productivity of education by combining the traditional learning methods with AR technology to enliven images with interactive videos.

Acc.No.PR1523

Title :Cloud ERP for Small and Medium Enterprises

Author:SHIVAM DESAI, TEJASWARA RAO MOTAMARRI, VATSAL SOLANKI

Project Guide: Mr. Rupesh Mishra

Abstracts:The main ideology behind developing this system is to avail the distributors to do their daily task such as Accounting, Stock Maintenance, and Billing at a single point. As the new GST taxation system has been implemented, the distributors are not well aware with the technicality of the new system. The whole taxation structure has been redefined by the Government of India.

The current situation in the market is Distributors are using different software to manage their work, for e.g. Billing is done by one software and Accounting is done by other software. The Distributor has to learn and manage two different software so as to complete his/her work and even there is no compatibility between those software's. So, some kind of same details may need to be entered more than once which is a tedious job. Now, our cloud based ERP system will

help various distributors to manage their system working smoothly. The whole system will be loaded on cloud. As various distributors can use the same ERP system, but on cloud so, there data will not interfere with each other. Some features of our ERP system would be Website and Web Form, Customized printing and Report Builder, etc.

Acc.No.PR1546

Title :Personalized Book Recommendation with Hybrid approach

Author:Asha Rana, Saima Mapkar,

Project Guide:Ms. Priyanka Patil

Abstracts:Recommendations are already an integral part of many e-commerce and seller websites. Giving recommendation to the users after predicting if the user is likely to be interested in that product has helped a lot of these companies in boosting their sales. Recommendation are personalized display of products after narrowing down the thousands of items in the inventory to a useful few. A Book Recommendation Engine can be helpful for many as to have machine tell what book to read next .These can be learned from the user's

choices over time and a ‘taste’ profile can be created by it. Existing approaches for Recommending involves selecting from two of the popular approaches i.e Collaborative learning and Content Based learning. User Collaborative learning works by finding similar user with the taste of target user and recommend the products according to the similar user’s choice. On the other hand content based-learning involves actually having the ‘knowledge’ of the item and then recommending the item to the target user based on the user’s ‘taste’ profile. Since both these works well separately they can be used simultaneously making a hybrid learning and give the user more accurate results since they are combined together. We also propose to add personalized recommendation if needed by including demographic parameters like user’s age, gender, country, language and tune the results further if user needs. There is often a cold start problem in such system where a new user needs to be given recommendation even before their preferences are learned so to solve these issue we add another technique Web Scraping which gives top trending books some from each genres to the user after parsing from web and then use it as a starting point for learning user’s preference(taste) and then give them recommendation after adequate data is obtained.

Acc.No.PR1556

Title :Civic Sainik (An android app for lodging civic complaints)

Author:Smith Colaco, Rhea D'souza , Vinduja K.B.

Project Guide:Ms. Snehal Kulkarni

Abstracts:In today’s existing system, a person has to make rounds of a government office to solve his civic issues. This not only takes a lot of time but also the person gets fed up and leaves the issue.

So, we propose to make an app where the user can just lodge any complaint related to electricity issues, water issues, garbage, etc. only by clicking a picture of that issue. The GPS tracking will give the position of the user. These images will be processed to the main server and a message will be forwarded to the user. Multiple complaints of the same problem will be stacked together.

Complaint will be assigned to concerned officer. Also, the user can track whatever action is being taken against the complaint.

Acc.No.PR1534

Title :Mining Educational Data to Analyse Students' Performance

Author:Sybil Saldanha,Trupti Nayak, Archie Jobard

Project Guide:Ms.Sridari Iyer

Abstracts:The main objective of higher education institutions is to provide quality education to its students. One way to achieve highest level of quality in higher education system is by

discovering knowledge for prediction regarding enrolment of students in a particular course, alienation of traditional classroom teaching model, detection of unfair means used in online examination, detection of abnormal values in the result sheets of the students, prediction about students' performance and so on. The knowledge is hidden among the educational data set and it is extractable through data mining techniques. Data mining provides many tasks that could be used to study the student performance. In this research, the classification task is used to evaluate student's performance. Information like Attendance, Class test, Seminar and Assignment marks can be collected from the student's management system, to predict the performance at the end of the semester. It helps earlier in identifying the dropouts and students who need special attention and allow the teacher to provide appropriate advising/counseling.

Acc.No.PR1548

Title :Algorithm to Code converter

Author:Bini Edward, Rahul Dubey, Reginald Lewis

Project Guide: Ms.Priya Karunakaran

Abstracts:The conversion of an algorithm to code is still at an early stage. Effective conversion of algorithms mentioned in semi-natural English language to code will enable programmers to mainly focus on logic building and free them from syntactical worries. Further, it will also aid the visually impaired programmers. Beginners and inexperienced people sometimes do not understand the paradigm and style of the programming language at hand, so implementing a code in such languages imposes a large burden. Moreover, there are many programming languages which allow coding in a variety of paradigms. So it is not easy for someone not trained in Computer Science to initially write a program in a particular language as he/she may not have much idea about the syntax of that language.

We propose a translation process that allows the people to write the algorithmic solutions of the problem in the form of pseudocode which can further be translated into a programming language like C. Although beneficial, implementation of such a converter encounters numerous challenges like limitations imposed due to semantics of the English language and adapting various writing styles of different users. In this project we have introduced an interpreter that is capable of converting algorithms in the form of pseudocode to C code whose flexibility of interpretation has been enhanced by using synonyms and by the introduction of an XML Specification File whose concept has been outlined below.

Acc.No.PR1524

Title :Fog Computing: Mitigating Insider Data Theft Attacks in the Cloud

Author:Mascarenhas Jovina , Marvania Sagar, Charitra Attarde

Project Guide:Mr. Rajkumar Shende

Abstracts:Cloud computing promises to significantly change the way we use computers and access and store our personal and business information. With these new computing and communications paradigms arise new data security challenges. Existing data protection mechanisms such as encryption have failed in preventing data theft attacks, especially those perpetrated by an insider to the cloud provider.

We propose a different approach for securing data in the cloud using offensive decoy technology. We monitor data access in the cloud and detect abnormal data access patterns. When unauthorized access is suspected and then verified using challenge questions, we launch a disinformation attack by returning large amounts of decoy information to the attacker. This protects against the misuse of the user's real data. Experiments conducted in a local file setting provide evidence that this approach may provide unprecedented levels of user data security in a Cloud environment.

Acc.No.PR1518

Title :Engineering Career Guidance Chatbot

Author:Omkar Raikar, Shubham Singh, Atish Yedle

Project Guide:Ms. Sweedle Mascarnes

Abstracts:Chatbot are computer programs that simulate intelligent human conversation. In this project we have developed a chatbot that helps engineering student to solve their general doubts regarding engineering as a Career. Engineering career guidance chatbot is an android application based on artificial intelligence, used for analyzing user's queries and understand user's message. The User can query any Engineering related query such as best college for engineering, colleges offering highest placements etc., through the system. The system then by using Natural Language Processing (NLP) engine, searches in the database developed in project and provides the user with the instant answer. The main aim of this research work is to eliminate the time constraint so that the user gets quick and reliable response in seconds.

Acc.No.PR1561

Title :HUMAN COMPUTER INTERACTION USING HAND GESTURE RECOGNITION

Author:Arthur Tristram, Sonali Joseph, Albert Johnson

Project Guide:Ms. Snehal Kathale

Abstracts:Gestures are a major form of human communication. Hence gestures are found to be an appealing way to interact with computers, as they are already a natural part of how we communicate.A primary goal of gesture recognition is to create a system which can identify specific human gestures and use them to convey information for device control and by implementing real time gesture recognition a user can control a computer by doing a specific gesture in front of a video camera linked to the computer. The system is built to identify specific human gestures, and then use them either to convey information or to control a device. The gestures used have to be intuitive, simple and universally acceptable to ensure they are easily adopted by users.This project aims to develop a gesture recognition system for presentations. Gesture recognition technology leads to touchless interactive displays, point and click presentation systems and mouse replacement solutions. It utilizes advanced computer vision and body tracking software to convert simple hand movements into direct mouse control in any environment.

Acc.No.**PR1542**

Title :Smart Robot

Author:Aaron Pinheiro, Kevin Noronha, Alex Thomas

Project Guide:Mr. Shamsuddin. S. Khan

Abstracts: The process of spraying pesticides is a very risky job. As the human spraying the pesticides comes in direct contact with the fumes. Inhaling these fumes usually has instant side effects like coughing, nausea, vomiting, secretion of more saliva than usual, red eyes, sweating, itchy skin, laboured breathing and running stomach. Long term exposure may lead to chronic diseases such as Alzheimer's, Cancer, Birth Defects, Endocrine disruption, Reproductive issues, Asthma, Diabetes, Parkinson's disease, Development and learning disorders. The proposed automated robot will have the functionality to follow the path to the plant. It will move towards the plant by moving on the tape. After reaching the plant, the car will detect the the plant via image processing. Once the plant is detected adequate amount of pesticides will be sprayed on the plant. As a result, no humans will come in direct contact with the fumes emitted from the spray.

Acc.No.PR1543

Title :Exam Seating Allocation Application

Author:Anand Gangar, arun gupta, apurva inamdar

Project Guide:Ms.Varsha Shrivastava

Abstracts: Examinations are the most crucial section of any educational system. They are intended to measure student's knowledge, skills and aptitude. At any institute, a great deal of manual effort is required to plan and arrange examination. It includes making seating arrangement for students as well as supervision duty chart for invigilators. Many institutes performs this task manually using excel sheets. This results in excessive wastage of time and manpower. Automating the entire system can help solve the stated problem efficiently saving a lot of time.

This paper presents the automatic exam seating allocation. It works in two modules First as, Students Seating Arrangement (SSA) and second as, Supervision Duties Allocation (SDA). It assigns the classrooms and the duties to the teachers in any institution. An input-output data is obtained from the real system which is found out manually by the organizers who set up the seating arrangement and chalk out the supervision duties. The results obtained using the real system and these two models are compared. The application shows that the modules are highly efficient, low-cost, and can be widely used in various colleges and universities.

Acc.No.PR1525

Title :Today's Offer

Author:Athira J, Nevil Jeevan,Umang Dave

Project Guide:Ms.Bidisha Roy

Abstracts: In today's world many online apps have been developed to get information on each and every product, for e.g. Flipkart, Amazon and Snapdeal where buyers can purchase any item like mobile phones, household items, clothes and accessories for men & women. In the above mentioned online apps we get daily updates about discount offers on products which attract the buyers.

Retailer puts poster of discount offer in the front of his store so that people are attracted by the poster and buy more items in discount rate. Many big and small malls like Maxus mall, Dmart and Reliance store add their offers by putting poster on road or by showing advertisements on TV, Radio and Youtube. Branded store also uses this method to get people's attention on offers. Bigger brands can afford to spend a lot of money in advertisements however small scale shops and retailers cannot spend the same amount of money as it is less profitable.

So we decided to build an app where customers can easily find a store by searching which store offers discount on branded products or offers in big and small malls and many more. Through this app customer can get everyday information on offers (updated by respective stores) and also based on their location they can find nearby stores. So a customer doesn't need to go and search each store where offers on product is available or not. It will be useful for all types of stores as they can directly update their status through the app, which product offer is available and also spend less money on ads. Big malls and brand store can also use this app to get more attention of people. This app will definitely be helpful to all types of store and customer to get information on offers available in nearby stores and mall.

Acc.No.PR1529

Title :Kissan Vikas Android Application

Author:Clarissa Lobo, Melissa Mathias, Neil Mathias

Project Guide:Mr. Rupesh Mishra

Abstracts: The recent escalation in the use of smartphones in India has permitted other sectors to develop, but the Agricultural sector has not yet seen an increase in crop output because farmers have not yet been able to take full advantage of their mobile devices. As mobile penetration continues to increase among farming communities and information services continue to adapt and proliferate, the scope exists for a much greater rural productivity impact in the future.

Farmers experience losses in production because of the lack of information regarding crop yield and information resources with respect to soil and season. This project proposes Kisan Vikas (Farmer Development), a mobile application, using Information and Communication Technology and promoting e-governance by providing continuous information pertaining to agriculture:- weather forecast, crop prices, news, government helplines, and an Online Auction System. Our Android application will provide a fair price for farmers' commodities and let the dealer bid for the commodity using an online live auction system wherein the highest price will be picked.

In this project, an online auction system is presented. An Online Transaction Processing (OLTP) database model structure is, therefore, desirable. The project involves the design and implementation of an online auction system. Project begins by analyzing and presenting the OLTP database model for the online auction house. It also defines the layout in android application.

The basic idea behind the application is to reduce complexity for farmers by allowing dealers to bid on their products. The dealer can only bid incrementally over the base price fixed by the farmer. When the window ends the contact information of the dealer will be available to the farmer and clicking on it will open the phone app. In addition, the app also provides weather by detecting current location and using OpenWeatherMap API, information about various crops such as seeds, flowering, growth, etc.

Title :CanVert

Author:Michael Nadar, Shubham Singh, Pranav Modh

Project Guide:Ms.Priya Karunakaran

Abstracts: WhileworkingintheITindustry,pragmatically,itiscardinalthatprofessionalsshouldbe ableto manage various conventional data storage formats such as JSON, XML, EXCEL (XLS,CSV,PRNandXLSX)andevenJSasastorageoptioninsomecases.Insomescenarios,itisinevi tablethattheseprofessionalsneedconversionfrom oneofthe

standardformatstoanother.Assuchintheindustry,thereisnosolutioninsingularitythathelpstheITprofessionalswiththeseconversions.

Theavailablesolutionsexistasmultiplediscretesoftwaresthatprovidesomebut not allofthestandardconversions.Oneoftheextantsolutionsavailableinthemarketas expensivesingleconvertorisforJSONis‘TotalJSONConvertor’by‘CoolUtils’andthe likesexistingforxmlandothers.Hence,weaim todevelopafreeandasingleproductthatcansupportallofthese conversionsandissimple.Itssimplicitywillbemaintainedbysupportingonlythe industryneededtranslations.
CanVertistobedevelopedtofreetheITProfessionalsoftheirDataConversionHassles
CanVertasonpaperisproposedwiththefollowingfeatures: NoDataloss-
Dataconversiontobeperformedusingthelatest Object-Oriented

Methodology

DataSecurity

HighEfficiency.

SupportsMultipleOperatingEnvironments

GivestheOutputastheTargetFile.

Title :SAFAR : School Bus Tracking System

Author:Vivek Rajpara, Keval Gada

Project Guide:Ms. Varsha Shrivastava

Abstracts: Mornings can be a stressful time for parents, getting ready for work and also getting their kids ready for school. What if parents can make sure their kids don’t miss the school bus and also they don’t have to spend hours in dark, or cold, or even under heavy rain waiting for an untold amount of time for the school bus. And also if they don’t have to worry if kids have made it to school safely or wondering if they have made it home safely. A smartphone application can be the best solution in this Smartphone era, to this problem statement. The application can provide assistance in ensuring kids transportation safety and reduce parental anxiety regarding kid’s safety, by helping Parents by tracking location of the school bus, receive instant warnings/alerts due to traffic jam, weather conditions, and handle the emergency situations immediately, and receive notifications on their kids reaching school after a bus journey. Not only that, the parents will receive the alerts about the change in school schedule and upcoming events like holidays, examination and any competitions or activities being conducted in school. In addition to this, the Quick Response (QR) system is implemented at driver’s end that will be responsible for associating the driver’s information

with the school bus, which will help school transport managers to communicate better with bus drivers and also assure kid's security.

Acc.No.PR1565

Title :Bind & Share (B&S)

Author:Shreya Sawant, Pranjali Shirke

Project Guide:Ms. Blessina Gonsalves

Abstracts: B&S is an application which will help to discover information. In this application, all the articles which user seems to be interested in will be displayed on Home Page. User can bind any document or article that he/she felt interesting or useful to its binder. Binder is folder where all the binded articles or docs get stored. The user can also share the Binder with others if he/she desires to do so. It's up to user to create binder as private or public. If a user is working in a group, he/she can share the binder with the group mates and the group mates can also add in to the binder. In this way people will do smart work instead of hard work with the help of B&S.

Acc.No.PR1560

Title :System security using RFID card

Author:Sahil lopes, Jerry gonsalves, Gratus d'britto

Project Guide:MR. Rajkumar shende

Abstracts: There is a tremendous growth in computer security related services, which demands efficient and secure security systems. We have used an architecture which has a managed user authentication system. The system security using RFID card is an RFID access control and automated power system that will provide ID-based access to the personal computers trigger the activation of a user-matched switch. This will provide optimum user security and each user will get a personal access to his or her work station. The authentication process is very simple the user just has to scan his/her valid RFID card to start the system. This system will use an RFID authentication mechanism to communicate with a microcontroller that will release an electric door strike for access and turn on a set of switch control corresponding to the pre-determined path of the user. Thus only the authenticate user will be able to access his/her system. The complete project will include RFID readers, an ICOP EBox computer, a microcontroller, relay switch, along with necessary cables and basic circuit elements. The purpose of this project is to automate the access of the system using RFID technology. This technology will be used in order to customize lighting conditions based on the individual who is attempting to start the system.. This system will primarily be purchased and installed by builders and developers of MDUs and offices, although it can be adapted to single family residences and RFID Smart College.

Acc.No.PR1564

Title :CYBER CRIME DETECTION TOOL

Author:UNNATI GUHA, DRASHTI PANCHAL, PRAVINA VADLEA, SHUBHAM WAGH

Project Guide:Ms.PRADNYA RANE

Abstracts: Today, in this world of Internet it is essential for each network user to have some security over the network for the purpose of communication or data transfer. There are many security systems on the network that provide security from viruses or harmful file extensions. The space provided varies from system to system. The commonly used network securities are firewall, anti-viruses and so on. And each of these security software provides different services to NETWORK user. So there is a great need of a comfortable security access for the systems which are connected in a network or for seeking any information on daily basis through the systems that are connected through LAN or even on internet.

A "Crime Detection Tool (CDT)" monitors traffic on a network looking for suspicious activity, which could be an attack or unauthorized activity. A large CDT server can be set up on a backbone network, to monitor all traffic; or smaller systems can be set up to monitor traffic for a particular server, switch, gateway, or router. In addition to monitoring incoming and outgoing network traffic, a CDT server can also scan system files looking for unauthorized activity and to maintain data and file integrity.

The CDT server can also detect changes in the server core components. In addition to traffic monitoring, a CDT server can also scan server log files and look for suspicious traffic or usage patterns that match a typical network compromise or a remote hacking attempt. The CDT server can also server a proactive role instead of a protective or reactive function. Possible uses include scanning local firewalls or network servers for potential exploits, or for scanning live traffic to see what is actually going on.

Acc.No.PR1567

Title :Hospital ERP

Author:Sagar Gupta, Apurva Joshi

Project Guide:Ms. Snehal Kulkarni

Abstracts: This project focuses on Customized Enterprise Resource Planning. The objective of the development strategy is to provide a valued web based solution with technology, functionality, ease to implementation and effective cost.

Here the ERP system is developed for Hospital, the idea behind this is that it is one for all, it means this ERP will helpful to all competitive healthcare sector which in turn will reduce the workload of users i.e. it will replace the paper work, any updates to the data can be performed directly, consumption of time will be reduced, any data entry can be performed directly and backup of data will be provided. ERP is basically integration of the information of different departments, which can be managed from one system. Reliability, accuracy, efficiency and timely availability of information are the benefits of the ERP system. Redundancy within the organization can be eliminated.

The ERP system is developed for Hospital wherein several isolated modules such as online patient appointment system, patient care management, patient payment system, lab test management system, accounts and administration management of hospital, specialist service management, doctors management system.

The system gives the administrator complete access to the system and the right to decide which department should or should not be able to access the system.

Acc.No.PR1559

Title :Home Automation System Using Raspberry Pi

Author:Flloyd Dsouza, Jordina Dcunha

Project Guide:Ms. Vanessa D'Britto

Abstracts: Nowadays we must have seen in TV commercials Automated Homes and their various applications. It is not feasible for common man to install overpriced bulbs and other equipment, so that they can be controlled via your smartphones. Google Home and Amazon Echo cost too much. Simple bulbs and their controlling equipment cost around 5000 (Phillips Hue)

Instead we can set up an Automated Home using existing electrical lighting and components by changing the switches with a custom-made switch using Raspberry Pi and Android Application

This paper describes a design and implementation of advanced home automation system using Wi-Fi technology. The home is an eternal, distributed computing environment which requires a careful study before developing suitable Home Automation System that will accomplish its requirements. Important issues are always to be handled before developing a Home Automation System; factors like security, reliability, usefulness, robustness and price are critical to determine if the final product will accomplish the expected requirements. This system consists of two main components; first part is the web-server and the second part is the hardware interface module. Unlike most of available home automation system in the market the proposed system is salable that one server can manage many hardware interface modules as long as it exists on Wi-Fi network coverage. System supports a wide range of home automation devices like power management components.

Acc.No.PR1539

Title :Alert Tool for Hearing-Impaired

Author:Vaishnavi Chendwankar, Shivani Desai, Banashree Guha

Project Guide:Ms. Jayshri Mittal

Abstracts: Many deaf people feel one of their biggest difficulties is the hearing culture that treats them as though they are handicapped, people to be pitied or changed. There are approximately 28 million hearing-impaired individuals. Cochlear implants have brought hearing to some, while others in the deaf culture opt to keep sign language as their method of communication. While walking outside, tone-deaf people find it impossible to register the sounds around them. In case of a traffic jam, horns are not audible to them.

The app will overcome all the obstacles faced by these people. In case of a high decibel noise of a horn or any siren there will be a vibration which will alert them regarding some changes in the environment. The app will run in the background, fetching all the noises from the environment.

The frequency of vibrations will be according to the decibel of voice. The interface will guide them regarding the type of vibrations in each case.

In addition to the vibration system, to enhance one to one conversation there will be a feature which will convert speech to text. There will be a vibration if there is a person near the device and is talking. To convert the speech to text, the user will press a button which will then display the text on the screen.

Acc.No.PR1537

Title :NETRA

Author:Mitali Rathod, Mayuri Sapkal

Project Guide:Ms. Sneha Jadhav

Abstracts: According to World Health Organization (WHO) 285 million people are estimated to be visually impaired worldwide: 39 million are blind and 246 have low vision.

A Majority of the visually impaired use Braille for reading documents and books which are difficult to make and less readily available. This gives rise to the need for the development of devices that could bring relief to the agonizing tasks that the visually impaired has to go through. Due to digitization of books there are many excellent attempts at building a robust document analysis system in industries, academia and research labs, but this is only for those who are able to see.

Visually impaired people report numerous difficulties with accessing printed text using existing technology, including problems with alignment, focus, accuracy, mobility and efficiency. As the technology is advancing day to day, the human machine interaction has become a must in our daily life. We can efficiently use an embedded system as a solution to problems. The primary objective of our project is to help visually impaired people to read. We present a smart device that assists the visually impaired which effectively and efficiently reads paper-printed text.

Acc.No.PR1552

Title :Multi Agent Based Distributed Data Mining

Author:Glen Carval, Jules Tuscano, Sanel Tuscano

Project Guide:MR.Rajkumar Shende

Abstracts: Multi-Agent Systems (MAS) offer an architecture for distributed problem solving. Distributed Data Mining (DDM) algorithms focus on one class of such distributed problem solving tasks—analysis and modeling of distributed data. This project offers a perspective on DDM algorithms in the context of multi-agents systems. It discusses broadly the connection between DDM and MAS. It provides a high-level survey of DDM, then focuses on distributed clustering algorithms and some potential applications in multi-agent-based problem solving scenarios. It reviews algorithms for distributed clustering, including privacy preserving ones. It describes challenges for clustering in sensor-network environments, potential shortcomings of the current algorithms, and future work accordingly. It also discusses confidentiality (privacy preservation) and presents a new algorithm for privacy-preserving density-based clustering.

Acc.No.PR1568

Title :Automated Toll Collection System

Author:Rushal Ferreira, Smit Carvalho, Allwyn Vincent

Project Guide:Mrs. Anuradha Srinivasaraghavan

Abstracts: ATCS (Automated Toll Collection System) is used for collecting toll tax automatically. The identification is done with the help of radio frequency. A vehicle will hold an RFID tag. This tag is nothing but unique identification number assigned. This will be assigned by traffic governing authority. In accordance with this number we will store, all basic information as well as the amount he has paid in advance for the toll collection. Sometimes the problems faced by the present process are of providing change money and also there could be a case of loss of receipt. The system will overcome all of these existing

problems. Reader will be placed at toll naka. Whenever the vehicle passes the Toll Naka, the tax amount will be deducted from his prepaid balance.

The installation of this RFID setup is expensive and time consuming so another proposed method is using License plate approach using image processing. The vehicle image which was captured will be scanned to extract the license plate and by using the number, the user profile will be identified. Then the profile will be checked into the database and the amount will be deducted from the prepaid balance of the user and the new balance will be updated.

This method will be beneficial for everyday travelers as they don't have to stop in a queue, it assures time saving, fuel conservation and also contributing in saving of money.

Acc.No. PR1528

Title :Online Credit Card Fraud Detection Using Hidden Markov Model

Author:Reeves Gonsalves, Steven Pereira,

Project Guide:Ms. Vanessa Dbritto

Abstracts: Online fraud is burgeoning with the rise in popularity of online transaction like banking, shopping, etc. In scenario where, like in U.S., once every four seconds a fake charge is made to someone's credit card (source: MSNBC), identity theft fraud protection has never been such important. So one need to ensure that you are using reliable identity theft protection, whether he/she likes to shop online, bank online, or accessing any other service, where you provide in or deal with private and confidential data.

In case of the existing system the fraud is detected after the fraud is done that is, the fraud is detected after the complaint of the card holder. And so the card holder faced a lot of trouble before the investigation finish. And also as all the transaction is maintained in a log, we need to maintain a huge data. And also now a day's lot of online purchase are made so we don't know the person how is using the card online, we just capture the IP address for verification purpose. So there need a help from the cyber-crime to investigate the fraud. To avoid the entire above disadvantage we propose the system to detect the fraud in a best and easy way.

Using this method it is possible to prevent the credit card fraud in the future. As this technique helps to store the pattern, it stores the patterns which will prevent the fraud using more enhanced technique we can reduce the time required to store the spending patterns of the customer. This will also help to prevent fraud for physical card.

It will be beneficial for the credit card companies so they can save their money that could be misused by the fraudulent. It can also be beneficial to shopping center to avoid illegal shopping.

Acc.No. PR1557

Title: SAFE STREETS FOR WOMEN USING AUGMENTED REALITY

Author:Ramkumar Kamte,Ann Jose KKartik Kunder

Project Guide:Priya Chaudari

Abstracts: Analyzing the safety of the street based on newspaper articles using augmented reality.Augmented reality (AR) is a live direct or indirect view of a physical, real-world environment whose elements are augmented by computer-generated sensory input such as sound, video, graphics or GPS data. This technology functions by enhancing one's current perception of reality, it brings out the components of the Digital world into our perceived Real world. AR has become the center of attraction for all the customers and is now incorporated in a number of applications. The military uses augmented reality to assist men and women as they make repairs in the field. The possible commercial and educational applications are unlimited but are gaining popularity.

In the light of recent crimes against women, public are gearing upbeat in different ways to fight back. We are aware of importance of women's security, but we must recognize that they should be well secured. A Woman is not much powerful when compared to men physically, in a crisis situation and needs a helping hand to relieve them. A swarm of new apps have been developed to provide security systems to women on their phones.

In the proposed project, we plan to develop an application that helps users on deciding how safe or how dangerous a particular street/place is by placing the camera on the place/street. The user can view the existing articles about the place, user's experiences and user reviews. A recommendation will also be provided to the user based on the available data. The user can even send alert messages to the list of emergency numbers entered by them.

Title :Artificial Intelligent System to Match Similar Items

Author:Shivani Prabhu,Archie Shah,Ritika Shetty

Project Guide:Ms. Shobha Tyagi

Abstracts: The project entitled "Artificial Intelligent System to Match Similar Items" deals with the problem faced by most of the users when they search for a product while shopping trying to search for images based on text and tags can be a painstaking process. This application helps to bridge the gap between what user has in mind and what they want to buy. This application allows user to find Links to various items just by uploading an image,the user can either click a picture of the item or upload a screenshot. The system will provide all

the links to similar items by image retrieval that is present in its dataset. This will make the shopping experience and searching for an item easier for the customer.

Acc.No.PR1558

Title :Fruit Quality Analysis

Author: Raveena D'costa, Alisha D'souza,Mukeshponraj Vadivel

Project Guide: Ms.Snahal Kathale

Abstracts: Nowadays, quality evaluation of fruits is important and it plays vital role for the food and agricultural industry. The fruits in the market satisfy the consumer preferences. So, to maintain the quality, detection of defect on fruits is necessary. Before few years this task completed by manually. But manual sorting shows inconsistency and inaccuracy in result. Hence, we propose an image-processing based system for detection of fruit and determination of its quality.

In recent years deep learning has been used in image classification, object tracking, text detection and recognition. Auto encoder, sparse coding, Restricted Boltzmann Machine, Deep Belief Networks and Convolutional neural networks is commonly used models in deep learning. Among different type of models, Convolutional neural networks has been demonstrated high performance on image classification. Our system will make use of convolutional neural networks. The system will help us to classify the different images into their respective categories. On the basis of the Convolutional neural network, we also analyzed different methods of learning rate set and different optimization algorithm of solving the optimal parameters of the influence on image classification. The main aim of this paper is to classify images of the fruit according to its quality.

Acc.No.PR1520

Title :Diabetic Retinopathy Detection

Author:Niral, Almeida,Rudolph,Almeida,Melissa,Dcunha

Project Guide:Ms.Vincy Joseph

Abstracts: The project aims to build a comprehensive and automated system capable of identifying the extent to which a person in suffering from diabetic retinopathy which is one of the leading causes of blindness in the world. Current DR detection methods are manual based i.e. a physician manually checks images for features inherent to DR. The system given a pair

of color fundus photographs, will provide a rating between 0-4 which tells the extent to which DR occurs in the eye. The system will be trained using supervised machine learning algorithms with a dataset, which has been labelled and rated by a practicing physician. The goal is to push the automated system to the limit of what is possible – ideally resulting a model which has realistic clinical potential. The system will be a desktop based system with a user interface which allows easy uploading of images to the system, which will then classify the image.

Acc.No.PR1527

Title :Chatbot Receptonist

Author:Nigel D'souza,Bryan Thomas,Rahul Kanojia

Project Guide:Ms. Shobha Tyagi

Abstracts: A receptionist is an essential part of any organisation. They are like a guide or helper to the customer to become informed about and to be able avail various services provided by the organisation. But as there are some limitations in having a human as receptionist such as they cannot attend to multiple people at once, they wouldn't work 24*7 etc. Therefore we are making an Automated Chatbot Receptionist who would handle these limitations.

Automated Chatbot Receptionist is a computer application running on a website that is capable of greeting them, understanding their questions, and then talking back to them appropriately. Our application aims to develop automation with respect to the field of receptionists using chatbots. It will make organization and management of databases of certain public services and organizations much more efficient and clean.

The smart Chatbot Receptionist that integrates natural speech recognition (for understanding a visitor's language), a question-answer (Q-A) knowledge database (for storing and managing information), and text-to-speech (TTS) (for a machine talking back to visitors).The probability of errors during search and recovery from the database when the user makes such inquiries will be reduced to minimal. For this it is necessary to implement the knowledge of natural language processing and artificial intelligence.

This Chatbot Receptionist system can be easily converted into various information kiosks with slight modifications and configurations. In our implementation we will have it for hotel and doctor's clinics.

Acc.No.PR1532

Title :Minutes -Scheduling App

Author:Jasmine lobo,Rebecca dmello

Project Guide:Mr.Jerin Thankappan

Abstracts: We know that the basic needs of a human are food, clothing and shelter. But for the fact

we can't deny we need doctors, lawyers,consultants etc. for some or the other purpose. As they

are also included in our daily needs we visit them very often. So for the ease of same we are

developing a scheduling system which will indeed help us contact them faster.

We aim to make our system less human dependent by automating the entire booking

system as less human effort is required. Our system offers app based scheduling for the required

time slot. The scheduling is done according to users need and faculties free slot. App includes

different faculties such as doctors, lawyers, consultants, CA etc. This app will help in scheduling

an appointment for the required slot / time. App is also beneficial for just going through the new

faculties in the area.

The whole idea behind the app is to reduce the human effort, save time and benefit for the

society.

Title :<u>An Automated System to monitor and maintain Hydroponic Farming.</u>

Author:NEIL ALMEIDA,GELNN DBRITTO,BENJAMIN RAI

Project Guide:Ms.Safa Hamdare

Abstracts: Soil Erosion leads to decrease in agricultural production leading to desertification. Also

Factors like Overuse of Fertilizer which increases the salinity of the soil; Global warming and

natural calamities which is creating an issue on the climate change; and Bio-tech Industries

which are creating hybrid seeds with customized fertilizer eliminates the fixation of nitrogen

cycle crops which in turn has an adverse effect on the soil and humans consuming it. These

entire problems eventually leave a farmer with less fertile land to cultivate the crops. Solution to

these problems is to start with a Hydroponic Farming where crops are grown without soil, into a

closed or open environment depending on the size and width of the total crop length. Plants

grown hydroponically are generally healthier than their soil-grown counter-parts, because they

receive an almost perfectly balanced diet and rarely come in contact with soil-borne pests and

diseases. Since hydroponic systems reduce water and nutrient stress to the plants, they grow

faster and can be grown closer together without starving each other. Healthier plants also

produce higher harvests. In this paper, we proposed to prepare a hydroponic farming using

Artificial Intelligent System which will benefit the local farmers whose land has been degraded.

This system will conserve water by stopping evaporation and runoff, Losses due to drought and

flooding will be significantly reduced as well. Also regions with water scarcity or non-arable

land problems, can cultivate good crops.

Acc.No.PR1569

Title :Fantasy football prediction using machine learning

Author:Princia dsouza,Gibson foss,Christangel fargose

Project Guide: Ms.Snehal Nikam

Abstracts: Fantasy football lets you try your skills as a fantasy owner. After you join a league, you scout for and draft players, compete against other fantasy owners, and use all your skills to win the championship. It is a game in which a user selects a team of 15 players in a given budget and compete with other users in the league to stay on the top of the league. Players are allocated points based on their performances. Our aim is to solve the problem of loss of interest in Fantasy Football over the season, a game-changing strategy was thought of which led to the creation of this idea. Powered by an exhaustive dataset of all football statistics from 1992 i.e. the start of the Premier League era, it seemed exciting to allow the use of Data Mining techniques and Artificial Intelligence for team prediction. A points system based on the success of predictions, which in turn allow buying/auctioning of better players adds a greater interactive feeling to the existing FPL system. This would prevent the churning of players of the season, since they would be attracted to getting more points and better players through such predictions.

Acc.No.PR1538

Title :PHISHING SITE DETECTION USING URL FEATURES

Author:Suraj Nair,Neha Naik,Amit Pathare

Project Guide:Pradnya Rane

Abstracts: Phishing is an online criminal act that occurs when a malicious webpage impersonates as legitimate webpage so as to acquire sensitive information from the user. Phishing attack continues to pose a serious risk for web users and annoying threat within the field of electronic commerce. This project focuses on discerning the significant features that discriminate between legitimate and phishing URLs. The rules obtained are interpreted to emphasize the features that are more prevalent in phishing URLs. Analyzing the knowledge accessible on phishing URL and considering confidence as an indicator, the features like transport layer security, unavailability of the top level domain in the URL and keyword within the path portion of the URL were found to be sensible indicators for phishing URL. In addition to this number of slashes in the URL, dot in the host portion of the URL and length of the URL are also the key factors for phishing URL.

Acc.No.PR1521

Title :College connect

Author:Yash shah,Gaurav tamhane

Project Guide: Ms.A.Srinivasanraghvan

Abstracts: College forum plays an important role In smooth functioning of the day to day college activities. College forum acts as a bridge between the different faculties and students. There is no stable system as such which where all the students can get the day to day resources for their practicals and college notices in one place. The class coordinators convey these messages most of the times throughemails. Also the different lecture ppts are being mailed on a common class email address. Since everyone has the password to this class email address, these documents are prone to get lost due to some malicious activity. College forum will overcome these drawbacks.

Acc.No.PR1547

BRANCH: INFT- YEAR: 2018

ABSTRACTS

Title :Secure Authentication Method using QR Code for Banking

Author:Mayur Kulkarni,Ameya Save,Sandesh Sakhare

Project Guide:Ms. Minal Lopes

Abstracts: This work contributes in the design and implementation of an inventive secure authentication

method which utilizes a QR code; an open source proof-of-concept authentication system that uses

a two-factor authentication by combining a password and a camera-equipped mobile phone, acting

as an authentication token. QR code is extremely secure as all the sensitive information stored and

transmitted is encrypted; however it is also an easy to use and cost-efficient solution. In the QR

code a complex password is stored. Smart phone is used for scanning the QR code. The code is

scanned with the QR code scanner. Scanning result generate one string which is the combination

of IMEI number of a phone which is register by the user and the random number, where random

number is generated by the random number function. If the network is available on the smart phone then that generated string is automatically entered into the login page and homepage of bank is open. Otherwise six digit pin code is generated and it has to manually enter in the login page and home page of bank is open for transactions. In a modern world where we are able to do almost everything on-line (banking, shopping, communicating, storing and sharing personal information...), it is nowadays a critical matter to be able to access these services in the most secured manner. Indeed, as viruses and cracking methods become more complex and powerful by the day, the available security techniques must improve as well, allowing users to protect their data and communications with the maximum confidence. The aim is to develop an authentication method using a two factor authentication: a trusted device (a mobile phone) that will read a QR code and that will act as a token, and a password known by the user.

Acc.No.PR1609

Title :Windows File Security System using Bluetooth and Rijndael Algorithm

Author:Sarvesh Deshmukh,Gunjan Dokwal,Kamlesh Dubale,Anish Gawde

Project Guide:Dr. Joanne Gomes

Abstracts: Security of files in computers has been a core issue. To safeguard data, organizations impose password policies that in way ascertain that there is a degree of security on files that may be sensitive in nature. A successful policy mainly depends on the behavior of the users and how they follow it. This system attempts to improve the policies by introducing the use of mobile phones or other Bluetooth enabled devices, using Rijndael encryption to store the file in an encrypted form, thus ensuring that even if an intruder or unauthenticated person is able to access the private file, he would not be able to understand the contents. This would ensure that the users are authenticated to gain access to their most private files using their Bluetooth enabled mobile phones or other devices. This security system uses Bluetooth and Media access control (MAC) address as the Key features of security. The key used here is a private key and it uses block cipher for encryption.

Acc.No.PR1591

Title :Agro Advisory System for Detection of Crop Diseases

Author:Priya Chaudhari,Victoria Carvalho,Darshana Biradar,Rachel Almeida

Project Guide:Ms.Nitika Rai

Abstracts: Agriculture is a primary source of employment where not only cultivation skills are necessary but also techniques to tackle various Crop health issues are required. The identification of many crop health issues is not an easy task where even human health issue identification requires some external testing along with an human experience and study. Different types of crops have different symptoms which can be misinterpreted easily if no study is taken into consideration while identification, which might result in loss. Data-mining can be used to detect crop diseases given the symptoms of the disease affected crop which would simplify the disease identification. The Agro Advisory system acts as an assistant for identification of crop diseases using data mining i.e. decision making capability alongside of involvement of people in the decision making process by answering certain set of questions given by application. The Random tree algorithm works best decision making in Agro advisory System where each attribute value would help in classification of the crop disease. A dataset is generated and with the help of this dataset the further classification is implemented. The decision tree is a binary decision tree which would simplify the decision making process. The application consists of set of questions selected on basis of crop selected. Depending upon answer of certain question the next question will be forwarded to the user and the answers will be recorded for generation of the final result. The application is user-accessible as the questionnaire would be provided in the local language. The decision making process would simplify the crop disease identification task.

Title :Baby Cry Recognition System

Author:Pallavi Dhargalkar,Vineeta Erulan,Jagdish Chaudhary,Yash Chauhan

Project Guide:Ms. Minal Lopes

Abstracts: Being born is a very discomforting experience for the baby. The world is cold and full of harsh lights and loud noises. The only comfort you know as a baby is being fed or cuddled. When babies grow older and develop, they discover new things all the time, which they do not understand and might confuse them, also leading to discomfort. At such times, it is comforting for the baby to know there are people taking care of. At a certain age (after a year maybe), you will find out when the baby is no longer crying for discomfort, but only for drawing your attention. This becomes a habit of baby to cry for just seeking attention. The major reasons why a baby cries are when baby is hungry, Baby is feeling cold or too hot, Baby needs nappy change, Baby just needs to be held, Baby is too tired and needs rest, Baby just feels like crying. Out of these above mentioned reasons, in half the reasons baby cries

just because the baby is deprived of parent's attention and just needs to be attended by swinging the cradle. For the young parents who are working, it is tedious to manage a proper balance between work and baby. We being parents are emotionally connected to our child but when we are busy we feel a need to be smarter by attending the baby only when there is actual need such when the baby is hungry or when the nappy has to be changed. Thus in this project we propose a smarter way to attend the baby only when there is a genuine reason to which the baby has to be taken care of. Our system detects the sound of a baby crying accurately using a microphone over Raspberry Pi.

Acc.No.PR1579

Title :A COMPARATIVE STUDY OF ROUTING PROTOCOLS IN WIRELESS COMMUNICATION

Author:Diyo Davis,Karan Gadani,Manish Gupta,Satyam Kini

Project Guide: Ms.Nitika Rai

Abstracts: Mobile adhoc networks consist of nodes that move arbitrarily, thus making the topology dynamic in nature. Also, nodes in MANET have limited transmission ranges leading to some nodes not being able to communicate directly with each other i.e. routing paths in MANETs potentially contain multiple hops. Every node in mobile ad hoc networks has the responsibility to act as a router. Hence routing protocols are needed and must provide four important functions as determination of network topology, maintaining network connectivity, transmission scheduling and channel assignment, and packet routing.

Routing protocols can be categorized as table-driven or proactive and source-initiated or reactive or on-demand routing. Each of these types of protocols behaves differently in different wireless conditions and have its suitability for a particular applications needs to be analyzed before adoption. The main aim of this project is to carry out a comprehensive comparison of various routing

protocols on the basis of a holistic parametric analysis to and suitable routing protocol for any given application. The project considers proactive, reactive and hybrid routing protocols. The quantitative metrics used to assess the performance are throughput, delay, packet delivery ratio, jitter and normalized control overhead. The above parametric analysis considers the effect of change of network configuration like packet size, packet interval, density of nodes, percentage of mobility of nodes and speed of movement of nodes. This study can be readily used as a reference to choose a suitable routing protocol for a given application with a required set of characteristics.

Acc.No.PR1575

Title :Secured file sharing using access control

Author:Brunella Andrades,Ria Vaz,Robin

Project Guide: Ms.Alvina Alphonso

Abstracts: These days Device storage is a major issue for Smart Phone User because we get limited storage which are either covered by multimedia or other apps which lacks space for importantstuffs .Security is also a concern for storing Any Important Files or documents In MobilePhones as . The Data which are stored in Mobile Phones are not safe as it's not that hardto hack a phone or a virus to destroy it or damage or theft; any situation the user loses thefiles. So we present you this system which allows storing your file in an encrypted way on theserver. Now the concern is if u need that file to send someone, you will need to download it first and then send it. But this problem is also solved by this system; you can share the file with anyone without downloading it. This is done by sending an SMS to the recipient and then the receiver can get the file by entering the file id and the system does the rest. Here this system uses AES and DES for encrypting the file in 2 halves and sending the file to the

server while the SMS send uses Blow Fish Encryption.

Acc.No.PR1573

Title :Digital Marketing

Author:Ronak Shah,Pramodkumar Yadav,Thomas Paulochan

Project Guide:Mr.Vaibhav Kala

Abstracts: One of the most effective digital marketing strategies that connect to the user is video marketing. This is a reason why visual content should be the part of marketing strategy. In this advertiser show the visual contents like images and videos ads over websites, portal and television. In our project we also provide a platform that will help advertiser to advertise their product visually. In our project we provide users to upload their video that is visual content on our site. Other users able to see all videos present on our site. It is typically video sharing website like YouTube. Between the process when user see the video we will run the ads over it. This is the simple digital video marketing strategy we are going to implement. This website is also has revenue model. The incoming revenue will be distributed among the up loader of videos and owner of site. In this we are going to implement feature that will uniquely identify the our site from other different video sharing portal. In this we will add a marketing strategy in which we will also pay to viewer of site. This unique strategy will help to drag huge amount of traffic to our site. The more traffic will site has the more revenue it will generate. The other technical unique features is we will run ads and play videos using single servers. This is most unique feature because most of the video sharing portals use external or secondary servers to run video ads. In this project we will implement simple videos sharing portal that will consist of 150-200 videos, a small search algorithm to search videos and script that will run ads before videos. Also script that divide the revenue between up loader , viewer and owner of site.

Acc.No.PR1602

Title :Clinic ERP

Author:Ashton Possa,Gauri Chaudhari,Nikhil Patil,Saurabh Poojary

Project Guide:Mr.Vaibhav Kala

Abstracts: This project focuses on Enterprise Resource Planning. The objective of development strategy is to provide a valued software solution with technology, functionality, ease to implementation and effective cost. Here the ERP system is developed for a Clinic, the idea behind this is The clinic currently stores all its data into physical files which are maintained manually by the administrative

staff. This makes the entire organization slow and also costly. ERP is the integration of the information of different departments, which can be managed from one system. Reliability, accuracy, efficiency and timely availability of information are the benefits of the ERP system. Redundancy within organization can be eliminated. The scope of the project is to manage the clinic details

and reduce human effort. This is done by using modularization. The ERP system is developed for clinic wherein several isolated modules such as Patient Data Management, Staff Management, Staff Attendance and Leave Tracking, Medicines Orders, Medicines Sales, Patient Fees Payment, Balance Tracking and Staff Payroll. In this system, all the departments get access to data i.e. the

integrated data as per their designation and requirements. This system is a desktop application and it is completely from administrative side. The system gives the administrator complete access to the system and the right to decide which department should or should not be able to access the system.

Title :Kids Pyschometric Web Application

Author:Sanket Shah,Deep Shah,Tarun Sodvadiya

Project Guide:Ms. Monalisa Lopes

Abstracts: Now a day's choosing right career and become successful and proficient in that field is everyone's dream.
Toachievethismakingrightdecisioninchoosingfieldforcareerplaysavitalrole. Selecting thisdomainishighlydependsonyourareaofinterestandyournaturalskills. Toidentifytheseskills normallyparentsfromwesterncountryperformpsychometrictestofchild. Withtheproperanalysis theycanfindoutthestrongzoneoftheirchildandhencetakethesuitableactionforimprovingtheir weaken area and deciding fields for their child. In India there is no such procedure available for deciding your brain strong part. Some of the mega city may have such center but that too not in muchnumberandchargesforsuchtestaresohigh.
Andinremotesystemthereareno such facility exist. From the effective Psychometric books and

experts result which we have converted into computer algorithm, analysis can predicted and can suggest the best advice to the people. Those child who don't have knowledge of operating computer, for them there will be separate download option of the questions whose answer can be taken offline and can be uploaded back on the portal.

Acc.No.PR1607

Title :Intent Recognition From Speech

Author:Dhruv Dhamani,Viona Gonsalves,Rachel Ferrao

Project Guide:Ms.Grinal Tuscano

Abstracts: The advanced capabilities for location-based services of smart phones are mostly used for travel applications, navigation or business fleet management. We motivate a social emergency alert service that makes use of the wide availability of smart phones and activates nearby social contacts in cases of Emergency. Emergency can occur anywhere anytime. The nature of emergency is unpredictable and it can unveil itself in any form. Emergency has in time past led to loss of lives and property. Whenever disasters occur, people in the location need to have adequate information to minimize the human and financial losses. Hence, there is need to prepare for likely emergency cases in advance. The level of preparation will determine how well incurred loss will be minimized. Emergency response involves a set of highly coordinated activities from teams of experts. With the recent evolution of smart phones, such information can be made available to the people much sooner and more reachable. Thus, the objective of this project is to develop a mobile application that could be used to coordinate activities between the Emergency responders and the victim or rescuer at the point of incidence.

Acc.No.PR1580

Title :Dissociated Swarm

Author:Yash Dedania,Tushar Hebbar,Mihir Kabani,Akhil Kubal

Project Guide: Ms.Amrita Mathur

Abstracts: Swarm Intelligence deals with the coordination of decentralized, self-organizing multi-robot systems which emerge from interactions between the robots and interactions of the robot and its environment. Bots in Swarm Intelligence are hardcoded to do a particular task. They coordinate with each other and perform a specific work. We propose a swarm

model where the microbots present in the swarm are not coded to perform a particular task, rather various computer vision techniques combined with machine learning and artificial neural network algorithms can create robots that can observe the swarm and learn the tasks they are performing. With self-learning on the rise, we have proposed algorithms for unsupervised learning of robots which work efficiently. We state the idea, working and the algorithms used for swarm intelligence and the most optimum algorithms that can be used for our idea, Dissociated Swarm.

Acc.No.PR 1578

Title :SIGNATURE VERIFICATION SYSTEM

Author:EKATA SINGH,ASHISH NAMBIAR,SALONI SOMAIYA,JINAL SAPARIYA

Project Guide: DR. VAISHALI JADHAV

Abstracts: In the proposed Signature Verification system,the images are first pre-processed to remove noises from them. Features are extracted from the denoised images.The features are extracted from all the training images and also from the test image. The extracted features of the test image and the training images are then passed into the classifier.The classifier analyzes the feature values and match them with the true label and finally produce the classification result. We propose a novel approach for content based color image classification using Neural Network. Traditional classification approaches deal poorly on content based image classification tasks being one of the reasons of high dimensionality of the feature space. In this project, color image classification is done on features extracted from Gray level Co-occurrence Matrix and Gabor filters.

Acc.No.PR1595

Title :VOICE ASSIST FOR DEAF AND DUMB

Author:ASHLEY RODRIGUES,AKSHAY NAYAK,SWAROOP NAYAK,RAKSHIT SHETTY

Project Guide: Ms. Renia Lopes

Abstracts:Now-a-days one important problem which is been faced by our society is the people with some kind of disabilities finding hard to cope with the fast growing technology. For example mute people use their own language to communicate with others, i.e., Sign Language. Sign language is widely used by individuals with hearing impairment to communicate with each other conveniently using hand gestures. However, non-sign-language speakers find it very difficult to communicate with those with speech or hearing impairment since it interpreters are not readily available at all times. We can also understand their language by using a translator. A translator helps us to understand what they speak and do to

communicate with us. Many countries have their own sign language, such as American Sign Language (ASL) which is mainly used in the United States and

the English-speaking part of Canada. The proposed system helps non-sign-language speakers in recognizing gestures used in American Sign Language. So to facilitate non-sign language speakers, we have implemented a system which can provide basic communication need for a deaf-dumb people and also solve their problems. The system we have proposed is used as a Voice Assist Application which will provide help to dumb and deaf people to express their need to communicate with normal people. This system will also enable non-sign-language speakers to understand and communicate with those with impaired hearing. Our system aims in giving deaf and mute people equal opportunity in the society.Abstract Now-a-days one important problem which is been faced by our society is the people with some kind of disabilities finding hard to cope with the fast growing technology. For example mute people use their own language to communicate with others, i.e., Sign Language. Sign language is widely used by individuals with hearing impairment to communicate with each other conveniently using hand gestures. However, non-sign-language speakers find it very difficult to communicate with those with speech or hearing impairment since it interpreters are not readily available at all times. We can also understand their language by using a translator. A translator helps us to understand what they speak and do to communicate with us. Many countries have their own sign language, such as American Sign Language (ASL) which is mainly used in the United States and the English-speaking part of Canada. The proposed system helps non-sign-language speakers in recognizing gestures used in American Sign Language. So to facilitate non-sign language speakers, we have implemented a system which can provide basic communication need for a deaf-dumb people and also solve their problems. The system we have proposed is used as a Voice Assist Application which will provide help to dumb and deaf people to express their need to communicate with normal people. This system will also enable non-sign-language speakers to understand and communicate with those with impaired hearing. Our system aims in giving deaf and mute people equal opportunity in the society.

Acc.No.PR1599

Title :Movie Success Predictor System

Author:Shrey Modi,Ajinkya More,Amit Mondal,Nirav Chauhan,

Project Guide:Ms. Amrita Mathur

Abstracts: Movie Industries around the world produce thousands of movies every year. Many of those

movies become hit at box office and the producers earn a good amount of profit. But there are also

a substantial number of movies which become flop leading to huge losses for producers. Movie

Industry is very volatile. There are large a number of factors that can affect the Success of a

movie. Though many of those factors affecting movie success are inconsistent. There are also a

large number of factors which exert significant influence on box office success or failure of movie.

In our proposed system we have identified such factors influencing movie success. Those factors

will be mined from internet sources and stored in a unified database of features. Using Linear

Regression classification algorithm, this data mining technique enable us to uncover information

which will both confirm or disprove common assumptions about movies, and also allow us to

predict the success of a film given select information about the film before its release. Finally, data

mining will be performed. We intend to perform relevance analysis to see what factors contribute

most to a high rated movie, clustering to attempt to detect any relationships between the year a

film is produced and its rating, and finally classification to attempt to classify the general rating of

upcoming films based upon known information.

Acc.No.PR 1574

Title :Gesture to speech converter for the verbally impaired

Author:Priya Kumbhar,Siddhi Gunaji,Vaibhavi Dharashivkar,Sayali Jawre

Project Guide: Ms. Mrinmoyee Mukherjee

Abstracts: Verbally impaired people around the world make use of sign language for communication. Sign gestures are a form of a non-verbal method of communication that has fixed mapped tables of gesture with its meaning. But it is often very difficult for the verbally impaired to communicate with normal people. The project aims to develop a hardware device which will convert the non-verbal gesture into speech. The gesture to speech system has been developed using sensor-based gloves and an Android application. The glove is embedded with flex sensors and Inertial Measurement Unit (IMU). The android application is used for generating speech output.

Acc.No.PR1577

Title :Predictive Marketing Campaign

Author:Sumeet Sharma,Aaditi Parab,Avikumar Shah,Dhruvin Shah

Project Guide:Mrs. Prajyoti D'Silva

Abstracts: Marketing Campaigns is a series of coordinated activities which are used to communicate with the market to reinforce their positioning and for customer acquisition. The predictive analysis offers a glimpse into how to build or optimize campaigns that derive results. The predictive model is built in R to perform the analysis that is displayed to the user through a web application developed in R Shiny. It determines that whether there will be any deposit generated from the customer based on the campaigns driven by phone calls. The prediction analysis is performed and the accuracy is determined by the model generated by Decision Tree.

Acc.No.

Title :Simple Automated Attendance System

Author:Divya Pandit,Niki Modi,Dixita Surti,Mitul Pandya

Project Guide:Ms. Shree Jaswal

Abstracts: The main objective of this system is to enforce some of the emerging technologies such as android operating system, mobile computing to enhance and enrich the traditional methods of taking attendance such as calling out the student names or by passing around an attendance sheet to mark presence. In the proposed system, an android mobile based attendance management system will be designed where all the records related to the attendance of a student would be registered over a web server using ASP.NET and SQL. System will eliminate the drawbacks of conventional methodology and will also promote paperless environments. Since the system can be deployed on existing android devices of users, no additional hardware cost in incurred. Further this work can be integrated with bio-metric techniques due to technical optimization of smart phone devices.

Acc.No.PR1603

Title :VOICE ACTIVATED SMART MIRROR FOR PERSONALIZED ASSISTANCE

Author:Royce Remedios,Nisarga Save,Vrunda Rane,Robin Pinto

Project Guide:Dr. Prachi Raut

Abstracts: Our lifestyle has evolved in such a way that optimizing time is the most important thing. Based on the user studies and prototype implementation, we present the development of different application that integrate interactive services of information, offered through a user interface on the surface of a mirror. Our work is based on the idea that we all looks at the mirror when we go out, so why wouldn't the mirror become smart. The framework will offer basic services, like the presentation of personalized weather data, time, date and will

incorporate some additional functionality, like reminder service by mobile synchronization and through social media. Our framework is based on detecting presence of human using Passive Infrared sensors and Wi-Fi connectivity. Once a person comes in front of the mirror, it displays the information that is being fed from the phone. This data or information includes calendar, time, weather, news feed, notifications and so on. Our framework also discusses about the voice recognition.

Acc.No.PR1597

Title :Road Accident analysis and Dashboard Generation

Author:Nisarg Desai,Fenil Dharod,Madhav Jani,Adarsh Jasoliya

Project Guide:Ms Priyanca Gonsalves

Abstracts: There are various methodologies and operations that are carried out so far in India to

promote road accidents but, there are always regions that fall prey to the vulnerabilities that linger on in every corner. The heterogeneity of these vulnerability-inducing causes leads to the need for an effective analysis so as to subdue the alarming figures by a significant amount.

Road safety is a primary concern and goal of highway and traffic engineers worldwide consequently, the number of road traffic accidents has also noticeably increased in the past decade. The objective is to have data mining to come to aid to create a model that not only smooth out the heterogeneity of the data by grouping similar objects together to find the accident prone areas in the country with respect to different accident-factors but also helps determine the association between these factors and casualties.

Acc.No.PR1581

Title :SMART TOWING SYSTEM

Author:Akash Shukla,Tarun Yadav,Rahul Valder

Project Guide:Dr. Vaishali Jadhav

Abstracts: Radio Frequency Identification (RFID) technology is a very useful technology in automation.

RFID along with Arduino can be used to monitor illegal parking of vehicles at specific places in

city which is one of the most challenging issues in big cities. Most prone area consists of places

like hospitals, offices, schools, colleges, etc where the space being less the commuter parks the

vehicle in a no-parking zone which can easily lead to unnecessary traffic. The vehicle details will

be fetched using an RFID tag system and are updated periodically into the database. The In-time

and Out-time of the vehicle will be monitored using RFID reader alongside Arduino Uno3. In-time

and Out-time will be captured by RFID reader and processed data will be stored in the database

using Arduino Uno3 Microcontroller Board. This paper proposes a system that will monitor illegal

parking of vehicle and alert the owner via an email that will consist of fine amount and the due date

of fine payment. The RFID tag on vehicle will act as transmitter and the Arduino along with RFID

reader module will act as a receiver. RFID is the use of radio waves to read and capture information

stored on a tag attached to an object. Using these robust features of Arduino and RFID, we'll be

monitoring unauthorized parking of vehicles at specific places in an efficient manner.

Keywords—RFID; Reader Module; Automation; Arduino; Parking

Title :AUTOMATED GENERIC MEDICINE PRESCRIPTION

Author:AAYUSHI AGARWAL,PREM ALMEIDA,ADITI BELNEKAR,NISHITA KALYANPUR

Project Guide:MS. PRIYANCA GONSALVES

Abstracts: An “Automated generic medicine prescription” system is developed to assist the patient by eradicating outdated paper based system in the era of fast technology and industrialization. Its prime objective is to make masses aware of the cheaper generic substitute to the medicines their doctors prescribe, to make sure everyone is able to afford their cure of disease or illness irrespective of any shortcoming in their lifestyles. To make this a stringent possibility we come with a universal token as a reference to the patient’s data to be stored in our database which would be used by our system to get secured access of one’s details. Thus the objective of this project is to develop a system that can recommend users with generic substitutes rather than the expensive drugs prescribed by the doctor. This is achieved by using “Tries data structure” which will retrieve relevant information on the generic medicine which is applicable to the branded

ones.

Acc.No.PR1594

Title :Detecting Phishing websites using Data Mining

Author:Mehek Thaker,Mihir Parikh,Preetika Shetty,Vinit Neogi

Project Guide:Ms. Shree Jaswal

Abstracts: Phishing is one of the major cyber threats now, where the victims credentials are taken by an illegitimate website. The illegitimate website appears to be the legitimate one and the URL matches very closely with that of legitimate website. Bigger attacks like Ransomware are also triggered by the Phished URLs itself. So, to prevent Phishing attack, it is important to detect such phished URLs at an early stage. The proposed system detects phished URLs using Data mining. This approach is different from the Blacklist approach, where the website is predicted as phished or safe based on its past 20 behaviours. The proposed system can detect newly generated phished URLs as well, which have completely no past behaviours to judge upon. A cloud based model will be generated for the same.

Various attributes from the URL like URL length, SSL status, DNS record, having IP address, etc. are extracted. The model will be trained with various samples of URL attributes and this model will be deployed on the cloud. The training of the model is done using Random Forest Classifier. The URL visited by the user will be broken down into various attributes using Chrome extension and these attributes will be tested through the model. After testing, the model predicts the URL as phished or safe and gives a prompt to the user regarding the same through Chrome Extension.

Acc.No.PR1571

Title :Automated Training and Placement

Author:Kewal Shah,Chaitanya Lotankar,Punit Jagani,Reuben Dias

Project Guide:Ms. Renia Lopes

Abstracts: An automated system is essential to meet the demand of increasing student applications for placement every year. Automated Training and Placement System automates activities of training and placement cell and provides opportunities to the student community to use collective intelligence to increase selection ratio and eases out process of maintaining the data generated in the process. The system provides a one stop communication for admin, student and company. The system focuses on the automation of the training and placement cell in the college. Authorizing the resumes, informing students about various job opening and their criteria, conducting regular online aptitude tests, storing and retrieving information of students and companies in the database, providing a platform for students to share their experience in interviews and getting reviews of student's performance during the placement process from the recruiters are some of the major features of the system.The system will use natural language processing and sentiment analysis technique to determine fields of improvement for students based on reviews from companies. The system works differently for three main entities which are admin, student and company.

Title :Detecting Diabetic Retinopathy from Retinal Images using Deep CNNs

Author:Nachiket Makwana,Akash Dabhi,Archit Masurkar,Sarvesh Narkar

Project Guide:Dr. Vaishali Jadhav

Abstracts: Diabetic retinopathy is a condition that occurs in people who have diabetes. It causes

progressive damage to the retina, the light-sensitive lining at the back of the eye. Diabetic retinopathy is a serious sight-threatening complication of diabetes. Our project is Deter mining the Diabetic Retinopathy Category from Retinal Images using Deep Convolution Neural Networks. Our proposed system can be used for early detection and diagnosis of Diabetic Retinopathy and prove beneficial, for those affected. Our objective is to create a model that would take a pre-processed retina image as input and output whether or not it has stage 4 diabetic retinopathy. Currently, diagnosing DR is a slow and arduous process that requires trained doctors to analyse colour photographs of retinas. This model will facilitate the removal of the ambiguous diagnoses done by the ophthalmologists. This task will be done by using one of the pre-trained models- Inception V3 model which is a general object classification model to be used specifically for our task. This will be done

using transfer learning and retraining the top layers of the model.

Acc.No.PR1572

Title :Metro Location and Route Navigation System Using Smartphones

Author:Akshata Parab,Nidhi Patel,Sanjana Shetty,Vidita Parikh

Project Guide:Ms. Sonali Vaidya

Abstracts: In this fast growing world new technologies are evolving at a fast pace. It is the time to change

from conventional website to app which has become the part of our daily routine. Every individual

travelling in metros faces the predicament of time. Very Often the passengers have to follow the

queue for ticket and have to wait for the metro to arrive on time. The application will provide

the user for getting tickets with more ease also considering the security by incorporating the OTP

concept. This application will fulfill the requirements of the passengers travelling in metro. This

application will provide users many other features that satisfies all the secondary needs as well.

For authentication purpose OTP is used to control the entry of the passengers. E-wallet provides

the ease of payment with different payment options available. Pass facility is provided for daily

travellers. For entertainment the user can read book and play quiz. The points gained by winning

the quiz are added to the wallet. This application will satisfy the basic needs of the metro travellers.

Acc.No.PR1596

Title :Virtual Estate Chatbot

Author:Rijo Joseph John,Rucha Baindur,Rameshwaree kasar,Sneha Shetty

Project Guide:Ms.Grinal Tuscano

Abstracts: The proposed system introduces chatbot into the idea of estate agency. Chatbots are software agents that interact with the user in a conversation. The main goal of their creation was to resemble a human being in the way they perform said interaction, trying to make the user think he/she is writing to another human being. Chatbots functions like a typical search engine; although they produce only one output instead of multiple outputs/results. But the basic process flow is the same where each time an input is entered, a new search will be done.

Title :Anomaly Detection in flight dataset

Author:Nelwin D'cruz,Princy D'cunha,Shivam Pandey,Ruchita Shah

Project Guide:Ms. Nazneen Ansari

Abstracts: In order to improve safety in current air carrier operations, there is a growing emphasis on proactive safety management systems. These systems identify and mitigate risks before accidents occur. In this project a new anomaly detection approach using routine operational data to support proactive safety management is developed. The research applies cluster analysis to detect abnormal flights based on Flight Data Recorder (FDR) data. Results from cluster analysis are provided to domain experts to verify operational significance of such anomalies and associated safety hazards. Compared with existing methods, the cluster-based approach is capable of identifying new types of anomalies that were previously unaccounted for. It can help airlines detect early signs of performance deviation, identify safety degradation, deploy predictive maintenance, and train staff accordingly. The first part of the detection approach employs data-mining algorithms to identify flights of interest from FDR data. These data are transformed into a high-dimensional space for cluster analysis, where normal patterns are identified in clusters while anomalies are detected as outliers.

The second part of the detection approach is domain expert review. The review process is to determine whether detected anomalies are operationally significant and whether they represent safety risks. Several data visualization tools were developed to support the review process which can be otherwise labor-intensive: the Flight Parameter Plots can present raw FDR data in informative graphics; The Flight Abnormality Visualization can help domain experts quickly locate the source of such anomalies. A number of evaluation studies were conducted using airline FDR data. MKAD anomaly detection algorithm developed at NASA was compared with Exceedance Detection, the current method in use by airlines. Results showed that cluster-based detection algorithms were able to identify operationally significant anomalies that beyond the capacities of current methods. Also the data visualization tools will be effective in supporting the review process.

Title : Energy meter reading through IoT

Author:Kaushal Sharma,Viral shah,Utsav Shah,Clive Rodrigues

Project Guide:Ms. Priyanca Gonsalves

Abstracts:At present, most of the houses in India have the traditional mechanical watt hours meter and the billing system is not automated. At the end of each month, an employee, of the power supplier company you are using of, come to your house to take the energy meter reading and provide you the necessary bill via post. Then to pay the bill again you have to create a demand draft and send it via post. Being such a bland and lengthy process, we have decided to automate it. An NodeMCU is connected to the user's energy meter which would collect this data recorded by the energy meter and convert it to respective currency. Then a Wi-Fi module (ESP8266) in built into the NodeMCU sends this data to a web application. On the web application user can see his real time consumption and visualisations. So, we have eliminated the manual energy meter reading. Now, instead of monthly usage bill the users can track their electricity usage practically anytime and anywhere.

Title : Combating Shill Bidding in Real-Time: A SmartBid Auction System

Author:Dhruv Mehta,Viola Patrao,Morgan Silveira

Project Guide:Ms.Monalisa Lopes

Abstracts:Online auctions are conducted over the internet and they have been a prominent part of the electronic commercial center. Nonetheless, there are frequent deceitful buying/selling acts like human trickster that occurs during and auction. Nowadays, shill bidding is the most severe and persistent fraud for online auction users. We have proposed a SmartBid Auction framework which can shield clients from shill bidders in both forward and reverse auctions by using the users' bidding behavior and users' history throughout various auctions. This data is coupled with IP tracking. We can also detect shill bidding processes and take actions against shill exercises at run-time.

Title : Augmented Reality For Interior Designing

Author:Parth Bhodia,Yash Kaikini,Santosh Sharma

Project Guide: Ms.Sonali Vaidya

Abstracts:Interior designing is one of the sectors where advancements in technology has not been utilized

to the fullest potential. Existing system of Interior designing includes advising and

assisting customers upon a combination of verbal explanations and 2D design plans. Our

proposed application illustrates a 3D representation of interiors to enhance the visual portrayal

of architectural plan. The smartphone camera will detect the environment wherein,

the application will superimpose a 3D model on the real world using Augmented Reality

(AR). Our application uses marker-less AR which will allow basic transformations such as

translation, rotation and scaling motions to depict as per user requirement. The smartphone

camera can be moved to any direction in any angle giving a wide freedom of movement to

the user. Now, user will be able to view a realistic representation of interiors, anytime and

anywhere.

Acc.No.PR1583

Title :Career Connect App

Author:Allen Richy,Alice James,Elvin Emmanuel,Bruce Anthony

Project Guide:Ms.Grinal Tuscano

Abstracts:Career Connect App is an android application for student who have just finished his 10th or 12th. our app provides full analysis of a student by going through various tests. first we take the Aptitude test then we take the personality test based on the score we then provide the career suggestion for an individual. Aptitude test gives the academic analysis of the individual this helps in analyzing an individuals weakness ans strengths in any subjects. later we take the personality test which gives the behavior pattern of an individual which helps in analyzing which field will be best suited for an individual. hence an combined result of both aptitude and personality test will give a better career suggestion of an individual

Acc.No.PR1593

Title : Graphical Based Password

Author:Saurabh Burange,Aman Dave,Priyen Dang,Dipesh Agre

Project Guide:Ms.Mrinmoyee Mukherjee

Abstracts:Conventional systems of authentication use alphanumeric keys to grant users access to

a resources or to prevent those with malicious intent from accessing the same. However, these systems have major drawbacks that limit the desirability of using these.The key to limiting these drawbacks or rather removing them is to use some token based authentication that limits the use of alphanumeric keys or rather removes their use altogether. The token can be based on recognition of preset information, the insertion of a system generated token, etc. The project aims to implement this change of authentication mechanism by using a picture-based system with a configuration of click points overlaid on the same, i.e. graphical password based system.

Acc.No.PR1586

Title : HEART DISEASE PREDICTION SYSTEM USING DATA MINING

Author:RAHEL,PAUL,ELIZABETH,FARGOSE

Project Guide: Ms.NAZNEEN ANSARI

Abstracts:This work contributes in the design and implementation of Heart Disease Prediction System using data mining; a ·web based application that uses two data mining algorithms for he prediction of heart diseases. The health care industries collects a huge amount of data which is not properly mined and not put into optimum use. Discovery of these hidden patterns and relationships often goes unexploited are researched focuses on this aspect of heart disease diagnosis by learning patterns through the collected data of heart disease and to develope heart disease prediction suytem to help the doctors. Here ,ve propose the use of decision tree, C4.5 algorithm to increase the effficiency of the system. The major challenge facing the health care industry is the provision for quality services at affordable cost. A quality service implies diagnosing patients correctly and treating them effectively even the most technologicall advanced hospitals in india have no such soft-ware that predicts a disease to data mining techniques. Heart disease prediction is knmvn to be sub jective, it depends on the doctor making the diagnosis. Decision suport systems are defined as an interactive computer based systems intended to help the decision makers ut ilize data and models in order to identify problems and make decisions.The mission of Heart Disease Prediction System using data. mining is to improve effectiveness, rat her than t he efficiency of the decisions.

Acc.No.PR 1592

Title : SMART CITY VOYAGER

Author:STEORRA MACHADO,JEJWIN LOPES,ALRIC ALMEIDA,SHAWN REBELLO

Project Guide:MR.VAIBHAV KALA

Abstracts:The tourism industry is regarded as one of the biggest sectors in the world, generating an

estimated eleven percent of the global gross domestic product. Supporting the vast number of tourists that every day explores new territory with information services evidently becomes a vital task. Today most tourists relay on static information such as guide books or other forms of printed material to locate points of interest. As advanced mobile technology has become standard pocket accessory for most of the world citizens many has the option to substitute the guide book with online mobile information services. There exists however a challenges when it comes to enabling access to information services on hand held devices. The small screen and limited interaction options of mobile phones make it a difficult platform for navigating and searching through large amounts of data. Researchers of information system has found that context awareness might solve the problem of information overload and contribute to user acceptance of mobile information systems. One very interesting class of context aware systems are so called personalized applications. A great number of mobile phone applications appeared recently, many of which are location-related. Location-dependent services, which answer location-related queries, are an important class of context-aware applications. With kinds of promising applications, like local information obtain (hotels, shopping malls etc.) and

neighboring environment queries, such as finding the nearest restaurant, location-dependent query service will soon become an necessary part of our daily lives. We will describe the design, implementation and deployment of a location-based application, named Android Smart City Traveller, with the mobile phone as a platform. This application permitted users to get tour guidance information they need anytime and anywhere. In particular, the tourist data could be browsed or queried through an Internet map service such as Google Maps. The mobile client's current location is one of the most important information for location related system. Mobile phones need to report their own locations to the remote server periodically, so that the information they want can be suitably queried. From the point of view of the service, the simplest method of locating is to let user tell his or her location, but this method

requires extra effort because the user needs to define his or her location and input it to the system. The user can be located with GPS positioning systems.

Acc.No.PR1600

Title : Fake Review Detection System

Author:Jay Chitalia,Orson Dsilva,Piyush Dandekar

Project Guide: Ms. Alvina Alphonso

Abstracts:Online reviews are often the primary factor in a customers decision to purchase a product or service, and are a valuable source of information that can be used to determine public opinion on these products or services. Because of their impact, manufacturers and retailers are highly concerned with customer feedback and reviews. Reliance on online reviews gives rise to the potential concern that

wrongdoers may create false reviews to artificially promote or devalue products and services. This practice is known as Opinion (Review) Spam, where spammers manipulate and poison reviews (i.e., making fake, untruthful, or deceptive reviews) for profit or gain. Since not all online reviews

are truthful and trustworthy, it is important to develop techniques for detecting review spam. By extracting meaningful features from the text using Natural Language Processing (NLP), it is possible to conduct review spam detection using various machine learning techniques.The primary goal of this project is to develop a system that will accurately detect deceptive reviews using Machine

Learning algorithms like Linear Support Vector Machine (SVM) and Multinomial Naive Bayes algorithm.

Acc.No.PR1608

Title : RTO Automation using NFC

Author:Vedika Shenoy,Shreya Sudhir,Aditi Raut,Sudipta Maity

Project Guide: Ms.Prajyoti D'silva

Abstracts:The drivers in foreign countries are now being issued with new multi-application driving

licenses based on contactless smart cards that contain both a public and a private data area.

The private area can only be accessed and verified by police and other authorities while the

public area can be read by an NFC phone and used by third parties too. The need for manual

RTO based systems is completely reduced in this method and the new automated RTO

system works through NFC. A complete NFC system consists of a transponder (tag), reader/writer and computer host. The NFC tag is used as a unique identity for account of a particular user. In the beginning, the user is prompted to scan his tag or ID. The serial code of the tags identified by the reader module and is sent for comparison with stored data. If the ID is matched by the microcontroller, the fine amount is deducted from users balance and user gets to drive through the area. Traffic police can also place a new complaint about the driver. If the police place a new complaint, then the fine amount will get deducted from his total balance. After this, the vehicle gets immediate access to drive through. This NFC based RTO system also has some additional features. A new user can register him with the system. Also an old user can recharge his account balance. The amount for recharge can be entered in the system. Thus, the automated RTO system ensures simple operation, data protection and maximum security.

Acc.No.PR1598

Title : <u>Automatic rain sensing wiper</u>

Author:Amit Sindoliya,Mayank singh,Chinmay patil,Kavit shah

Project Guide: Ms.Shree jaswal

Abstracts:Today's car wipers are manual systems that work on the principle of manual switching. So here we propose an automatic wiper system that automatically switches ON, when it detects rain and switches OFF when rain ceases. Our project brings forward this system to automate the wiper system having no need for manual intervention. For this purpose we use rain sensor along with Arduino microcontroller to drive the wiper motor. Our system uses rain sensor to detect rain, this signal is then processed by microcontroller to take the desired action. The rain sensor works on the principle of using water for completing its circuit, so when rain falls on it, it's circuit gets completed and sends out a signal to the microcontroller. The microcontroller now processes this data and drives the motor IC to perform required action. The Arduino Uno used here is a microcontroller board based on the ATmega328 (datasheet). It contains everything needed to support the microcontroller; simply connect it to a computer with a USB cable or power it with a AC-to-DC adapter or battery to get started.

Rain sensor board used here is a printed circuit board which collects the rain drops. As the rain drops are gathered on the circuit board they create path of parallel resistance that are measured by the op-amp.

Acc.No.PR1601

Title : IN-STORE LOCKER SYSTEM OVER IOT

Author:JAY GORADIA,ARCHIN FERNANDES,ROSHALL GONSALVES,VIJAY GUPTA

Project Guide:DR. PRACHI RAUT

Abstracts:In today's fast paced lifestyle with both the partners working, it becomes dicult to take out time for normal everyday shopping. Simple daily chores like shopping for groceries, vegetables, bakery, stationery, medicines are a task in itself. With the residences shut during the day, even accepting home deliveries, online parcels, courier services, etc. becomes a challenge. It results into accumulating these tasks on weekends making life more stressful, leaving very little time for oneself and family. Considering the growth in the world of e-commerce and increasing connectivity using IoT, we came up with the In-store locker system which will give a better shopping experience reducing the stress. This system is an android based application for users to buy commodities online from various stores. A third party will collect the commodities from the shops on behalf of the user and have them deposited in the locker. The lockers will be located at various parts of the city and the users can collect the commodities from the locker placed in their locality. This application saves time, is convenient to use and is cost ecient.

Title : Campus Recruitment System

Author:Priyanka Kate,Kalyani Jadhav,Jayesh Sawant

Project Guide:Dr. Joanne Gomes

Abstracts:Campus Recruitment System (CRS) is web-based tool to reduce communication gap between Job providers and Job seekers.The Main objective of this project is to make easy the recruitment process of any organization. This CRS is designed by keeping in mind both parties Job providers and Job seekers. CRS allows Job seekers to register their details like skills and experience with the system, and then on the other hand even it allows job providers

to post their requirements with the system. Campus Recruitment Management system is helpful for the job providers i.e. companies which are in need of employees, job seekers who are in need of job, (for both Experienced and fresher's). This portal's main aim is to provide the vacancies available for the job seekers in IT technologies. CRS will

automatically send mails to all job seekers whose skills are matched with the requirement.

Acc.No.PR1576

Title : Automated Vehicle Maintenance Check

Author:Abin Sebastian,Alex Jayi,Moses Lewis,Anson Thomas

Project Guide:Ms Elizabeth George

Abstracts:For the past one and a half decade the passenger car population has been steadily increasing, because the Indian economy is now considerably liberalized for all types of industries. For a service station to examine all the vehicles entering the service center is not feasible. When the customer arrives at the service center the car is taken for servicing without the customer knowing what component changes are being performed on the car like oil lter, brake uid tire pressure etc. When the customer arrives at the service centre a large amount of bill is being generated for the maintenance check. There is no transparency between the customer and his/her car maintenance. The aim is to design a vehicle maintenance check system that will eliminate the shortcomings associated with waiting times for the customer until the next car inspector is available. Our objective is to develop a portal that facilitates car maintenance check system which is equipped with a database involving minimal hardware requirement, the system prevent data loss by eradicating paper work and storage of data in the digital form which will be secure and at the same time will also reduce the confusion about previous maintenance performed on the vehicle. The implementation of the application will help to reduce time being wasted for the same vehicle maintenance check, leading to clarity between the customer and the service center.The proposed system is used mainly for the service center through which the load on the service centers will be eased. There is also an application for the customer by which the customer is updated about the services being performed on the vehicle along with the service engineers contact. Automated Vehicle Maintenance Check has an android platform which can be used by common people in low cost handsets. The Automated Vehicle Maintenance Check application for the service station allows to generate a Quick-Response(QR) code for the vehicle that enters the station thus helping the service engineer to get the details about the services done previously. Thus customer has the privilege to check the progress of the vehicle being serviced and facilitates the service engineer working on the car to conduct the initial investigation just with the click on their android phone. Later the application can be upgraded towards the complete benet of customer like tracking the vehicles component life span, average kilometer etc.Automated Vehicle Maintenance Check application can in the future provide a customer the complete details that he/she wants to know about the on going services on the vehicle also for better transparency between customer and service center a video of the on going services of the vehicle can be shown through the application.

Acc.No.PR1587

Title : Simple Automated Attendance System

Author:Divya Pandit,Niki Modi,Dixita Surti,Mitul Pandya

Project Guide:Ms. Shree Jaswal

Abstracts:The main objective of this system is to enforce some of the emerging technologies such as android operating system, mobile computing to enhance and enrich the traditional methods of taking attendance such as calling out the student names or by passing around an attendance sheet to mark presence. In the proposed system, an android mobile based attendance management system will be designed where all the records related to the attendance of a student would be registered over a web server using ASP.NET and SQL. System will eliminate the drawbacks of conventional methodology and will also promote paperless environments. Since the system can be deployed on existing android devices of users, no additional hardware cost in incurred. Further this work can be integrated with bio-metric techniques due to technical optimization of smart phone devices.

Title : Augmented Reality For Interior Designing

Author:Parth Bhodia,Yash Kaikini,Santosh Sharma,

Project Guide:Ms.Sonali Vaidya

Abstracts:Interior designing is one of the sectors where advancements in technology has not been utilized

to the fullest potential. Existing system of Interior designing includes advising and

assisting customers upon a combination of verbal explanations and 2D design plans. Our

proposed application illustrates a 3D representation of interiors to enhance the visual portrayal

of architectural plan. The smartphone camera will detect the environment wherein,

the application will superimpose a 3D model on the real world using Augmented Reality

(AR). Our application uses marker-less AR which will allow basic transformations such as

translation, rotation and scaling motions to depict as per user requirement. The smartphone

camera can be moved to any direction in any angle giving a wide freedom of movement to

the user. Now, user will be able to view a realistic representation of interiors, anytime and

anywhere.