Proceeding of

INTERNATIONAL CONFERENCE IN ADVANCE TRENDS IN ENGINEERING

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Organized by

ISTEDMCEChapter

DattaMeghe CollegeofEngineering,Airoli

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About DMCE

Initially, we started with a nominal intake of 120 students, today we have an intake of 822 students at UG, PG, Ph.D. level. With the struggle and hard work of the students, the enthusiastic guidance from the teachers and the blessings of the management, today we have several students appearing in the merit list as well as in the distinction list of Mumbai University. We also encourage our students in interacting with theindustry, by attending expert lectures, field/industrial visits, etc. We also have departmental associations for thestudents.

Our faculty members are also representing on national bodies such as Bureau of Indian Standards, Indian Society of Technical Education, etc. At the University level, our faculty has made their presence felt in Board of studies of several departments, program etc. We have fully equipped laboratories in all the departments. To support the knowledge needs of the students, we have fully computerized library with more than 40000 books, 800 or more e-journals with back files and several national and international journals. For the placement of the students at the end oftheir program, we have a strong placement cell and we have several reputed firms of all the disciplines who visit ourcampus.

About ISTE DMCE

The DMCE student chapter of Indian Society for Technical Education has been introduced to address technical & non-technical needs of its members, giving them a chance to display their talents on a wider platform than they might have ever seen in our esteemed institute. ISTE DMCE aims at developing not only technical temperament of budding engineers but also overall personality, reasoning and presentation skills. In today's world of excessive competition, it becomes mandatory that along with technical excellence a person is able to put forth his/her ideas well. This is what ISTE DMCE aims at – to develop technical as well as soft skills of a person. Events like TPP, Open Hardware etc. expose students to the technical field and Debates, Group Discussions develop the essentially needed confidence in each individual. Thus, ISTE DMCE aims at shaping a good individual and an engineer at the same time.

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Society Registration No. MAH/54-94/THANE & Public Registration No. F-3745 THANE

President's Message

I am extremely delighted to know that ISTE Chapter of Datta Meghe College of Engineering, Airoli is organising an "International Conference on Advanced Trends in Engineering" (ICATE-2017) on 7 and 8 April 2017.

Today the need to bring out contemporary developments and evolving trends in the frontiers of technology towards the digital divide is like never before. On this occasion, I welcome all the students, faculty and research scholars to present their ideas.

I extend the best wishes to the organising committee for a successful event.

Dr.Subir Kumar Banerjee

ISTE

भारतीय तकनीकी शिक्षा संस्था
INDIAN SOCIETY FOR TECHNICAL EDUCATION

(Under the Societies' Registration Act XXI of 1860)

Prof. Pratapsinh K. Desai
President, ISTE

March 23, 2017

MESSAGE

It gives me pleasure to learn that the Datta Meghe College of Engineering, Airoli, Navi Mumbai is organizing an International Conference on **Advanced Trends in Engineering (ICATE-2017)** during 7-8 April, 2017. I congratulate the College for organizing such event which brings together science and engineering professionals and researchers in the country and in other parts of the world to share recent discoveries and results of their scientific innovations.

I am sure the deliberations held at the Conference will be an incentive for the participants from various levels and the conference souvenir brought out on this occasion will be useful and informative for all.

I wish the conference a grand success and best wishes to the College in all their future endeavors.

(Pratapsinh K. Desai)

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To
The Organizing Secretary
ICATE 2017

I am very pleased to note that the International Conference on Advanced Trends in Engineering (ICATE-2017) is being held at the Datta Meghe College of Engineering (DMCE), Airoli, Navi Mumbai. DMCE is a very reputable academic institution in Navi Mumbai and it is very appropriate that it has taken it upon itself to organize a conference of the stature of ICATE-2017. I wish the institutein general and the organizers in particular, all the success in this endeavor and would like to encourage organizing such conferences at regular intervals so as to foster research and development activities all around. These conferences are also platforms to share ideas and encourage young people to take up advanced learning.

Wishing you all the best in this great and noble endeavor.

With best regards

Subhananda Chakrabarti

Dr. Subhananda Chakrabarti
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Dr. Mohan Khedkar
Professor & Head
Electrical Engineering Department

Date: 27/3/2017

MESSAGE

It's indeed a matter of great pleasure that Datta Meghe college of Engineering, Airoli, Navi Mumbai is organising "International Conference on Advanced Trends in Engineering" during April 7-8, 2017. The conference will give a chance to participants for interaction, so that their knowledge can be enriched. The theme of the conference is very apt in today's world, as it talks above advanced trends in engineering. I wish the conference a great success.

(Dr. M. K. Khedkar)
Head of the Department

Nagar Yuwak Shikshan Sanstha, Airoli's
DATTA MEGHE COLLEGE OF ENGINEERING
Prof. (Dr.) Sudhirkumar D. Sawarkar
Ph.D. (Tech.), M.E. (Electronics), B.E., L.L.B., PGDBM
Principal

Ref.: **Date :** 06/04/2017

Message

I am extremely happy to know that ISTE Chapter of our Institute is organizing an International Conference on Advanced Trends in Engineering (ICATE-2017) during 7-8 April, 2017.

The applications of any advanced science and engineering is to help the nation for its development.

I hope that this conference would certainly induce innovative ideas among the participants paving way for new inventions and new technologies in the field of engineering.

My best wishes to organizing committee and participants for grand success of this conference.

Dr. S. D. Sawarkar
(Principal)

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Nagar Yuwak Shikshan Sanstha, Airoli's

DATTA MEGHE COLLEGE OF ENGINEERING

(Recognized by AICTE, DTE, Govt. of Maharashtra & Affiliated to University of Mumbai)
ISO 9001:2008 Certified

Ref.: **Date :** 05.04.2017

Message

I am glad to know that ISTE chapter of our institute is organizing an International Conference on Advance Trends in Engineering (ICATE-2017) on 7th & 8th April 2017

The pace of technological revolution is very fast and we need to put our possible efforts in advancement of science and technology to flourish and strength our nation.

It is for sure that the wealth of information and innovation generated through this conference would serve as platform for several discussion and meaningful to the emerging trends in the field of engineering.

I wish the conference a resounding success.

Dr.S.R.Devane

Dean- Academics

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INTERNATIONAL CONFERENCE ON ADVANCED TRENDS IN ENGINEERING (ICATE-2017)

Organised by

ISTE-DMCE CHAPTER

Datta Meghe College of Engineering,

Airoli, Navi Mumbai-400708

I am pleased to welcome all of you to ICATE-2017.

The conference is a meeting and information exchange between the end user, the development and the research communities.

The purpose of this conference is to bring together researchers, experts from industry, academia, and other interested organizations to meet, exchange information and ideas in developments in the field of Technology.

The conference program has been designed to provide ample opportunities to researchers to network and to share ideas and information about the developments in engineering.

I hope this conference will be enjoyable, memorable, and productive for participants and looking forward to the technological innovations that result from your networking and discussions.

(Dr. D. J. Pete)

Conference Chair, ICATE-2017.

INTERNATIONAL CONFERENCE ON ADVANCED TRENDS IN ENGINEERING (ICATE-2017)

Organised by

ISTE-DMCE CHAPTER

Datta Meghe College of Engineering,

Airoli, Navi Mumbai-400708

Welcome to the proceedings of the International Conference on Advanced Trends in Engineering (ICATE-2017).

The Conference is a platform for participants to discuss the current situation, challenges and advancements relating to the developments in engineering.

We had invited technical papers from Academic institutes and Industries in the expertise area of Electronics and Telecommunication Engineering, Computer Engineering, Information Technology, Electrical Engineering.

We would like to thank the authors of all the papers for submitting their papers to the conference.

Special thanks go to the reviewers for sparing their time in carrying out the review process meticulously.

We would like to thank ISTE, New Delhi for supporting us.

We hope that you will find the ICATE-2017 proceedings more useful in your research field.

(Prof. S. R. Jajoo)

Organising Secretary, ICATE-2017

Transcoding ofVoice Codecs G.711 to G.729 and Vice-versa Implementation on FPGA

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Abstract –Now-a-days more applications and services provided over the internet such as e-mail, file sharing, e- commerce, etc., helps people from all over the globe to exchange data, do business, and communicate voice and videos in a simple way. For this tremendous growth in web is achieved with the development of Voice over Internet Protocol (VoIP). This protocol is a new model of telephony service, in which people make use voice over the Internet to help communicate with each other without the access of Plain Old Telephone Service (POTS). VoIP provides high-quality services that greatly depend on the delay between capturing the voice data and the playback of the voice data. Transcoding voice calls between different networks and end-point gadget is a vital task. G.711and G.729 are VoIP codecs accessible in most of the events. A codec is chosen by the customer based on its quality, power requirements, bandwidth utilization, and tolerance to network conditions. Plentiful VoIP hardware, switches, and media gateways support variety of codecs, the issue emerges when there is a need to change over starting with one codec then onto the next. The call is initiated with G.711 and the end network tolerates with G729, and the service provider is confronted with the test of changing over to finish the call. For this transcoding is a preferred method, which is simulated using Quartus II tool and is implemented in Altera Cyclone V FPGA kit. Transcoding permits gadgets, similar to the IVR platformandthecellphoneinthecase,tocommunicate witheachotherevenwhentheysupportdifferentcodecs.

Automated PCB Drilling Machine

Darshana Tayade[1], Aniket Doke[2], Ashutosh Rathi[3], Vishnu Karayil[4]

Prof. Sunita Munde[5]

[1,2,3,4,5] Department of Electronics and Telecommunication Engineering

Lokmanya Tilak College of Engineering, Navi Mumbai

***Abstract*—In an electronic production creating holes on a single or multilayer printed circuit boards (PCBs) is an important stage. For high precision holes of different sizes and at a large number of positions (up to thousands) must be drilled manual or automatic insertion of various electronic devices and components. An automatic PCB drilling machine have been built for this purpose. With the help of a software such as Orcad the PCB pattern of the circuit schematic diagram is drawn on the monitor screen. The computer will control the drilling automatically from the layout printed out to make the PCB. We have build this project to make it useful in small scale industry mainly for do it yourself projects kits manufacturers where the pcb has been drilled and only insertion of components and soldering id required in other words this project has been completed and put in use (making small scale PCBs and teaching).**

Greenhouse Environment Monitoring and Controlling System using Arduino

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Abstract— A Green House Is A Building Where Pants Are Grown Green House Are Often Use For Growing Flowers Vegetables And Fruits Basic Factor Affecting Plants Growth Are Sun Light Water Containing The Soil Temperature Humidity Etc. This Physical Factor Are Hard To Control Manually Inside A Green House And A Need For Automated Design Arises Automatically Controlling All The Factor At Affect The Plants Growth Is Also Difficult Task As It is Expensive And Some Factor Are Interrelated For Ex; Temperature & Humidity Are Related In A Way When Temperature Rises Difficult. Because The Temperature And Humidity Of Green House Must Be Constantly Monitor To Ensure Optimal Condition A Wireless Sensor Network Can Be Use To Gather The Data From Point To Point The Data Form Green House Will Be Measured By The Sensor And The Data That Are Collected Will Be Sending To The Receiver The Data Has Been Read Will Be Display On The LCD Screen By Using This System Process Of Monitoring Is Easier And It Is Also Chipper For Installation & Maintenance Process.

SOLDIER TRACKING AND HEALTH MONITORING SYSTEM

Tejashree Pawar[1], Sachin Pawar[2], Chetan Burange[3], Prof. RajashreeThakare[4]
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Abstract:
***T*his paper has an idea of tracking the soldier and navigation between soldier to soldier health status along with knowing their speed, distance, height as well as environmental situation of them during the war, which enables the army personnel to plan thestrategies of war. The control room gets location of soldier from GPS. Even in case of losing the battlefield it is the responsibility of the GPS to guide the soldier on correct path if he is lost in the battlefield. The base station can access the current status of the soldier which isdisplayed on the PC. And hence can take immediate action by sending help for the soldier or sending backup for threatahead. Using various biomedical sensor health parameters of soldier's are observed, as well as surrounding atmosphere pressure, oxygen levels areobserved.**

Wearable Device For Riders Safety With Gloves

Aishwarya Deshmukh[1], Vivek Nandanwar[2], Laxmi Chaurasia[3], Sandeep Karambalkar[4]
Prof ARCHANA ANAND
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*Abstract:***In present time many cases of bike accident can be seen around us. The idea is obtained after knowing that the increasing number of fatal road accidents over the years is cause for concern amongMotorcyclists. Continuously road rules are violated. So as to overcome these problems, upgraded helmet is proposed having a control system built inside a bike and helmet. Smart Helmet along with glove for Motorcyclist is a project undertaken to increase the rate of road safety among Motorcyclists. It consist of transmitter and a receiver system. the bike will not get start without wearing helmet by the user, also for driver detection we have specially designed gloves in our project, this ensure that the rider itself is wearing the helmet , when both parameters are detected in the ignition of bike will get start.**

Security system applied in this project meet the characteristics of a perfect rider and theapplication should be highlighted. **The project is expected to improve safety and reduce accidents**.

Boiler Smart Monitoring Automated Control System

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ABSTRACT

Many industriesuse boilers to produce steam or hot water for space heating or for process heating. Boilers are typically major users of energy, and any person involved in energy management needs to know how a boiler works and how the performance of a boiler can be maintained or improved. This article gives us the overview of a smart boiler which has closed loop control system mechanism for automation.

Also many chemical industries require monitoring of large number of chemical boilers in their plants, so to know proper functioning of them, this system continuously monitors the boiler and is a real time Data Acquisition System which measures the physical parameters and converts them to digital samples that can be manipulated on computer useful for collection of real time data and maintaining the corresponding records.

Network layer Energy-Efficient Routing Protocols for Wireless Sensor Networks
A Review:

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Abstract : To extend the network lifetime of the wireless sensor network (WSN) the most critical issue in the network design, while performing the sensing and sensed data reporting tasks, is the conservation of the limited power resources of sensors. One of the most important factors while designing routing protocols for WSN is the power resource limitation of the network nodes and dynamic topology of the WSN. Several design methodologies have been adopted in the last few years to meet the application specific requirement of WSN. In order to ensure reliable communication in WSN routing protocols which maintains the route in wireless sensor networks are designed. In this paper energy efficient routing protocols are classified on the basis of Network Structure, Communication Model, Topology and Reliable Routing.

Design of Wireless Electronics Notice Board Using Raspberry Pi

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Abstract: - Notice boards are a commonly used in variety of institutions which we come across on a daily basis. In the current scenario the notice boards are being managed manually. There is a long process involved in order to display notices on the notice board. This wastes a lot of resources like paper, printer ink, manpower and also brings about loss of time. In this project we have proposed a system which will enable people to wirelessly transmit notices on the notice board using Wi-Fi. Moreover, in this proposed system only authorized people can access the notice board using a Graphical User Interface (GUI). The main component of this system is raspberry pi. The main attraction of the Raspberry Pi comes from the combination of creditcard sized mini-computer at an affordable price. The small size makes for an easy-to-hide computer that can be mounted behind the display with an appropriate case. It performs the functions like wireless control, processing the data and displaying the same. Also, the system can be made compatible with more than one wireless technology. This proposed system will prove highly beneficial for carrying out day to day activities for any institutions or offices smoothly.

MIMO antenna design with Polarization Diversity

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***Abstract*—**In wireless communication MIMO techniques is evolving technology that offers considerable increase in data bandwidth without any extra power transmission.MIMO MSA using RIS has designed and developed with half wavelength inter element spacing to reduce mutual coupling between antenna elements, but this increases the size of the antennathen, suspended MIMO MSA using RIS and polarization diversity has designed and developed with less than 0.1λ inter element spacingwhichsignificantlyreducesmutualcouplingbetweenantennaelementsandsizeoftheantenna.

AUTONOMOUS FLIGHT VEHICLE

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Abstract : Recently, the military use of unmanned aerial vehicles (UAVs) has grown because of their ability to operate in dangerous locations while keeping their human operators at a safe distance. The larger UAVs also provide a reliable long-term flight, economically effective, platform for reconnaissance as well as ammo. The question we posed for our project was whether small UAVs also had utility in military and commercial/industrial applications. The project goal was to design a semi-autonomous quad copter capable of stable and sustained flight via Radio communication while utilizing a microcontroller. The quad copter was designed to be small enough so that costs would be minimized, which is why small motors and propellers are being used. We suggest that small size UAVs can provide more constituting operations such as searching unreachable places or enemy positions. Small size UAVs, on the order of a couple feet to a meter in size, should be able to handle military operations as well as the increasing commercial and industrial applications and our project is trying to validate thisassumption.

Android App and GSM based Automation System

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Abstract – Nowadays, the remote Automation turns out to be more and more significant and appealing. It improves the value of our lives byautomating various electrical appliances or instruments. This project describes Android and GSM (Global System Messaging) based secured automation system. It is a fantastic platform for the real world interface control, as it offers an ample of resources and already incorporates a lot of sensors. A modern world contains varieties of electronic equipment and systems likes TV, central heating systems, fire alarm systems, fan, lighting systems, AC, etc. Every day we need to handle, ON/OFF or monitor these electrical devices manually. Previously automation was achieved using GSM service which were little time consuming. So along with GSM, we are implementing our project using Android App .In our project we are not only going to automate home and farm but also hospitals by monitoring patient's status.

License Plate detection for Odd-Even rule using Image Processing

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Abstract—License Plate Detector is a real time embedded system which automatically recognizes the license plate of vehicles and check whether the last digit of the number is Odd or even based on it, it will send message to GSM module. Most of the LPD systems are built using proprietary tools like Matlab. Arduino UNO is used for interfacing of Camera and GSM module. This paper presents a simplified and handy method to control ODD-EVEN Traffic rule which was initiated by Chief Minister Arvind Kejriwal.

Multistep filtering for Palm Vein Authentication System: A Review

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ABSTRACT

This paper presents a review on the palm vein authentication device that uses blood vessel patterns as a personal identifying factor. Biometrics has been playing a key role in several fields now a day"s. Before the extraction of features a captured image from any kind of sensing element must be processed. This paper discusses about image processing approach in vein pattern. This technology is used mainly in identification purposes and attracts interest from both the research community and industry. The vain pattern being an important of biometric family relies on interior biological information of the body, and therefore, cannot be easily forged, changed or falsified. There are several processes being carried out for noise reduction, filtering and segmentation purposes. Two different image filtering methods are used for noise reduction purpose. This noise removal and enhancement operations are very much helpful in obtaining the correct vain pattern and identifying the personal. This paper presents image enhancement operations and there result when applied on multispectral vein image.

SMART RAILWAY SYSTEM

Mr. Prashant Choraghe Mr. Mayur Bhosle Prof. Ashish S. Bhaisare
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Abstract—Indian Railways is one of the world's largest railway networks and carries around 23 million passengers daily. Being a Government run organization, there has always been a big question mark on its productivity. Various reports over the years have shown that some small changes in the working of railways can result in big profits and major customer, In this proposed system we have introduced a mobile platform to cross the platforms without using staircase and labors security for the labors and the automatic tunnel light and the track crack detection

Faulty Link Detection in Cluster based Energy Efficient Wireless Sensor Networks

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Abstract— Advancement in electronics and WSNs has enabled the improvement of lower cost and lower power, high transmission. Also in large scale wireless networks, dynamic monitoring of system degradation and detection of bad links proves very difficult. One of the most important challenges in WSN is to design faulty link detection in cluster based energy efficient wireless sensor network to increase the network efficiency, reliability and lifetime. Hot spot in WSNs leads the location having heavy traffic load. Sensor nodes in heavy traffic area drain there energy very quickly, leading in failure link detection of network services and affect WSNs performance including transmitting and receiving of information. Cluster based routing algorithms is utilized to perform energy-efficient routing in WSN and link detection sequentially checks all potential links incurs high transmission. In cluster based routing algorithm, cluster head (CH) represents all nodes in the cluster and data is collected from them. To balance the traffic load and the energy consumption in the network, the size of the cluster should be carefully determined and the rotation of CH among all nodes within the cluster in the network. In this paper, we propose faulty link detection in cluster based energy efficient wireless sensor network algorithm. In WSNs maximum energy is consumed for transmission and reception and energy is non linear function (exponential) of transmission range. So, in faulty link detection in cluster based energy efficient wireless sensor network election of CH and faulty link detection is based onto the residual energy and optimal CH distance of every node. In addition, Link fails arises in the network if the energy of sensor node falls below threshold value is considered and next shortest routing path is used for transmission for increasing the network lifetime and reliability. Furthermore, the energy consumption of being a CH is equally spread among the cluster members. Performance results show faulty link detection in energy efficient cluster based wireless sensor network scheme reduces the end to end energy consumption, prolong the network lifetime and increase reliability of multi hop network compared to the well-known clustering algorithmsLEACH.

Light fidelity communication using LED LDR interactions

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Abstract - This paper presents an approach for live text message and audio transmission using visible light LED. This approach for wireless data communication cause faster data communication compared to presently used wireless communication technology. The proposed system demonstrated transmission and reception of information through visible light by switching LED on and off. This switching of LED is done at high intensity so that it cannot detect by human eyes. The photodiode is present at the receiver, which converts the light signals into electrical signals. It has been shown that the proposed system is relevant for undisturbed transmission of text message and audios. It has been seen the information losses with decreased in received power due to ambient light conditions. The maximal distance separating transmitter and receiver is 30cm. The text message and audio signal transmission and reception have been successfullytested.

Electronic Blind Stick Using GSM & GPS

Abhishek Yadav, Pratik Nemane, Sandeep Yadav, Sadanand Singh, Dr. Rajeshree Rokade

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Abstract—There is number of blind people in the society, who are suffering while exercising the basic things of daily life and that could put lives at risk while traveling. So to provide them with necessary equipment we use the technology for human welfare, so came the idea of this research in the design of obstacle detecting system using ultrasonic sensors and providing details of his location with the help of GPS via SMS to his/her relative.

CCTV CAMERA SURVIELLANCE AND GAS LEAKAGE DETECTION SYSTEM FOR VEHICLE

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Abstract— In this current world where technology is growing up day by day and scientific researchers are presenting new era of discoveries, the need for security is also increasing in all areas. At present, the vehicle usage is basic necessity for everyone. Simultaneously, protecting the vehicle against theft is also very important. Traditional vehicle security system depends on many sensors and cost is also high. When the vehicle is stolen, no more response or alternative could be available to help the owner of the vehicle to find it back. This system proposes the design and construction of an advanced vehicle security system with CCTV surveillance and Gas leakage Sensor . The CCTV surveillance can help in the vehicle security against theft or damage .The Gas leakage sensor (MQ5) senses the leakage of gases and gives an alert to avoid any catastrophic event Furthermore ,this vehicle security system intimates the status of the vehicle to the authoritative person (owner) using Global System for Mobile (GSM) communication technology.

Improvement in Gain and Bandwidth using Current Mode Technique

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Abstract — Nowadays in Modern wireless Receiver, high speed data availability and increased usage of wireless devices has increased challenges in improving battery life. In voltage mode circuits shows poor performance in various parameter like gain, bandwidth, power consumption. To overcome of this disadvantage current mode are much more beneficial. Due to exponential increase in users, bandwidth requirement also increased. In any communication system, current mode receiver will be beneficial from high data ratereceivingpointofview.Inthispaper,acurrentmodereceiver whichcanoperateatverylowvoltageandprovidehighfrequency at the output. For this, a current-mode device is modeled and using this modeled device,the various circuit blocks are simulated using H-SPICE software. The proposed current mode receiver can work at very low voltages and consume less power, compare to voltage modereceiver.

WIRELESS DATA ENCRYPTION AND DECRYPTION USING RADIO FREQENCY

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Abstract- The main scope of this proposal is to keep the exam question papers or confidential documents safe and secured by keeping it in a bag which is secured through an electronic lock. In are proposal for security GSM network utilize encryption for three purposes that are Authentication, Encryption and Key Generation which ensures privacy and protect the system against fraudulent use. This GSM modem is interfaced with the lock and the microcontroller.

Advanced Real time High Performance Time Based 3 Axis Capacitive Accelerometer

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***Abstract*-**In the last few years, the performance and use of multi axis Accelerometer has increasedtremendously. Here in this paper we concern about the real time performance of capacitive accelerometer in which a micro structure two and three axis accelerometer is designed with the electrostatic pull inconcept and the arrangement of the proof mass.Here wepresented the review of thesystem designed for the real time operation and characterization of high performancetime based accelerometer. This paper gives the detail idea about the working principal, structure andfabrication of two and three axis capacitive accelerometer by considering the advancement in the field ofmicrostructure accelerometer. The accelerometer study based on the pull in time measurement of movable parallel plates has already been experimented for the best resolution capabilities with low requirements for capacitive readout in case of MEMS structure. As a result open loop operation exhibits very low dynamic range andhighly non-linear response. Closed loop control can deal with this problem with the help of manipulation of actuating voltages that are function of pill in time being measured. Here we have also proposed the System diagram for acceleration sensing of the capacitiveaccelerometer.

Real Time Traffic Light Control System Using Image Processing

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Abstract: - Due to aware of the fact that, the population of city and number of vehicles on the road are increasing day by day. With increasing urban population and hence the number of vehicles, need of controlling streets, highways and roads is major issue. The main reason behind today's traffic problem is the techniques that are used for traffic management. Today's traffic management system has no emphasis on live traffic scenario, which leads to inefficient traffic management systems. These traffic timers just show the preset time. This is like using open loop system. If we incorporate a closed loop system using camera, it is possible to predict the exact time on traffic light timers. If the traffic light timers are showing correct time to regulate the traffic, then the time wasted on unwanted green signals (green signal, when there is no traffic) will be saved. Timer for every lane is the simplest way to control traffic. And if those timers are predicting exact time then automatically the system will be more efficient. This project has been implemented by using the Matlab software and it aims to prevent heavy traffic congestion. This project measure the number of vehicles present on the road. Moreover, for implementing this project Image processing technique is used. At first, film of a lane is captured by a camera. A web camera is placed in a traffic lane that will capture images of the road on which we want to control traffic. Then these images are efficiently processed to know the traffic density on the number of count of vehicles. According to the processed data from Matlab, the controller will send the command to the traffic LEDs to show particular time on the signal to manage traffic.

Low Profile Microwave Band pass Filter

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Abstract—Bandpass Filter is an indispensable part ofthewireless communication system. This paper proposes anefficientDGS based microstrip bandpass filter for WiMAXapplication.Here, initially a chebyshev type of bandpass filter isdesignedand then the losses occurred in the pass band gain is reducedbyintroducing DGS which will result in miniaturization of theBPFfilter. Several simulations and comparison on various DGSbaseddesigns have been demonstrated to validate the proposeddesign.TheproposedbandpassfilterisfabricatedonaFR4substrateand the measured results also validates the proposed design.Thesimulation of the proposed DGS based Bandpass filterdesignis demonstarted for the passband frequency between 5 GHzand7GHz.Thesimulationresultsagreewiththetheoreticalones.

HEAD MOUNTED CONTROL SYSTEM FOR ICU PATIENTS

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Abstract— The aim of this project is to design and construct a head movement controlled device aid for physically challenged, paralyzedand old people and also for critical ICU patients, who can only move their head and are unable to speak properly. This device will sense the head movement of a person and perform a predefined task corresponding to that movement. We can place this simple device on a patient's head and with simple head movements, he can switch devices in his room. There is also provision of alarm for an emergency situation of patients in a hospital. The head movement will be sensed by using MEMS (Micro Electro Mechanical Systems) sensor which will instruct the microcontroller based system to perform specified task. The person can communicate through a voice system which will announce his basic needs of food, water, etc. The devices in his room will be switched using relays and the system will control the relays wirelessly.Tilting head in a specific direction will trigger an alarm to indicate that he is feeling uncomfortable and his life might be indanger.

SMART CONVEYOR AUTOMATION SYSTEM

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Abstract—The design aspect of an embedded device which can control device or devices by sending a RF signal from a remote controller are presented. This controller is extremely useful at places where we have to control the ON & OFF switching of the devices but no wired connection to that place is available. A RF receiver is connected to a programmed micro-controller. The control signal part of the RF transmitted signal is extracted and changed to micro-controller preferred format. A LCD is connected to the micro-controller for the monitoring of the Speed range.The whole system is operated at 433 MHz's. Here the system is having full capacity of controlling the Conveyer system by receiving control message from RF transmitter module.Micro-controller is important part of our system which controls the entire operation of the system.System is always alert in order to receiving control signals from the transmitter module and the message can be displayed on LCD. It is designed to control the speed and direction of Conveyer System wirelessly using "RFTechnology".

Implementation of I2C and SPI Protocols in FPGA

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Abstract- I2C and SPI are the serial communication protocols that are commonly used for both intra-chip and inter-chip low/medium bandwidth data transfer. It can support bi-directional data transfers at up to 100 Kbit/s in the standard-mode, up to 400 Kbit/s in the Fast-mode, up to 1 Mbit/s in the Fast-mode plus, or up to 3.4 Mbit/s in the High-speed mode. These protocols have a preferable speed and power consumption capability when implemented with different devices but their speed islow.

All I^2C bus compatible devices incorporate an on-chip interface which allows them to communicate directly with each other via the I^2C bus. This design concept solves the many interfacing problems encountered when designing digital control circuits. This paper implements I2C (Inter IC Communication) master bus controller for interfacing low speed peripheral devices using field programmable gate array.The I^2C master bus controller interfaced with slave devices like EEPROM. This module was designed using VHDL. The design will be synthesized using Xilinx ISE Design Suite 14.7 and implemented on Xillinx SP601 FPGA.

Serial Peripheral Interface (SPI) protocol defined by Motorola, is implemented in Field Programmable Gate Array (FPGA). Both the components SPI Master and SPI Slave are implemented using state machine diagram and simulated on Xilinx ISE Project Navigator.

SMART SECURITYCAMERA & WIRELESS SENSORSUSING IoT

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ABSTRACT- Inthispaperwereportdesign methodology and realization of the SMART SECURITYSYSTEM&WIRELESS SENSOR.This prototypeofEthernetbasedSmartSecurity Systemwill allow the consumer to virtually connect to their residence usingwireless network&wirelesssensorstoconnectindustry tointernet.Theaimofthisworkistodevelopanembeddedsystem directedatautomating appliances inhomeviaWi-Fi.Thesystememploys server/clientarchitecture;switchingcommandsfortheappliances,auto-updatingsensorswhichareconnectedtonetworkcanbereceivedanddisplayateitherend.The futureworkintendedto bedoneisalsomentioned.

ZIGBEE BASED VOICE CONTROLLED SMARTHOME SYSTEM

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***Abstract*—The proposed model of 'Zigbee Based Voice Controlled Smart-Home System' is designed to provide support system for the aged and the handicapped, especially those who have constrained movement capabilities.ZigBee Home Automation provides operating range much higher as compared to Bluetooth and other wireless sensor module.The heart and soul of zigbee home automation is recognition of voice commands and use of low-power RF ZigBee wireless communication modules which are relatively inexpensive. ZigBee modules are used inorder to eliminate the need for large amount of wiring between the processor and the appliances. The home automation system is intended to control home appliances in a home or office using voice basedcommands.**

An Efficient Algorithm for Wood Defect Identification Using Neural Classifier

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Abstract—Inthispaperanew classificationalgorithmisproposedforthe Classification of six type of wood defect.Inordertodevelopalgorithm50 captured wood defectimagesofplywoodhavebeenconsidered,Witha viewtoextractfeaturesfromtheplywood captured images afterimageprocessing, analgorithm proposes (FFT)FastFouriertransforme coefficients.TheEfficientclassifiersbasedonMultilayerPerceptron(MLP)NeuralNetwork.A separateCross-Validationdatasetisusedforpropeevaluationoftheproposedclassificationalgorithmwithrespect toimportantperformancemeasures, suchasMSEandclassification accuracy.TheAverageClassificationAccuracyofMLP NeuralNetworkcomprisingofonehidden layerswith9PE'sorganizedinatypicaltopologyisfoundtobesuperior(100%)forTraining and cross-validation.Finally,optimalalgorithmhasbeendevelopedonthebasisofthebestclassifier performance. Thealgorithmwillprovideaneffectivealternative totraditionalmethodofplywood captured imagesanalysisfor Classify the six type plywooddefect.

Modern Street Lightening System with Intensity Control using GSM

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***Abstract*— As the LED's lumen efficiency increases rapidly in recent years, many new LED illumination applications are emerging. LEDs have features such as long-life, small and low power consumption. Therefore, they are used in various occasion such as full color large sized LED displays, traffic lights, and etc. In this paper, an energy efficient street lighting system is proposed. The presented system consists of a LED lamp module, which can be controlled from remote location. The proposed remote-control system can optimize intensity and efficiency of street lighting systems. It uses GSM based wireless devices which enable more efficient street lamp-system management, thanks to an advanced interface and control architecture. It uses a sensor combination to control and guarantee the desired system parameters; the information is transferred point by point using GSM Module and is sent to a control terminal used to check the status of the street lamps and to take appropriate measures in case of failure.A developed prototype system will be presented in this paper and experiments will be performed to verify the correctness of the proposed system. According to the experimental results, the lighting efficiency is 85 % and the conversion efficiency is 90%.**

SMART CAR PARKING SYSTEM

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ABSTRACT: These days finding parking has become very serious problem in metro cities. Even in villages also the number of vehicles have gone up creating parking issues which may sometimes lead to quarrels and can get people injured. With new rule being considered which requires people purchasing new cars first give proof of having their own parking places, the parking problem is getting worse than before. It is therefore necessary to get a good parking management system in place which can serve to decrease the parking woes for people. In this people we try to give a parking management system which can help to find solutions for parking issues. The system will have PIC microcontroller for managing parking spaces and RFID technology will be used to identify the cars entering the parking lots. IR sensors are deployed to give idea of vacant parking places which may be displayed on LCD display unit. The unit will have GSM module to contact customers.
This system can work well for different offices and societies but can also deployed in public places. This demo project gives an example of wireless RFID technology which can be used in parking places to ease out parking problems.

RFID Based Electronic Trolley for Malls

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Abstract— Now a day's shopping at big malls is become daily activity. As we know that there is huge crowed in the malls in metro cities. Specially it becomes more crowded on holidays. The rush is even more when there are special offers and discounts. People purchase different items in the malls and puts them in the trolley. At the cash counter billing process is done using bar code reader. This is very time consuming process and results in long queue at the billing counters. To avoid this we are developing a system which we called as RFID Based Electronic Trolley For Malls. The system will be placed in all the trolleys. It will consist of RFID reader and the RFID tags will be on the products. Whenever the customer puts a product in to trolley it will get scanned by bvgfc RFID reader and product price and cost will be displayed on LCD display. Like this the process goes on. We are using ZIGBEE transmitter which will be at trolley which is used to transfer data to main computer. At the main computer ZIGBEE receiver will be placed which will receive data from transmitter.

Text Independent Speaker Recognition using Support Vector Machine

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Abstract - Security is becoming one of the main issues these days. Even after great advancements in technologies, hackers have still managed to break into the system and steal important information. So for serving the purpose of secured system, an automatic speaker recognition system has been designed. This paper describes speech production mechanism, importance of speaker recognition system, different feature extraction methods and SVM as classification method, application areas of the system. Database of two speakers is prepared and used to generate results discussed in this paper.

WIRELESS CONTROLLED WHEELCHAIR

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Abstract— This paper includes the wheelchair that can control using Wireless Technology to be used in rehabilitation of people who have mobility issues. These days, the term wireless is very much hyped. Whenever we hear the term wireless, stuffs like Mobile telecommunication (GSM), Wi-Fi, Bluetooth, RF Communication, Wireless networks ,we know that all of these protocols can be interfaced with a microcontroller in one way or the other. But what matters is the level of complexity. It is the Technology which transfer the information between two or more points that are not connected by an electrical conductor.We are using RF Technology which is having transmitter and receiver circuit Module. In this project transmitter is small in size and movable anywhere in the selective range,while receiver is mounted on wheelchair,In this way we will get a Wireless wheelchair.In the condition if person is paralyzed or incapable of moving, the transmitter (remote) can be controlled by care taker in between the active range area.

IOT Based Cable Fault Detection System

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Abstract - The objective of this project is to determine the distance of underground cable fault from the base station in kilometers and displayed over the internet. Underground cable system is a common practice followed in major urban areas. While a fault occurs for some reason, at that time the repairing process related to that particular cable is difficult due to exact unknown location of the fault in the cable. Proposed system is used to find out the exact location of the fault and to send data in graphical format to a dedicated website together with on board LCD display using a Wi-Fi module.

Multiband Patch Antenna Design using Metamaterial

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Abstract*—In this paper, a metamaterial based compact multiband microstrip antenna is proposed which can give high gain and directivity. Metamaterials are periodic structures and have been intensively investigated due to the particular features such as ultra-refraction phenomenon and negative permittivity and/or permeability. A metamaterial based microstrip patch antenna with enhanced characteristics and multi band operation will be investigated in this work. The multiple frequency operation will beachievedbyvaryingthecapacitanceofthemetamaterialstructurewiththehelpofmetallicloadingsplacedineach*

metamaterial unit cells. The potential impacts will be miniaturization, reduced cost and reduced power consumption since multiple antennas operating at different frequencies are replaced by a single antenna which can operate at multiple frequencies. The proposed microstrip patch antenna will have its frequencies of operation in the L, S and C bands. The proposed structure is simulated using Agilent Advanced Design System (ADS) 2011.05. It is then fabricated on the FR4 substrate and the performance of the fabricated antenna is measured using the Vector Network Analyser(VNA).

Peltier Effect based Air Conditioner for Autorickshaws

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Abstract— This paper provides a concept level design of a cooling system for automotive application Peltier Effect based Air Condition for Autorickshaws (PEACA). It has minimum moving parts, being a solid-state device. It is reliable and eco-friendly Peltier Effect can also be used for heating applications, giving a dual-purpose system. Conventional cooling systems are inefficient and bulky. Moreover, are expensive in terms of installation and operating cost. Peltier Effect based Air Condition for Autorickshaws is small in size and light weight.

ROI Based Medical Image Compression

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Abstract— Bio-medical image processing is considered as one of the broad field as compared to other fields. It includes image forming, biomedical signal gathering, image processing, picture processing and the features extracted from images used for medical diagnosis. It contains analysis of the image, enhancement of the image and display of images captured via Ultrasound, MRI and X-Ray technologies. A Region Of Interest (ROI) is defined as a portion of an image that we want to extract from the image or perform some other operations on it. The objective of the paper is to compress the ROI in lossless manner using Set Partitioning In Hierarchical Tree (SPIHT) algorithm and Non-ROI i.e; background region in a lossy manner using Discrete Wavelet Transform (DWT). A detailed analysis is carried out by using the parameters like Compression Ratio (CR), Mean Square Error (MSE) and Peak Signal to Noise Ratio (PSNR).

Design and Implementation of an IoT Based Intelligent Garbage Monitoring System for Smart Cities

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Abstract:- Garbage bins around the cities are often seen overflowing which proves to be a menace for the local residents. This is mainly due to improper collection of the garbage by the concerned authorities. To address this problem smartly we have proposed a system in which multiple dustbins across cities will be fitted with a low cost embedded device which will track the level of the garbage in the bins. These levels will be monitored continuously and the information regarding the same will be transmitted wirelessly to a central control system handled by the authorities. A web page will graphically display each garbage bin along with its identification number. The level of garbage collected in each bin will be highlighted in a colour coded scheme so that the concerned authorities can take the requisite action.

Railway Management System using IR sensors and Internet of Things Technology

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ABSTRACT- In Indian railways, accidents are still major concern in terms of safety of people which are caused due to unmanned rail road crossing and unidentified cracks in railway tracks. By looking at such conditions, we need to implement new technology in order to reduce accidents map. The main purpose of this paper is to provide safety at unmanned railway crossing and detection of faulty tracks. Unmanned level crossing is IR sensors base system and crack detection is a dynamics approach which combines the useofGPS(globalpositioningsystem)moduletocollectgeographicalcoordinateoffaultytracksand

GSM (global system for mobile communication) modem to send geographical coordinate of location. Here, we have introduced IOT (Internet of Things) which controlled the crack detection system dynamically.

Peltier Effect based Air Conditioner for Autorickshaws

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Abstract— This paper provides a concept level design of a cooling system for automotive application Peltier Effect based Air Condition for Autorickshaws (PEACA). It has minimum moving parts, being a solid-state device. It is reliable and eco-friendly Peltier Effect can also be used for heating applications, giving a dual-purpose system. Conventional cooling systems are inefficient and bulky. Moreover, are expensive in terms of installation and operating cost. Peltier Effect based Air Condition for Autorickshaws is small in size and light weight.

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Abstract— Bio-medical image processing is considered as one of the broad field as compared to other fields. It includes image forming, biomedical signal gathering, image processing, picture processing and the features extracted from images used for medical diagnosis. It contains analysis of the image, enhancement of the image and display of images captured via Ultrasound, MRI and X-Ray technologies. A Region Of Interest (ROI) is defined as a portion of an image that we want to extract from the image or perform some other operations on it. The objective of the paper is to compress the ROI in lossless manner using Set Partitioning In Hierarchical Tree (SPIHT) algorithm and Non-ROI i.e; background region in a lossy manner using Discrete Wavelet Transform (DWT). A detailed analysis is carried out by using the parameters like Compression Ratio (CR), Mean Square Error (MSE) and Peak Signal to Noise Ratio (PSNR).

Design and Implementation of an IoT Based Intelligent Garbage Monitoring System forSmart Cities

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Abstract:- Garbage bins around the cities are often seen overflowing which proves to be a menace for the local residents. This is mainly due to improper collection of the garbage by the concerned authorities. To address this problem smartly we have proposed a system in which multiple dustbins across cities will be fitted with a low cost embedded device which will track the level of the garbage in the bins. These levels will be monitored continuously and the information regarding the same will be transmitted wirelessly to a central control system handled by the authorities. A web page will graphically display each garbage bin along with its identification number. The level of garbage collected in each bin will be highlighted in a colour coded scheme so that the concerned authorities can take the requisite action.

Railway Management System using IR sensors and Internet of Things Technology

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ASTRACT- In Indian railways, accidents are still major concern in terms of safety of people which are caused due to unmanned rail road crossing and unidentified cracks in railway tracks. By looking at such conditions, we need to implement new technology in order to reduce accidents map. The main purpose of this paper is to provide safety at unmanned railway crossing and detection of faulty tracks. Unmanned level crossing is IR sensors base system and crack detection is a dynamics approach which combinestheuseofGPS(globalpositioningsystem)moduletocollectgeographicalcoordinateof faulty tracks and GSM (global system for mobile communication) modem to send geographical coordinate of location. Here, we have introduced IOT (Internet of Things) which controlled the crack detection system dynamically.

REAL TIME ROAD INSPECTION SYSTEM WITH DISTANCE INTIMATION TECHNIQUE

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Abstract: The vibration based road condition detection device, which consists of an Arduino based sensing module, is designed. First, the Arduino based sensing module will be designed to evaluate the road conditions in real-time and send the evaluation result, through the GPS using wireless medium. While the Server receives the data from sensing module, the data will mark the position with abnormal road condition on Google Maps utilizing GPS. As a result, the driver can change their route for commute and Government can use this potholes locational data for future repairing and development.

Design and implementation of gestured controlled wireless mouse.

Mithun Janardhanan, Priyanka Bohra, Pratik Mahale, Shuvom Dutt, Dr. P.S. Sheeba

Abstract—Wireless Air-Mouse uses embedded system technology and wireless communication to build a wireless gesture controlled mouse. Computer mouse is arguably the most fundamental element that let us interact with our PCs. It's been with us for several years now, and we heavily rely on it to perform everyday computer tasks. Similar to the fact how technology led us to use computer mice or touch pads to control curser movement, it has also introduced a handful of other techniques to perform the saidoperation.

For wearable computing to become more widely accepted, the associated Human-Computer Interface must move past today's keyboard, keypad, touch screen, or other bulky hand-held interfaces to allow a user to specify input through their fingers without taking their eyes and attention off their immediate focus. Accordingly, there is invention of a wearable system to track hand gestures with an accelerometer. The primary physical goals of the system were to be comfortable and wearable without interfering with other everyday activities while tracking particular hand movements that could be used to control a wearable mouse or aid in interaction with ubiquitous or other wearable devices. Recently, many studies on gestural control methods for substituting for keyboard and mouse devices have been conducted because of their conveniences and intuitiveness.

Cost Effective CD-ROM 3D Printer

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Abstract— 3D printers are being used widely and have become increasingly popular among artists, geeks, and hobbyists alike. The applicability of this device can be improved many fold by making it cost effective and computer based. The main objective would be to create a cost effective 3D printer that would be controlled through software. 3D printing, a popular term for what is now known as Additive Manufacturing (AM), refers to various processes used to synthesize a three-dimensional object. In additive manufacturing processing, successive layers of material are formed under computer control to create the object. These objects can be of almost any shape or geometry and are produced from digital model data 3D model or other electronic data source such as an Additive Manufacturing File (AMF) file.

SMART CARD BASED ELECTRICITY SYSTEM

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Abstract— Most of the developing countries are moving in to smart meters equipped with prepayment facility to measure electricity in order to reduce the financial losses faced by utilities due to consumer reluctance to make bill payments on time.
Prepaid smart meters enable consumers to effectively manage their electricity usage. But the main drawback of the currently available prepaid meters is their high cost which makes them infeasible for developing countries. This paper is based on a final year university project on designing and implementing a digital prepaid energy meter which is affordable for domestic consumers in a developing country like Sri Lanka. The prepaid energy meter described in this paper is a single phase230V/40A energy meter which consist of a metering devise designed according to the IEC1036 (1996-09) standard and a prepaid module that uses GSM/GPRS technology to communicate with the utility server.

Analysis and Design of Compact Multiband Printed Monopole Antennafor Wireless Communication System

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Abstract— An antenna plays most important role for developing communication technology, there is a great demand for antennas suitable to operate with multiband characteristics in wireless communication devices. Printed antennas have been paid great attention in recent years because of their compact size, low profile, light weight, and low cost.

Analysis and design of compact multiband printed monopole antenna for wireless communication system is presented. The proposed antenna, at 2.25–2.7GHz, 3.25–3.6Hz, 4.95–6.2GHz, and 7-8GHz, covering the operation bands of Bluetooth, WiMAX, WLAN, and downlink of X-band satellite communication system and will make it a proper candidate for the multiband devices. The antenna is composed of a modified truncated broadband T shaped monopole antenna integrating some band-notch structures in the metallic patch, is excited by means of a microstrip line. Also Stubs are added at both side of rectangular patch.

The multiband operation is achieved by etching three inverted U-shaped slots on the radiant patch. By changing the length of the notch slots, operation bands of the multiband antenna can be adjusted conveniently. The antenna is simulated in COMSOL Multiphysics 5.2 and then fabricated and measured.

Augmented Reality Based Device Control.

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This paper outlines some of the features and functionality of controlled devices based on Augmented Reality system. The system augments i.e. sumsthe image with digital data. **"Augmented Reality is a new technology that involves of computer graphics on the real world one of the best overview of the technologies is that defines the field described many proclaimed and summarized the development up to that point." [1]** We are trying to extend the reality by combining real world entities with a virtually created objects. This paper includes the differences between VR and AR and then we will proceed to understand the basic AR based system. Our project comprises of a webcam, PC for monitoring, serial communication devices and relay for device control. In our project, we are going to perform the operations of WMI using a virtual touch surface which will be monitored using a web camera. The project includes two stages: Integration of digital and real world and Integration of touch surface with application like WMI. AR has a wide range of applications in many fields like video gaming, medical, entertainmentetc.

Garbage Product Differentiator Using Image ProcessingTechnique

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ABSTRACT

This project proposes an advanced method in which waste segregation and its management is automated that would handle the solid waste monitoring procedure and supervise the management of the overall collection processeffectively.

The project implementation stages includes Hardware assembling, interfacing of the various required components with the core Arduino Mega Module and finally the algorithmic programming of the Software based section which would successfully execute the desired operations of the robot. The support devices of the robot are mechanical robot, robot control system, sensor system, and actuator robot along with the software system..

From the project experimental results, it can clearly indicate that the proposed robotic model is superior to the manual handling of the task conveniently, control capability, and operate environmentally friendly.

Gain and Bandwidth Enhancemenet of Circularly Polarized Microstrip Antenna

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Abstract—This paper is based on a gain and bandwidth enhancement of a circularly polarized microstrip antenna (MSA). The bandwidth (BW) has increased by using suspended configuration of MSA and gain has increased by using microstrip array antenna. The proposed antenna structure is developed systematically. It comprises a 2x2 suspended MSA array is printed on one side of the FR4 dielectric of thickness 1.59 mm, which is suspended 1mm above the 0.5 mm thick copper metal plated ground plane. It provides a global BW of 569 MHz. Return loss (R.L) BW alone is not just enough to judge the performance of circularly polarized MSA, but, a 3 dB gain BW and axial ratio (AR) BW needs to be considered. AR $\leq$ 3 dB is desirable in practice, which defines the region in which the antenna is behaving circularly polarized. The glass epoxy dielectric substrate has a relative permittivity of 4.4, thickness of 1.59 mm and loss tangent of 0.02. The antenna is designed to operate over 5.725 to 5.875 GHz ISM frequency band, giving impedance B.W of 613 MHz, A.R B.W of 518 MHz, Gain of 576 MHz global B.W being 569 MHz with maximum gain of12.1dBi.

Toll Collection System Using IoT Technology

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Abstract **- IOT based Advanced Toll Collection system is an effective method in order to avoid traffic congestion, enhance the convenience and safety of travellers. Electronic Toll Collection system determines whether the vehicles passing the toll are enrolled in the program and have a nfc card, alerts the officer for those who are not, and debits particular amount electronically from the amount in the card of registered cars. This will help giving all the information about the vehicles passing through the toll plaza. The information will be available at the real time and can be viewed via any internet enabled device. An architecture for collecting vehicles toll using Near Field Communication(NFC) is presented in this project using IOT to enhance the capability and use of application widely. The basic idea is to develop the IOT based toll tax system that can automate and enhance the toll plaza. The NFC Reader reads the information like vehicles no., Driving licence details, Insurance expiry and other various information related to vehicle and vehicle owner. This gives a real time report to the owner of vehicles and simultaneously information is given on the internet to all the administrativeoffices.**

Embedded framework for security purpose

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Abstract— This paper explains about application of embedded system that used in unmanned remote controlled military robot which will help to improve our defense system and avoid injuries occur during disposal of bombs, explosives etc.

Bomb disposal team uses various other devices but all of them need human operator on site to operate which is very dangerous task. This is the era of robotics evolution and our military also need robots to operate dangerous operation like bomb disposal which will prevent endangering the lives of solders and other people around.

The key features of the robot include an intuitive user interfacing which provides additional sensor feedback as well as visual awareness compared to existing system, an onboard three degree of freedom manipulator arm providing an enlarged workspace, and dexterous gripper allowing for the removal of detonators. The flexible and modular robot design uses commercial components for ease of maintenance and repairs. The robot provides a safe distance threat examination and execution also increased capacity for bomb disposal, improving the effectiveness of bomb disposal team. The cost of the robot is less also maintenance is easy which will help to save liver of military personal and civilian.

SOLAR POWER TRACKING SYSTEM AND ITS APPLICATION TO GREENHOUSE USING IOT

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ABSTRACT:Purpose of this project is to develop automated system for Green House Development of a solar greenhouse based on maximum solar power tracking with various parameters being controlled by a microcontroller via internet and maintained further to an optimum value required for adequate growth of plant; using the stored solar energy only . Storage of solar energy in a battery and then its re-utilization for driving a water pump and a water air pump to maintain optimum moisture and temperature required for adequate growth of plant. An increase in output of solar panel due to the implementation of maximum solar power tracking. The proposed greenhouse is very useful for hilly areas where there is scarce sunlight in winters .The proposed greenhouse will consist of minimum hardware. And will have very fast response and will occupy minimum space. It can be built even on the rooftop of houses, in highly populated hilly areas. Energy can also be stored at a large scale and maybe utilized for heating the house water in winters available in tanks of house.

LI-FI Based vehicle-to-vehicle communicationunder weather conditions

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Abstract-Fog is known as one of the most detrimental atmospheric conditions that causes outdoor optical wireless communications to be unreliable. The experimental results demonstrate that the proposed LIFI-based V2V system offers a reliable V2V data transmissions over the fog-impaired opticalchannel.

Diagnosis of Brain Hemorrhage Using Artificial Neural Network

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Abstract— Brain hemorrhage is a type of stroke which is caused due to bursting of artery in the brain and thus causing bleeding in the surrounding tissues. The major technique which is used for diagnosis of brain hemorrhage is through Computed Tomography (CT) scan**.**This dissertation investigates the possibility of diagnosing brain hemorrhage using an image segmentation of CT scan images using watershed algorithm and using the inputs extracted from the brain CT image to an artificial neural network for classification. The output generated as the type of brain hemorrhages, can be used to verify diagnosis also as a learning tool for trainee radiologists to minimize errors

Car Security and Detector

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Abstract:
Crimerateisincreasingdaybydayasitisquiteevidentfromthefactthattheftshavebecomeamattero froutine. Thevehicletheftsparticularly carsmay incurhugelossonthepartofamountinvestedonthese vehicles.Therefore,theneed oftheourisabetterantitheft controlsystemthatcanbeNowadaysimplementedby usingseveraltechnologieslikeGSM systems. The principle of the project is that when someone try to steal the car, PIR sensor sense movement and pass signal towards Arduino and then using serial communication, Arduino gives control towards GSM module so that it sends message on predefinednumber.
Aimoftheprojectistosavethecar.SothisGSMbasedcarsecuritysystemworkswhensomeone trytostealyourcar,immediatelythissecuritysystembealertandsendSMSonyourmobilethroug h GSMmodemandyou can save your car.

A Novel Design of Compact Planner UWB Antenna With Multiple Band Rejection Function

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Abstract- A compact printed Y-shape ultra-wideband(UWB) antenna with multiple band-notched characteristics is presented. The proposed antenna, with compact size of 30×32.5×1.6 mm^3, yields an impedance bandwidth of 2.5-11 GHz for VSWR < 2, except the notched bands. By removing two C-shaped slots in the radiating patch, and one U-shaped slot in the microstrip line, triple band-notched properties in the WiMAX/WLAN/X-band satellite bands areachieved.

A prototype of the UWB antenna with multiple notched bands is fabricated and the measured results of the antenna are compared with the simulated results. The proposed antenna exhibits nearly omni-directional radiation pattern and a stable gain over the entire impedance bandwidth except for the three notched bands.

RFID Based Automatic Toll Collection and Security System

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Abstract— Modern science and technological inventions has raised the level of development to a great extent and have set a new era for technology. Radio Frequency Identification (i.e. RFID) technology is one of such great invention. Its application in various sectors has proven to be an achievement in the field of technology.One of such application pertaining to toll roads in terms of tracking and charging is selected as an area of interest for our project. We have named this project as i-TOLL which stands for intelligence toll. Since RFID works on the principle of Automatic identification and data collection technological system and i-Toll is one of theapplication of RFID technology hence i-Toll gives an idea about providing automatic and authentic toll access which will not only eliminate the inconveniency faced by the people during their journey but also facilitates a bettersecurity system onroadways.

Vehicular pollution detection and control

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& Shah Tanmay Jayesh, (*Students, BE Electronics, K.J.S.I.E.I.T*)
Prof..Medha Asurlekar(*Asst Professor, Electronics, K.J.S.I.E.I.T)*

Abstract—Vehicles have become an integral part of every one's life. Situations and circumstances demand the usage of vehicles in this fast paced urban life. As a coin has two sides, this has its own effects, one of the main side effects being air pollution. Every vehicle will have emission but the problem occurs when it is beyond the standardized values. The primary reason for this breach of emission level being the incomplete combustion of fuel supplied to engine, which is due to the improper maintenance of vehicles. This emission from vehicles cannot be completely avoided but, it definitely can be controlled. With the evolvement of semi-conductor sensors for detecting the various gases, this project aims at using those semi-conductor sensors at the emission outlets of vehicles which detects the level of pollutants and also indicates this level with a meter. When the pollution/ emission level shoots beyond the already set threshold level, there will be a buzz in the vehicle to indicate that the limit has been breached and the GSM module in the vehicle will send the SMS to the concerned R.T.O, and then the engine gets automatically switched off with the help of Fuel Injection System.The GPS module is used to locate the vehicle position where it is halted.Hence the owner has failed to license himself with a PUC and therefore,The government body will start fining the owner.The synchronization and execution of the entire process is monitored and controlled by a ARM Processor. This project, will benefit the society and help in reducing the air pollution.This paper demonstrates an effective utilization of technology by which we save our environment by controlling the pollution ofvehicles.

A Rainfall Prediction Model Using Articial Neural Network

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Abstract—Back propagation algorithm is most commonly used in neural network projects because it works faster than earlier approaches to learning and for its accuracy. Back propagation is a workhorse of learning in neural network.In back-propagation algorithm, there are two facets in its learning cycle, one to generate input pattern and another one to adjust the output by changing the weights of the network. There are many applications of feed forward neural network such as weather and financial predictions, face and signature detections etc. Thispaper describes the training, testing of data sets and finding the number of hidden neurons using back propagation algorithm for betterperformance
In the research, rainfall prediction in the region of Mumbai has been analyzed using feed forward network. In formulating artificial neuralnetwork based predictive models three layered network has beenconstructed.

IOT BASED ANDROID APPLICATION FOR HOUSING SOCIETY

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Abstract---In this project, "IOT Based Android Applicationfor Housing Society" an attempt has made for reducing the issues related to housing Society. IOT or internet of things is an upcoming technology that allows us to control hardware devices through the internet. The Internet of things (IOT) is inter-networking of physical devices, vehicles, buildings and other items embedded with electronics, software, sensors, actuators, and networkconnectivity that enable these objects to collect and exchange data.People now days always want something that can make their life easier. This automation system provide to control of various system within the Society and continuously monitoring those system from remote location through IOT. This project can complete different jobs in smarter way such as the water tank fills the water depending upon the water level of tank, Controlling light in the Society floors, corridoretc. and Garbage collection system for informing the user about the garbage collection.All these systems worked according to the user input on Android Application.

SCADA USING ELECTRIC POWER DETECTION

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***Abstract*---** The system generally refers to an industrial control system: a computer system monitoring and controlling a process. In this project we attempt to improve the current power distribution scenario by using this technology. In this project, we will measure and monitor power at various load points in our model. Using that data, we will define the load shedding technique through controlled automation. This entire monitoring will happen using a personal computer. There will be real time feedback about the faults at generation points, distribution points, and usage points. We will also attempt to monitor pilferage of power. Theft will be detected and an alert with message will be sent to an authorized person.

Color-based Object Tracking Robot

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Abstract— Our Paper focuses on Detection and tracking of moving object using different image processing algorithms .In this project we aim of designing a robot which is controlled by computer to track and follow the desired colored object which depends upon the instructions provided in the code. Here we will be detecting one object at a time. The Tracking of the image is based on division of the image into virtual grids and the movement of the robot is based on the position of the object in the grid. This will lead to maneuvering the robot toward the desired object.

An Efficient PAPR ReductionTechnique for OFDM

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Abstract— This Orthogonal Frequency Division Multiplexing (OFDM) is an efficient multiplexing & a bandwidth efficient modulation scheme in wireless communications.However, OFDM faces the high Peak-to Average Power Ratio (PAPR) problem that is a major drawback of this multicarrier system which leads to power inefficiency in the RF section of the transmitter.Thus, the OFDM signals with high PAPR could seriously be distorted by the non-linearity of the HPA, resulting in degradation of both spectral efficiency (SE) and energy efficiency (EE) performances. Our paper will review a few techniques to reduce the high PAPR to combat multipath fading and signal distortion which will facilitate better datatransmission.

Factor affecting on Efficiencyof the Parabolic Dish Antenna system

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Abstract—The Main aim of this paper to study the different types of feeds of dish antenna. A satellite dish is a dish-shaped type of parabolic antenna designed to receive microwaves from communications satellites, which transmit data transmissions or broadcasts, such as satellite television. The parabolic shape of a dish reflects the signal to the dish's focal point called LNB which converts the signals from electromagnetic or radio waves to electrical signals. In extreme cases, the reception can be effectively disrupted and also adverse weather can affect quality of the satellite TV signal reception. the possibility of signal degradation/loss depends on regional yearly rainfall figure, location in the satellite footprint and height of the satellite abovehorizon.

ADVANCED CODE LOCKING SYSTEM

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Abstract: Security has become a major issue and it is faced by everyone around the world. Considering this fact many security systems have been designed till now, but a completesolution for this problem is not yet found. So here we present the paper "Advanced Code Locking System" which tends to provide an ultimate solution for the same. As security is very essential nowadays, so by using this system only the authorized person will be allowed to unlock the door by entering the correct password. Here, in this proposed model, Arduino is used to carry out important task such as sending and receiving data etc. The door can be opened or closed using ATmega Arduino UNO board and Servo mechanism. As this system provides special features such as the change password facility, sending SMS to users about intruders through GSM and System Protection Circuitry that protects the system if the intruder tries to break it, at a cheap and affordable price, makes it a user friendly product. The proposed system can be used in ATMs, door of houses, lockers, offices, malls, etc anywhere where the security is needed.

Automated PCB Drilling Machine

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***Abstract*—Creating holes on single or multilayer printed circuit boards (PCBs) is an important stage in electronic production. Holes of different sizes and at a large number of positions (up to thousands) must be drilled with high precision for manual or automatic insertion of various electronic devices and components. For this purpose, we have designed and built an automatic PCB drilling machine. The PCB pattern of the circuit schematic diagram is drawn on the monitor screen, with the help of a software such as Orcad. This pattern layout is printed out to make the PCB, and it's just from this layout the computer will control the drilling automatically. At a time the system can make holes on several boards stacked together. There are many foreign made PCB drilling machines of different quality that we could have imported, but because of their high price and, moreover, we wanted to build a robust machine with a large span (can accommodate boards up to 50 cm in width) for making holes, or making printed boards (board etching), and as a demonstrating CNC machine (by changing corresponding working head). The project has been completed and put in use (making small scale PCBs and teaching).**

AUTOMATED TIRE PRESSURE MONITORING SYSTEM

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shoeb.khan@somaiya.edu***Abstract*—Accurate tire pressure is a feature that gives us theadvantage of higher fuel savings, and better control of the vehicle The proposed system is designed. But the fact is that a drop in tyre pressure can result in the reduction of mileage, tyre life, vehicle safety and performance. This paper is providing a new approach to tyre pressure monitoring system. The system will take continuous readings of the tyre pressure and temperature and decide if the pressure is within proper inflation. Current pressure in the tyre and under or over inflations will be displayed on LCD for giving proper warning. The system works on wireless sensor network using ZigBee.

The data received wirelessly through ZigBee will be converted to PIC protocol format. Power consumption is reduced by designing a transmitter waking circuit. Also if the tyre pressure is reduced below a threshold limit a warning beep sound will be heard.

Smart Stick for Blind: Obstacle Detection, Artificial Vision And Real-Time Assistance Via GPS

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Abstract— The paper presents a theoretical model and a system concept to provide a smart electronic aid for blind people. The system is intended to provide overall measures – Artificial vision and object detection ,real-time assistance via global positioning system(GPS).The system consist of proximity sensors, ultrasonic sensors , gps module, stereo cameras and dual feedback system- auditory as well as vibratory circuit. The aim of the overall system is to provide a low cost and efficient navigation aid for blind which gives a sense of artificial vision by providing information about the environmental scenario of static and dynamic objects around them.

SECURITY SYSTEM USING SPEECH RECONGITION

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Abstract—Security becomes one of the most important aspect of any system.Previously,traditional methods such as password,Thumb Scanner,Iris Scanner and other methods were used .Our project is based on the System which uses voice as an pass code and gives Authentication according to it.This System Focuses on the objectives to recognize the word or phrases spoken by Human.It can be used as a biometric feature for verifying the identity of a person in various applications such as Banking by Telephone and Voice mails. Speaker Recognition is categorized to Speaker Verification and Speaker Identifications.The goal of automatic speaker recognition is to extract,characterize and recognize the information about speaker identity to identity a speaker by his or hervoice.

Finger Print Recognition Based Smart Lock

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Abstract- The main aim of the paper is to design and implement the Fingerprint based lock system using microcontroller. Biometrics studies commonly include fingerprint, and hand geometry recognition and verification. Many other modalities are in various stages of development and assessment. Among these available biometric traits finger Print proves to be one of the best traits providing good mismatch ratio and also reliable. The present scenario to operate a lock is with lock which are having keys. This does not provide good security to our lockers. To provide perfect security to the lock and to make the work easier, this project is taking help of two different technologies viz. EMBEDDED SYSTEMS and BIOMETRICS.

Applications of Spectroscopy in Archeology

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Abstract—The archeological findings need to be analyzed in order to see its composition, its percentage corrosion and its properties that helped it survive over thousands of years. Spectroscopy is a promising branch of Engineering that helps solve the problem with outstanding precision. Here we study the various approaches taken using spectroscopy to help Archeology

HUMAN DETECTION ROBOT USING PIR SENSOR

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ABSTRACT:

This is a mobile rescue robot system based on wireless sensor network technology to help the peopleon time which are trapped in natural calamity like disaster, earthquake, Building crashes etc. It gives timely & accurately reflect dynamic situation of human in disaster region like in the underground regions to controlroom.

This system proposed a monitoring system using sensors unit and camera module to recording, analyze conditions of human body and transmit data.

The Robot is configured with various devices to track the presence of human being around it. Passive Infrared Sensor (PIR) is used to sense the thermal objects like human body. The camera is used to observe live conditions at the spot. The Wireless radio Transceiver is used for communication and to control the robot at a distance.

This is a helpful design in the case of emergency like natural disasters or accidents.

Multi-level Security For Device Access

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Abstract—This project uses image cryptography technique to remotely access the devices. A three level security based on Discrete Cosine Transform (DCT) & Discrete Wavelet Transform (DWT) is applied. This algorithm watermarks a digital image using a combination of DCT and DWT.For our project we will be making use of MATLABGUI in which coding will be done with appropriate algorithms. The first level of authentication would have number of images from which the user will be selecting an image which is already known to him, this will make way for the next level in which the user will be entering a decryption password which can be a simple numericpassword. This will take the user to the next stage in which the user will be entering a simple descrambled key which will provide the user with a password which is stored in the image similar to water marking technique or a captcha image. The main advantage of this authentication technique will be that even if a hacker gets access to a password he would have to go through other levels which would be a difficult task to perform. After completing all the three levels the user will get access to a remotely placed electronic device.

"COMMERCIAL APPLICATION USING ANDROID"

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Abstract—India is one of the most biggest producer of vegetables in the global horticulture market is insignificant.The fragmented supply chain and inadequate health, safety and quality mechanisms (means the quantity and quality of vegetables) often do not meet the demands of high-end or international markets. This paper composed of a new mobile Application practiced for an Android Smartphones, meant for the sales persons of big retail stores.So, the aim behind developing this app is to give India's huge community a fair and consistent price. Using this android based app "COMMERCIAL APP USING ANDROID", vendor can directly connect with the customer and supply the product directly to them. This will increase the profit to both and also customer can get good quality product in fewer prices as they will directly buy fromvendor.

GPS AND GSM BASED VEHICLE TRACKING SYSTEM

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GPS is one of the technologies that are used in a huge number of applications today. One of the application is tracking our vehicle and keep regular monitoring on them. This tracking system can inform you the location and route travelled by the vehicle and that information can be observed from any other location. It may include web applications that can provide you exact location of target. This system enables us to track target in any weather conditions. This system uses GPS and GSM technologies. The project includes hardware part which comprises of GPS, GSM, ATMEGA microcontroller, MAX 232, several sensors and software part is used for interfacing the required modules. The main objective is to design a system which can be easily installed and provides platform for furtheradvancement.

Satellite Images De-noising Using Efficient Adaptive Mean Filtration Method

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Abstract- In earlier era of satellite technology, satellite systems send much of data from space to the earth stations in form of images or photographs. While transmission of such images because of limitations of satellite imaging hardware, image captured gets corrupted. Computer filters de-noise such images by linear or nonlinear filtration techniques. This paper proposed efficient adaptive mean filtration technique to remove noise from satellite captured images. Efficiency improved for 70% of noise variance.

Comparative study of different Image Restoration Techniques

Leena Uttam Karan
ARMIET/

Abstract

Image Restoration is a technique in Image Processing which deals with recovering an original and sharp image from a degraded image. Using a mathematical degradation and restoration model it recovers original image.This study focuses on restoration of degraded images which have been blurred by known or unknown degradation function.

This paper attempt to undertake analysis of various image restoration techniques like Deconvolution using Lucy Richardson Algorithm (DLR),Deconvolution using Weiner Filter (DWF), Deconvolution using Regularized Filter (DRF)and Blind Image Deconvolution Algorithm (BID).For making comparison among these techniques we considered two different image formatsviz..jpg(Joint Photographic Experts Group), and.png(Portable Network Graphics). Based on performance metrics like PSNR(Peak Signal to Noise Ratio),MSE(Mean Square Error) , RMSE(Root Mean Square Error) analysis is done.

AUTOMATIC DIALING TO ANY PHONE USING I2C PROTOCOL ON DETECTING BURGLARY

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Dipashree Atwankar, Rahul Gupta, Vikaskumar Jha, Sonali Jagtap
Project Guide: Prof. P. T. Yewale

Abstract— the main objective of this project is to intimate the concerned authorities about an unauthorized access of secured areas such as museums, residential houses, banks etc.

Safety from theft, leaking of raw gas and fire are the most important requirements of home security system for people. A traditional communications based security systems provides enhanced security as whenever a signal from sensor occurs, a text message is sent to a desired number to take necessary actions. Conventional security systems keep homeowners, and their property, safe from intruders by giving the indication in terms of alarm. Security has attracted the interest of the research community during the last decade, at a great manner. Home security systems consist a constantly, year after year, developing research field. Some of these systems are limited to support basic operations, while some others satisfy a range of additional primitives.

In this paper, a security system for security is proposed. As crime rate is on the rise and burglars are getting smarter, the security system for banks, shops and houses needs to be full proof. This proposed system ensures that at any moment if any unauthorized person tries to open the bank locker; a mobile number will be dialled through the GSM modem connected to it.

Review of fractional order control

Megha Sharma
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Abstract
Many real dynamic systems are better characterized using a non-integer order dynamic model based on fractional calculus or, differentiation or integration of non-integer order. Traditional calculus is based on integer order differentiation and integration. The concept of fractional calculus has tremendous potential to change the way we see, model, and control the nature around us. Denying fractional derivatives is like saying that zero, fractional, or irrational numbers do not exist. In this review paper, basic definitions of fractional calculus, fractional order dynamic systems and controls are presented first. Then, fractional order PID controllers are introduced which may make fractional order controllers ubiquitous in industry. Additionally, several typical known fractional order controllers are introduced andcommented.

Implementation of PLC based Automated PCB Fabrication System

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Abstract— Requirement of Printed Circuit Boards is very large in electronics industry. From every electronics engineer it is expected that he is aware of the PCB fabrication and he can also fabricate PCB. However it is not possible for every electronics engineer to go to an industry for PCB fabrication and get hands on experience about it. Hence in this paper, an experimental set-up for laboratory that can be used for PCB fabrication is proposed and also implemented. Programmable Logic Controller is used to automate the entire process included in fabricating a Printed CircuitBoard.

ARDUINO BASED MULTIPURPOSE INTELLIGENT GOODS CARRIER SYSTEM

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Abstract - Integument personal luggage carrying system can add comfort to the explorer inside an infrastructure possibly airport. The system consists of automated vehicles that can be borrowed and it automatically follows the borrower inside an infrastructure with luggage. These also maintain a distance from the borrower. In this thesis we have identified the basic construction required for the four wheels based rigid robot body and the basic person tracking movement of the user for airport traveler's personal luggage carrier. This paper presents the hardware and software design of the portable robot. The result of the testing on the used sensors like ultrasonic and weight sensors is presented. This thesis is done to find out a reliable automated system for the luggage carrying system. This thesis has following objectives:
To identify the efficiency of convention luggage carrying system and the proposedsystem.
To demonstrate the benefits of automated system over conventional system considering some important parameters such as speed, time, human labor and costexpenses.
To identify the drawbacks of current conventionalsystem.
To demonstrate the scope of improving the proposed automated luggage carryingsystem.

GSM Based Energy Meter

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Pragnesh Jadhav Rushabh Haria[4]

Abstract:-

This paper presents a single phase digital energy meter based on microcontrollers and a single phase energy meter IC. This digital energy meter does not have any electro-magnetic rotating parts. The energy consumption is calculated by using the output pulses of the energy meter chip and the internal counter of microcontroller (ATmega32). A microcontroller is used as memory storage for numbers of units consumed by the consumers in KW and required electrical parameters. Energy consumption (kWh), maximumdemand(kW), are stored in the ATmega32 to ensure the accurate measurement . An electrical power output that can be easily read from a LCD. As soon as the supply is restored, energy meter starts with the current stored values. A single phase energy meter prototype has been implemented to provide measurement up to 20A load current and 230V line to neutral voltage .Necessary program is burn for microcontrollers, suitable for energy measurement in (kW).

Review Paper on 5G Technology

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***Abstract*—**The vast developments does taking place in the field of Cellular Technology with very or extremely high carrier applications with massive bandwidths among the highly dense populated (Electronically with respect to communication related devices like as no. of cells, base stations, trans-receivers, EM waves, number of antennas etc.) aspects. 5G will be a milestone for Cellular Technology. In comparison of last four Generations this 5G will be Highly integrative. Will be combining LTE & Wi-Fi together inclusion of high rate coverage. To implement 5G, the system needs more and more integrative upgradations which may include the core networking, flexibilities in I2C communications, energy and cost efficiencies. In this paper the inclusion of possible critical considerations, challenges, 5G standardization activities, and overview of technology is reviewed.

DESIGN OF DRIVE FOR OVERHAUSER MAGNETOMETER

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ABSTRACT -The drive is used to operate and control the overhauser magnetometer and produce the proton precession signal. It is used to deflect the increased proton magnetization into the plane of precession and after the deflection pulse, the frequency measurement is done. And, while the existing deflected magnetization is precessing and being measured, a new one is being created by the Overhauser effect. After the frequency determination has been completed, we can apply another 90degree pulse and continue the measurements faster than would be possible with the classical proton magnetometer.

A Design strategy to demonstrate that restricting the Noise Figure in LNA despite the fact that utilizing resistor components

The LNA design way to deal with negligible the Noise figure utilizing resistors

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Abstract— This paper examines the simulation of a Low Noise Amplifier with resistive element in output and intermediate matching networks in frequency range of 6.3-7.8 GHz. The paper shows that even though using resistors in matching networks Noise Figure can be controlled with attaining sufficient gain, unconditional stability and low Input-Output Return Loss. This proposed Low Noise Amplifier has been designed and simulated in AWR Microwave Office. The designed amplifier provides noise figure <1.25 dB, gain >16.45 dB, Input Return Loss < -10 dB and Output Return Loss <- dB with unconditionalstability.

VIRTUAL HEALTH MEDICATION PILL BOX

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Abstract: In rural areas people prefer home remedies rather than taking consultation ,when they feel unhealthy or weaken take home remedies instead of consulting a professional who knows better, like doctor for health issues will give best advice about health problem rather taking own decision, sometimes home remedy works but for better mean of health it is good to consult doctor. With the tremendous growth in medical technology, there is cure for many dreadful diseases through the intake of several new medicines. Our main motive is to provide medicine in rural areas by just connecting call to doctor and he will operate our device to provide pills to patient without going in that area by inspecting on call to patient. The device will give out pill according to doctors knowledge, If something is happening consistently device will send message to doctor than once in a week the consulted doctor will visit to that area. We are using arduino ,GSM module, pill dispenser controlled by motor.

ZigBee Based Waste Bin Monitoring System

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Abstract—In many places, the Municipal garbage bins are overflowing and they are not cleaned at proper time. As a result of which the consequences are severe. It includes overflow of garbage which results in land pollution, spread of diseases, also it creates unhygienic conditions for people, and ugliness to that place. A precise way is needed which is effective and efficient waste management topology for maintaining a safe and green environment as there are increasing all kinds of waste disposal . To avoid all such situations, we intend to propose a solution for this problem "Smart Garbage Bin", which will alarm and inform the authorized person when the garbage bin is about to fill.

RADAR System For Medical Lab. Security

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KUNJ KARIA CHETAN TRIVEDI JAYMIT TRIVEDI VISHAL WAGHELA

Abstract—This paper is targeted in developing a compact RADAR system. Which would be used for the security purposes at themedical labs where secrecy and high level of security is important.

Restaurant Assistant Robot

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Abstract— In today's world the use of robots is going on increasing. Robots can do every work more effectively and efficiently than a man can do. Hence one such application is Restaurant Assistant Robot. Here In this project we have tried to make a prototype of Autonomous Robot which will take orders from the customers and give the orders to respective cooking zone. The implementation is done with using robot FIREBIRD V ATMEGA 2560 provided by IIT- Bombay for E-Yantra.

AM RECEIVER USING SUPERHETERODYNE PRINCIPLE

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Abstract- Our aim is to study and implement an AM RECEIVER based on Super heterodyne principle virtually used in all modern radio and television receivers.This mainly involves the use of heterodyning. The signal from the antenna is filtered sufficiently at least to reject the image frequency and possibly amplified. The two stages of RF amplifier are used to get desired frequency and 20-23dB gain. A local oscillator and mixer in the receiver produces a sine wave which mixes with that signal shifting it to a very specific intermediate frequency , usually a lower frequency. The IF signals is filtered and amplified and possibly processed in additional ways. The demodulator uses the IF signals instead of the original radio frequency to recreate a copy of the originalmodulation.

SAFETY SOLAR FENCES USING GSM MODULE

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Abstract- As we know fence is a structure that encloses an area and constructed or connected by using boards, wire, rails etc In popular countries were manpower is expensive, electric fences slowly becoming popular. This project are also been planted in many regions of India . Inspiring by this idea of fences and designing them in more innovative way this project is designed. In this project, we are going to develop safety solar fences using GSM module.. This fences are designed with various basic designings of safety in villages and rural area. In this project safety fence is designed throughout which current flows in order to avoid wild animals to enter the villages. Except this various small sensor circuit are been designed in order give safety alarms in cases like earthquake floods , landsliding . This would help out the villagers or rural area people beaware of the situation and take a step towards safety as soon as possible .GSM module is been used for communication purpose , to update current situation with an alert message to designed control room. Electric fences can be used to protect farmhouses, farmlands, forest bungalows, etc also. from animals.
In a way, these simulate the job of a cowboy or forest guard.

SMART NETWORK FOR FIRE CONTROL

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Abstract-The paper smart network for fire control represents a system which monitors the occurrence of fire and take necessary steps for fire controlling as well as to provide safe evacuation from the building. The system proposed by us consist of sensors network which will detect gas element released by fire. If fire situation arises, the warning ALARM'S will turn ON immediately and sprinklers will also turned ON, to control fire. System tries to reduce casualties due to panic, by determining point of occurrence of fire and it uses indicators to guide the people towards the exist which are safe or unaffected byfire.

In such situations, calling for fire brigade is also necessary, which will done automatically by sending SMS to nearest fire station. The system provides Graphical mapping of sensor and indicators on computer which will be located away from building or inside the securityroom.

To Detect Driver Drowsiness Using Eye Tracking System

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Abstract—This paper describes an eye tracking system for drowsiness detection of a driver. It is based on an IR sensor. By placing an IR sensor on the goggles, we can monitor the face of the driver and look for the eye-movements which indicate that the driver is no longer in condition to driver is no longer in condition to drive. In such a case, a warning signal should be issued.

Automatic detection system for Diabetic retinopathy using fuzzy C-means clustering

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Abstract-Retinal exudates are key feature of many retinal images. Diabetic Retinopathy is the main cause of blindness. We deal with the development of methods to quantitatively diagnose this random yellow patches in color retinal images automatically after following color normalization and contrast enhancement pre-processing step. Fuzzy c means clustering is use segmentation of color retinal image. The entire segmented image establish a dataset of region. We then classify segmented region into two adjacent classes exudates and non-exudates comparing performance of various classifier.We also locate optic disk both for remove it as a candidate region and to measure its boundary accurately. Since it is key landmark feature for ophthalmologist

Embedded System based Landslide Vigilance through WSN

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Abstract— Since landslide hazard vigilance has become one of the most important and challenging task, because landslide is the most common, natural and major disaster among all disasters which is seriously threatening a big loss in human casualty and economic. Landslides mainly occur due to extreme incidents such as seismic activity and heavy Rainfall. Landslides are also known as land-slip, it is a form of mass wasting that includes a wide range of ground movements, such as rock falls, deep failure of slopes, and shallow debris flows. We cannot stop landslides as they are occurring naturally, but prevention is only possible to a limited degree. We can reduce the landslide risk by using some efficient ways, such as landslide hazard zoning and vigilance of the slopes. Therefore, it is very important to understand and predict the landslide behavior of the study region. By installing Inclinometers, Vibration sensor, Temperature sensor and Rain gauge sensor in the slope landslides are monitored. GSM module is used for data transmission for the pre-landslide alert system. This method is embedded based and has three stages. Firstly, if any of the sensors sense a slight change in the set threshold, output signals from the sensor in digital form is received by GSM module and then transmitted to the embedded based monitoring system through SMS. In the second stage, if there is much more difference in threshold then audio calls are made through GSM module. In the final stage Security alarms will be generated to directly alert the people.

Classification of a Retinal Disease based on Differe Supervised Learning Techniques

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Abstract— This paper is based on classification of a retinal disease observed in premature infants named as "Retinopathy of Prematurity" (ROP). According to current market survey very few hospitals are associated in dealing with this disorder and is costly. So, the main aim here is to provide a simple yet effective MATLAB based algorithm for detection and classification of this disease. Here for computational purpose authors have used 30 affected and 30 normal images. These images are pre-processed using various MATLAB functions and commands and blood vessels are extracted. Later the tortuosity of these vessels is estimated and stored. These signals are further given to supervised learning classifiers, accuracy and error rate of the algorithm is estimated using differentkernels.

IoT Based Bridge Health Monitoring System

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Abstract

IoT (Internet of Things) is the network is the network of physical object devices,vehicles,buildings and other items embedded with electronics,sensors, and network connectivity-that enables object to collect and exchange data. IoT allows objects to be sensed and controlled remotely across existing network infrastructure[1]. In this paper we summarized tangible IoT based service models which are helpful to academic and industrial world to understand IoT business.

Automatic Railway Gate Control by Arduino

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Abstract—This paper aims to provide an automatic railway gate control at the level crossing replacing the manual gate control. The railway gate is to be closed automatically when a train is passing by the railway crossing. The detection of arrival and departure of train is done by using two ultrasonic sensors. The opening and closing of the gate is to be done using stepper motors and this stepper motor is controlled by Arduino. Additionally the status of the gate will be given to the motorman well in advance. This insures more protection from the accident. LCD and alarm are used to indicate the closing of gate for the people who are trying to cross the gate.IR sensor are used for the proper closing of the gate. This system efficiently avoid the accidents at level crossing. Programming is done by Arduino C to operate hardware. Proposed methodology is more reliable and costeffective.

SELF BALANCING BOT

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Abstract— Self - balancing robot is based on the principle of Inverted pendulum, which is a two wheel vehicle balances itself up in the vertical position with reference to the ground. It consist both hardware and software implementation. Mechanical model based on the state space design of the cart, pendulum system. To and its stable inverted position, I used a generic feedback controller (i.e. PID controller).

Wheel Chair Using Brushless dc motor And accelerometer sensor

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Abstract–Today where there is lot of progress done in technology there is a wide need that this technology will also be helpful to the handicapped people. There are many problems faced by the disabled people in their day to day life which needs to be overcome so that even they will lead a better life with ease. They are not able to standalone they need support for every work. So, this study develops their life style and to reduce these difficulties of handicapped people with the minimum cost.. The overall framework of this project is to help handicapped people for storing their freedom. And there is recently extensive research on computer controlled chairs for physically handicapped persons.

CSI Based Key Generation Technique

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Abstract—The role of communication in wireless technology is very important. This communication needs to be secured. System Administration has a number of aspects of which network security is considered as very essential. We live in a world where various types of information such as voice, multimedia or data analytics can be easily accessed anywhere and at any time. So we need to make sure that information is highly secured, authentic and accessible only to the authorized user. The user must receive this information with the highest level of security. We can secure communication by various techniques such as RSS. However it has its own demerits. To overcome its issues we can use key generation techniques based on CSI information in M2M communications. For that we will use OFDM channels. The process of generating a key using CSI information can be more efficient in terms of providing security as compared to RSS based technique, as they can generate a longer key. This technique generates the key randomly thereby preventing the attacker from decoding the key within the time span during which it would be vulnerable to the communication. The CSI information of the OFDM channel has a property by which it prevents an attacker from using the same algorithm and trying to sabotage the communication, by generating a different key.

Patient Health Monitoring System (PHMS) Based on Internet of Things

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SIGCE

Abstract—In this paper, the architecture of the Patient Health Monitoring System (PHMS) using IoT devices is proposed to collect the required parameters and evaluate the data obtained from the IoT devices. PHMS also notifies the patient with possible precautionary measures to be practised by them. This system suggests the patient with medical care and next step to be followed in case of critical situation. The PHMS system is evaluated for certain parameters and the decisions made on the data obtained from the source are assumed to evaluate the system. The simulated results experiments the correctness and effectiveness of the proposed system. In this fast pace of life, it is difficult for people to be constantly available for their near ones sugar level etc. becomes difficult. Hence to remove human error and to lessen the burden of monitoring patient's health from doctor's head, this paper presents the methodology for monitoring patients remotely using GSM network . Patient monitoring systems measure physiological characteristics either who might need them while they are suffering from a disease or physical disorder. So also constant monitoring of the patient's body parameters such as temperature, pulse rate, continuously or at regular intervals of time. In medical field, electronics industry gaining to develop medical equipment at very high advanced level techniques, they use electronics system every time for patient caring. Patient monitoring system canbedefinedasthesystemusedformonitoringphysiologicalsignalsthatincludestheparameterslikeHeartBeatrate ,Blood Pressure,Body temperature,GSR, etc. So, we also try to develope medical field and provide another patient caring facility to medical service for patient monitoring. As per requirement of medical field we design this "patient monitoring & alerting system by using GSM". In this project we design the services for collecting data of the patients parameter . we uses total four sensor like temperature sensor , GSR, Heart beat sensor this sensor are sense the data.

MOBILE DATA TRAFFIC OFFLOADING

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Abstract— There is been an increasing spectrum demand for the wireless application, as a consequences of rapid penetration of laptops smart phones and tablets in the technology market, as well as the application that they provide, which are mainly bandwidth-hungry. This has become a major concern for the mobile network operator, who are forced often to operate very close to (or even beyond) their capacity limits. The way to deal with the data crunch, which is beneficial for both the cellular operators and mobile users, is to use Heterogeneous Networks (Het-Nets) comprising of small cells (femto cells, pico cells) and/or Wi-Fi networks, as well as aggressive offloading from the main (cellular) network. Heterogeneous Networks and offloading also lead to intermittent access (to one or more wireless access technologies), which is also subject of randomness of the availability of the specific interface, and can be modeled in a similar way as the availability in the cognitive case. The other different solutions have been proposed to alleviate these problems. A potential solution is the utilization of dynamic spectrum access (DSA), with cognitive radio (CR) as its key enabling technology. For that purpose, Cognitive Radio Networks (CRN) have been proposed to opportunistically discover and exploit (temporarily) unused licensed spectrum bands, in which the secondary users (SU) activity is subordinated to primary users (PU). This leads to the necessity of SU to adjust its transmission parameters accordingly, so that there are no impairments on the PU Qos.

Design and Development of Reconfigurable Multiprocessor Architecturefor Embedded Systems

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Abstract- In Today's world, Embedded systems are the brains of almost all digital and industrial control systems.Modern digital systems demand increasing electronic resources, so the multiprocessor platforms are a suitable solution for them which provides better results in terms of area, speed, and power consumption compared to traditional uniprocessor digital systems. Reconfigurable multiprocessor systems are a particular type of embedded system, implemented using reconfigurable hardware. In this paper, Design methods and challenges are discussed. Advances in FPGA technology are leading to more powerful systems in terms of processing and flexibility. Flexibility is one of the strong points of this kind of system, and multiprocessor systems can even be reconfigured at run time, allowing hardware to be adjusted to the demands of the application. Multiprocessor Systems-on-Chip (MPSoC) represent an important trend in digital embedded electronic systems. Although hardware support for parallel computationis increasingly available in embedded processing platforms, there is a distinct lack of effective software support. One of the most important issues with regards to such systems is communication between processors. Now communication in different controllers can be done mainly by two ways i.e. by using I2C and SPI protocol. But there are some limitations of these two protocols which are discussed in this paper and how it can be overcome by using our proposed protocol. Here, in this project, a new method for communication is proposed for an embedded system having multiple peripherals on the board. The adapted arrangement is parallel and hence is more faster way to communicate. This Paper will provide in-depth description of the Reconfigurable Distributed Computing ArrangementofOn-boardMultiprocessorCommunicationforEmbeddedSystemsandwillinvestigateitsmerits&demerits.

Library Assistant Robot Using Firebird V

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Abstract—This paper demonstrates the application of Firebird V for library management system. The robot is designedusing sensor operated motors to keep track the library book shelf arrangements. Robot get the data of book which going to be search from the computer through Zigbee. The robot carries a camera which collects the colour code data from the books arranged in a vertical manner and compares the decoded colour code data with the input. If the particular book which is to be found out by the robot, then the robot gives location of the book to the librarian's system through Zigbee, in which the robot is used for searching purpose. In case of any difficulty faced by the robot when it does the searching process, the robot halts and sends an alarm. Misplaced books can be identified using the pre-programmed data in the robot which helps to maintain the books in an order. The robot also uses a robotic arm to place the book in the required rack at a prototype-level. This helps and simplifies the job of monitoring the arrangement of books and also reduces the manual routine work done by the library staff.

Modern Street Lightening System with Intensity Control using GSM

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Abstract— As the LED's lumen efficiency increases rapidly in recent years, many new LED illumination applications are emerging. LEDs have features such as long-life, small and low power consumption. Therefore, they are used in various occasion such as full color large sized LED displays, traffic lights, and etc. In this paper, an energy efficient street lighting system is proposed. The presented system consists of a LED lamp module, which can be controlled from remote location. The proposed remote-control system can optimize intensity and efficiency of street lighting systems. It uses GSM based wireless devices which enable more efficient street lamp-system management, thanks to an advanced interface and control architecture. It uses a sensor combination to control and guarantee the desired system parameters; the information is transferred point by point using GSM Module and is sent to a control terminal used to check the status of the street lamps and to take appropriate measures in case of failure.A developed prototype system will be presented in this paper and experiments will be performed to verify the correctness of the proposed system. According to the experimental results, the lighting efficiency is 85 % and the conversion efficiency is 90%.

Advanced Car Security System

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Abstract - The first car been stolen was reported in 1896. Since then, car safety tools and after that car security system faced a fast rapid development. The security system has become one of The key factors in car manufacturing as the demand from the buyer. The main objective of this project is to secure and monitor the car based on combination of mainly the Arduino, GPRS, GSM and RFID finger print scanner. With significant improved in range and reliable data accuracy in real time, this project promise a bright future with a high commercial value. In addition, with its compact and robust feature it attract future user in buying the productand the same time have good application value in future as well as reducing the statistic of stolen cars. Along with some more features are added like CNG gas leak detection, car tilt sensor, obstacle sensor, car vibration sensor and panic alarm switch is given. A gas detector is a device that detects the presence of gases in anarea, often as part of a safety system. This type of equipment is used to detect a gas leak and interface with a control system so a process can be automatically shut down. A gas detector can sound an alarm to driver, giving them the opportunity to leave. This type of device is important because there are many gases that can be harmful to organic life, such as humans or animals. Gas leak detection is the process of identifying potentially hazardous gas leaks by sensors. These sensors usually employ an audible alarm to alert people when a dangerous gas has been detected. MQ4 sensor is used to detect CNGgas.

RFID Based Automatic Toll Collection and Security System

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Abstract— Modern science and technological inventions has raised the level of development to a great extent and have set a new era for technology. Radio Frequency Identification (i.e. RFID) technology is one of such great invention. Its application in various sectors has proven to be an achievement in the field of technology. One of such application pertaining to toll roads in terms of tracking and charging is selected as an area of interest for our project. We have named this project as i-TOLL which stands for intelligence toll. Since RFID works on the principle of Automatic identification and data collection technological system and i-Toll is one of the application of RFID technology hence i-Toll gives an idea about providing automatic and authentic toll access which will not only eliminate the inconveniency faced by the people during their journey but also facilitates a better security system on roadways.

ARTIFICIAL SOLAR OXYGEN TREE

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Abstract—
This paper introduces a new solar technology that emulates how trees convert sunlight into energy. An Artificial Oxygen Tree which aims at serving the humanity toward planet, having an ability to perform electrolysis of the sewage water and obtain the Hydrogen (for fuel) and Oxygen (to be emitted in the air) along with generating electricity from solar energy with the help of PV (Photo-voltaic) panels on the top of the trees. The model will be places on the sewage tanks and at the base Electrolysis will be carried out. It's a process in which electrical power source is connected to the 2 electrodes which are placed in the water, and a current is passed resulting in to appearance of Hydrogen at the cathode and Oxygen at the anode. The Hydrogen will be stored in a tank and can be used as a fuel and oxygen to be let out in the air for breathing. The PV on the top of the tree will collect energy from the sun and convert it into electricity. A PV cell is made of a semiconductor material, usually crystalline silicon, which absorbs sunlight. This electricity is stored and is used to light the LED's on the tree, hence making it as astreetlight.
The actual model can be used to charge the gadgets like mobile phones and laptops. Advertisements will be displayed on the LCD screen. This will attract thesponsors.

Advance Irrigation System based on Wireless Sensors Network Using Zigbee & GSM

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Abstract- Wireless Sensor Networks have played significant role in different field. These networks used for collecting, storing and sharing sensed data. Wireless sensor network have been used for various applications such as habitat monitoring, agriculture, nuclear reactor, security, tactical surveillance and other different applications where human cannot operate. The sensing proposed in this project is for use in green house applications, where real time data of climate conditions and pH value are sensed using an embedded microcontroller unit. In proposed system 802.15 zigbee and GSM 300 used as wireless communication carrier. The architecture of a green house monitoring system comprises of a set of sensor nodes which are connected to field unit and a control unit that communicate via zigbee to field unit and collects information .field unit to user communication is achieved via GSM network. By sensing moisture level in the land control decisions are taken by monitoring system in this paper by controlling the waterpump.

Wireless Capsule Endoscopy

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Abstract—Capsule endoscopy is non-invasive, painless and without radiation. It gives a complete recording of what goes on in the small bowel and zooms in to the bleeding area helping doctors make a faster and more accurate diagnosis. Capsule endoscopy (CE) is a simple, safe, non-invasive, reliable technique, well accepted and tolerated by the patients, which allows complete exploration of the small intestine this technique evaluates endoscopically, with high resolution images, the whole small bowel, avoiding any sedation, surgery or radiation exposure.

Smart Parking Lot Occupancy Tracking System

Ankur Shah, Dattaprasad Shenoy,Vishwas Shenoy Prof D.K.Bathe

Abstract—There is need to develop a vacant parking slot detection and tracking system. Nowadays it is very hard to find available spots in public parking lots and even harder at facilities such as supermarkets and malls. A system that provides drivers with parking availability and parking lot occupancy will allow users find a parking space much easier and faster.This paper proposes vacant parking slot detection and tracking system that uses sensors.The parking slot marking tracking stage continuously estimates the position of the selected parking slot while the vehicle is moving into it. The proposed system is expected to help drivers conveniently select one of the available parking lots and support the parking control system by continuously updating the designated target positions. The proposed system is to be designed in such a way that the expenditure is reduced, maintaining the performance of the system.

Image Merging in Transform Domain

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Abstract This paper presents the three different image merging techniquesandthere comparative analysis.Idea of our project is to merge two images in transform domain using MATLAB. The various transform domains which are used for merging are Fast Fourier Transform (FFT), Discrete Cosine Transform (DCT) & Discrete Wavelet Transform(DWT). Our main aim would be merging two images using the above three domains.These two images which are to be merged are in actual blurred images. They are blurred in such a way that in first image some part on one side is blurred while in second image the other side is blurred. Image merging is required in several fieldssuch as remote sensing using satellite imagery, biomedical, surveillance, military applications.,etc.

BIOGAS AUTOMATION

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Abstract— The paper investigates the development of a low cost, efficient, biogas plant for the generation of energy from surplus kitchen wastes and food waste. This plant has processes such as collection of solid and liquid waste, mixing this waste, digestion and gas collection. Manually controlling these processes may cause some problems and errors and hence we proposed an automatic control for the biogas plant. Automation of Biogas Plant processed by the heart of the system which is microcontroller. The main aim for the paper is to control and monitor the various parameters in the biogas plant like flow and pressure. The idea is to help in two ways: one is to reduce waste and the other is to provide valuable energy.

GPS BASED VOICE ALERT SYSTEM FOR BLIND

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Abstract-To help the blind people, a study that helps such people to walk with confidence is proposed. The study put forwards a GPS based voice alert system for the blind which guides them to their desired path. GPS technology is coordinated with pre-programed locations to determine the desired route to be taken. GPS is used to find the position of the user on the earth. The concept of a microcontroller based system is described in this paper. The system is grasped using a GPS module (SR-92) and a voice module (APR9600) interfaced with a PIC16F77A Microcontroller. The system exercises a user-friendly design and provides for an automatic location name announcement system for the blind to deal with their difficulties in day to day life.

SMART HYDROGEN FUEL STATION

"Hydrogen Fuel Generation, Fuel Cell, Natural Resources"

Prof. Krantish Pol

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Abstract:- *A new education program is under development at the University of Mumbai to educate engineers in the Fundamentals of electrochemical propulsion systems for vehicle electrification. This paper describes few courses that are part of this larger program: "Hydrogen Fuel generation, Storage, Fuel Cell and Digital Payment System, Safety Regarding Hydrogen, Communication based on GSM900, use of Natural Resources for Energy purpose. Also one of the biggest requirements for Digital World is use of Sensors. There are two sensors used in our Project and they are Infrared (IR) sensors, Light Dependent Resistors (LDR)".*

Our motto is to increase Fuel Economy and to decrease Environmental issues like Global Warming and Acid Rain.

Designing of Microwave Components using Transmission line

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Abstract— This paper is based on designing a low cost, less weight and compact components like filter , directional coupler , matching network, hybrid ring and power divider using Zealand IE3D software version 14 . These components are designed to operate at the frequency 2.45 GHz . The designed structure is printed on one side of the FR4 dielectric of thickness 1.59 mm and the copper on the other side of the clad acts as the ground plane. The glass epoxy dielectric substrate has a relative permittivity of 4.4, thickness of 1.59 mm and loss tangent of 0.02. The ports of the fabricated components were soldered with connectors for feeding purpose. The components were tested using Vector Network analyzer (VNA) and it was observed that the simulated results and the tested results are nearly the same. The small variation in the results were due to the fabrication errors or errors in materialproperties.

Glaucoma Diagnosis of Retina Fundus Image Using Image Processing

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Abstract: - Glaucoma is a chronic eye disease that leads to vision loss. It is the second leading cause of permanent blindness. It cannot be cured. Therefore, detecting glaucoma in time is crucial. In this paper glaucoma is classified by using retinal fundus images. Cup to Disc Ratio (CDR).Optic Cup is a region in optic disc with the brightest pixel values.The techniques used for feature extraction include Morphological processing, filtering and thresholding. Ocular parameters considered are Cup to Disc Ratio (CDR) ratio of blood vessels in discregion.

ELECTRONIC BRIEFCASE

pooja Chavan[1], Naina Jainapur[2], Shradha Pashte[3], Prof.Supriya Sonsurkar[4]

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Abstract **-** Security plays a major role in our day to day life. Now a day's technology has enhanced drastically in order to secure confidential papers, exam question papers or any confidential documents. For this purpose our project is designed. In order to enhance the security an electronic lock is used which can be opened only after entering the appropriate password followed by the appropriate code then the procedure is completed and a successful feedback message is sent to the sender through GSM modem which is interfaced with lock and microcontroller. The main working of the project depends on the GSM modem and it is a real time application and can be implemented on variousscales.

Smart Notice Board With Attendance System

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Abstract: Notice Board is primary thing in any institution or public utility places like bus stations, railway stations, colleges, malls, etc. But sticking various notices day to day is a difficult process. This project is about advanced wireless notice board. The project is built using controller ATmega 328p which is heart of the system. Display is obtained on monitor. A GSM module is used for Data transmission. At any time we can add or re- move or alter the text according to our requirement. Only authorized users can send messages to GSM module. At receiving end GSM module is connected to ATmega 328p. When an authorized user sends a notice from his system, it is received by receiver. Wireless is a popular technology that allows an electronic device to exchange data wirelessly over a computer network, including high speed wireless connections. The data is received from authenticated user. Then it sends to controller that is ATmega 328p. ATmega 328p further display the data on the monitor. In addition to this, attendance monitoring is also done. This project is very reliable and the components involved do not need any complex operation.

Multi-level Security For Device Access

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Abstract—This project uses image cryptography technique to remotely access the devices. A three level security based on Discrete Cosine Transform (DCT) & Discrete Wavelet Transform (DWT) is applied. This algorithm watermarks a digital image using a combination of DCT and DWT.For our project we will be making use of MATLAB GUI in which coding will be done with appropriate algorithms. The first level of authentication would have number of images from which the user will be selecting an image which is already known to him, this will make way for the next level in which the user will be entering a decryption password which can be a simple numeric password. This will take the user to the next stage in which the user will be entering a simple descrambled key which will provide the user with a password which is stored in the image similar to water marking technique or a captcha image. The main advantage of this authentication technique will be that even if a hacker gets access to a password he would have to go through other levels which would be a difficult task to perform. After completing all the three levels the user will get access to a remotely placed electronic device.

"COMMERCIAL APPLICATION USING ANDROID"

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Abstract—India is one of the most biggest producer of vegetables in the global horticulture market is insignificant.The fragmented supply chain and inadequate health, safety and quality mechanisms (means the quantity and quality of vegetables) often do not meet the demands of high-end or international markets. This paper composed of a new mobile Application practiced for an Android Smartphones, meant for the sales persons of big retail stores.So, the aim behind developing this app is to give India's huge community a fair and consistent price. Using this android based app "COMMERCIAL APP USING ANDROID", vendor can directly connect with the customer and supply the product directly to them. This will increase the profit to both and also customer can get good quality product in fewer prices as they will directly buy fromvendor.

Satellite Images De-noising Using Efficient Adaptive Mean Filtration Method

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Abstract- In earlier era of satellite technology, satellite systems send much of data from space to the earth stations in form of images or photographs. While transmission of such images because of limitations of satellite imaging hardware, image captured gets corrupted. Computer filters de-noise such images by linear or nonlinear filtration techniques. This paper proposed efficient adaptive mean filtration technique to remove noise from satellite captured images. Efficiency improved for 70% of noise variance.

AUTOMATIC DIALING TO ANY PHONE USING I2C PROTOCOL ON DETECTING BURGLARY

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Prof. P. T. Yewale

Abstract— the main objective of this project is to intimate the concerned authorities about an unauthorized access of secured areas such as museums, residential houses, banks etc.

Safety from theft, leaking of raw gas and fire are the most important requirements of home security system for people. A traditional communications based security systems provides enhanced security as whenever a signal from sensor occurs, a text message is sent to a desired number to take necessary actions. Conventional security systems keep homeowners, and their property, safe from intruders by giving the indication in terms of alarm. Security has attracted the interest of the research community during the last decade, at a great manner. Home security systems consist a constantly, year after year, developing research field. Some of these systems are limited to support basic operations, while some others satisfy a range of additional primitives.

In this paper, a security system for security is proposed. As crime rate is on the rise and burglars are getting smarter, the security system for banks, shops and houses needs to be full proof. This proposed system ensures that at any moment if any unauthorized person tries to open the bank locker; a mobile number will be dialled through the GSM modem connected to it.

DESIGNING OF ON-BOARD UNIT FOR VEHICULAR AD-HOC NETWORK USING WI-FI AND GPS

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ABSTRACT: Vehicular Ad-Hoc Network (VANET) is a type of network designed to establish a spontaneous network between moving vehicles for specific requirement or situation. VANETs offer exciting opportunities in the areas of traffic safety and road network efficiency. Vehicles can avoid collisions by conversing and exchanging information regarding driver intention at a level not possible with basic communication mechanisms. The on-board (OBU) unit is equipped various sensors, tracking devices as well as the communication modules so that it can share the data with adjacent nodes (vehicles) and roadside units (RSU) for location tracking, traffic update, emergency alerts, collision avoidance and many commercial applications. It can offer improved traffic safety, traffic optimization and some other services through vehicle to roadside (V2R) or vehicle to vehicle (V2V) communication.

LINE FOLLOWING ROBOT FOR LIBRARY MANAGEMENT

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Abstract–This project will provide better service at input as well as output of library, in more elaborate form you have to just select the book at book issue counter book will come automatically to your end. This would reduces the user efforts and save time.. The goal of this project, library automation is to automatically issue books.Students can select books from the pc and can collect the book from a line follower robot.

POSITION BASED ROBOTIC ARM

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Abstract- A system which allows humans to access things without being physically present over that site. A prototype for wireless pick and place robot with multiple positioning abilities. Advanced robotic technology with increased freedom of motion.it is a wireless communication prototype.

SECURITY AND ATTACKS OF VANET'S

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ABSTRACT: Vehicular Ad-hoc Network offers safety among road users and comfort for the drivers as well as passengers. It allows vehicles to share information regarding safety and traffic. Information shared in the system requires quick network connection. VANET's being a wirelessad- hoc network serves this purpose completely. Being a wireless medium it is prone to several security attacks. As attacks mislead network operation, security is the biggest concern in VANET's because a single attack can risk manylives.

Agriculture Robot 'Agribot'

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Abstract—As farms grow in size, together with the size of the equipment used on them, there is a need for ways to automate processes, previously performed by the farmer himself, such as controlling the fields These tasks are perfectly suited for autonomous robots, as they often require numerous repetitions over a long period of time and over a large area. The use of robots is a rather new development as most of the existingsolutions for automatic supervision, is designed for standard farm equipment, such as seeding plowing and sprinkling of water In most cases a small agricultural robot would be ineffective in performing farmingjobs, as these often require a large quantity of materials, either to put into the ground, such as seeds or fertilizers, or to take from the field during harvest.

SEMI- AUTONOMOUS WIRELESS MONITORING ROBOT

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Abstract:-The project goal was to design a semi-autonomous Quadcopter capable of self-sustained flight via wireless communications while utilizing a microcontroller.The Quadcopter was designed to be small enough so that costs would be minimized.Which is why small motors and propellers are being used.To achieve flight, two of the motors must apply downward force and the other two motors have to apply an upward force. To turn, one pair (left or right side) of motors slows down to turn the copter. To ascend, all motors will increase in speed, and will all decrease in order to descend. To move forward, the front two motors will decrease while the back two motors will increase. And vice versa in order to move in a backwardsdirection.

Exudates Detection from Fundus retinalImage

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Abstract— Blindness due to diabetes is very big problem in today's world. Diabetes is disease which occurs due to pancreas cannot secrete enough amount of insulin or it may occur due to body cannot process it as it was processing before. DR(Diabetic retinopathy) can be classified into two parts that are non-proliferative diabetic retinopathyNPDR) and proliferative diabetic retinopathy(PDR). NPDR is earliest stage It is common cause of blindness in age 30 to 69 almost 10% of diabetes people have diabetic retinopathy and effect of it is blindness. The treatment can start in early stages as suggested by world health centre(WHO). Diabetic retinopathy is a common vision threatening disease which occurs due to the abnormalities in retina of diabetic patients. Detection of diabetic retinopathy is very necessary for prevention of loss of vision and diagnosis of diabetic.

CAR OVERSPEEDING DETECTION & CONTROL SYSTEM

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***Abstract*—The aim of this project is to develop a device to detect rash driving on highways and to alert the traffic authorities wirelessly the speed details and any speed violation. Accidents due to rash driving on highways are on the rise and people are losing their lives because of others mistakes. In the present system, to detect rash driving the police has to use a handheld radar gun and then aim at the vehicle to record its speed. If the speed of the vehicle exceeds the speed limit, nearest police station is informed to stop the speeding vehicle. This is an ineffective process as after detecting one has to inform the same and a lot of time is wasted.**

The proposed system will check on rash driving by calculating the speed of a vehicle using the time taken to travel between the two set points at a fixed distance and then transmit the data over 2.4GHz to the central control room. A set point consists of a pair of sensors comprising of an IR transmitter and an IR receiver, each of which are installed on either sides of the road. The speed limit set by the device is kept at the very location depending upon the traffic. The time taken by the vehicle to travel from one set point to the other is calculated by a microcontroller program. Based on that time it then calculates the speed and displays that on an LCD and also transmits the same. Moreover if the vehicle crosses the speed limit, a buzzer sounds alerting the police both at the location and wirelessly at the control room.

CIRCUIT BREAKER STATUS MODULE FOR MCCB AND ACB

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Abstract---Circuit Breakers (CB) are used for the protection of power system.The basic function is to break the circuit in case of faulty conditions so as to protect the power system equipment and auxiliaries. An engineer then takes a visit to the field to find the fault and work on it. The number of times fault occurs and cause of failure helps the engineer on site to either get the system back to normal working state by rectifying the fault or if the trip count exceeds the shelf life then the part is being replaced. Thus, if this information is easily available by connecting a status module it would reduce the fault detection time as well as the prior indication about the shelf life of the product reduces repairing and replacing time in industries which is very much required in uninterrupted systems and various processes with continuous monitoring and real timedata.

In today industrial scenario technologies are saturated, the thrust lies in reducing the down time. Our circuit breaker status module is a simplest form of its own which can be readily interfaced to the MCCBs and ACBs without any additional requirement. In order to understand the trip time, trip count,faults occurred in MCCBs and ACBs and act on it accordingly breaker circuit status module has been implemented. The motivation behind implementation of breaker status module is to know the actual product life, shell life, cause of trip,trip time.It is a detachable device with portablefunctionality and can be detached from the release module wheneverrequired.It hasamemorywhichstoresthelatest dataabouttripcount,triptimeandtriphistoryabout thelatestfewtrips.
This module is keypad based which reduces the high power consumption taking place due to touch screen interfaces which costs more value for such electrical modules.

Real Time Vehicle Tracking System

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Abstract— In this urban life, transportation is very common. Vehicles are part and parcels of our lives. Almost, every other person owns a vehicle. A lot of mishappenings occur on the road every day. With increasing number of vehicle and owners, the security of these vehicles is need of the hour. Theft of vehicle is a common problem faced by many owners. In critical conditions when vehicle is stolen, one gets confused what to do. Our project aims to find a solution for this problem by making a vehicle tracking system which will help owner to locate the position of his/her vehicle. A system is developed using GPS and GSM technologies and an application is introduced in our project. This system is user friendly, easily installable, easily accessible and can be used for various other purposes. After installation, system will locate target by the use of a Web application in Google map. The system allows to track the target anytime and anywhere in any weather conditions.

An Image ProcessingApproachfor FoodPortionDetection and Identification

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Abstract—A system which can estimate calories and nutrition from food image can be very beneficial because people across the globe are becoming more attentive towards watching their weight, eating healthier and avoiding obesity. A food calorie and nutrition measurement system that can help people to measure calorie content from food is proposed by us. The system is erected on image processing applied on food. Now a days, the usage of personal mobile technology such as smartphones or tablets has increased. Users carrysmartphones or tablets with them practically all the time. Via a special calibration method, our system makes use of built-in camera of such mobile devices and records a photo of the food and estimate the caloriecontent.

Dynamic Allocation of Parking System in Public Places

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Abstract—in today world, where the growth of technologies is at peak, the vehicles are becoming cheaper at cost due to which there is increasein density of vehicles on road is becoming the problem for the traffic control. Ultimately raise a problem in managing the vehicular traffic on road side. Due to lack of available parking places in city people tend to park their vehicles along road side. This leads to reduced road space more over increasing traffic jam problems. So we have come up to our project which will help people to find a suitable place for parking, avoiding the scene of parking around road side. People will visit our app where in proper knowledge of available parking spaces in and around city will be provided, also the facility of advance booking on timely basis will be provided. Making use of IOT Raspberry pie,Arduino Uno we have come up to this project. Timely updates will be made on app for people'sexposure.

Smart Door Lock System Using Raspberry Pi

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Abstract—
In the last two decades face recognition has received significant attention and an important issue in many applications such as access control, security systems, credit car verification and criminal identification. This paper proposes three main sub systems namely face recognition, face detection and automatic door access control. The face recognition and detection process is implemented, by which the captured image is detected using a web camera and compared with the image in the database. If the image is an authenticated one the door will be opened automatically.

HEALTHCARE SYSTEM USINGSENSORS AND WI-FI MODULE

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Abstract— In today's world of human health, collecting real-time data is vital. An intelligent home-based platform, the Home Healthcare system, is proposed and implemented. In particular, the platform involves an open-platform-based intelligent medicine system with enhanced connectivity and interchangeability for the integration of devices and services. A system that can remotely monitor heart rate and body temperature is presented and implemented. The data collected from a particular patient using the sensors is developed. The Arduino micro-controller is programmed to transmit the data securely on webpage by using Wi-Fi module as well as displayed on serial monitor and serial plotter.

Automated Farming System using Arduino

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Abstract— Developed agriculture needs to find new ways to improve efficiency. One approach is to utilize available information technologies in the form of more intelligent machines to reduce and target energy inputs in more effective ways than in the past.The advent of autonomous system architectures gives us the opportunity to develop a complete new range of agricultural equipment based on small smart machines that can do the right

thing, in the right place, at the right time in the right way. Autonomous farming system will address the growing concern of labour shortages while also increasing productivity and efficiencies bringing higher yields. The technology will allow for true 24-hour, round the clock operations and a farmer will be able to manage their operation from their home office or on a tablet on the go. The autonomous farm is described as a complex system-of-systems, bringing together robotics for autonomous farming. The entire model is equipped with a series of hardware and software components that permits the user to toggle between manual and robotic control. Ourrobotiscontrolledbya remote,through this we canmakeourmachine communicateona large scaleover a large distance. This will help the farmer to control his agricultural worksfrom afardistancewithoutgoinginthefield with aneasycontrol.Thisrobothasanumberofadvantagesas wellasimportantfeaturessuchasautomaticavoidingobstacles in itsway,automaticsmetaldetection initsway.Itcan sensesoil moistureaccordingtowhich themachine willirrigatethefield.It canalsosowseedsin thefield,removethecompostfrom thefield aswell ascan control thepestswith sprayingfacilityasperthe commandsgivenbythefarmer.Asaresult,Thismachinecan also be usedtoreachthe placeswherefarmers make harder effortsforfarmingsuchashillareas,mountainsetc.whereland isnotplane.Thisishowwecanusethisrobotindifferentfields aswellasforresearch purposebyfurthermanipulation in programmingitcan bemodified accordingly.

NEURAL NETWORK AIDED BASED BREAST CANCER DETECTION USING MEDICAL THERMAL IMAGING

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Breast cancer is the leading cause of death in women. Nearly one million women globally have been diagnosed with breast cancer with some 500,000 deaths occurring mostly in developing countries. If breast cancer is detected in early stage, then chances of survival are very high. Due to mutation the cells in our body get ability to go on dividing without control and producing cells like it, forming a tumor. This tumor can be of benign or malignant. The benign tumors are not dangerous while malignant tumors are dangerous to health. This paper describes a new infrared image database with additional breast exams and clinicaldata.

DESIGN OF RECONFIGURABLE MONOPOLE ANTENNA IN MED RADIOBAND

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Abstract- This work carries the design of an antenna specially meant for implant devices. This antenna operates at the Med Radio band (401-406MHz).An antenna miniaturization is accomplished by spiraling. The antenna to be designed for the implant devices has the dimensions of 29mm*11.52mm*0.6mm(200.44mm3).Fabrication of the designed antenna is on the FR4 substrate(εr=4.4). Antenna Design and Simulation is being implemented in ADS.
Keywords-Implantable Antenna; Medical Device Radio Communications(MedRadio band); Pattern Reconfigurable; miniature antenna; Advanced Design System(ADS)

A Novel RDH Scheme for Real Time Applications

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Abstract— **Significance of Multimedia security is ever increasing due to threat of duplication, modification and manipulation of the multimedia data like photograph and documents. In the recent days reversible data hiding(RDH) in encrypted images is gaining widespread application in the digital world. Use of RDH for real time application helps in losslessly recovering the original image after the embedded data is extracted and image content's confidentiality is also protected. In this paper we propose a novel method of RDH for real time multimedia data by reserving room. Performance analysis is done for different embedding rates. Experimental results show that, this novel method ensures better security of the multimedia data and protects the original image from manipulation by the datahider.**

FEATURE EXTRACTION USING PAN TOMPKINS ALGORITHM FOR ARRHYTHMIA CLASSIFICATION

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Abstract-Arrhythmia is abnormal rhythm of the heart. Classification of heartbeat can be time consuming and hence there is a need of developing an automatic processing of the ECG which can assist this process. In this paper four ECG beats such as Normal Sinus Rhythm, Left Bundle Branch Block, Premature Ventricular Contraction and Paced Rhythm are processed. Here we are going to use Pan Tompkins algorithm for feature extraction. The statistical features are extracted (Mean, Mode, Variance, Covariance and Standard deviation). These features sets are independently given to Support Vector Machine classifier. The proposed method gets tested by Massachusetts Institute of Technology Beth Israel Hospital (MIT-BIH) arrhythmia database and processed using Matlab.

Keywords-Electrocardiogram (ECG), Normal Sinus Rhythm(N), Left Bundle Branch Block(LBBB), Right Bundle Branch Block(RBBB), Premature VentricularContraction(PVC).

DESIGN AND DEVELOPMENT OF AUTOMATIC LEVEL CONTROL FOR INDIGENOUS MRI

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Abstract—ARadio Frequency amplifier (RFA)with fully integrated automatic level control is designed for indigenous Magnetic Resonance Imaging (MRI).Automatic Level Control module for RFA using ARM cortex-M4 controller is presented in this work. Out of various control mechanism, peak detection technique is chosen for this experiment. To regulate RFA output at constant level, ALC loop use controller (TM4C123 Board) which tracks the variation in input voltages by means of detecting peak value of inputvoltages and comparing this with reference voltage, difference will give error voltage that will be given back to attenuator. Depending upon error voltage generated, input voltage will be attenuated to maintain constant non fluctuating power at output of RFA with given timing constraints. Also to insure proper functioning of RFA, its different parameter like forward power, reflected power, current etc should be monitor at particular level. To monitor and control these parameter Graphical User Interface (GUI) has been developed using LABVIEW. *Keywords*—Magnetic Resonance Imaging Scanner, Automatic Level controller, Radio Frequency Amplifier, Graphical User Interface, Configurable input/output Module.

Wearable Device for Visually Impaired Using Image Processing

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Abstract—This paper presents methods and procedures to construct an efficient system to assist the blind in their everyday life. We propose to make wearable device, which includes a wearable computer, stereo cameras as vision sensor and stereo earphones, all connected together. The image of the scene in front of a visually handicapped person is captured by the vision sensors. The captured images are processed to enhance the important features in the scene in front, for navigation assistance.

The processed image is mapped on to musical stereo sound for the blind's understanding of the scene in front which would

enable the impaired have a better vision of their surroundings. Also, these wearable devices would consist of a database of regular day to day obstacles that the person encounters and the next time when the camera detects the same obstacle it sends an audio signal to the person indicating the exact obstacle in their path. The proposed system utilizes stereo vision, image processing methodology and a sonification procedure to support blind navigation.

"DPD MONITOR- Protector of 3 Phase Induction Motor"

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ABSTRACT:

Three-phase induction motors are industry's workhorses and widely used as electromechanical energy conversion devices. Although these machines are considered highly reliable and robust due to their simpledesign and well-developed manufacturing technologies, failures do occur which may encounter numerous outer deficiencies because of inputs supply from SEB (state electricity boards) or motor faults [1]. Failure of such induction may cause plant shutdown, personal injuries and waste of raw material. However, the induction motor faults can be detected in an initial stage in order to prevent the complete failure of an induction motor and production cost. This paper tend to develop for protection of three phase induction motor from overvoltage, under voltage, temperature fault, earth fault using a DPD Monitor which stands for detection, protection, diagnosis and monitoring of the motor. The proposed system is tested with the setting of various preset values of parameters. From the results, it is observed that the results are satisfactory, reliable, gives quick response, cost effective and highlyversatile

MODIFIED E-BIKE

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Abstract — The electric vehicles industry is continuously evolving. One type of such electric vehicle is the electric bicycle (e-bike). Electric bicycles, like other electric vehicles, use a BLDC motor (Brushless Direct Current Motor). [5] This paper presents a way of designing and implementation of the whole electric vehicle so as to reduce the battery consumption by about 70% using an energy loop and hence making it suitable for long distance travelling.

Automatic Car Parking System Using Image Processing

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Abstract— Car parking lots are an important part of the urban Sector. The biggest issue in the parking area is to find the empty parking lot to park the vehicle. Due to all such various problems, these car parking lots are needed to be well equipped with automatic parking information and guidance systems. This work proposes an intelligent parking system to solve the problem of unnecessary time consumption in finding the parking spot in commercial car park areas by using image processing techniques The proposed system is designed in such a way that it provides the information about the available parking lots by detecting the previously present cars in the frame. This information is displayed at the entrance of the parking lot using a display unit. This system has been developed in software and hardware platform.

Microcontroller based Irrigation system through Wireless Network

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Abstract-Agriculture plays a vital role in India's economy. Over 58 per cent of the rural households depend on agriculture as their principal means of livelihood. Agriculture contributes to 17% of the Gross Domestic Product (GDP) in Indian economy. Most of the rural farmers rely on rainfall for their harvests. Since the rainfall is non- uniform and irregular, the agricultural output is grossly affected by inconsistency in the rainfall and improper farming practices.The project aims to implement a sensor based irrigation system through wireless sensor networks. The objective of this project is to monitor the soil moisture level and thus control the water supply to the field. Also, the scope of the project includes a display system which shows the moisture level of the soil and water level of the tank which helps the farmer to control the amount of irrigation.

Automatic Control Monitoring of vehicle entry/exit Using Raspberry-pi, Python and Open CV

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Abstract:

Here in this paper we propose a completely controlled automated monitoring of vehicle entry-exit in restricted area using raspberry pi system with open cv and python language for coding. This paper aims at designing a system which captures vehicle image along with its number plate automatically and then further these details are verified with the database filled in online registration form consist of username, mobile number, vehicle number, aadhaar card number and full address. Farther the details are authenticated then it is processed by Raspberry Pi to authorise to enter the vehicle in the forest area. Once the information is filled in an online registration form the user gets a four digit random code as the receipt of conformation. That random code and aadhar card number will be enter at the time of visiting. On the entrance gate camera capture image of vehicle and from that image the number plate is extracted then that extracted number is verified with the authorised registered number plate. Raspberry Pi is connected with a server for verification of registered data with the image processing tool OCR in open cv platform. If the verification is susses fully done in comparison of online registered data base with the extracted number plate number then visitor enter their four digit random code and aadhar card number. If the code is correctly match then the gate will be open. When the authorized vehicle was detected then automatically the system operates the gate using DC motor. The system also alerts the authorities when any unauthorized image of number plate was detected using buzzer alarm system and led. The aim of this research is to develop and implement an authorized automatic gate control system that will increase security and convenience at entrance of all restricted forest places that require protection and Security. The auto gate control will be works without manual help and the system will help to recognizes license plates with the authority at entrance gate and take an action to permits the vehicle in a forestarea.

Patch Cross Yagi Uda Antenna

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Abstract— The paper illustrates an antenna, Cross Yagi Uda suitable for applications in the S band. The operational frequency chosen is 3.06 GHz which is

nearly at the mid of S band. It is a circularly polarized antenna with VSWR 1.6. The antenna consists of 3 patches laid radiallyoutward from center driven patch in 4 directions. The main lobe covers an angular area from 125 to 173 degrees. The front to back ratio obtained is 0 and the directivity obtained is 10.21.

LIOP based Feature Detection and Matching in SfMfor 3D Object Reconstruction

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Abstract—3D object reconstruction is growing popular due to its various applications such as movie industry and research simulations. Multi-View Stereo (MVS) based reconstruction using camera without extra hardware helps in reducing the cost of the system. The process consists of solving correspondence problem between images cause by camera motion using feature detector and descriptor or the optical flow technique. We propose to use LIOP proposed recentlyas a feature descriptor algorithmin the SFM based method for 3D object reconstruction.Based on the feature descriptor, it is more robust to noise, rotation, translation and monotonic intensity changes. Use of such rich feature descriptors increases the accuracy ofreconstruction.

Voice Based Door Lock System

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ABSTRACT---- Voice Recognition is a biometric technology used to identify particular person's voice. It provides enhanced security and authentication .Using this technology security system is developed for users.The authorized users can access the system. MATLAB and hardware is interfaced together to form a complete module. Sample voice is given in MATLAB and further processing is done in MATLAB. A GSM system is provided to develop a securitysystem.

Wireless Human Health Monitoring System

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Abstract— Thispaper describes about the design of simple health monitoring system based on PIC microcontroller which displays various measured parameters on a LCD display and simultaneously communicates the data to the smart phone using GSM. Various parameters which are measured are heartrate(B.P.M), oxygen saturation level in the blood i.e. SpO2 % level and body temperature. As the rate of cardiovascular diseases is rapidly increasing, the need for an accurate and affordable device for measuring heart rate is quite necessary. Existing systems are expensive and require manual presence for measurements. This device is economical and user friendly and uses optical technology to detect the flow of blood through the finger. The system takes the input from the user on various sensors like fingertip sensor, temperature sensor etc. and then processed by the microcontroller and is displayed on mobile phone of the doctor. Thus doctor can continuously monitor the patient's condition sitting anywhere outside and suggest precautionary measures.

Real Time Water Quality Measurement System based on GSM

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Abstract: The conventional technique of measuring the quality of water is to gather the samples manually and send it laboratory for analysis, but this technique is time overwhelming and not economical. Since it's not feasible to take the water sample to the laboratory after every hour for measuring it's quality. The water quality measuring system can measure the essential qualities of water in real time. The system consists of multiple sensors to measure the standard of water, microcontroller and GSM to send the information to the watching centre. It's a true time system which is able to endlessly measure the standard of water and can send the measured values to the watching centre when each predefined time. The system relies on microcontroller 8051 and GSM

Displaying Moving Message on Notice Board Using PC

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Abstract: Usually we imagine a notice board as a large board hanged on a

wall, containing lots and lots of pieces of paper pinned on it, each containing written or printed information needed to convey. Now both the work of writing or printing the information and pinning the same piece of paper in the notice board every-time is a very tedious task. Thus, in order to ease this task, an idea of digital/smart notice board comes in mind. So the aim of this paper is to present an advanced notice board where moving message will be displayed using PC.

DATA TRANSFER USING Li-Fi

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Abstract--Li-Fi or Light Fidelity refers to 5G Visible Light Communication systems using light- emitting diodes as a medium to high-speed communication in a similar manner as Wi-Fi. In the days where internet has become a major demand, people are in a search for Wi-Fi hotspots. Li-Fi or New Life of data communication is a better alternative to Wi-Fi in wireless communication. This paper proposes a survey on Li-Fi Technology. The Li-fi technology was invented by Professor Harald Hass of University of Edinburgh. Li-Fi has more capacity in terms of bandwidth in visible region therefore it does not poke its nose in other communications which uses radio frequency range, without taking its frequency bands. Li-Fi has thousand times greater speed than Wi-Fi and provides security as the visible light is unable to penetrate through the walls, which propose a new era of wireless communication. The concept of Li-Fi is data communication on fast flickering of light which is not detected by human eye but it is focused on photo detector which converts the on-off state into binary digital data. It has gained a huge popularity in two years of its invention. Such technology has brought not only greener but safer and cheaper future ofcommunication.

Antenna Based Tracking System

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Abstract— The Attendance system used nowadays is very tedious for the teachers. They need to keep a track of students attendance in hard copy. In this proposal, the attendance system has been made simpler as there is no need for the teacher to manually keep a track of students. The Attendance can be marked automatically as well as the teacher can even check or track if the particular student is present around the class or laboratory or any other place the teacher wants. If the teacher wants to set a particular limit for the attendance for defaulters and then an email will be sent to the particular student's parents automatically with the help of database of students attendance will be created. A Receiver will be fixed in each class and every student will need to carry the transmitter with them.

Surface Defect Detection of Plain Ceramic tiles

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Abstract— In manufacturing process of ceramic tiles bulk number of tiles are produced, it is very difficult to analysed and find out defects in tiles manually, Lot of humans are necessary for the defect detection of the tiles.The ceramic tiles manufacturing process has now been completely automated with the exception of the final stage of production concerned with visual inspection. In this paper defects on the

surface of ceramic tiles are detected by using image processing software's. We can also have developed the hardware system like conveyer belt for the automatic inspection[1]

Review of evolution of Next Generation-Passive Optical Network 2 from Gigabit Passive Optical Network

Deshmukh Sonali vikasrao[1], Randhawane Prajakta Dilip[2] , Zope Monika Vishavanath[3]

Abstract— For the last years there has been a clear evolution in the implementation and development of the optical fibre at home (FTTH). This technology enables the offer of applications to a high flow rate per client and, therefore, it is the technology with the highest capacity of generating revenue. Currently FTTH networks are the main differentiator among operators. Another advantage of FTTH is the fact that this technology allows more operational efficiency when compared to other access technologies, mainly due to reduction of maintenance and operational costs. Besides that, it

requires less space in centrals and presents lower energy consumption.

Data Glove For Speech Impaired Using XBEEAND GSM

Randhawane Prajakta Dilip[1] , Deshmukh Sonali vikasrao[2], Zope Monika[3]*prajakta06happy@gmail.com*[*1], deshmukhsonali90@gmail.com[*2], ***monika2788@gmail.com***[*3]

Abstract-Communication is key element connecting people. Communication helps human being to exchange feeling, thoughts, ideas, emotions etc. Speech impaired people find it difficult to interact with normal people. Speech impaired uses sign language to communicate with normal people , but not all people

know sign language and find it difficult to interact. There is the need of developing an electronic device that can translate sign language into speech and text, in order to make the communication take place between the mute with the general public. The paper describes a way to reduce this communication barrier by developing Data Glove Based System For Speech impaired using XBee & GSM. The Data Glove is a complete portable communication aid. It converts sign language into speech & text , it sends the text message through GSM module & controlling the home appliances through hand gesture. The glove is equipped with flex sensor. For each hand gesture the flex sensor bends its resistance varies , this resistance is analog in nature, it is converted into digital value using ADC of PIC. The value of flex sensor & MEMS are transmitted by means of XBee to another PIC at receiver side. The output of system will be presented with the help of speaker. As we go n updating the database the dumb will speak like a normal person. We can train the glove as per our need.

An Optimised High Performance DCT and IDCT Implementation Using NEDA on FPGA

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Abstract

DCT is at the core of the most current generation of image and video compression standards including JPEG, H.261, H.263+, MPEG-1, 2, 4. Distributed arithmetic approach increases the speed and accuracy while reducing cost metrics, power and area of the DSP applications. As reducing cost is attracting more and more attention in application-specific integrated circuit design, there is an increasing demand for more efficient DA paradigms which can eliminate the need of using ROMs. At the same time, it is capable of meeting throughput constraints. To meet this demand New Distributed Arithmetic (NEDA) approach is introduced. NEDA features implementation without the need of multipliers as in conventional MAC approach, and at the same time, without the need of ROM as in DA approach. NEDA can also expose redundancy existing in the adder array consisting of entries of 0 and 1. VHDL code for calculation of DCT is written and this code is synthesized and simulated. The simulation results are verified by comparing with MATLAB results.

An Optimised High Performance DCT and IDCT Implementation Using NEDA on FPGA

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Abstract DCT is at the core of the most current generation of image and video compression standards including JPEG, H.261, H.263+, MPEG-1, 2, 4. Distributed arithmetic approach increases the speed and accuracy while reducing cost metrics, power and area of the DSP applications. As reducing cost is attracting more and more attention in application-specific integrated circuit design, there is an increasing demand for more efficient DA paradigms which can eliminate the need of using ROMs. At thesametime,itiscapableofmeetingthroughputconstraints.TomeetthisdemandNewDistributed

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1. VHDL code for calculation of DCT is written and this code is synthesized and simulated. The simulation results are verified by comparing with MATLAB results.

Vehicle Emission Monitoring Using RFID and IoT

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Abstract- Day by day, the quality of air has been degraded due to the ever increasing amount of toxic gases emitted by vehicles. This has increased the percentage of population suffering from respiratory diseases. In order to control the vehicular emission rate,the government body has specified some 'Vehicle Emission Standards'. However, this has not effectively affected the pollution rate of the environment, thus, leading to a need of much better solution to tackle this ever growing problem. The aim of this paper is to monitor the emission data of vehicles and to provide it to the manufacturer as well as user on an online platform. This is done using WINS and IoT technology. A Wireless Inspection and Notification System(WINS) inspects the emission data and notifies the system on an LCD and would further upload this information on the designed website using IoTtechnology.

Satellite Images De-noising Using Efficient Adaptive Mean Filtration Method

Abhijit M. Vispute
Harsha M. Patil Baban
U. Rindhe Dipshri N.
Shekokar

Abstract- In earlier era of satellite technology, satellite systems send much of data from space to the earth stations in form of images or photographs. While transmission of such images because of limitations of satellite imaging hardware, image captured gets corrupted. Computer filters de-noise such images by linear or nonlinear filtration techniques. This paper proposed efficient adaptive mean filtration technique to remove noise from satellite captured images. Efficiency improved for 70% of noise variance.

Optical Disc Detection, Localization and Glaucoma Identification of Retinal Fundus Image

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Abstract-The major cause of blindness in the world is diabetic-related eye disease. Various parts of the body get affected due to complication of diabetes. Diabetic retinopathy is termed as high level of glucose in the retina, which may cause blurring of the vision and can lead to blindness. To avoid further damage of vision, time to time testing of retina is done to detect the early stages of diabetic retinopathy. This project aims for detection of Diabetic retinopathy (DR) by taking cup to disc ratio into consideration. Morphological processing techniques are used on the fundus images to extract features of optic disc such as area of disc and area of cup, we calculate the area of each extracted feature. Depending on the area of cup to disc ratio we identify the severity of the disease. Depending on the severity of disease, treatment measures can be analysed. To make it more user friendly GUI in MATLAB is used and to track the progress of disease, database is maintained. By making use of this project, ophthalmologists will surely be able to track the severity of disease and make it more efficient to keep Diabetic retinopathy (DR) under control.

A Compact Planar Antenna for Low Frequency Mobile Communication.

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Abstract - A compact planar antenna for Low frequency mobile communication is presented. The antenna requires very small portion, i.e.; 45×32mm^{2}of system circuit board for its placement over No-Ground portion. And ground-plane requires area of 45×90mm^2. Basically, we initiated from designing a meander monopole antenna. Afterwards impedance-adjustment structure is added, the resulting antenna can be viewed as a printed planar inverted-F antenna (PIFA). The required impedance band can be produced by the simulated antenna to resonate band no. 28 and 2.4GHz ISM band. The measurement was found to agree reasonably well with the simulation.

The antenna was simulated and examined using Advanced Digital System (ADS 2013) software.

IoT based Weather monitoring system

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Abstract—The system proposed in this paper is the solution for measuring atmospheric conditions like temperature, humidity and pressure using Arduino and make it available for the user to see from anywhere in the world. The proposed system uses Internet of Things (IoT). It is an efficient solution to connect things to internet. Through this system, we can collect the data from environment and plot it as graphical statistics which can be accessible to the user from any place in the world. The main aim of this paper is to get live readings from the environment and the user can view it on internet. This system uses solar panels to supply voltage to itself, hence it is an energy saving. The output can also be viewed on the mobile app.

Performance Analysis of High Speed WDM Network

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Abstract— To meet the challenge of increasing bandwidth demand, multi-channel optical communication systems are realized using wavelength division multiplexing. Dense Wavelength Division Multiplexing technique makes full use of the massive fiber bandwidth and hence it is the ideal means of network development and the suitable way to introduce new broadband services. In this paper, performance of DWDM systems for different modulation formats; channel spacing; line widths of optical sources and different fiber lengths as well as using various optical components like Fiber Bragg Grating, Dispersion Compensated Fibers, Erbium Doped Fiber Amplifiers has been analyzed. This analysis will help in the design of optical network by selecting suitable components for a particular modulation scheme and desired bitrate.

BIOGAS AUTOMATION

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com

Abstract— The paper investigates the development of a low cost, efficient, biogas plant for the generation of energy from surplus kitchen wastes and food waste. This plant has processes such as collection of solid and liquid waste, mixing this waste, digestion and gas collection. Manually controlling these processes may cause some problems and errors and hence we proposed an automatic control for the biogas plant. Automation of Biogas Plant is processed by the heart of the system which is microcontroller. The main aim for the paper is to control and monitor the various parameters in the biogas plant like flow and pressure. The idea is to help in two ways: one is to reduce waste and the other is to provide valuable energy

Li-Fi Need of 21st Century

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ABSTRACT-In today's digital world wireless internet and cellular mobile services are essential part of our life. It fully make use of wireless communication. According to standards of IEEE 802- 11n Wireless-Fidelity (Wi-Fi) gives the speed of 600 Mbps(theoretical),[sorce:www.Intel.com] but this is not enough to fulfill the need of desired users over the network. To overcome this major disadvantage of Wi-Fi, a new technology is developed by Germen physicist Harald Haas from the University of Edinburgh, UK known as Li-Fi which provides transmission of data via LED bulb whose intensity varies in a much faster speed that it could not be able to be detected by the naked eye. The efficiency, durability, and of light-emitting diodes (LEDs) have led to their use in a variety of applications. In a high speed wireless communication, Li-Fi can bring new dimensions in terms of data communication speed by utilizing visible light Communication technology. This report contains all about Li-Fi, importance of visible light spectrum, comparison of Li-Fi with other technologies, advantages and applications.

Automatic Penalty System

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Abstract—The growing volume of traffic on roads requires higher levels of traffic safety and maintenance of traffic rules to avoid road accidents. In India, ex- cessive numbers of accidents are due to inappropriate changing of lanes. Thus, this project idea is empha- sizing this major element and an effective solution to prevent it. The importance of creating a sense of awareness amongst the drivers to maintain and follow the traffic rules is critical. An efficient system with minimum of human intervention, which creates maximum awareness among the drivers that traffic rule violation is a legal offence and calls for penalty, is the need of the present. This project 'Automatic Penalty System' is based on IoT, using its ability to link inanimate systems over the internet, to avoid human intervention in fining drivers for vehicular road traffic offences committed. It aims at minimizing the delay, denial and energy of the traffic police in fining the violator. Also, it can further be improvised to automatically collect the toll charges and eradicate queues at the tollbooths.

Gesture Controlled Devices For Physically Challenged Person

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Abstract—This project provides a wireless system that can be used by physically challenged people to control the motion of the wheelchair by elementary motion of their hand. The project involves three main applications as wheelchair control, Display control & Emergency messaging. The system comprises of a Transmitter mounted on operator's hand; employing a MEMS Accelerometer which transmits control signals to the Receiver. The receiver is mounted on the wheelchair and controls its motion based on control signals. The control signals are transmitted and received wirelessly using Wireless Radio Frequency Module. The Display control comprises of a LED display mounted on back of the wheelchair with a buzzer which displays the specific messages programmed in the devices using various gestures. The GSM module will help the patient to send emergency messages to the relatives or to the care takers. This complete project will eventually help patients to simplify theirdifficulties.

Application of time delay approach in Ultra-wide band radar processing

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Abstract—Ultra wideband (UWB) is a radio technology that can use a very low energy, very short pulses. UWB has an extremely large bandwidth which in turn leads to an extremely fine time resolution. Due this resolution, UWB has very accurate position which is already in use for GPS and is the future of wireless communications. UWB possesses good immunity against multi-path interferences. The implementation is based on field programmable gate array (FPGA). Time delay approach is used to limit the high-speed ADC. By using multichannel ADC and delays, higher resolution is achieved.Transmitted power of system is about 1watt and its center frequency is 6 GHz. Pulse width is 750 psec and PRF is 10 KHz. Range of radar is about 19 meter and its maximum unambiguous range is 15 Km. Bandwidth of this system is large about 1.5GHz.

AUTOMATIC WASTE MANAGEMENT

SWAPNIL MORE SANDEEP PANDIT AJAY MAHADIK

Abstract—With increase in population, the scenario of cleanli-ness with respect to garbage management is degrading tremen-dously. The overflow of garbage in public areas creates un-hygienic condition in the surroundings. It may spread several serious diseases amongst the people living nearby. It also degrades the valuation of the area. To avoid this and to enhance the cleaning, Garbage Management System is proposed in this paper. This paper presents a system to identify a garbage full condition which will be decided by sensors (weight and level) in a timely manner and to alert the control room about the same. The role of control room is to find current status of vehicle and to send the SMS to the driver along with garbage container's position. The Driver would then go to specified location and collect the garbage. With the help of system we can provide solution to the current issues in Garbage Management System.

AN AUTOMATIC SKITTLES DISCRIMINATOR

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Abstract—This paper describes the architecture and working of an automatic skittles discriminator. The discriminator referred here works on the principle of colour sorting. Colour processing nowadays attracts massive attention as it leads to the wide scope of applications in the different fields. This paper outlines the working of the machine and its applications in various possible areas. It also describes principle of colour sorting for which an efficient colour sensor is used. The heart of this machine will be Arduino Uno. Arduino is an open source electronic platform based on easy to use hardware and software. In this machine all the electronic parts will be connected to this controller which will supervise their working. Programming of this controller will be done using Arduino Software (IDE). This paper focuses on this fascinating machine(IDE). This paper focuses on this fascinating machine which combines electronics, machine building and programming. Applications of this machine are in production lines such as food industries, jewellery industries and otherindustries.

Prioritizing Emergency Vehicles using IOT

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Abstract- Traffic congestion is a greater problem in cities of developing Countries like India. Growth in urban population and the middle-class segment consume vehicles to the rising number of vehicles in the cities. Congestion on roads eventually leads to slow moving traffic, which increases the time of travel, thus be notable as one of the major issues in metropolitan cities. Emergency vehicles like ambulance and fire trucks need to reach their destinations at the earliest. If they spend a lot of time in traffic jams, valued lives of many people may be in danger. Here an android app is provided to Emergency vehicles for secure authentication purpose. The traffic signal indication continuously glows to green as long as the emergency vehicle is waiting at the traffic lane. Once the vehicle crosses the junction, the traffic signals switches automatically to the previous pattern generation of traffic signals.

Design of Rectangular Microstrip Patch Antenna wit DGS at 2.45GHz

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Abstract: In this paper Rectangular Mictrostrip antenna is designedfor 2.45GHz frequency.For the antenna miniaturization and Bandwidth improvement Dumbbell Shaped DGS on Rectangular microstrip Patch antenna (RMSA)is used. The Design of DGS has been analyzed for different dimensions of dumbbell-Slot DGS. The Simulation process has been done through Finite Element Machine(FEM) based software Advanced Designing System(ADS-2014). The properties of antenna such as reflection co-efficient, bandwidth are determined and compared with the Antenna without DGS. It is found that the antenna resonates at 1.6GHz with bandwidth 38 MHz and over all size reduction is found to be 53.12%in comparison with convention antenna. Further it's also observed that simulated antenna has application in L-band and satellitephone.

Biometric based Voting Machine

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ABSTRACT:-Voting is a method for a group such as a meeting or an electorate to make a decision or express an opinion, usually following discussions, debates or election campaigns In a democracy, a government is chosen by voting in an election. It gives power to the citizens of a country to choose the leader who can bring about the changes that they want to see in their country. The voter turnout in the previous election in our country was 66.4% which also happens to be the highest voter turnout recorded in our country. But even today there are many malpractices taking place in rural parts of our country. This project aims to completely digitalise the voting system being currently used in India by making use of RF identification and biometrics. This two-step security system will ensure complete authenticity of the voting results.IoT will be used to display the results of the voting to the election commission and save the time required for counting ofvotes.

Bimodal Biometric Watermarking

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Unrestricted access to networks makes it possible to share digital images among unlimited and to unauthorized users. To transmit the images securely to the intended recipients techniques such as watermarking maybe used.Current research efforts in combining watermarking techniques and biometrics to enhance the credibility of conventional watermarking.This paper proposes a novel watermarking method for the protection and authentication of watermarked images.Here Independent Component Analysis(ICA) is applied on the neutral cover image and the two independent biometric watermarks which are based on fingerprint and iris are inserted into the cover image. Here the biometric traits are used as watermark and they will be used for authentication purposes of the owner.The plus-point of proposed method is the novelty of using ICA in the watermarking domain for inserting of two independent watermarks, improving authentication and give additionalsecurity.

Mutual Coupling Reduction and Bandwidth Enhancement of Microstrip Antenna using MIMO configuration with polarization diversity

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Abstract— There has been tremendous growth in wireless communication recently. The wireless communication systems are everywhere around us such as mobile communication, GPS, Wi-Fi, Bluetooth etc. and the antenna is the fundamental component of any wireless system. There are several types of antennas are available in practice and the basic antenna used in this paper is Microstrip Antenna (MSA), as it offers many advantages such as low weight, low profile, compact in size and can be easily integrated with microwave integrated circuits. The limitations of this antenna are, low gain and narrow bandwidth. Therefore in this project an attempt has made to increase the bandwidth and the coverage area by using suspended MIMO- MSA antenna. The polarization diversity is used to increase the isolation between antenna elements. The two rectangular microstrip patch antennas are printed orthogonally on one side of the low cost easily available 1.59 mm thick FR4 dielectric substrate, which is placed 1mm above the 0.5 mm thick metal plated copper ground plane. The bandwidth of MSA has increased by suspended configuration and mutual coupling between two antenna elements has reduced by using polarizationdiversity.

The proposed structure is designed to operate over 5.725-6.4 GHz ISM band. These antennas can become a best candidate for 4G LTE wireless communication system.

DEFIBRILLATOR DRONE

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Abstract— this document is an attempt to find a solution for the patients suffering fromunexpected cardiac arrest. Whenthe patient suffers cardiac arrest and faces intense pain, it is essential to provide appropriate panacea to prevent escalation. Expediting emergency response can reduce fatalities and reduce the medication time hysterically. An Automated External Defibrillator (AED) can augment the chances of survival of patient ten times than the prevailing percentage and can salvage the lives of many .The proposed idea is to integrate heart attack warning system and a drone with a controller. The heart attack warning system generates a warning signal before the patient is going to suffer from cardiac arrest. The controller will control the drone which has an Automated External Defibrillator (AED) attached to it. When the heart attack warning system will generate the alert signal (the patient is prone to get heart attack), this signal is transmitted to the controller. The controller in return will drive the drone to the patients GPS location. The controller can be in hospital or can be placed in any government building. This system of continuous monitoring the patient and sending help right in time with the help to drone can save the patient life reducing the burden on ambulances to reach on time in crowded areas. Even if the patient is not wearing the heart attack warning device the people around patient suffering from heart attack can contact the controller and drone can be driven to the patient's location.

Frame work for Electrical Energy consumption data reading using IOT (Internet of things)"

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Abstract- This paper is described to measure energy consumption in the house and generate its bill automatically using telemetric communication. This can help in reducing energy consumption in house as the owner is continuously being notified about the number of units that are consumed. It objective is to generate bill automatically by checking the electricity unit's consumption in a house and in a way to reduce the manual labor. The calculations are performed automatically and the bill is updated on the internet by using a network of Internet of Things. The bill amount can be checked by the owner anywhere globally Design and imp In electricity transmission human involvement is not required. Consumer pays the electricity bill for the consumed power. If in case consumer fails to pay the bill on time then electricity transmission can automatically turned off. Also power theft can be detected if any tampering happens it will send the information to the server as well as it will cut the electricity automatically. WIFI performs the IOT operation where and through which the information is sent to the Web server.

Automatic Billing System for Supermarkets

Prof Pushkar Sathe[1], Dnyaneshwari Hande[2], Jerusha Justin[3], Kavita Anant[4], Pallavi Jaiswal[5]
SIES Graduate School of Technology, Nerul

Abstract - An Automatic Billing System Shopping cart consists of a barcode scanner attached to the trolley. All the customer has to do it scan the product write and put it in the trolley. Two counters one synchronised with the counter and other with ultrasonic object detector system are used as anti-theft measures. The bag in which products are carried home wraps the cart on the inside and hence all the products go directly into the bag thus making the process further time saving. This system is a better alternative to the existing self checkout systems as it has better security measures incorporated and leaves a customer with very little todo.

Design of Rectangular Microstrip Patch Antenna wit DGS at 2.45GHz

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Abstract: In this paper Rectangular Mictrostrip antenna is designedfor 2.45GHz frequency.For the antenna miniaturization and Bandwidth improvement Dumbbell Shaped DGS on Rectangular microstrip Patch antenna (RMSA)is used. The Design of DGS has been analyzed for different dimensions of dumbbell-Slot DGS. The Simulation process has been done through Finite Element Machine(FEM) based software Advanced Designing System(ADS-2014). The properties of antenna such as reflection co-efficient, bandwidth are determined and compared with the Antenna without DGS. It is found that the antenna resonates at 1.6GHz with bandwidth 38 MHz and over all size reduction is found to be 53.12%in comparison with convention antenna. Further it's also observed that simulated antenna has application in L-band and satellitephone.

ATM TRANSACTION USING FACE-RECOGNITION SYSTEM BASED ON FPGA

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Abstract— This paper presents an automated system for face recognition in a real time for ATM transaction. Principal Component Analysis (PCA) is used to recognize the faces. Once recognition is done then the input image will be marked and updated in the database. This project gives much more solutions with accurate results in user interactive manner.

Modeling of OFDM,WDM& DWDM for CATV using Optical Networks

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Abstract—In modern technology service ,providers face an increasingly difficult challenge of increasing their communication to meet growing technology demands. Nowadays environment of reducing capital budgets, the carrier must find a way to offer new revenue-generating protocol in a cheap manner. Orthogonal Frequency Division Multiplexing (OFDM) is a frequency division multiplexing scheme used as a digital multi-carrier modulation technique. OFDM has many uses and application over other modulation techniques like high resistance to the inter-symbol interference (ISI) and is robust technology against fading caused by multipath propagation. Wavelength Division Multiplexing (WDM) is a technology which multiplexes a number of optical carrier signals onto a single optical fiber by using wavelengths and bands of laser light. This technique enables bidirectional communications over one strand of fiber, as well as multiplication of capacity. Dense Wavelength Division Multiplexing (DWDM) is multiplexing which helps to create multiple information streams to be transmitted over a single fiber. This provides a less cost for technology to increase the capacity of the networks without the need to add additional fiber. We will be using OptiwaveOptisystem software for implementing our project to study optical transmitter and receiver for OFDM based optical networks.

Design of Rectenna for Energy Harvesting in ISM Band

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Abstract- Rectenna design for wireless RF energy scavenging is showcased in this paper. The rectenna design is divided into a microstrip planar antenna and anenergy harvesting rectifier circuit. In the designed rectenna, antenna as well as rectifier resonates at 5.8 GHz. Advanced Design System (ADS) software was used as the simulation tool of microstrip planar antenna. The total size of the antenna is 18 x 13.2 x 0.8 mm3. The simulated antenna and rectifier circuit is impedance matched to a 50Ω line over the ISM frequency band of 5.8 GHz band (5.725 GHz - 5.875 GHz). The simulated antenna results are directivity (3.638 dBi), gain (2.89 dBi) and efficiency (84%).The radiation pattern is quite similar toomni-directional; which enables the simulated antenna to be useful for wireless device or any wireless sensor network (WSN) adopted to operate in ISM band of 5.8GHz.

Microwave Photonics

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Abstract— Microwave photonics can be generally defined as the study of high-speed photonic devices operating at microwave or millimeter wave frequencies and their use in microwave or photonic systems. In this multidisciplinary field at the interface between microwave techniques, ultrafast electronics and photonic technologies, typical investigations include, for example, high-speed and microwave signal generation, processing and conversion as well as the distribution and transmission of microwave signals via broadband opticallinks.

Broadband and low loss capability of photonics has led to an ever-increasing interest in its use for the generation, processing, control and distribution of microwave and millimeter-wave signals for applications such as broadband wireless access, sensor networks, radar, satellite communitarians, instrumentation and warfare systems.

In this paper, we highlight some of the notable advances in microwave photonics over the last ~ 45 years and present some speculations about where we may go in the future. From pioneering experiments in the 70´s, this field of microwave photonics has paved the way for an enabling novel technology with several commercially important applications. This paper is intended to give an overview on this multidisciplinary field of microwave and millimeter wavephotonics.

A Review Of Health Issues Faced By Workers In Oil Industry Due To Hidrogen Sulfide

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ABSTRACT— An aging workforce coupled with a boom in new oil and gas development is creating challenges for energy companies in the areas of recruitment, retention, and training. The oil and gas industry is facing a shrinking talent pool for those with specialized expertise. Workers in the oil and gas industries face the risk of fire and explosion due to ignition of flammable vapors or gases. Flammable gases, such as well gases, vapors, and hydrogen sulfide, can be released from wells, trucks, production equipment or surface equipment such as tanks and shale shakers. Ignition sources can include static, electrical energy sources, open flames, lightning, cigarettes, cutting and welding tools, hot surfaces, and frictional heat. Hydrogen Sulfide is one of the gas due to which workers face many health issues.

Compact and Portable Distance Measuring Device Using LVDT and Microcontroller

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Abstract— As we live in 21st century, the era of speed, compact device and digital world. To improve speed and accuracy of measurement device the devices are getting digital. The measurement devices for distance are ruler, foot tape, meter tape. But in industry basis we have to use compact and fast devices. The devices which can sustain in that climate/ environment.

In this document we will take a glance at a new type of device to measure the distance. The device uses the Linear Variable Difference Transducer (LVDT).

REVIEW AND SIMULATION STUDY OF PIEZOELECTRIC DEVICEUSING COMSOL MULTIPHYSICS TOOL

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Abstract—Power supply is a key component in design of wireless micro-sensors, specifically in areas where human intervention is impossible and thus battery replacement. By using piezoelectric energy harvester, vibration energy in the range of *micro-watts to milli-watts*is utilized to power micro-sensors. The geometry of a piezoelectric cantilever beam greatly affects its vibration energy harvesting ability. This paperreviews related works of researchers and also the simulation studies to understand the effect of changes in physical properties of piezo material and various possible combinations contributing to the generated voltage inclusive of material variations.

An Intelligent Wheelchair for Patients Suffering from Physical and Ocular Limitations

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ABSTRACT:
We propose to design a smart wheelchair which can be controlled by a patient simply by spelling out the direction in which he or she wants to go.Moreover,the wheelchair will stop automatically when it comes near a wall or near a staircase.This feature is made possible by including an IR sensor whichwill interrupt the microcontroller whenever it senses a wall and a microswitch attached to the front side of the base of the wheelchair.The switch,which is normally closed will open as soon as it loses contact with the floor.Thus,the wheelchair will stop when it comes towards the edge of a staircase.The wheelchair has two DC motors,one for the left rear wheel and another for the right rear wheel.There will be two caster wheels which will act as two front supporting wheels.We will develop an android application using B4A Software.The application will act as an interface on which the entire voice control system will work.These voice commands will be transmitted to the chair circuitry through an HC-25 Bluetooth module.A 16X2 LCD display is interfaced with the chair circuitry to display whether the commands given on the mobile phone have reached the wheelchair or not. In order to control the wheelchair in the event of failure of the voice control mechanism, a control panel will also be developed on the application which can control thewheelchair through direction keys in case the voice control system fails.The wheelchair circuitry basically has a relay circuit which will accept commands from the 89s51 microcontroller and control the direction of rotation of the two DCMotors.

Diagnosis of Parkinson's disease using Acoustic Analysis of Voice

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Abstract- Acoustic analysis of voice is one of the cost effective method for detecting Parkinson disease. It is also a non-invasive, reliable and easy to use method. Also voice deviation from normal one is the earliest indicator of Parkinson. Voice data of sustained phonation has been collected from 8 healthy and 23 Parkinson subjects. The voice database is analyzed using PRAAT Software and 26 acoustic features are extracted. Some of the features being Jitters, Shimmers, Harmonic to Noise Ratio (HNR), Noise to Harmonic Ratio (NHR), Autocorrelation (AC). The values of these parameters show variation among two groups. A row vector is prepared using these parameters and fed to the classifiers. Classifiers such as Artificial Neural Network (ANN), Support Vector Machine (SVM), k-nearest neighbors (kNN), Adaboost, Decision trees and Random Forest have been tested and it was found that SVM is the best which gives the accuracy of 90%. Performances of classifiers are evaluated in terms of accuracy, precision, recall and total execution time.

Overview of antenna for wireless communication using UWB

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Abstract—Ultra-wideband wireless communications techniques have many merits, including an extremely simple radio that inherently leads to low-cost design, large processing gain for robust operations in the presence of narrowband interference, covert operations, and fine time resolution for accurate position sensing. However, there are a number of challenges in UWB receiver design, such as capturing multipath energy, intersymbol interference especially in a non-line-of-sight environment, and the need for high-sampling-rate analog-to-digital converters. Microstrip Patch antenna (MPA) provide low profile and low volume, so it is use in a now a days communication devices. In this paper study of past few year shows that most of labour on MPA is targeted on planning compact sized microstrip antenna. A novel ultra-wideband printed monopole antenna can be used in wireless communication devices

IMAGE DATAENCRPYTIONSTEGANOGRAPHYUSI NGLSB ANDDWTMETHOD

Monika barade Samiksha devalkar,
Rashmi ekbote Chetnapatil

ABSTRACT:Therehasbeenanincreasingdemandforinformationsecurityandsecurecommunicationwithcontinuousgrowthofinternetusers.OutofvariousavailablesecuritymechanismsthemostwidelyusedsecuritymechanismisDualSteganography.DualSteganographycombinestwosecuritymechanismssteganographyandcryptographybothtogether.Thismechanismhasadvantagesofprovidinghighsecurity,lowtimecomplexitybutthismechanismdoesnotenhancecapacity,robustness,andimagequality.Inthispaperwehaveusedanewversionof DualSteganographyusingstatusLeastSignificantBit(LSB)algorithmand2-DHaar-DiscreteWaveletTransform(DWT)algorithmbothtogether.Thisnewmechanismhasadvantagesofbothalgorithmsstatus LeastSignificantBit(LSB)and2-DHaarDiscreteWaveletTransform(DWT).Themainobjectiveofthisnewsecuritymechanismistoachievehighsecurity,***payloadcapacity,highPeakSignaltoNoiseRatio(PSNR)value,lowMean***

Influence of physiological factors on Heart Rate Variability in predicting cardiovasculardiseases

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Abstract-Diagnosis of Heart disease is an important and critical task which can provide prediction about the heart disease so that treatment made easy. The Electrocardiogram of a person gives the total electrical and muscular functions of a human heart and information about cardiac health. This paper is focused on exploring advanced techniques of HRV analysis in an attempt to develop robust methods for diagnosing patients with CHF from an ECG records. Majority of studies on HRV report several differences between patients with congestive heart failure (CHF) and healthy subjects, such as time-domain, frequency domain and nonlinear HRV measure. In this study classificationis performed using clustering method and by finding an optimal k-Nearest Neighbours to discriminate the patients with CHF from the normals. The wavelet entropy, which has been used in the other biomedical signal classification schemes like EEG spike detection, is also used as an HRV measure to enhance the performance of the classifier. Furthermore, lagged Poincare plot measures are also included in the study. The stress has a psychological origin but affects several physiological processes in the human body: increased muscle tension in the neck, change in concentration of several hormones and a change in heart rate (HR) and heart rate variability.Here, paper is able to predict diseases while considering other parameters and their influence onHRV.

IOT Based Waste and Pollution Monitoring System

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ABSTRACT

In the present day scenario, many times we see that the garbage bins or Dust bin are placed at public places in the cities are overflowing due to increase in the waste every day. It creates unhygienic condition for the people and creates bad smell around the surroundings this leads in spreading some deadly diseases & human illness, to avoid such a situation we are planning to design "IOT Based Waste and Pollution Monitoring System". In this proposed System there are multiple dustbins located throughout the city or the Campus, these dustbins are provided with low cost embedded device which helps in tracking the level of the garbage bins and a unique ID will be provided for every dustbin in the city so that it is easy to identify which garbage bin is full. When the level reaches the threshold limit, the device will transmit the level along with the unique ID provided. These details can be accessed by the concern authorities from their place with the help of Internet and an immediate action can be made to clean thedustbins.

Extraction of FECG from Non-Invasive AECG signal for Fetal Heart Rate Calculation

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TRACT

A Non-Invasive Fetal Electrocardiogram (FECG) is an effective diagnostic tool for determining health status of the fetus. Abdominal Electrocardiogram (AECG) is a composite ECG signal that consist of both fetal as well as maternal ECG (MECG). This paper presents an efficient technique to extract the FECG signal from AECG by means of different Time – Frequency localized transforms and algorithms. A combination of Band Pass Filter , Hilbert Transform and Adaptive Thresholding algorithm has been used for detecting FECG QRS complexes. Further an enhancement of FECG signal is done using Wavelet De-noising and Fetal Heart Rate (FHR) is calculated. This algorithm is performed using MATLAB simulation software and tested on 5 non-invasively recorded abdominal and direct FECG signals taken from MIT Physionet database.

Path finding robot using self-intelligence

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Abstract:
The aim of this paper is to make an autonomous robot which will be able to follow a path using a layout of stationary geographical area with an efficient algorithm such as the robot will be able to perform more time efficiently and with less power consumption. The system is provided with a sketch of a geographical area having obstacles and vacant areas. The path following robot understands the image provided and produces a path avoiding obstacles. The image is broken down into a fix dimensional matrix of rows and columns where the obstacles are represented by 0s and vacant spaces are represented by 1s. These inputs are provided to the controller of the robot which are used to form a path using an efficient algorithm and once the path is formed, controller will drive the robot over the formedpath.

INTELLIGENT WATER MANAGEMENT AND CONTROLLING IN AGRICULTURE

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Abstract— Achieving effective and efficient management of the water as the key to human survival and development has emerged as an urgent global concern. As WATER is a precious resource on the planet earth. For the effective management of the water monitoring should be done properly. The design broadly consists of three blocks. In the first part we use the sensors which detect the desired parameters, next we process the signals obtained from arduino , the required command will be send to the GSM module to send appropriate message to the appropriate mobile number at regular intervals of time. Due to uneven natural distribution of rain water it is very difficult for farmers to monitor and control the distribution of water to agriculture field in the whole farm or as per the requirement of the crop. Farmers suffer large financial losses because of wrong prediction of weather and incorrect irrigation methods. Sensors are the essential device for precision agriculturalapplications.

ADVANCED CODE LOCKING SYSTEM

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Abstract: Security has become a major issue and it is faced by everyone around the world. Considering this fact many security systems have been designed till now, but a complete solution for this problem is not yet found. So here we present the paper "Advanced Code Locking System" which tends to provide an ultimate solution for the same. As security is very essential nowadays, so by using this system only the authorized person will be allowed to unlock the door by entering the correct password. Here, in this proposed model, Arduino is used to carry out important task such as sending and receiving data etc. The door can be opened or closed using ATmega Arduino UNO board and Servo mechanism. As this system provides special features such as the change password facility, sending SMS to users about intruders through GSM and System Protection Circuitry that protects the system if the intruder tries to break it, at a cheap and affordable price, makes it a user friendly product. The proposed system can be used in ATMs, door of houses, lockers, offices, malls, etc anywhere where the security isneeded.

Comparsion of Homogeneous and Heterogenous LEACH Protocol in Wireless Sensor Network

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Abstract— LEACH is one of the first clustered based routing protocols for homogeneous network. LEACH assigns same probability for all nodes to become cluster head since all nodes are assumed to have same initial energy. If heterogeneity is introduced in LEACH, by deploying some nodes with additional energy than normal nodes the network lifetime can be improved for wireless sensor network. With this aim , in this paper we compare homogenous and heterogeneous LEACH. Simulation results show that the few nodes in heterogeneous LEACH are alive after 5000 rounds whereas for homogenous one no nodes arealive.

Coverage Aware Sleep Scheduling in Wireless Sensor Networks

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Abstract— In a randomly deployed wireless sensor network coverage is a fundamental issue to monitor the region of interest without leaving any area unmonitored. With limited battery of a senor node this poses a big challenge. One way to maintain good coverage and extend the network lifetime is to deploy sensors in high density and schedule them to sleep between active cycles. In this paper, we propose an algorithm to schedule the sensor sleep based on the area of overlapped coverage with neighboring sensors. First Euclidean distance of the nodes based on which the nodes placement in the intended coverage area is determined then overlap nodes are determined, multiple nodes with similar sensing range will go to sleep mode thereby keeping only one node in the active state. Simulations results show that this algorithm achieves better performance in terms of coverage efficiency than PEASalgorithm

Survey on Various Routing Protocols in Ad-hoc Networks

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Abstract— Ad hoc Networks comprises of MANET and wireless sensor networks. These networks with self organizing capacity of devices are interconnected by wireless links.. Maintenance of root in network is responsibility of routing protocols. An Ad-Hoc network generally supports multi-hopping, where a data packet may travel over multiple hops to reach its destination..Therefore, how to route packets efficiently in wireless networks is a very important problem. A variety of wireless routing solutions have been proposed in the literature. This paper presents a survey of the routing algorithms proposed for wirelessnetworks.

Display of Underground Cable Fault over Internet of Things

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Abstract— In this paper we aim to determine the distance of underground cable fault from the power distribution station in kilometers and displayed over the internet using internet of things. Underground cable system is a common practice followed in major urban areas as it is not affected by any adverse weather condition. Proposed system is used to find out the exact location of the fault and to send data in graphical format to a dedicated website together with on board LCD display using a Wi-Fi module

"MEMS BASED GESTURE CONTROLLED ROBOT"

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Abstract— The paper describes a robustness of MEMS based Gesture Controlled Robot is a kind of robot that can be by our hand gestures rather than an ordinary old switches or keypad. In Future there is a chance of making robots that can interact with humans in an natural manner. Hence our target interest is with hand motion based gesture interfaces. An innovative Formula for gesture recognition is developed for identifying the distinct action signs made through hand movement. A MEMS Sensor was used to carry out this and also an Ultrasonic sensor for convinced operation. In order to full-fill our requirement a program has been written and executed using a microcontroller system. Upon noticing the results of experimentation proves that our gesture formula is very competent and it's also enhance the natural way of intelligence and also assembled in a simple hardwarecircuit.

An Efficient Low-Profile Microstrip Antenna for Aqueous Glucose Measurement

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Abstract-Millions of people are suffering from Diabetes worldwide. According to the World Health Organization (WHO), number of diabetes patients is likely to rise to 101 million in India by 2030 and will become the world's 7th largest killer. Hence we have to utilize technology to eradicate this disease. Measuring glucose level in a diabetic patient on a regular basis and administering insulin are the keys to keep patient safe and device which measures blood glucose level is called Glucometer. Presently glucose can be measured using two techniques, invasive and non-invasive, also known as in-vivo and in-vitro respectively. microwave resonator antenna is used in this project for non-invasive technique as a new approach towards blood glucose measurement. In this work, low profile microstrip antennas for glucometer application are proposed. As the dielectric constant of the material used as a substrate placed above antenna changes, resonant characteristic of antenna varies and shift in the frequency is observed. The proposed microstrip antenna resonators are designed using Advanced Design System 2011.05 for an operating frequency as low as 1 GHz. The operating frequency of antenna should be low as the low frequency microwave signal penetrate deep into tissues and have potential for practical application because of low physical area, low cost and better frequency resolution. Further, a high frequency resolution i.e. for a small change in glucose concentration leads to considerable shift in operating frequency, is achieved. The proposed Microstrip antennas are designed and tested with aqueous glucose substrate. This is advancement towards developing microstrip sensor for non-invasive glucometer application

Home Automation System using Bluetooth GSM & Internet

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***Abstract*—** The home automation becomes important, because it gives the user the comfortable and easily for using the home devices. The implementation and design of wireless home automation control used two methods. This paper presents WLAN technology and Bluetooth controls the selective home devices with integral security and protected system.Home automation not only refers to reduce human efforts but also energy efficiency and time saving. Paper represents the home automation and security to help handicapped and old aged people which will enable them to control home appliances and alert them in criticalsituations.

Electronic Security System Using Biometrics

Fingerprint Recognition Technology

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***Abstract* -In today's world biometrics technology is getting considerably attention due to its high security and negligible attention. This technology in its true sense is a blend of security and technology. The technology developed is practically implemented in cell phones, safe lockers, banks, attendance in institutes/organizations. As the transfer of personal data make it essential to provide reliable systems that are user-friendly and generally acceptable. In this paper we have described about the concept of biometrics in fingerprint and different finger patterns which are generally used to perform recognition module using advanced minutiae based algorithm. Among all the biometric indicators, fingerprints have one of the highest levels of reliability and have been extensively used by forensic experts in criminal investigations. The main purpose of using this technology is to enhance the security and privacy of people.**

Efficient Priority Packet Scheduling in Wireless Sensor Network

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***Abstract*— *Abstract*— Wireless sensor Network widely used in military and civil applications.. In Scheduling real time and non real time packets at the sensor nodes is significantly important to reduce processing overhead, energy consumptions, communications bandwidth, and end to end data transmission delay of Wireless Sensor Network (WSN). Most of the existing packet scheduling algorithms of WSN use assignments based on First Come First Served (FCFS), non preemptive priority, and preemptive priority scheduling However, these algorithms incur a large processing overhead and data transmission delay and are not dynamic to the data traffic changes. In this paper, we propose three class priority packet scheduling scheme. Emergency real time packets are placed into the highest priority queue and can preempt the processing of packets at other queues. Other packets are prioritized based on the location of sensor nodes and are placed into two other queues. Lowest priority packets can preempt the processing of their immediate higher priority packets after waiting for a certain number of timeslots. Simulation results show that the proposed three class priority packet scheduling scheme outperforms FCFS and multi level queue schedulers in terms of end to end data transmission delay.**

REAL TIME HEALTH MONITORING SYSTEM

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Abstract— Now A Days people are facing multiple physical, physiological, psychological problems. Sometimes there is a situation when a patient requires treatment on the spot.. Wireless sensor network (WSN) technologies are considered one of the key research areas in computer science and the healthcare application industries for improving the quality of life. In health care centre patient's data such as heart rate needs to be constantly monitored. The proposed system monitors the heart rate and other such data of patient's body. For example heart rate is measured through a Heart Beat Sensor. A transmitting module is attached which continuously transmits the encoded serial data using Microcontroller 8051. A receiver unit is placed in doctor's cabin, which receives and decodes the data and continuously displays it on a LCD User Interface. Hence doctor can observe and monitor many patients at the same time. System also continuously monitors the patient(s) data and in case of any irregularities, in the condition of a patient, the sensor system connected to the system gives a Data signal that the patient of a particular room needs immediate attention. In case, the doctor is not in his cabin, then another LCD interface is also connected to the sensor also sends a Data signal to Nurse Station for quicktreatment.

Design and Implementation of Embedded Web Server based on ARM11 and Linux for monitoring and controlling Solar Power Plant remotely

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Abstract— This paper presents useful monitoring and controlling system for solar power plant. The environmental parameters, charging status of battery and output power generated by solar panel is monitored in real time. Web browser is used for monitoring of temperature, humidity and light intensity through worldwide remotely. The system has been implemented using an embedded web server. Embedded board is designed based on the ARM 11 and Linux as a real time operating system. Embedded Linux board and sensor node which placed at the solar power plant communicates through ZigBee protocol. The sensor node collects the parameters like temperature, humidity and light intensity. AVR board acts as sensor node which consists of temperature sensor, humidity sensor, light intensity sensor, ZigBee RF antenna device for communication with the raspberry pi board and The concerned authority can monitor or control the system through his mobile phone by sending AT Commands to GSM MODEM as well as web browser. The board has an Ethernet interface and runs the simple data web server. Hence Embedded Linux board collects the data over ZigBee wireless communication protocol and stores in the databse. The system offers a complete, low cost, powerful and user friendly way of real-time monitoring and remote control of solar power plant [7].

PLC SCADA BASED SIMULATION KIT

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Abstract-- This paper proposes a PLC SCADA Based Intelligent Industrial Conveyer Belt which can be shifted from manual mechanics to automatic processes. In this age of industrialisation, technological revolution/automation is fast shrinking the need of humans to assist machinery. In order to hold out the promise of timely delivery of product, high tech automated production is essential. Keeping view of present requirements, this proposes industrial conveyor belt which is a complete application of automation. The notable thing about this project is its high degree of flexibility. A prototype of commercial conveyor belt system, controlled using 1400 Micrologix programmable logic controller (PLC) is proposed which will be programmed by RS500 by Ladder logic and the whole process is monitored using supervisory control and data acquisition (SCADA). Main objective of project is to develop a prototype of industrial conveyor belt for being cost effective and flexible. This prototype can be programmed to automatically run the entire system once started or manually aswell.

AUTOMATIC POSITIONING OF DISH ANTENNA

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Abstract—There are many problems in manually positioning the dish antenna for each satellite and according to the location of antenna. This paper presents and discusses the idea of making this process automated. Automatic positioning of dish antenna for the satellites present in our geostationary orbit uses hardware solutions to solve this problem. Global positioning system is attached along with the circuit to provide the coordinates of antenna for calculation of angles for the positioning of the dish antenna. Accelerometer is mounted on the dish to sense its elevation. Digital compass is mounted on the base to give direction sense while positioning the antenna. Thus using the calculated angles and feedback from accelerometer and compass, the antenna is rotated to the calculatedangle.

PLC SCADA BASED SIMULATION KIT

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Abstract-- This paper proposes a PLC SCADA Based Intelligent Industrial Conveyer Belt which can be shifted from manual mechanics to automatic processes. In this age of industrialization, technological revolution/automation is fast shrinking the need of humans to assist machinery. In order to hold out the promise of timely delivery of product, high tech automated production is essential. Keeping view of present requirements, this proposes industrial conveyor belt which is a complete application of automation. The notable thing about this project is its high degree of flexibility. A prototype of commercial conveyor belt system, controlled using 1400 Micrologix programmable logic controller (PLC) is proposed which will be programmed by RS500 by Ladder logic and the whole process is monitored using supervisory control and data acquisition (SCADA). Main objective of project is to develop a prototype of industrial conveyor belt for being cost effective and flexible. This prototype can be programmed to automatically run the entire system once started or manually aswell.

CONTENT BASED VIDEO RETRIEVAL

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ABSTRACT

A content based video retrieval system that is based on content fingerprinting and artificial neural networkbased classification is proposed.A video fingerprint is obtained from a segment of video content. The video fingerprinting methods obtain unique features of a video that differentiates each video clip from other videos.The system extract features using a fingerprint extraction algorithm followed by a fast approximate search algorithm. Firstly, the Fingerprint Extraction algorithm is employed which extracts a fingerprint through the features from the image content of video. These images are represented as Temporally Informative Representative Images (TIRI). Then, the second step is to find the presence of videos in a video database having content similar to that of query video, searched using inverted file based method. Multi Layer Feed Forward (MLF) Neural networkthat uses Backpropagation Algorithm for training is used for video retrieval. On input of query video the videos having similar content in database are retrieved anddisplayed

Performance Analysis of HybridCognitive Gaussian Relay Channels

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Abstract— Since last decade, Cognitive Radio has been the solution for the problem of underutilization of radio spectrum. Resources such as power and spectrum are very limited. Optimization of Resource Allocation (RA) is the most important problem in Cognitive Radio Network (CRN). But due to opportunistic nature of Cognitive Radio Resources(RRs), Pure Cognitive Radio Networks are unreliable in nature. To improve the performance and reliability of the network, Hybrid Cognitive Radio Network is useful.Hybrid CRN jointly utilizes both the licensed and cognitive RRs. This paperanalyses the performance of Hybrid Cognitive Relay network under AWGN and Rayleigh fading channels. The performance metrics such as Capacity, Energy efficiency and Spectral efficiency are formulated and numerical simulations are performed. This analysis is helpful in determining the Capacity for optimum usage of power andbandwidth.

LiFi based Data Transfer

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Abstract—With increasing need on being connected to internet all the time Wi-Fi came into being. However, with ever increasing demands, this technology too may soon become overwhelmed. To overcome the limitations of Wi-Fi technology we resort to the faster and more efficient technology, suggested by Harald Haas, named LiFi. This technology uses light to transmit data. This light changes at such high rate that the human eye is practically unaware of these changes due to persistence of vision. Also data transfer using light is much faster. Hence, the LiFi is almost 100 times faster as compared to Wi-Fi. Further LiFi can also be used in numerous environments where Wi-Fi technology generally fails. More bandwidth and added security are added advantages of this technology.

Introduction of Complex Laplacian To Multi-AgentSystems.

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Abstract-The paper concentrates on the fundamental coordination problem that requires a network of agents to achieve a specific but arbitrary formation shape. A new technique based on complex Laplacian is introduced to address the problems of which formation shapes specified by inter-agent relative positions can be formed and how they can be achieved with distributed control ensuring global stability. Concerning the first question, we show that all similar formations subject to only shape constraints are those that lie in the null space of a complex Laplacian satisfying certain rank condition and that a formation shape can be realized almost surely if and only if the graph modeling the inter-agent specification of the formation shape is 2-rooted. Concerning the second question, a distributed and linear control law is developed based on the complex Laplacian specifying the target formation shape, and provable existence conditions of stabilizing gains to assign the eigenvalues of the closed-loop system at desired locations are given. Moreover, we show how the formation shape control law is extended to achieve a rigid formation if a subset of knowledgable agents knowing the desired formation size scales the formation while the rest agents do not need to re-design and change their controllaws.

Detection of Diabetic Retinopathy using Retinal Fundus Images

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Abstract— Diabetic retinopathy is an eye related disease and it happens when damage occurs to the retina due to diabetes. Features like hemorrhages, micro aneurysms, exudates and cotton wool spots in fundus images can assist in early detection of Diabetic Retinopathy. A very efficient approach for extraction of these features in fundus images is discussed in this paper. Preprocessing involves gray scale normalization, green channel extraction, noise removal and contrast enhancement to make the features clearly visible. Then the geometric properties of features are used to localize them. Later filtering and morphological operations are performed to remove undesirable features. Analysis ofthe algorithm on the images from the database having different stages of DR gives accuracy as high as 90% for micro aneurysms, 87% for haemorrhages, 91% for cotton wool spots and 95% for exudates.

Object Recognition and Visual Concept Detectionin Still Images

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Abstract—The modern world is enclosed with gigantic masses of digital visual information. To analyze and organize these devastating ocean of visual information image analysis techniques are major requisite. In particular useful would be methods that could automatically analyze the semantic contents of images. The content of the image determines the significance in most of the potential uses. One important aspect of image content is the objects in the image. So there is a need for object recognition techniques. Object recognition is an important task in image processing and computer vision. It is concerned with determining the identity of an object being observed in an image from a set of known tags. Humans can recognize any object in the real world easily without any efforts; on contrary machines by itself cannot recognize objects. Algorithmic descriptions of recognition task are implemented on machines; which is an intricate task. Thus object recognition techniques need to be developed which are less complex andefficient.

Smart Shopping Cart for Automated Billing Purpose Using Wireless Sensor Networks

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Abstract -Nowadays *purchasing and shopping at big* malls is becoming a daily activity in metro cities. We can see huge rush at malls on holidays and weekends. The rush is even more when there are special offers and discount. People purchase different items and put them in trolley. After total purchase one needs to go to billing counter for payments. Our aim is to develop a system that can be used in shopping malls to solve the above mentioned challenge. The system will be placed in all the trolleys. It will consist of a RFID reader. All the products in the mall will be equipped with RFID tags. When a person puts any products in the trolley, its code will be detected and the price of those products will be stored in memory. Thus the billing will be done in the trolley itself. Item name and its cost will be displayed on PC.

PWM BASEDCLOSED LOOP SPEED CONTROL OF DC MOTOR

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***Abstract*- The electric drive systems used in many industrialapplications require higher performance, reliability, variablespeed due to its ease of controllability. The speed control of DCmotor is very crucial in applications where precision andprotection are of essence. Purpose of a motor speed controller isto take a signal representing the required speed and to drive amotor at that speed. Microcontrollers can provide easy control ofDC motor. Microcontroller based speed control system consist ofelectronic component, microcontroller and the LCD. The chopper is driven by a high frequency PWMsignal. Controlling the PWM duty cycle is equivalent tocontrolling the motor terminal voltage, which in turn adjustsdirectly the motor speed. This work is a practical one and highfeasibility according to economic point of view and accuracy. Inthis work, development of hardware and software of the closeloop dc motor speed control system have been explained andillustrated. The desired objective is to achieve a system with theconstant speed at any load condition. That means motor will runat a fixed speed instead of varying with amount of load.**

Object Detection And Tracking using CongnitiveApproach

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Abstract - *In the world of computer vision the object tracking is biggest challenge.The performance is suscaptible to various parameters such as occlusion,background clutter,change in illumination and scale variation.The development of high powered computers,the availability of high quality and inexpensive video cameras and increase in automated ,video analysis aid the purpose of object detection.Three key steps in video analysis are detection of moving objects,tracking of such objects from frame to frame and analysis of object to recognize their behavior.Different approaches have been proposed for object tracking.This paper combines tracking methods from braod categories that provide a unique solution to the widely applied object and trackingproblem.*

Smart Glasses- an assistive aid for the visually impaired

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Abstract— **About 285 million people are visually impaired worldwide out of which 246 million have low vision. Low vision cannot be corrected using ordinary eyeglasses, medication or surgery. People with low vision have a very limited sight which interferes with their daily activities. In this paper, we propose to construct a visual aid to assist the visually impaired in their everyday life. The device aims to show a better vision for the visually impaired who can sense the brightness and darkness by projecting the outline of the surrounding captured by a camera on to a display attached to their lens. The glasses would analyze the surroundings in real time and convert the texts in the surrounding, such as sign boards, bus numbers and so on, to voice outputs using image and signal processing. Also, it would consist of a updatable database of regular day to day faces the person encounters and the next time the same face appears, these glasses would recognize these faces and speak out their names and their identification. Such a system can help the people with partial sight and low vision to understand their surroundings better and reduce the need for human assistance**

Satellite Images De-noising Using Efficient Adaptive Mean Filtration Method

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Abstract- In earlier era of satellite technology, satellite systems send much of data from space to the earth stations in form of images or photographs. While transmission of such images because of limitations of satellite imaging hardware, image captured gets corrupted. Computer filters de-noise such images by linear or nonlinear filtration techniques. This paper proposed efficient adaptive mean filtration technique to remove noise from satellite captured images. Efficiency improved for 70% of noise variance.

Review: Survey of 4G & 5G Architecture

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Abstract - This paper includes discussion on the 4G architecture and current status of 5G architecture. 4G architecture is standardized and implemented by various telecom operators across world.5G architecture is still in discussion stage with various groups proposing options. The paper explores few of the prominent options briefly (NGMN,3GPP)

Ropeless Ambivalent Electromagnetic Elevator

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Abstract— Elevators are generally powered by electric motors that either drive traction cables or counter weight systems like a hoist. At present, elevator consists of cage and a counterweight attached to the ends of a cable that runs over a pulley. Present concept of elevator has many disadvantages like use of counter-balancing system which occupy more space and it make use of 3 phase motors for elevation which consumes more power and also needs speed control devices and circuits. Use of rope and pulley adds more to the cost and enormous amount of oil is used for lubricant purpose. Our project concept gives rise to a new implementation that uses elevator which is rope free and motor less. This project is based on the electromagnetic principle of Faraday's law in which permanent magnet and electromagnet plays a vital role. Biggest advantage of this concept is that it uses land effectively and safety precaution is taken wisely. In future, there is large scope for this elevator which will be constructed according to the architecture design

New Infrastructure For Wireless Communication Via High Altitude Platforms

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***Abstact*---High Altitude Platform Stations (HAPs) provide broadband communication and wireless communication services. High Altitude Platform Stations (HAPs) are situated at an altitude of 17 to 30 km and at a specified fixed point relative to the Earth. They are mostly solar-powered, unmanned, and remotely operated. These platforms have the capability of carrying multipurpose communications relay payload, which could be in the form of full base station or, in some cases, a simple transponder as is being used in satellite communication systems. HAPs, when fully deployed will have the capability of providing services and applications ranging from broadband wireless access, navigation and positioning systems, remote sensing and weather observation/monitoring systems future generation mobile telephony, digital TV etc. HAPs are also known to be low cost when it comes to its implementation and are expected to be the next big provider of infrastructure for wireless communications. However before, it is implemented different models must be built to test its performance. In 2014, 2 major Internet companies (Google and Facebook) announced investments in new HAP projects to provide Internet access in regions without communication infrastructure (terrestrial or satellite), bringing back attention to the development of HAP.**

Study of significant parameter for Path Duration in Mobile Ad-hoc networks using Taguchi's DOE

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***Abstract*—Routing protocols designs greatly influence the performance of MANETs. Key common task of routing protocol is to find a "good" path between a source and a destination node. However mobility affects the performance of Routing protocols. It changes connectivity graph. Whenever a route becomes invalid, a mobile node has to find a new route to the destination. This affects the on-going communication and increases the overhead for communication. Along with commonly utilized criterion of the minimum number of hops, diverse metric could be employed for the path/ route selection specifically the consideration of the expected path duration. Path duration is defined as the time during the path is active for the communication. Accurate prediction of path duration will help to improve the performance of routing protocols. It depends on the network parameters like transmission range, node density, number of hops and node velocity.**

In many studies and researches, MANET performance evaluation was based on simulations and/or empirical technique and/or Theoretical method. In such studies the performance of MANET routing protocols have been addressed by the one factor at a time analysis approach. It motivates us to build a theoretical understanding on estimation of path duration and to analyze the performance parameter i.e. average path duration of routing protocol in MANET using several factors at a time approach by employing a Taguchi design of experiments. This new approach identifies the most significant factor and existence of synergetic interaction between pair of parameters which impacts on estimation of average path duration. This development will help us to emphasize on which parameter needs to be handled effectively to enhance path duration and ultimately performance of communication inMANETs.

Random Way Point (RWP) model has been used for the estimation of path duration as a reference. The statistical results reveled that the transmission range was the most significant parameter that contributes in estimation of path duration (94.55 %) followed by number of hops (1.62%). It is also observed from the results of ANOVA that contributions of interactions between Transmission range, Node velocity and number of hops are very less. Hence it clearly indicates that those factors are independent. These findings demonstrate that Statistical techniques prove to be valuable tool for the investigation of main effect or interaction of multiple factors in estimation of path duration.

Diode based Ionising radiation measurement system

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Abstract: Radiations have proved to be quite harmful for nature and human race but if these radiations are used in an effective manner they can be implemented in most critical applications. The safe dose level of radiation needs to be calibrated and a dosimeter is used for the same. In this paper we design a diode dosimeter and upon comparing it with the standard dosimeter obtain a calibrated device. Thus, the main objective is to convert electromagnetic radiations into its equivalent electrical signals using a diode.

Driverless train using Atmega16 for Crowd Management, Disaster Management and Anti Collision

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Abstract: The main aim of this paper is to illustrate the technology used in driverless metro train movements which are used inmost of the developed countries. This train is equipped with a controller that enables the automatic stopping of the train from station to station. This train also has other features which are crowd management, disaster management and anti-collision. This paper presents the development process of a prototype for a driverless train implemented using Atmega16.

Detection of Faulty Sensor Node within Wireless Sensor Network for improving NetworkPerformance

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Abstract—In most of application such as Habitat and Ecosys- tem Monitoring, Seismic Monitoring, Civil Structural Health Monitoring, Monitoring Groundwater Contamination, Rapid Emergency Response, Industrial Process Monitoring, Perimeter Security and Surveillance Automated Building and Climate Control it is essential to observe or monitor the behavior of surrounding environment at a fine resolution over large spatial- temporal scales for this reason wireless Sensor Network (WSN) is used. WSN have high ability to connect physical world to the virtual world and sensor devices are tiny device and low battery devices due this use of wireless sensor network for monitoring surrounding behavior is increased time to time. Accuracy of WSN is enhanced by increasing the no of sensor within the network. As no of sensor increase this will increase the probability of failure of sensor within the network because WSN may be operated in unattended and hostile environment .If any of the sensor node is fails, this will lead to the change the network topology, also create network partitioning , increases distance between node pair and reduce the number of alternative available routes. In short it will degrade Network Performance of WSN ,to improve network performance of WSN we have to find out faulty sensor node within the network . This paper will give one easy method for finding faulty sensor node within the network.This method measure Round Trip Time (RTT) of Round Trip Path (RTP) and compare the calculated RTT with threshold value(threshold value for RTT) if premeditated RTT is greater than threshold value or infinity then particular node from that respective path is declared as dead node or maliciousnode.

Dynamic Task Scheduling IP Core Design in MPSoC Environment

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Abstract — In this paper the dynamic task scheduling Intellectual Property (IP) core design is explored in Multiprocessor System-on-Chip (MPSoC) environment. MPSoC is combination of reconfigurable computing and multicore technologies and it is one of the most promising future processor architecture. As these systems have to handle number of tasks at a time, a synthesizable IP core for dynamic task scheduler processor is designed. Using Out-of-Order (OoO) execution, this scheduling processor schedules tasks i.e. units of computation in parallel for execution on different processors and IP cores. But due to staling problem data dependencies like Read-after-Write (RAW), Write-after-Write (WAW) and Write-after-Read (WAR) occur during OoO execution. To solve this problem and to achieve Task Level Parallelism (TLP) modified scoreboarding algorithm is designed. Due to these dependencies stalling problem occur during OoO execution. From the the simulation results it is shown that the design analyzes all the task dependencies during run-time and resolves them at TLP.

Air Quality Monitoring Device

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Abstract: Air pollution monitoring is very useful concept in today's life of human being. Airpollution monitoring system starts from traditional to a sophisticated system using a microcontroller to provide a real time air quality data and data index. an environmental air pollution monitoring system for monitor the concentration of major air pollution gases has been developed using Arduino Uno 328p microcontroller. Here various smart semiconductor pollution sensing transducers were directly interface to module.This device is intended to provide the user with a cost-efficient means of determining air quality in terms of air quality index. Our sensor focuses on the major components of the Environmental Protection Agency's Air Quality Index: ozone, particulate matter, carbon monoxide, sulphur dioxide, nitrous oxide and lead. A temperature and humidity sensor is included as these conditions can impact the performance of the gas sensors.

Speaker Recognition System using Gaussian Mixture Model

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Abstract-- Speaker recognition is a topic of substantial importance in areas of intelligence and security. It is the process of automatically recognizing speakers from their voice signals. This type of authentication has speech as the most essential component. Speaker recognition system is thus based on speech and is divided into two types: Text Dependent and Text Independent . This paper emphasizes first type. Speaker identification from a set of templates and analyzing speaker recognition rate by extracting several key features like Mel Frequency Cepstral Coefficients [MFCC] from the speech signals of those persons. These features are effectively captured using feature matching technique like Gaussian Mixture Model [GMM]. System evaluation will be done using different performance measures.

AN AUTOMATED TRAINING AND PLACEMENT SYSTEM

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Abstract—An Automated Training and Placement System focuses on the automation of the placement cell. This automated system aims at providing the Facility to simplify the process of registration and list generation of eligible students for placement. This System do all work regarding placement like collecting student records, Authenticate and activate the student profiles. It gives the information of placed and unplaced students. Students should also be able to upload their information in the form of a Resume. TPO can access, view information of the users and prepare schedule of all activities regarding placements. It also manages Placement process of each Job posting individually. Manage Company Profiles, Manage Job Postings, Authenticate and activate the student profiles, Send Notifications to students, Create list of students as per company HR Manager Job Request, provides the list of shortlisted student with resume to company HR Manager, Manage student profile, Set preferences for student eligibility criteria for placement.

Multiple Objects Tracking and Monitoring: A Review

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Abstract - Multiple object tracking is an important yet not so commonly discussed computer concept. It introduces a framework for tracking of multiple objects through the use of adaptive learning module. It includes implementing a prediction model for video sequences, which is influenced by a number of related and mutually connected factors. Based on selection of the object, tracking is performed. The main purpose of this paper is to review multiple object tracking mechanisms that are currently being used to evaluate and track data from unreliable sources. Most systems performing similar functionality are usually unable to track multiple objects at the same instance of time. However, in this paper we only review systems that are capable of doing so and can maintain images in the form of frames per seconds with respect to the objects movements to facilitate tracking and monitoring. Also, we study some systems that are capable of monitoring and tracking in complex scenarios like occlusions. Research shows that some methods can perform efficiently and effectively in a large variety of scenarios including pedestrians tracking in crowd, surveillance and learning of animal movements, stabilized video sequence, compressed video sequence and face detection for security mechanisms.

Color modification system for barrier free color vision

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Abstract-People suffering from Colorblindness suffer from the problem of viewing some colors or distinguish between colors. The person with colorblindness face many difficulties such as traffic signal cannot be well understood, they are unable to interpret colorful graphs and charts ,they also cannot enjoy videos and sports matches.The proposed system is Video Re-coloring Algorithm to help people suffering from protanopia i.e Red Color deficiency. The unperceivable colors are extracted from the frames of video, then they are remapped to similar shade color that can be easily perceivable to Color Blind people.

Indian Classical Music Vocal Training Using Musical Note Detection and Competetion

A System for easy user access

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K.C. College of Engineering & Management studies & Research,

Abstract—We show a self-learning singing pitch preparing device on the advanced mobile phone to assess the viability of the continuous connection instrument for enhancing clients sound and timing, which are the most basic systems in singing. It comprises of, a pitch level classifier, a scoring system to help the clients know how well they perform, an intuitive pitch preparing instrument.

We stretch the significance of our application's practicality, with the end goal that it fills in as a rule for executing and improving comparative singing apps. Experimental comes about demonstrate that the blended singing exhibition and the visual input configuration are useful and normal to understand.

Using Data Mining Detection Of Fraud Transaction

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Abstract— Most transactions today are executed with the use of credit cards related to various operations both online and offline. Therefore, security to these type of transactions has to be provided to a high extent. To achieve this motive the mining model mechanism has been proposed here for analyzing transactions executed by users and thereby identifying an invalid set of transactions.Credit card fraud occurs when user provide their information to the unknown persons or stolen by the unknown persons, that information can be used for unauthorized online purchase and some other situation. A technique is required to detect such fraud events. Many techniques are exist to detect such frauds. But these existing techniques are not efficient to provide better performance to detect such credit card fraud events. In this paper a hybrid technique which uses the properties of PGNN and Cost based model is presented which provides enhanced functionality to detect credit card frauds. The analysis of hybrid technique shows that the proposed technique provides an accurate and efficient way to detect credit cardfrauds.

Thus aim of the project is to improve as well as can enhance the experience of the user by saving time and the exposure to the new security techniques.

Remote User Recognition and Access Provision

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Abstract— A remote access server provides a remote user with access to a local computer network. The server receives a user identification string from its communication port, the string having been entered by the remote user at a remote computer which is coupled to the communication port. The string identifies the remote user. The server uses the string to access a database and determine an internet protocol (IP) address associated with the string. The remote computer needs the IP address to communicate on the local computer network.

SOIL SENSING AUTOMATIC IRRIGATION SYSTEM

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Abstract: Soil Sensing Automatic Irrigation SYSTEM consists of a feedback control system that employs monitoring of environmental parameters and controlling irrigation. Environmental parameters such soil moisture, temperature and humidity plays an important role in overall development of the crop and good yield. Conservation of water and other resource can be achieved by optimizing these parameters. The advancements in science and technology have enabled the use of modern technology, like Wireless Sensor Network (WSN), in such system at very low cost. WSN can be incorporated to distribute the monitoring over entire crop field. This paper reviews for various sensors available to monitor above environmental parameters and focuses on wireless technologies to suite such types of end application.

3D Hand Gesture System

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Abstract—Tridimensional, especially in case of use of means of a virtual reality or the screens which diagonal is measured by meters, and quantity of pixels - tens millions demands both new means of input and the new user interfaces connected with them. It is necessary to provide the natural, reliable and exact interface. This interface may be based on gestures. Our researches and developing of prototypes take into account various approaches to input and gestures recognizing and its using in human-computer interfaces. Our project presents a device , which would not need any contact surface for its operation.The aim of this project is to work with accelerometers and translate the motion of the hand into various applications in a virtual interface. It is most intuitive for us to use things based on our hand motions, as they form a very basic form of communication, signaling and gesturing. In order to translate these motions into the virtual world we use the accelerometersensors.

Scanned Image To Editable Text Conversion A Software for easy user access

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Abstract - Indian Prime Minister Mr. Narendra Modi once in his speech said that he wanted to make our country digital and his dream of "Digital India" was found interesting for all IT professions and students so decided about this project. This paper presents a complete Scanned image to editable text conversion system for camera captured image/graphics embedded textual documents for handheld devices.

Documents are first scanned ,text regions are extracted and skew corrected. Then, these regions are binariesandsegmentedintolinesandcharacters.Charactersarepassedintotherecognitionmodule. Experimenting with a set of 100 business card images, captured by cell phone camera, we have achieved a maximum recognition accuracy of 92.74%. Compared to Tesseract, an open source desktop-based powerful SITETC engine, present recognition accuracy is worth contributing. Moreover, the developed technique would be computationally efficient and consumes low memory so as to be applicable on handheld devices.

Virtual Fru-Gie Market by Farmers for Daily Needs / Festivals

Delivering Freshness at your doorsteps

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Abstract—India is one of the world's biggest producers of fruits and vegetables but its share in the global horticulture market is insignificant. The fragmented supply chain and inadequate health, safety and quality mechanisms (means the quantity and quality of fruits and vegetables) often do not meet the demands of high-end or international markets. Moreover, Indian farmers receive less than a fifth of the end price for the fruits and vegetables they produce, while a long line of middlemen, transporters, wholesalers and retailers get the rest. So, the aim behind developing this application is to give India's huge farming community a fair and consistent price for their produce. Using this android based application "Virtual FruiGie Market", will help some of the farmers to overcome this problem. Developing these app farmers can directly connect with the end users and supply the product directly to them. This will increase the profit of the farmers and also end users can get good quality product in fewer prices as they will directly buy from farmers. It will provide language selection (English or Marathi) as per end user. This application will be useful for daily needs as well as it will list out items requirements needed according to Hindu festivals.

Mumbai Dabbawala Andriod Appliction

System for homemade food

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Abstract— Current food system has been completely customized in twentieth century. There are people known as Mumbai Dabbawala from British era who serves Tiffin to whole Mumbai simply by there coding techniques. Our final year project aims at the the development of Dabbawala Algorithm and Android Application to help these people for more effective performance. This application will provide all Six Sigma technology.

Accessing Windows Operating System Virtually on Linux
Implementation of .exe files on Linux Platform

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Abstract—The proposed system is plug and play kind of virtual operating system. In the system middleware such as VMware software is not needed to use guest operating system on a host operating system. Windows 7 as virtual application is our proposed system will run on Linux operating system as a guest OS. Basic windows 7 application such as notepad, VLC player, calculator, MS Office etc. will be used as efficiently as on windows 7 as a host. As proposed system is working as an application the overhead of virtual memory partition that is required for installing guest OS using middleware is notneeded.

3D PASSWORD SECURITY WITH RUBIX

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ABSTRACT-Today's World, with increasing focus over concerns of security and privacy, authentication mechanisms have taken a big leap from traditional password based systems to the newer OTP and biometric systems. But these systems require an extra framework to make the security effective. Therefore we present idea of 3D password systems as they are more secure and customizable authentication. Once System is implemented and you log in to a secure site, the GUI of 3D password opens up. In addition, the user can simply put textual passwords. Once he goes through the first authentication, a 3D object "A RUBIX CUBE "will open on the screen. The user will interact with 3d object "Rubix cube" by scrambling it with different moves of sequences which will create the password. The combinations of two authentication system are supposed to replace the textual passwords as they provide full cover from key logging attacks. The proposed system aims to build a 3D password based authentication mechanism to build a secure access protocol.

Android Based Attendance SystemUsing Biometrics

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Abstract-- We have seen over the years that the process of manual attendance has been carried out across almost all educational institutions. The process is not only time consuming but also sometimes inefficient resulting in the false marking of attendance. Today, we need not maintain pen and paper based attendance registers. Following this thought, we have proposed an attendance marking and calculation system which is implemented on Android mobile application integrating biometric scanner that communicates with the database and verification can be achieved. This Android application will give the students information on attendance and change in timetable if any whereas the biometric scanner is used for verification, authentication and to avoid proxy.

DigiCard- A Credit Card using Transaction and Verification

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Abstract -The use of credit cards is prevalent in modern-day society. But it is obvious that the number of credit card fraud cases is constantly increasing in spite of the chip cards worldwide integration and existing protection systems. Traditional credit cards are not secured as the card numbers could be copied and repetitively used for unauthorized transactions. Credit card security is a major concern for any business establishment. With that in mind, it is hard to put the blame of credit card fraud on one entity versus another (card issuer, card holder, card processor, or funds collector) because all share the same risk. The answer to credit card security is to secure the payment process between the card issuer, and the card reader terminal. This paper introduces a new approach to credit card which is converted into DigiCard. A DigiCard is used for transaction as well as storage of identity proof card (i.e. AADHAR card, Voting card and other identities) Which takes pardon and the risk away from all the entities by securing the card number so that the only the issuer and the reader know what it is. If merchant wants to know the user identities then merchant login and check the proofs and also set counts per day. In the last section of this paper the results and corresponding conclusions areconsidered.

Framework for Direct Creation of a Parquet File from an ASCII File

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Abstract— Hadoop is an open-source software framework that is used for the storage and management of *Big Data*. It uses the concept of distributed storage in its architecture via c*lusters.* Hadoop uses a columnar file format *Parquet.* This is because Parquet has better compression and query performance benefits along with some limited support for schema evolution. To take advantage of this file format and reduce the efforts required to use parquet this paper propose a solution by developing a java

component that will store the data in parquet format without any explicit query execution.

RPI BASED AUTOMATION AND SECURITY

A System for easy user access and security

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Abstract—Hand gesture recognition embedded system canbe used as an interfacing medium between the computer and human using different hand gestures in order to control the computer. In this proposed system, a real time vision based hand gesture interaction prototype which depends upon finger gestures isdesigned.

ARDUINO BASED BLUETOOTH CONTROLLED ROBOT

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Abstract—Today we can see nearly everything which was once controlled by human being is being automated using machines and electronics circuits. Now days Smartphone's are becoming more powerful and equipped with new accessories those are important for robots. This project will be used in industries where it's difficult for human being to enter. In this project we are mainly concentrating on the use of a Smartphone to run an external hardware device. Previously it was not possible to do so; just because of theemergence of android and its features it became possible. In this project we will make use of 2 Smartphone; one for controlling the robot for user and other attached to robot for monitoring purpose. Hence the system is a low cost controller useful in industries as well as all the other fields of life.

Zone Based M-Parking system commanded by Android Application

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Abstract—The number of personal vehicles usage is increasing manifold. People prefer personal vehicles to commute than depend on public transportation. Finding a parking space in most metropolitan areas, especially during the rush hours, is difficult for drivers. Due to this there is a need to provide sufficient parking places coupled with plenty of slots to help the user park his vehicle safely, also to ensure the user does not end up parking on non-parking area and cause discomfort to pedestrian. The idea behind our Android Application-"M-Parking" is to help the user analyse area's where parking is available and number of slots free in that area. Additionally, the user can pre-book a slot in the area he desires if it is available. This will help reduce the load on the administrator as his physical work reduces drastically and user can search the parking slot through Android Application. Payment services are made available using a credit card or debit card. "M-Parking" Application relieves the user from the hassle of manually searching and waiting for empty slots to park thevehicle.

Efficient Search over MOOC Aggregator

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Abstract— One of the problems web is facing today is 'Information Overload'. There are a large number of information sources over the web which provide similar or related information for a particular topic. It is the user's job to go to each of these sources and get the required information. To efficiently use data from multiple sources, it needs to be aggregated at one place. In the domain of education, there are a large numberofMOOCproviderssuchasCoursera,Udacity,Udemyetc.MOOCsareMassiveOpenOnline

Courses. They act as a medium for collaborative sharing of knowledge. Hence information from different MOOC providers can be aggregated at one place. This will enable the users to efficiently search courses by different course providers at one place. Traditional keyword based search in information retrieval may not fetch all the relevant results; whereas semanticsearch is based on 'meaning' of terms. To implement this kind of robust semantic search, user's query needs to be expanded to include more meaningfulterms.

THRONE OF CARDS

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Abstract - Children actively build knowledge through experiences when they play games. Along with the development of technology, there has been more research on digital game-based leaning in recent years. Digital games contain better pictures and sound effects, but on the other hand, traditional games such as board games and card games can increase social interactions among people through playing games face to face. With the popularity of Android smart phones, all kinds of mobile games have sprung up like mushrooms. Card games are getting increasingly popular and have been widely played, especially among middle-aged men. The game uses a deck of cards consisting of a single totally ordered suit of 2n cards. The deck is divided into two hands A and B with shown and unshown of n cards each, held by players Left and Right, and one player is designated as having the lead. A trump card is chosen prior to the game which can ace any other card. It is a single player and system card game that is easy to play.

COURSE OUTCOME BASED EVALUATION SYSTEM

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ABSTRACT

In this study, we plan to design a course outcome based evaluation system. Through this system, attainment of course outcomes per courses by students will be evaluated. The evaluation will be done on the basis of the objective examination attainment ofcore and elective courses. The statistical reports after evaluation will be generated. The report contains information about attainment in every course by student. The faculty will be able to view it as and whenrequired.

Implementation & comparative study of Digital Image Watermarking using DWT & DWT-SVD algorithms

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Abstract— In this paper we propose an invisible watermarking technique for robust and imperceptible Digital Image Watermarking using DWT (Discrete Wavelet Transform), DCT (Discrete Cosine Transform) & SVD (Singular Value Decomposition) in order to make the watermark secure and impossible to destroy. This technique makes the watermark resistant to various attacks and thereby retains its quality. We test the quality of the watermarking by performing a number of attacks on the watermarked image.

Raven – Notifies You...

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Abstract-- We have seen over the years students don't have a centralised place for assignments and practical write-ups and faces many problems during submission period. It becomes difficult for teachers to notify if any changes or reminder to students in last moment. The process is not only time consuming but also sometimes inefficient for delivering to the entire student at the same time. Today, we need not maintain pen and paper based system for every task that we need to do. Following this thought, we have proposed an Android mobile application integrating different functionality that is essential for students and teachers so as to minimise their task. This Android application will assist the students and teachers in their daily task on attendance and change in timetable is used for verification, authentication and to avoid proxy.

AUTOMATIC SOUND PROFILE SWITCHING APPLICATION IN ANDROID DEVICE USING GPS

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Abstract- This is an Android application for automatic profile switching as per location. There are many places like Hospitals, Petrol pumps, Universities, Corporate offices etc. where it is clearly mentioned, "KEEP YOUR MOBILE PHONES SILENT!!" Many times people forget to switch the mobile to the "Silent Mode" which is not feasible every time like in an important meeting, lectures etc. This application provide near about completely automated profile switching according to location. This application will enable the device to switch to the 'Silent Mode' in locations like Hospitals, Major Corporate offices, Universities, Well known Educational Complexes, Petrol pumps, Government offices etc. by default & there will be no need to set them manually. This application is also user friendly in that, when the device is also in locations not belonging to any of above category, it can switch to 'user defined profile mode' by using user definedsettings.

PROGRESSIVE INFRASTRUCTURE DEVELOPMENT

USING S-E-A ALGORITHM

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Abstract— A novel method has been proposed for the identification of shadows in satellite images. The method is based on the use of Ant Colony Optimization (ACO) for the identification of shadows in remotely sensed images. The existence of shadow regions in images has been a hindrance to image analysis and hence accurate shadow detection and removal is still a current research topic. The proposed work is a combination of the previous techniques and an object based technique. The proposed work first identifies the edges of all the objects in the scene and then each object is analyzed using ant colony optimization to determine whether it is a shadow or a foreground object. The shadow regions are detected in a finite number of steps, considering the various properties of the shadow regions.

Brain Tumor Detection

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Abstract- Brain Tumor detection is challenging task in biomedical field. Image segmentation is a key step from the image processing to image analysis, it occupy an important place. The manual segmentation of brain image is challenging and time consuming task. An automated system overcomes the drawbacks as well as it segments the white matter, grey matter, cerebrospinal fluid and edema. We proposed an Artificial Neural Network Approach for Brain Tumor Detection, which gave the edge pattern and segment of brain and brain tumor itself. The work of artificial neural network based Brain tumor detection using MR images. The present method detects tumor area by darkening the tumor portion and enhances the image for detection of other brain diseases in human being. The present work demonstrates that the method can successfully detect the brain tumor and thereby help the doctors for analyzingtumor size and region.

Proposed Authentication Model for Location Based Queries

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Abstract— the popularity of location-based services leads to serious concerns on user privacy. It is very easy for a person to know his/her location with the help of devices having GPS facility. When user's location is provided to Location Based Services (LBS), it is possible for user to know all location dependent information like location of friends or Nearest Restaurant, whether or traffic conditions. The massive use of mobile devices paves the way for the creation of wireless networks that can be used to exchange information. When the exchange of information is done amongst entrusted parties, the privacy of the user could be in harmful. Existing protocol doesn't work on many different mobile devices and another issue is that, Location Server (LS) should provide misleading data to user. This gives rise to new challenges and reconsideration of the existing privacy metrics.

Anti-Trespasser

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Abstract - In current scenario, security systems remain generic with limited authentication abilities. Existence of such security methods for primary purpose is legitimate. With the growing technology and emergence of malicious people around, it may be possible to break barriers. Safety of one's precious data is primary concern. This project proposes a security mechanism to enhance the level of security for every individual. The application tries to leverage individual's presence to be a key to access virtual area. The system requires mobile device with Bluetooth functionality, which is coupled with principle device that you need to secure. The Project aims to tightly couple security mechanism with the operating system allowing it to take final steps to maintain privacy of data.

SMART MOTORMAN

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Abstract— Every local train has a specific schedule number for its arrival departure and train number. The motormen are given the details of all the train timings in a log book called as the Mumbai division local train log book. The motormen follow this time table on the basis of their allotment by the division guard. This process of allotting the details is done manually by the guard who sits in the lobby. We also intend to provide the notices issued in this application. In the next phase of development we also intend to computerize this process of train allotment to the motormen.

Two-Level QR Code for Private Message Sharing and Document Authentication

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Abstract- The quick response (QR) code was designed for storage information and high-speed reading applications. In thispaper, we present a new rich QR code that has two storage levels and can be used for document authentication. This newrich QR code, named two-level QR code, has public and private storage levels. The public level is the same as the standard QR code storage level; therefore, it is readable by any classical QR code application. The private level is constructed by replacingthe black modules by specific textured patterns. It consists of information encoded using *q*-ary code with an error correction capacity. This allows us not only to increase the storage capacityof the QR code, but also to distinguish the original documentfrom a copy. This authentication is due to the sensitivity ofthe used patterns to the print-and-scan (P&S) process. Thepattern recognition method that we use to read the second-level information can be used both in a private message sharing and in an authentication scenario. It is based on maximizing thecorrelation values between P&S degraded patterns and reference patterns. The storage capacity can be significantly improved byincreasing the code alphabet *q* or by increasing the texturedpattern size.

ADAPTIVE WAY TO GENERATE ELECTRICITY BILL USING INTERNET OF THINGS (IOT).

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Abstract- Internet services and mobiles have become an inextricable part of daily life, enabling communication and the management of information from anywhere and at any time. This development in the area of internet (IOT) has eased the lives of human being reducing their effort. One such system is designed which reduces the human effort to a greater extent. This system consists of modified energy meter capableofcommunicatingwithaserverviaadedicatedGPRSlink.Thusthemeterwillsenditsreadings

upon request from the server and will display the bill received on their respective smart phones. Additionally the meter is capable of disconnecting the power supply automatically upon lapse of grace time period provided and on non-receipt of payment for the generated invoice. The billing will be controlled by an internetconnection.

Analysing Information Using Two-stage Crawler

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Abstract—The hidden web is a part of the world wide web that is not discoverable by means of standard search engines, including password-protected or dynamic pages and encrypted networks. Their contents are not indexed by the standard search engines. We intend to implement a Two-staged Crawler which will perform site-based searching for center pages with the help of search engines, avoiding visiting a large number of pages. The project aims to search the most relevant document based on the keyword and searches for the more relevant child document instead of the parent document thereby reducing the inner searches. The architecture of the Crawler consists of two stages namely: Site Locating and In-site Exploring. Our experimental results on a set of representative domains show the agility and efficiency of our proposed crawler framework, which efficiently retrieves hidden-web interfaces from large-scale sites and achieves higher harvestrates.

SMART LIGHTING FOR BETTER HEALTH

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Abstract— Humans evolved to live according to rhythms of the sun. Human respond physically and mentally to the light around us. Today, we live in a world in which our sleep/wake cycles are easily disrupted. Human often feel groggy in the morning, lethargic during the day, and restless at night. Our bodies respond to light direction, color, intensity, and time, releasing hormones that control our body processes - physiology, sleep, metabolism, behavior, and mood.

In our system, human can wake up naturally with sunrise-like lighting ,Increase focus and productivity with energizing blue-rich light ,detect if human need rest or need to sleep than human can relax with sunset-like amber lighting and sleep better at night. By doing this human can improve health: manage weight, reduce stress, increase antioxidant levels, and boost immune system

Study on Apriori and Pagerank Algorithm in Data Mining

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Abstract- This paper presents a study about the apriori algorithm which is a kind of association rule algorithm and pagerank algorithm which comes under web data mining. Data mining is a process of extracting or mining knowledge from large volume of data. Web data mining is nothing but mining of data from world wide web. This data is actually present in web pages or data related to web activity. Association rule is method for discovering correlations between variables in large databases. Apriori is well known association method which is used to find frequent data items from database. Pagerank algorithm used in google search for ranking web pages.

FOG COMPUTING

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Abstract—Cloud Computing assures to protect the data on cloud from the data theft attacks, especially insider attacks. A major amount of professional and personal data is stored on Cloud. Cloud storage is being used enormously in various industrial sectors. In spite of the abundant advantages of storing data on cloud, Security still remains a major hurdle which needs to be conquered. Computers are used to access the data on Cloud, with the new communication and computing paradigms arise new data security challenges. The subsisting methods of protecting data on cloud have failed in preventing data theft attacks. An altered approach is carried out for securing the data, in addition tothe previous standard encryption mechanisms. The technologies are – 1) User Behaviour Profiling and 2) Decoy Technology. The users using the Cloud are monitored and their access patterns are recorded. Every User has a distinct profile which is monitored and updated. When an abnormal activity such as unauthorised access or random and untargeted search for data is detected which is not likely to be of the real user, a disinformation attack is launched. The person who is trying to access the data is made to answer the security questions. A large amount of Decoy data is provided to the attacker which in turn protects the user's real data.

Stock Market Prediction System Using Hadoop And Map-Reduce Ecosystem

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Abstract—In Industry, people usually work on large amount of data, in petabyte, so for improvised performance, they use technique of Map Reduce for data analysis.The objective of this project is predicting the stock value changes using Hadoop, Map-Reduce and Naive Bayes algorithm.Stock Market deals with high profit and high risk features hence accurate and fast results are required.Hadoop is a framework which enables applications to work on large amounts of data which is stored on thousands of nodes using a distributed file system called HDFS, on clusters enabling high bandwidth.Proposed system also implements a parallel computational algorithm called Map Reduce, to divide the main task into small chunks and process them in parallel.Since Hadoop supports Map- Reduce algorithm,system uses them to achieve faster and accurate predictions**.**

Voice Based E-Mail System for Blind People

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Thevisually challenged people find it very difficult to access the technology because of the fact that using them requires visual perception. Even though many new advancements have been implemented to help them use the computers efficiently no naïve user who is visually challenged can use this technology as efficiently as a normal naïve user can do that. Unlike normal users they require some practice for using the available technologies.This application aims at developing an email system that will help even a visually impaired person to use the services for communication without prior training. This system will also reduce cognitive load taken by blind to rememberand type characters using keyboard. The system will be keyboard independent and will work only on mouse operation and speech recognition. The system is completely based on interactive voice response (IVR) which will make it user friendly and efficient to use.

Analysing Information Using Two-stage Crawler

Rabiya Pathan1; Vaishnavi Pawaskar2; Snehal Shinde3 Kaushiki Upadhyaya4

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K.C. College of Engineering & Management studies & Research,

Abstract—The hidden web is a part of the world wide web that is not discoverable by means of standard search engines, including password-protected or dynamic pages and encrypted networks. Their contents are not indexed by the standard search engines. We intend to implement a Two-staged Crawler which will perform site-based searching for center pages with the help of search engines, avoiding visiting a large number of pages. The project aims to search the most relevant document based on the keyword and searches for the more relevant child document instead of the parent document thereby reducing the inner searches. The architecture of the Crawler consists of two stages namely: Site Locating and In-site Exploring. Our experimental results on a set of representative domains show the agility and efficiency of our proposed crawler framework, which efficiently retrieves hidden-web interfaces from large-scale sites and achieves higher harvestrates.

Risk Communication Application For Android Users

Sayali Desai, Pranali Ghadi, Saket Pokhare

Department of Computer, Mumbai University

KC College Of Engineering, Thane, Maharashtra, India

Abstract—Android Smartphones are in great demand these days and are also used as computers People also use them for various transactions, social purposes,clicking videos and pictures etc. While downloading any android application the developer demands various permissions which the users blindly accept them.Android's current risk communication mechanism completely relies on users to understand the permissions that an application is requesting and to base the installation decision on the list of permissions. Some of these permissions can access the personal information of the users without their consent. The developer can use this information however he/she wishes to which could be risky to some extent. The popularity and advanced functionality of mobile devices have made them attractive targets for malicious and intrusive applications.Keeping all these factors in mind we have planned of designing an application which will help the users to highlight all the risk factors associated with the respective application.

AUTOMATIC PASSWORD DETECTION FOR ANDROID APPLICATION USING LIP READING

[1]Prajakta Ahire, [2]Shreeya Alwe, [3]Dhanashree Navarkar, [4]Prof. ShubhangiPatil
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Abstract-During the recent years mobile phones' usage and their application in the everyday life has increased dramatically. Therefore the modern methods of security in mobile phone applications are highly regarded especially in mobile applications. A novel security method is introduced in which a password is received using visual information processing from the user's lips. This paper evaluates methods of face detection, lip detection, features. Experiments showed that face and lip detection system using Variance based Haar - Like feature and SVM can be much more efficient. Phone Camera can provide the ability to track users lip motion using lip reading algorithms to recognize the security words like passwords. Mobility in mobile phones has led to a change in ambient light. A method has been proposed to solve light change challenges in mobile phones.

INTERNET OF THINGS in REAL-TIME APPLICATIONS

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Abstract-Internet of Things (IoT) is a scenario where machines communicate with other machines and devices through embedded sensors. The idea behind IoT is to create a well-connected world. The IoT allows objects to be sensed and/or controlled remotely across existing network infrastructure, creating opportunities for more direct integration of the physical world into computer-based systems, and resulting in improved efficiency, accuracy and economic benefit in addition to reduced human intervention. The main objective of this paper is to provide an introduction of Internet of Things, its architecture, technologies and its application in various fields. In the modern health care environment, the usage of IoT technologies brings convenience of

physicians and patients, since they are applied to various medical areas such as real-timemonitoring, patient information management, and healthcare management and many more.The explosive growth of Smart City and Internet of Things applications creates many scientific and engineering challenges thatcall for ingenious research efforts from both academia and industry, especially for the development of efficient, scalable, and reliable Smart City based on IoT. The rise of mobile technology and the IoT allows schools to improve the safety of their campuses, keep track of key resources, and enhance access to information which leads to smart education system. Hence thepaper focuses on to provide a better understanding of the architectural assimilation of IoT and to identify important research directions on this technology in the field of smart cities, smart healthcare system and smart education system.

SMART VIDEO SURVEILLANCE USING HADOOP FRAMEWORK

Prof.ShubhadaLabdeMs. Tejashree Anand Nai Mr. Pramit ShahMr.SumitJethva

Abstract:

In all the workplaces, there indubitably exist some arcane procedures or places. A genuine authentication and security of the places, hence, plays a vital role. The contemporary methods of security and authentication are meagre and gives a scope for improvement and innovation. The need is public oversight over the surveillance apparatus — in other words, we need to watch how they watch us. Using the videos created by the CCTV or any other surveillance systems used for security and applying Face Recognition methods on them we can find any person or object we want without wasting time or human resources. The surveillance systems produces a huge amount of data, which accelerates the use of distributed computing in our system, hence, using Hadoop MapReduce framework. This paper proposes a methodology, hereby, for finding out the suspects who may be intruders in a restricted area usingOpencv library for face recognition. We use Python and Hadoop streaming for thispurpose.

Predicting Intrusions Using DataminingAlgorithms

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Abstract—As the need of internet is increasing day by day, the significance of security is also increasing. the enormous usage of internet as also affected the safety of the system. Hackers do moniter the system acutely or keenly, so the safety of the network is below observation. The conventional intrusion detection technology indicates a lot of limitations just like the low detection rate, high warning rate, low performance etc. Performance of a classifier is a vital concern in terms of its effectiveness; also variety of options to be examined by IDS should be improved. In our work we have proposed two techniques, C4.5 call tree algorithmic program and changed C4.5 binary decision tree, using feature selection. In changed C4.5 binary decision tree we've considered only discrete value attributes for classification.

Personalized Design Maker

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Abstract—Personalized Design Maker, is a system that makes it easy to brand visiting card, certificates, etc. like a professional. Upload one's logo, use one's brand colours and choose complementary fonts to create a unique aesthetic instantly recognizable to one's brand. It also gives access to a library of images, and illustrations to use when designing the business card with a bunch of awesome business card ideas. It uses watermarking technique that is robust against geometrical distortion in images by using spatially modulated illumination. It protects "analog" objects like pictures, logos, symbols, for no further use applicable. It is a Fast and easy Design maker.

Conceptual framework forRFID Based Smart Shopping Cart

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***Abstract*—**Ever since the debut of wireless technology, electronic commerce has developed to such an extent to provide convenience, comfort and efficiency in day-to-day life. In this paper, we discuss a ground-breaking concept of RFID based smart shopping cart in the field of retail merchandise. Our whole shopping experience is often marred by the long checkout lines. Soon we can end this problem by replacing thebar code by smart labels, known as radio frequency identification (RFID) tag. The key idea here is to provide assistance in everyday shopping in terms of reduction in time spent, eliminating the daily hassle of locating the right product and standing in long lines. The primary goal is to provide a technology oriented, reduced cost, time saving, hassle free, commercially oriented system for an enhanced shopping experience.

Search Engine Optimization & Web Page Ranking

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Abstract—All over the world millions of people use searchengines to search their information . They use search enginesfor most of their queries and they are interested only in topfew result pages.So promoting a website in search engine result is important development of websites. Search engine optimization (SEO) is to complete this work. But sometimes some SEO techniques are used in an unethical manner which break the search engine's rule and regulation and place undeserving site on top list. Our research objective is to design and implement a ranking algorithm by tracking IP address of who is clicking, so that the owner can't click hundreds of times to increase its ranking position in search result.

Authentication of Session Passwords Using Colour And Matrix

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Abstract—The most common method used for authentication is Textual passwords. But textual passwordsare in risk to eves dropping, dictionary attacks, social engineering and shoulder surfing. Graphicalpasswords are introduced as alternative techniques to textual passwords. Most of the graphical schemes are helpless to shoulder surfing. To address this problem, text can be combinedwith images or colours to generate session passwords for authentication. Session passwords can be used only once and every time a new password is generated. In this system,session passwords are generated using using text and colour matrix which are resistant to shoulder surfing. These methods are suitable for Personal Digital Assistants. In this system we use session passwords. Session passwords are passwords that are used only once. Once the session is terminated, the session password is no longer useful. For every login process, users input different passwords. The session passwords provide better security against dictionary and brute force attacks as password changes for every session. The proposed authentication schemes use text and colours for generating session passwords.

SMART STREET LIGHT USING ARDUINO UNO MICROCONTROLLER

Kavita Mate[1], Ritisha Salvi[2], Shraddha Margaj[3] Prof. Bhakti Aher

Department of Computer Engineering

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Department of Computer Engineering

ABSTRACT

The project deals with making a smart street light that would enable itself when it comes in contact with an obstacle i.e. a vehicle for an instance, and turn off when there is nobody around. The system requires an arduino uno microcontroller, some ultrasonic sensors and a battery for making the entire idea functional. The ultrasonic sensors that are responsible for detection of an obstacle would be manually placed on the street light poles, on detection of an obstacle; they would send electrical signals to the central sensor box consisting of our arduino uno microcontroller.

The microcontroller that would be powered by a battery source will then eventually turn on the street lights of the location where the obstacle is detected.

Brain Tumor Detection

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DattaMeghe College Of Engineering,Sector-3,Airoli,Navi Mumbai

Abstract- Brain Tumor detection is challenging task in biomedical field. Image segmentation is a key step from the image processing to image analysis, it occupy an important place. The manual segmentation of brain image is challenging and time consuming task. An automated system overcomes the drawbacks as well as it segments the white matter, grey matter, cerebrospinal fluid and edema. We proposed an Artificial Neural Network Approach for Brain Tumor Detection, which gave the edge pattern and segment of brain and brain tumor itself. The work of artificial neural network based Brain tumor detection using MR images. The present method detects tumor area by darkening the tumor portion and enhances the image for detection of other brain diseases in human being. The present work demonstrates that the method can successfully detect the brain tumor and thereby help the doctors for analyzingtumor size and region.

Proposed Authentication Model for Location Based Queries

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Abstract— the popularity of location-based services leads to serious concerns on user privacy. It is very easy for a person to know his/her location with the help of devices having GPS facility. When user's location is provided to Location Based Services (LBS), it is possible for user to know all location dependent information like location of friends or Nearest Restaurant, whether or traffic conditions. The massive use of mobile devices paves the way for the creation of wireless networks that can be used to exchange information. When the exchange of information is done amongst entrusted parties, the privacy of the user could be in harmful. Existing protocol doesn't work on many different mobile devices and another issue is that, Location Server (LS) should provide misleading data to user. This gives rise to new challenges and reconsideration of the existing privacy metrics.

Anti-Trespasser

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Abstract - In current scenario, security systems remain generic with limited authentication abilities. Existence of such security methods for primary purpose is legitimate. With the growing technology and emergence of malicious people around, it may be possible to break barriers. Safety of one's precious data is primary concern. This project proposes a security mechanism to enhance the level of security for every individual. The application tries to leverage individual's presence to be a key to access virtual area. The system requires mobile device with Bluetooth functionality, which is coupled with principle device that you need to secure. The Project aims to tightly couple security mechanism with the operating system allowing it to take final steps to maintain privacy of data

SMART MOTORMAN

Srishti Sharan, Trupti Shirsat, Anjana Yadav Shreya Patankar

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Abstract— Every local train has a specific schedule number for its arrival departure and train number. The motormen are given the details of all the train timings in a log book called as the Mumbai division local train log book. The motormen follow this time table on the basis of their allotment by the division guard. This process of allotting the details is done manually by the guard who sits in the lobby. We also intend to provide the notices issued in this application. In the next phase of development we also intend to computerize this process of train allotment to the motormen.

Two-Level QR Code for Private Message Sharing and Document Authentication

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Abstract- The quick response (QR) code was designed for storage information and high-speed reading applications.Inthispaper,wepresentanewrichQRcodethathastwostoragelevelsandcanbeusedfor documentauthentication.ThisnewrichQRcode,namedtwo-levelQRcode,haspublicandprivate storage levels. The public level is the same as the standard QR code storage level; therefore, it is readable by any classical QR code application. The private level is constructed by replacingthe black modules by specific textured patterns. It consists of information encoded using *q*-ary code with an error correction capacity. This allows us not only to increase the storage capacityof the QR code, but also to distinguish the original documentfrom a copy. This authentication is due to the sensitivity ofthe used patterns to the print-and-scan (P&S) process. Thepattern recognition method that we use to read the second-level information can be used both in a private message sharing and in an authentication scenario. It is based on maximizing thecorrelation values between P&S degraded patterns and reference patterns. The storage capacity can be significantly improved byincreasing the code alphabet *q* or by increasing the texturedpattern size

ADAPTIVE WAY TO GENERATE ELECTRICITY BILL USING INTERNET OF THINGS (IOT).

Manasi Tayade[1]; Ninad Borgave[2]; Karishma Mahtre[3]; Asmita Deshmukh[4]
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[4]Project Guide
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Abstract- Internet services and mobiles have become an inextricable part of daily life, enabling communication and the management of information from anywhere and at any time. This development in the area of internet (IOT) has eased the lives of human being reducing their effort. One such system is designed which reduces the human effort to a greater extent. This system consists of modified energy meter capable of communicating with a server via a dedicated GPRS link. Thus the meter will send its readings upon request from the server and will display the bill received on their respective smart phones. Additionally the meter is capable of disconnecting the power supply automatically upon lapse of grace time period provided and on non-receipt of payment for the generated invoice. The billing will be controlled by an internet connection.

Analysing Information Using Two-stage Crawler

Rabiya Pathan[1]; Vaishnavi Pawaskar[2]; Snehal Shinde[3]
[1]rabiya.rabz19@gmail.com;[2]vaishnavi.pawaskar@gmail.com;[3]shindesnehal313@gmail.com

Abstract— The hidden web is a part of the world wide web that is not discoverable by means of standard search engines, including password-protected or dynamic pages and encrypted networks. Their contents are not indexed by the standard search engines. We intend to implement a Two-staged Crawler which will perform site-based searching for center pages with the help of search engines, avoiding visiting a large number of pages. The project aims to search the most relevant document based on the keyword and searches for the more relevant child document instead of the parent document thereby reducing the inner searches. The architecture of the Crawler consists of two stages namely: Site Locating and In-site Exploring. Our experimental results on a set of representative domains show the agility and efficiency of our proposed crawler framework, which efficiently retrieves hidden-web interfaces from large-scale sites and achieves higher harvestrates.

SMART LIGHTING FOR BETTER HEALTH

Dr.Anil Z. Chhangani[#1], Dickson Arulraj[#2], Divya Panchal[#3] Neha Singh[#4]

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Abstract— Humans evolved to live according to rhythms of the sun. Human respond physically and mentally to the light around us. Today, we live in a world in which our sleep/wake cycles are easily disrupted. Human often feel groggy in the morning, lethargic during the day, and restless at night. Our bodies respond to light direction, color, intensity, and time, releasing hormones that control our body processes - physiology, sleep, metabolism, behavior, and mood. In our system, human can wake up naturally with sunrise-like lighting ,Increase focus and productivity with energizing blue-rich light ,detect if human need rest or need to sleep than human can relax with sunset-like amber lighting and sleep better at night. By doing this human can improve health: manage weight, reduce stress, increase antioxidant levels, and boost immune system

Study on Apriori and Pagerank Algorithm in Data Mining

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Abstract- This paper presents a study about the apriori algorithm which is a kind of association rule algorithm and pagerank algorithm which comes under web data mining. Data mining is a process of extracting or mining knowledge from large volume of data. Web data mining is nothing but mining of data from world wide web. This data is actually present in web pages or data related to web activity. Association rule is method for discovering correlations between variables in large databases. Apriori is well known association method which is used to find frequent data items from database. Pagerank algorithm used in google search for ranking web pages

FOG COMPUTING

SIDDHARTH DEY[1], BHASKAR NADAR[2], BHUPENDRA PATEL[3]

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Abstract—Cloud Computing assures to protect the data on cloud from the data theft attacks, especially insider attacks. A major amount of professional and personal data is stored on Cloud. Cloud storage is being used enormously in various industrial sectors. In spite of the abundant advantages of storing data on cloud, Security still remains a major hurdle which needs to be conquered. Computers are used to access the data on Cloud, with the new communication and computing paradigms arise new data security challenges. The subsisting methods of protecting data on cloud have failed in preventing data theft attacks. An altered approach is carried out for securing the data, in addition tothe previous standard encryption mechanisms. The technologies are – 1) User Behaviour Profiling and 2) Decoy Technology. The users using the Cloud are monitored and their access patterns are recorded. Every User has a distinct profile which is monitored and updated. When an abnormal activity such as unauthorised access or random and untargeted search for data is detected which is not likely to be of the real user, a disinformation attack is launched. The person who is trying to access the data is made to answer the security questions. A large amount of Decoy data is provided to the attacker which in turn protects the user's real data.

Stock Market Prediction System Using Hadoop And Map-Reduce Ecosystem

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Abstract—In Industry, people usually work on large amount of data, in petabyte, so for improvised performance, they use technique of Map Reduce for data analysis.The objective of this project is predicting the stock value changes using Hadoop, Map-Reduce and Naive Bayes algorithm.Stock Market deals with high profit and high risk features hence accurate and fast results are required.Hadoop is a framework which enables applications to work on large amounts of data which is stored on thousands of nodes using a distributed file system called HDFS, on clusters enabling high bandwidth.Proposed system also implements a parallel computational algorithm called Map Reduce, to divide the main task into small chunks and process them in parallel.Since Hadoop supports Map-Reduce algorithm,system uses them to achieve faster and accuratepredictions.

Voice Based E-Mail System for Blind People

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Abstract—Thevisually challenged people find it very difficult to access the technology because of the fact that using them requires visual perception. Even though many new advancements have been implemented to help them use the computers efficiently no naïve user who is visually challenged can use this technology as efficiently as a normal naïve user can do that. Unlike normal users they require some practice for using the available technologies.This application aims at developing an email system that will help even a visually impaired person to use the services for communication without prior training. This system will also reduce cognitive load taken by blind to rememberand type characters using keyboard. The system will be keyboard independent and will work only on mouse operation and speech recognition. The system is completely based on interactive voice response (IVR) which will make it user friendly and efficient to use.

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DEFENDING MECHANISM FOR SOCIAL NETWORKS FROM CYBERBULLYING AND ONLINE GROOMING ATTACKS

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ABSTRACT

As per the technology is developed the use of internet increases due to the necessity of world. The common growth of the social networking sites is done belongs to the communication world. With the help of these social Networking sites peoples are indirectly connected to each other in the world in minimal time spam, usually they express their point of view about some things, their feelings, emotions and opinions which may include public or private talks. Popularity of the social sites cause most important rise in aggressive behavior, giving birth to one of the most serious problem called online Grooming and cyber-bullying. There are number of the social networking users would have come through a worst e-day understanding .The victims of cyber-bullying, mostly being the youngsters, go through deep scars which has led to miserable attempts in many cases. Agenda for this Watchdog application chasing the aim to discover and classify the above -mentioned threats to develop the situation. Threat signs are recognized by social media analysis, text mining and image analysis tech niques permitted to raise awareness about continuing attacks and to grant assistance for further actions.

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ONLINE EXAMINATION SYSTEM FOR VISUALLY CHALLENGED

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Abstract- The Online - Examination for Visually Challenged is an online examination system, which reflects the justification and objectivity of examination. The system helps to release the workload of the teachers and students. The visually challenged people have to face difficulties while appearing for an examination. Hence, the proposed application is designed for the visually challenged people so that theycan appear for examination easily. It is also useful for the other handicapped people with upper limbdisability. This project provides the speech user interface for visually challenged people to interact with the application. The proposed application will dictate the questions to the candidate with the help of Speech Synthesis. The application will accept the answers from candidates through voice commands using Speech Recognition. The proposed system also allows users (examiners/teachers) to add their questions to conduct the examination. The questions can be added easily by uploading a file. The proposed system being online, the result generation will be quick.

INTELLIGENT CLOUD SECURITY BACK-UP SYSTEM

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Abstract: Data generated in electronic form are in large amount in cloud computing. There is a necessity of data recovery services to maintain this data efficiently. To cater this, in this paper we have obtained a smart remote data backup plan using Seed Block Algorithm (SBA) with Advance Encryption Standard (AES) Algorithm. In this paper we have obtained and implemented a procedure which allows users to store their data onto the cloud, as soon as the file is stored at the first cloud server it gets encrypted using AES Algorithm. SBA helps to recover that file from a backup file which is stored at a remote location in case if the certain file gets deleted due to any reason. The time related issues are also being solved by the obtained method such that it will take minimum time for the recovery process. Described method also focuses on the security concept for the back-up files stored at remote server using AES encryption algorithm.

The Android Based Smart Device For Women's Safety

1. Varsha Bansode, 2.Prachi Dhole, 3.Surabhi Joshi,

Project guide : Bhakti Aher *Member,IEEE*

Abstract

India which sees itself as a promising super power and an economic hub, isstill trapped in the clutches of various patriarchal evils like molestations,dowry, crime against women, worst among all is Rape. The atrocities againstthe women can be now brought to an end with the help of a device calledsuraksha. This paper explains the basic idea underlying suraksha which is toflash a warning giving an instant location of the distressed victim to the policeso that the incident could be prevented and the culprit apprehended. Thiswould help reduce crime against women. This paper also summarises othersignificant works in this field and hence forth discussed suraksha device in agreater details

FAST DETECTION OF TRANSFORMED DATA LEAKES

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Abstract—The leak of sensitive data on computer systems poses a serious threat to organizational security. Organizations need to identify the exposure of sensitive data by screening the content in storage and transmission, i.e., to detect sensitive information being stored or transmitted in the clear. However, detecting the exposure of sensitive information is challenging due to data transformation in the content. Transformations (such as insertion, deletion) result in highly unpredictable leak patterns. Existing automata-based string matching algorithms are impractical for detecting transformed data leaks because of its formidable complexity when modeling the required regular expressions. We design two new algorithms for detecting long and inexact data leaks. Our system achieves high detection accuracy in recognizing transformed leaks compared with the state-of-the-art inspection methods. We parallelize our prototype on graphics processing unit and demonstrate the strong scalability of our data leak detection solution analyzing bigdata.

Sentiment Analysis.

Amey Shelatkar, Utkarsh Dhande, Ajay Pawar, Nisargadutta Mathe and Prof. Shreya Patankar

***Abstract*—**Our day-to-day life has always been influenced by what people think. Ideas and opinions of others have always affected our own opinions. The explosion of Web 2.0 has led to increased activity in Podcasting, Blogging, and Tagging, Contributing to RSS, Social Bookmarking, and Social Networking. As a result there has been an eruption of interest in people to mine these vast resources of data for opinions. Sentiment Analysis or Opinion Mining is the computational treatment of opinions, sentiments and subjectivity of text. In this report, we take a look at the various challenges and applications of Sentiment Analysis. We will discuss in details various approaches to perform a computational treatment of sentiments and opinions. Various supervised or data-driven techniques to SA like Naïve Byes, Maximum Entropy, SVM, and Voted Perceptrons will be discussed and their strengths and drawbacks will be touched upon. We will also see a new dimension of analyzing sentiments by Cognitive Psychology mainly through the work of Janyce Wiebe, where we will see ways to detect subjectivity, perspective in narrative and understanding the discourse structure. We will also study some specific topics in Sentiment Analysis and the contemporary works in those areas.

INTRUSION DETECTION SYSTEM IN HOMOGENEOUS AND HETEROGENEOUS WIRELESS SENSOR NETWORK

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Abstract:

Intrusion detection in Wireless Sensor Network (WSN) is of practical interest in many applications such as detectinganintruderinabattlefield.Theintrusiondetectionisdefinedasamechanismforawsntodetect the existence of inappropriate, incorrect, or anomalous moving attackers. In this paper, we consider this issue according to heterogeneous WSN models. Furthermore, we consider two sensing detection models: single-sensing detection and multiple-sensing detection... Our simulation results show the advantage of multiple sensor heterogeneousWSNs.

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Computer Vision Based Fire Alarming System

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Abstract— we have a tendency to all grasp the consequences of fireplace hazards and also the importance of fireplace extinction. Correct precautions should be taken to notice and stop hearth from inflicting loss to life and property. During this project we have a tendency to use a mixture of techniques to notice hearth i. First, the algorithmic rule locates regions of the video wherever there's movement. From these regions hearth coloured pixels area unit extracted employing a perceptron. Lastly, we have a tendency to use dynamic texture analysis to verify that these moving, fire-coloured regions have the temporal and motion characteristics of fireplace.

GEO-ENCRYPTION

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Abstract - Nowadays data security is making a way into market. New techniques of data security have gained interest of many researchers. The use of knowledge of the user's location called Geo-encryption, produces more secure systems that can be used in different applications. Location Based Data Encryption Methods (LBDEM) is a technique used to enhance the security of such applications called as Location Based Services (LBS). It collects latitude coordinates and longitude coordinates of mobile nodes and uses it for the encryption and decryption process. Geo-encryption plays an important role to raise the security of LBS. Different Geo-protocols have been developed in the same area to add security with better throughput. To increase the security by another fold, image steganography can be used to store the encrypted data and transfer it to the receiver through an image. In this paper, we will study how location based encryptionworks.

A Survey on Sentiment Analysis Using Twitter Data

Prof. Subha Yadav Prof. Pranjali Gurmule

Gauravi Chavan Harshada Kulkarni Rashmi Kaur Multani

Abstract - It is indicated by the title that this project is a survey based on the analysis of opinions that people express on the social media pla media platform called Twitter. platform called Twitter. Sentiment analysis, also called as opinion mining, is the field of study that analyzes people's attitudes and emotions towards entities such as products and services. It represents a large problem space. Our challenge is to survey this technology which detects and summarizes an overall sentiment for a particular product. The product that we have considered to review is a movie (Movie Review System). We look at one such popular microblog called Twitter and build models for classifying "tweets"into positive, negative and neutral sentiment. We build models for two classification tasks: first, a task of classifying sentiment into positive and negative classes and second, a task of classifying sentiment into positive, negative and neutral classes.Our primary source of motivation for choosing this topic is the huge amount of technological advancenment and scope in the field of Big Data, Opinion Mining and Artificial Intelligence. Also the availability of peoples' perception through the rise of Social media Platforms is instrumental in selection of this project.

Secured Transmission of DICOM Images

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***Abstract*—** Telemedicine's has increased the number of ways in which healthcare can be borne across the topographic points and countries instead of requiring the supplier and the recipient to be present at the same location. One such application of Telemedicine is the interchange of medical images between remotely located healthcare entities. Entirely the same, a major obstacle which Telemedicine faces are providing confidentiality, integrity, and authenticity while transmitting the medical images. In this framework, we propose a half breed calculation which combines encryption and computerized watermarking methods with a specific end goal to give the required validness and honesty review and repairs. A cryptographic watermark and the patient's data are concealed in the cover image before being transmitted over vulnerable public networks. On the receiver's side, the watermarked image is handled by the extraction process in order to carry out the cryptographic watermarks and the embedded medical data. In accession to this X.509v3 Certificate are carried out to improve security aspects during the authentication process. These certificates are usually employed with the RSA algorithm.

IoT FOR GARBAGE MONITORING SYSTEM

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Abstract— The Internet of Things (IoT) is a domain in which number of devices connected to each other for the purpose of analysis, monitoring and control. Prime minister of India, Shree Narendra Modi launched the "Swachha Bharat Abhiyan" i.e mission to clean cities and villages in India. This project is related to the smart city, so for smart lifestyle cleanliness is required and that cleanliness begins with garbage bins. In our system, the Smart garbage bins are connected to the internet to get the real time information of the smart garbage bins. Our main purpose is to manage the smart bins by monitor the status of it and accordingly taking the decision.

HOME ACCIDENTAL AND INTRUSION MANAGEMENT SYSTEM(HAIMS)

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Abstract:*There are different accidental problems that may occur at home like LPG leakage, fire breakout, short-circuit, which may leads to disastrous problem. There may be chance of unknown or unauthorized person which may try to enter into the house for bad intension. Generally at home we install MCB for protection from shock but it only works for short circuit and shocks but can't protect appliances from getting damage due to sudden peaks of high voltage .This high voltage may cause major damage to appliance as well as may lead to fire and loss of life.*

This project deals with present situation and risk mentioned above and provides better and safer solutions. This may reduce fear and make life tension free and relax. Our system monitors the environment by collecting data about concentration of LPG and smoke components present in air and when the concentration gets above set threshold it trips MCB, open window and also provide notification to owner via SMS and Web notification. System also keeps track of AC voltage and as soon as it goes above 250V it just trips MCB for appliance safety. System captures and performs analysis of outside activities and responds as per condition.

USB-PRIVACY
(SECURITY TO SOFTWARE USING USB)

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Abstract— The general way of providing a security to any software or application, is, a key verification. If we share this key and try to use the software on different machines. . We can create the copies of the software. This is basically known as a 'piracy'. To prevent such a illegal activities, there are many security applications present in the market nowadays. But piracy prevention can be achieved by simply making it machine specific. The software is provided with USB-drive which is when connected check for the valid machine and allow using the software only on the valid machine. This paper will explain the concept indetail.

Cluster Based Cognitive Big Data Storage

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Abstract— In today's world where we are all surrounded by an extensive amount of unlimited data. We need to make some sense out of it. Finding hidden patterns in this cornucopia can be intensive. Thus, the concept of Big Data comes into picture. Now what is Big Data? – Extremely large data sets that may be analysed computationally to reveal patterns, trends, and associations, especially relating to human behaviour and interactions. On a storage level, extracting this data can prove to be tedious. Thus, with this project, we aim to bring together the concept of Clustering Data at different storage levels, with respect to, the relevance of this Data. This project discusses the exceptional features of Clustering and the various concepts of Data Science that will be utilized for the same. It also presents mechanisms which are being applied by different Big Data Expert Systems globally.

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DEFENDING MECHANISM FOR SOCIAL NETWORKS FROM CYBERBULLYING AND ONLINE GROOMING ATTACKS

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As per the technology is developed the use of internet increases due to the necessity of world. The common growth of the social networking sites is done belongs to the communication world. With the help of these social Networking sites peoples are indirectly connected to each other in the world in minimal time spam, usually they express their point of view about some things, their feelings, emotions and opinions which may include public or private talks. Popularity of the social sites cause most important rise in aggressive behavior, giving birth to one of the most serious problem called online Grooming and cyber-bullying. There are number of the social networking users would have come through a worst e-day understanding .The victims of cyber-bullying, mostly being the youngsters, go through deep scars which has led to miserable attempts in many cases. Agenda for this Watchdog application chasing the aim to discover and classify the above -mentioned threats to develop the situation. Threat signs are recognized by socialmedia analysis, text mining and image analysis tech niques permitted to raise awareness about continuing attacks and to grant assistance for furtheractions

NLP Based Data retrieval and dynamic survey system

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Abstract - As the data size is growing, it is becoming difficult and time consuming task to analyze it. For quite a long time we have been over- powered by the amount of data moving through and delivered by our systems. Existing innovation has concentrated on the most proficient method to store and structure distribution centers brimming with data. That's fine and good until we really need to settle on choices progressively educated by this data. Sevaa.io is a platform which helps you to convert the data into meaningful insights which invokes the process of thought in an individual's mind and drives him to take some actions. Our system aims at democratizing the educational data sets available and decentralizing the power of decision making by giving access of the information to common people via chat bot and easy to understand data visualizations.

SECURE DEDUPLICATION ON CLOUD STORAGE

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Abstract— Data deduplication is one of important data compression techniques for eliminating duplicate copies of repeating data, and has been widely used in cloud storage to reduce the amount of storage space and save bandwidth. To protect the confidentiality of sensitive data while supporting deduplication, the convergent encryption technique has been proposed to encrypt the data before outsourcing. To better protect data security, this paper makes the first attempt to formally address the problem of authorized data deduplication. Different from traditional deduplication systems, the differential privileges of users are further considered in duplicate check besides the data itself. We also present several new deduplication constructions supporting authorized duplicate check in a hybrid cloud architecture. Security analysis demonstrates that our scheme is secure in terms of the definitions specified in the proposed security model. As a proof of concept, we implement a prototype of our proposed authorized duplicate check scheme and conduct testbed experiments using our prototype.

GPS System For Work Administration

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Abstract -- There are various systems for tracking the position of a vehicle tracking a human being. The main aim of our project is to track the people working on field and administrate the work done by the people. GPS(Global Positioning System) is used totrack the location and time information of the person with minimumcost.

WIFI-BASED TICKETING SYSTEM

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Abstract: The project deals with making a wifi based mobile ticketing system. This system is an idea by virtue of which anyone using mobile phones can able to book ticket for local train. And we find this very inspiring in a city where time is pricelessbut they still stand in line for local train ticket and waste their time. The main aim for developing this android application software for booking local train ticket is to reduce the use of the queue and also save the valuable time of customer.

Word Sense Disambiguation Using Natural Language Processing

ABSTRACT Natural language processing (NLP) is field of computer science, artificial intelligence, and linguistics concerned with the interactions between computers and human (natural) languages. Natural language generation systems convert information from computer databases into readable human language. Word sense disambiguation (WSD) is still an open research area in natural language processing and computational linguistics. It is from both theoretical and practical point of view. Here, the problem is to find the sense for word in given a context, It is a technique of natural language processing(NLP) ,which requires queries and documents in NLP or texts from Machine Translation (MT).

Data mining and Business Intelligence

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Abstract: Business Intelligence (BI) is an idea of applying an arrangement of advances to change over information into important data. BI strategies incorporate data recovery, information mining, measurable investigation and information perception. A lot of information starting in various arrangements and from various sources can be solidified and changed over to key business learning. Information mining is utilized to scan for examples and relationships inside a database of data. Business insight (BI) concentrates on detail reconciliation and association. DM helps BI's objectives.DM and BI cooperate to process information and dissect it in a way that facilitates the workload for the clients and helps with the comprehension of the materials/discoveries. This is expert through perceiving connections in the information and distinguishing openings and dangers of the organization. It additionally permits clients to control the information to satisfy their particular client arranged targets. Information mining is the way toward seeking through information utilizing different calculations to find examples and relationships inside database of data. Business insight, then again, concentrates more on information reconciliation and association. It will join information break down to help chiefs make operational, strategic, or vital business choices. Information mining can be utilized to help the destinations of a business knowledge system.Classification and examples extraction from client information is imperative for business bolster and basic leadership. Opportune distinguishing proof of recently developing patterns is essential in business prepare. Expansive organizations are having tremendous volume of information yet starving for learning. To conquer the association current issue, the new type of method is required that has insight and ability to understand the information shortage and the method is called Data mining. The targets of this paper are to distinguish the high-benefit, high-esteem and okay clients by one of the information mining procedure – client grouping. The paper investigates the ideas of BI, its parts, development of BI, advantages of BI, elements affecting BI, innovation necessities, outlining what's more, executing business insight, and different BI strategies.

Spam Comment Detection using Naive Bayes Algorithm

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Abstract— The feature of posting comments enables websites visitors to interact and contribute to the posted content by adding comments. The fact that such comments are becoming part of the website content so that many visitors read them and that such comments are usually unvested make them attractive to spammers for the purposes of advertising, spreading malware, phishing attacks, or spreading political or religious views. Due to large volume of comment spam, using manual filtration and vetting is unpractical and hence automatic spam detection techniques play a de-facto role in fighting spam content. In this paper, in order to effectively detect spam comments in blogs, we will use the Naive Bayes (NB) algorithm describes a simple application using Bayes' theorem for classification of spam comments. Our experimental results demonstrate that when detecting spam comments, we can achieve an average detection accuracy of 96% - 97% which is a preferable compared to when using machine learning method. The statistical analysis of the results verifies that our proposed methodscanidentifythespamcommentseffectivelyandtorelativelyhighdegreesofaccuracy.

Artificial Intelligence powered In-memory Database

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Abstract— A database can be viewed as an assemblage of payload in a systematic manner. It consists of data, tables, queries, views, schemas, keys and other objects. A database management system is a collection of programs that enables you to store, modify, and extract information from a database. It is the intermediate computer software which enables interaction between the end-user and stored information. Databases use primary as well as secondary memory for data storage and syntactical queries for data transactions. This paper discusses the exceptional features of in-memory databases (IMDB) and the simple user-friendly interface. It also presents mechanisms which are being heralded by different database management systems globally.

Data Security Application Using DNA Cryptography

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Abstract— Communication is one of the very few things that had an unparalleled impact on the lives of human beings. Initially restricted to only communication between two people at a particular place; over the years, communication was made possible across continents. The invention of email completely revolutionized the field of communication. In order to combat the issues faced by email, the technique of cryptography was evolved. Various cryptography techniques ranging from Caesar cipher to AES were evolved with time and need. A reliable cryptographic algorithm which uses Byte Rotation and DNA Sequencing has already been introduced. An application of an efficient cryptographic algorithm which uses 2D matrix or an even stronger 3D matrix for the block of text/symbols has been discussed in this paper.

COLUMN LEVEL ENCRYPTION of DATABASE

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Abstract— Today's enterprise and database contains information is the major enterprise asset. Enterprise owner comes under Pressure from- Partners, Clients, Stockholders, Contractors, Governments and others to keep your data secure. In this paper, leading crypto expert at demonstrates exactly how to use encryption with enterprise database column/cell level. A start-to-finish execution plan for designing and building – or selecting and integrating- a complete column..

IoT Technology

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Abstract. IoT (Internet of Things) is the network of physical objects-devices, vehicles, buildings and other items embedded with electronics, software, sensors, and network connectivity-that enables these objects to collect and exchange data. The internet of things allows objects to be sensed and controlled remotely across existing network infrastructure[1]. According to the Gartner, 260 million objects will be connected by year 2020. Several companies and governments have tried to make references with IoT in initial times, but nowadays in manufacturing, retail and SOC (Social Overhead Capital) industries, successful best practices are built recently. In this paper I summarized tangible IoT based service models which are helpful to academic and industrial world to understand IoT business.

SMART STREET LIGHT USING ARDUINO UNO MICROCONTROLLER

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ABSTRACT

The project deals with making a smart street light that would enable itself when it comes in contact with an obstacle i.e. a vehicle for an instance, and turn off when there is nobody around. The system requires an arduino uno microcontroller, some ultrasonic sensors and a battery for making the entire idea functional. The ultrasonic sensors that are responsible for detection of an obstacle would be manually placed on the street light poles, on detection of an obstacle; they would send electrical signals to the central sensor box consisting of our arduino uno microcontroller.

The microcontroller that would be powered by a battery source will then eventually turn on the street lights of the location where the obstacle is detected.

Smart Shoe For Blind People Controlled By Android Application

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Abstract-Blindness is a state of lacking the visual perception due to physiological or neurological factors. The partial blindness represents the lack of integration in the growth of the optic nerve or visual centre of the eye, and total blindness is the full absence of the visual light perception. In this proposed work, a simple, cheap, friendly user, shoe will be designed and implemented to improve the mobility of both blind and visually impaired people in a specific area. The proposed work includes a wearable equipment consists of foot shoes to help the blind person to navigate alone safely and to avoid any obstacles that may be encountered, whether fixed or mobile, to prevent any possible accident. The main component of this system is the ultrasonic sensor which is used to scan a predetermined area around blind by emitting-reflecting waves. The reflected signals received from the barrier objects are used as inputs to Arduino microcontroller. The microcontroller carry out the issued commands and then communicate the status of a given appliance or device back to the earphones using Raspberry pi speech synthesizer. The proposed system is cheap, fast, and easy to use and an innovative affordable solution to blind and visually impaired people

Access Control and Recovery Model in Cloud

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Abstract— Data sharing is an important functionality in cloud storage. This paper proposed the sharing of data through One Time password (OTP), Seed block recovery algorithm is used to recovery any lost/deleted data from the cloud. Seed block algorithm which we used for remote smart data backup. There are two objective of this algorithm. The first one is gather information from any remote location and the second is recover the files which might be delete or that can be loss because of cloud destroy. This algorithm also reduce the time require for recovery process.

A FRAMEWORK TO FACILITATE SELECTION OF CLOUD SERVICE PROVIDER

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Abstract— As new technologies are introducing rapidly in the marketplace of cloud, customer found new service providers with similar offerings. Since new service providers introduce in market with similar functions, they have not give the security guarantee of customer's data, as it is a prime importance to the customer. Hence it is vital to select an appropriate cloud service provider to ensure the security of data. Because if any customer uses the cloud to store his business data and if data is lost because of loose security provided by the cloud then customer's business gets affected. Hence to help customer to select ideal cloud service provider this project present a framework to provide trustworthiness of particular cloud by computing the leakage file and non leakage file ratio or from feedback given from the user.

ONLINE TEACHER STUDENT FORUM

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Abstract - The purpose of the project is to develop a web application for posting a question and a comment on discussion forum. Various related work that have been done and their gaps in the use of Online Teacher Student Discussion Board, as its name implies, it is a Discussion Board and covers most of areas. Here a user can register his/her name with this site and can throw their views and also can get others too. We have tried to cover most of areas which can attract many users to this site.

RTO GUIDE

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Abstract— In today's world websites and web applications have become an integral part of the society. Masses are dependent upon such applications to the core. Here, RTO guide is one such web portal designed to provide efficient services which will in turn simplify the hassle of maintaining the documents by digitalizing them. The main aim of this web portal is to ease the job of maintaining all the documents related to the RTO, to provide security and backup to the same, also to it is a platform that ensures that your documents are verified by a certified authority. This helps to eradicate the hassle of carrying or losing the documents, also provides assurance that the documents are in any way not forged and remain true to the canon.

This portal also provides the services of scheduling the RTO appointments depending upon the criteria the fit into, preventing the chaos, which formulates smooth functioning of the RTO along with the clients.

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ANDROID INDOOR MALL SYSTEM

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Abstract— normally, when we visit a mall we face few problems like finding a specific shop, Washroom or Restaurant. So we have planned to design an android based user interface which will guide us inside the mall from our location to required destination. In our application we will provide a mall layout where the user can click his/her destination and it will show path to the desired location.

We will also provide details of every shop in the mall including their address, contact number, product details and some extra product suggestion related to it. The idea is to create an android application so that people can use it on their android smartphones which will surely save their time and efforts.

An Automated Physician Tool

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Abstract-
PeoplenowadaystendtoseekinformationfromtheInternet.AlsotheuseofInternetforhealthcarequerieshasincreased.Thisdocumentisanattemptatcreatinganautomatedphysiciantoolthatwillhelptheuserstogetanopinionregardingtheirhealthrelatedissues/queriesinstantly.AlsotheuseofNLPwillhelptobridgethevocabularygap.Userswillposequeriesregardingtheirhealthissuesbyusingasimplechatinterfaceandthetoolwillanswer theirqueriesrelevantlyinrealtime**.**

Personalized Design Maker

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Abstract—Personalized Design Maker, is a system that makes it easy to brand visiting card, certificates, etc. like a professional. Upload one's logo, use one's brand colours and choose complementary fonts to create a unique aesthetic instantly recognizable to one's brand. It also gives access to a library of images, and illustrations to use when designing the business card with a bunch of awesome business card ideas. It uses watermarking technique that is robust against geometrical distortion in images by using spatially modulated illumination. It protects "analog" objects like pictures, logos, symbols, for no further use applicable.

It is a Fast and easy Design maker.

Drug Repurposing Using Data Mining

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Abstract- A drug repurposing system stores details of all the available drugs in the market, the symptoms they cure and the diseases that cause the symptoms. Using machine learning principles, the system takes in details from various verified medical sources and predicts possible candidates for repurposing. The system also acts as a search engine for connecting drugs to symptoms and symptoms to diseases.

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Attendance marking and object identification application

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Abstract— MARVEL is an all in one application which does the tasks of generic object detection, attendance marking and giving a head count of similar objects on a mobile phone.
To perform the task of generic object detection, the application will ask for a picture of the object to be taken to detect it and then identify it using the key features of the object extracted from the picture clicked. The database will have the key features of previously detected and identified objects stored in the database, mapped to their names. It will also allow the users to feed data pertaining to new objects using the similar way of clicking pictures of the objects.
The purpose of attendance marker is to minimise the efforts taken to mark the attendance of an entire class and to do so in real time. It will require the entire class to be captured in series of pictures. The application works on the principles of face detection and face recognition. It will work through all the clicked pictures to mark and extract the data points on the faces. Here too, the database will have the data stored and mapped to the respective GR number or Roll number of each student. The efficiency of the application depends on the associated data. More is the data associated with each entity, i.e., pictures from wide range of viewing angles, under different intensities of light and with varying levels of image noise, better will be its entity recognition capability.
The application is also capable of calculating the number of similar entities present in a picture. Here too, the user will have the provision of
training the application to identify the objects by clicking pictures of them and then give a count of similar objects in a picture taken. The user will have the provision to update and add new data to the database.

Crime Record Management System

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Abstract— Today's world is all about to technology and human resources. Technology can be used in many fields like mobile technology, messaging, E-mail, gaming and so on. One such area is crime area detection and storing criminal data record. It is very crucial job to police to get the right information on time through their walkie-talkie . Recently there was an android application Vic PD which was launched by the Victoria police in the Canada for people safety. In that application they had a communication gap between police officials and the investigation of crime because the data is not available remotely .The another problem is that suppose if anyone of the user reported a crime which had happened recently, that record was directly gone into the police database without even verification of police official. So there was a possibility that anyone can make a fun of the both other users and the police. Also the another proposed system is crime area detection and criminal data record in which their the system recording crime and giving alternate routes to user as soon as user enters in the particular area but this system failed to indicate a crimes locations to the user by Googlemap.

An Application to Secure Android Based Devices and Data.

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Abstract- The main aim of the project is to improve the security of android based devices using technique likeMMS instead of SMS. Nowadays the use of smartphones, tablets and phablet have increased tremendously and there have been many cases of these android based devices being stolen. Many anti-theft applications have been developed which are not user friendly and these applications are not easily available. We put forward the new scheme byusing multimedia messages instead of SMS and the use of camera (front and back) in the phone which would be helpfulin identifying the thief. The application would be completely dependent on the multimedia scheme and the hardware component such as camera. After the software is installed in the phone it will store the SIM number and will continuously keep a track if SIM number changes, as soon as SIM number changes it immediately takes the snapshot and records the video in the background without letting the thief know about it and then sends a multimedia message on an alternate number and email id provided by the owner during installation. The advantage of this application is that it keeps running in the background without interruption and helps in catching thethief.

STUDENT TRACKER

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Abstract— *In automobile field, the security and theft prevention are one of the main areas in current scenario. The security goals are achieved by the GSM, GPS technology. But it is commonly used to Track Student Position.*

Using these technologies, we can only track and monitor the Students. Previously, GPS is used to get the Students current position that data will be send to the user mobile phonethrough the GSM.

In this system, we implement for Student Kidnapping prevention in using GSM, GPS and Cell phone technology. We can track, monitor and stop the Kidnapping of students too by this system.

The Students position is obtained by the GPS module, which is send to the microcontroller, which then sends the message to the user smart phone through the GSM module. In this implementation we use PIC microcontroller, are interfaced with GSM modem and GPS module which will be fixed in the System

SPEECH EVALUATION USING NATURAL LANGUAGE PROCESSING

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Abstract: Spoken language recognition refers to automatic process through which we determine or identify the quality of language spoken in speech sample and thus evaluate it. In recent decades we have made tremendous progress in spoken language which benefited in related areas, such as signal processing, machine learning etc. In the past 20 years we have seen the scope of natural language processing has been ever increasing. We attempt to make one such application using basics of natural language processing where we will try to evaluate sample sentence in English language and run it through sample rules and evaluate these sentences. Syntactically correct English can be expected to be the output of the application.

Secure SMS Communication Using Quasigroup Algorithm

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Abstract---This paper is on Secure SMS Communication Using Quasigroups Algorithm. We have developedanintermediateapplicationbetweenthebankandtheuserthatwouldencryptthedatainthe SMS sent by the user. Using this SMS banking service, the user can check balance or even transfer funds to someone else's account provided both accounts are of the same banks. This will be easier to use as the account holder without a smart phone can also get fruitful results out of this. This will enable the accountholdertoavailbankingfacilitiesviaSMS.Themobileoperatoristheserviceprovidertoouruser. Also, the confidential information will be encrypted such that the mobile operator will not have access to the contents of the SMS.

Global File Reader

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Abstract— today we have to read multiple documents having multipleextensions, a user need to install multipleapplications which can open those documents. Suppose if a user wants to Read/open a word document then user must be installed MS Office on his/her own PC. In addition, to Read PDF file, there must be Adobe PDF Reader installed. Similar is the case with all Multimedia files. We need to again install different software applications. Installing all such application would be hectic task as it utilizes many PC resources like hard disk space, CPU memory etc. If a user subscribed to a licensed version ofthis software/application than there is pay large cost to purchase this software/application.We facing the all such kinds of Problems, we decided to build such an application that would include all these applications. The Global File Reader will be combination of Notepad, MS Word, Web Browser, Image Viewer, Media Player and Adobe PDF Reader. Using Global File Reader, a user will be able to view all different, or edit most common file formats like text image etc. The main USP of Global File Reader is that it can open/edit almost all the types of documents and multimedia files under one roof also we are providing printing and mailing features . We providing a tabbed feature allows user to open different files without closing the previousone.

PC Monitoring Using android over Internet

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Abstract- Since there are many application available for remote monitoring between computer to computer but In this application we are doing remote monitoring between mobile phone and computer. Basically nowadays we see that in many corporate offices and colleges students and employees waste their time doing the things they are not allowed to do. To avoid this problem we should make something. Office hours are important and if someone miss using it can be prevented by using this application. In this we are using client server architecture.

2D Sidescrolling Android Game

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Abstract— Mobile devices have become an important sector for game development. The app store business model allows low budget, small scale development companies to develop, distribute and monetize games. This document will research and outline the design and development process for our game, Poke'Run on the Android platform. The focus will be on simplifying the process of its development and giving a brief explaination of each process. The document also gives a small introduction of game development on Android in general to give a the reader a background of thefield.

COLLABORATIVE FILTERING BASED LOCATION RECOMMENDATION FOR ADVERTISER

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Abstract- In today's competitive marketplace, advertising has a central role in developing brand image, whether at corporate, retail or product level. In this paper, we present novel recommendation system whose goal is to provide real-time and static on-demand services for advertisers and publishers to decide where to place advertisements so as to achieve maximum marketing values. The proposed system will perform big data analytics to enable advertisement companies to move away from intuitive advertising to data based decision making by collecting advertising data from various social network sites along with demographic information at different locations, and establish an innovative model for advertising and trend prediction. The objective of this system is to help market researchers to gain insights on concerned data and allow advertisers and publishers to reduce their cost of placing advertisements while improving their campaign effectiveness.

IMAGE STEGANOGRAPHY AND CRYPTOGRAPHY USING THREE LEVEL PASSWORD SECURITY

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Abstract – Image steganography and cryptography using three level password security is used for transferring sensitive data from one user to other user. The main aim of the project is to provide the users a secure way that helps the users to send and receive sensitive and important data from one user to other user in the form of image .The sensitive data is in the form of text. There is an authentication system that validates user for accessing the system only when they have input correct password. The project involves three levels of user authentication. In this sender will have to first go through all the three stages of authentication. After going through all the stages the senders text will be encrypted using the cryptography algorithm .These encrypted text will be hidden inside the image. After getting this image he can transfer/send this image by using email or simple message to the receiver. The receiver also has to go through all the three stages of authentication and use decrypt to decrypt the image and get the message or information hidden inside the image.

REVIEW PAPER ON SMART SYSTEMS

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Abstract –Nowadays, technology has become an inseparable part of human lives. Technologies are smart enough to respond to human commands, provide protection to them and their accessories. Smart systems provide functionalities that of humans and are able to execute them much more efficiently than us. Smart systems search for multiple solutions for a particular problem and based on their intellectual capability and available knowledge base and are able to process solutions from solution set to give optimized output to theuser.

Search Engine Optimization & Web Page Ranking

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Abstract—All over the world millions of people use searchengines to search their information . They use search enginesfor most of their queries and they are interested only in topfew result pages.So promoting a website in search engine result is important development of websites. Search engine optimization (SEO) is to complete this work. But sometimes some SEO techniques are used in an unethical manner which break the search engine's rule and regulation and place undeserving site on top list. Our research objective is to design and implement a ranking algorithm by tracking IP address of who is clicking, so that the owner can't click hundreds of times to increase its ranking position insearch result.

REVIEW OF PULSE MONITORING SYSTEM

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Abstract : Technology has evolved over the years and revolutionized our lives that have enabled the evolution of fields such as monitoring systems. This paper describes the development of a wireless heartbeat and monitoring system based on a Arduino at a reasonable cost with great effect. This paper describes a technique of measuring the heart rate through a fingertip and Arduino. Most monitoring system that are used today is a system must be designed so that patient can be monitored remotely in real time. The paper consists of sensors which measures heartbeat of a patient which is controlled by the Arduino. Both the readings are displayed in Application. The heartbeat sensor counts the heartbeat for specific interval of time and estimates Beats per Minute. Finally, the data are displayed in the Application at the receiving end.

College Review Using Sentiment Analysis And Web-Mining

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ABSTRACT - The use of reviews has created many opportunities for people to publicly voice their opinions. Reviews in the internet could be in millions for services which make it difficult to track and understand customer opinions. Sentiment analysis is an emerging area of research to extract thesubjective information to track and understand customer opinions. The reviews provide accessible and plentiful data for relatively easy analysis for a range ofapplications.

This system seeks to apply and extend the current work in the field sentiment analysis on college reviews data retrieved from another websites using web mining technique. Naive Bayes and decision list classifiers are used to tag a given review as positive or negative. The features, such as bag-of-words and bigrams, are compared to one another in their effectiveness in correctly tagging reviews. Recent studies analyzed this reviews and found that it includes information useful for college, such as user requirements, ideas for improvements, user sentiments about specific features, and descriptions of experiences with these features.

PHP Automated APIs Generator

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Abstract—PHP is a leading programing language for web development. As its wide use many frameworks have been developed, but they have drawbacks. To remove such drawbacks of existing frameworks,we are going to develop a new framework using MVC (Model View Controller) architecture.Various different packages will be available for different kinds of work. A sole IDE(Integrated Development Environment) will be integrated for this framework. Rest API's (Representational State Transfer) will be generated automatically, which can make the work easier and cross-platform. The automated REST API will help the project to be platform independent and user will be able to use this with any programinglanguage.

SEMANTICS BASED DOCUMENT CLUSTERING

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Abstract- Document clustering is a technique used to organize large datasets of documents into meaningful groups. The associated documents are described by the relevant words which serve as cluster labels. The traditional approach for document clustering uses bag-of-words representation. This representation often ignores the semantic relations between the words. Therefore ontology-based document clustering is proposed. One of the ways to deal with reusability and remix of learning objects in context of e-learning is via the use of appropriate ontologies. The more appropriate use of ontology the better will be the annotation of learning material. To couple document clustering with ontology will help in producing better clusters which will not ignore the semantic relation between the words. The proposed system uses "an ontology-based document clustering" approach based on two-step clustering algorithm. Since it is two step clustering, it uses both partitioning as well as hierarchical clustering algorithms. Ontology is introduced through defining a weighting scheme. This weighing scheme integrates traditional scheme of co-occurrences of words paired with weights of relations between words in ontology. The algorithm used from partition clustering technique is K-means whereas from hierarchical clustering technique is hierarchical agglomerative algorithm. Thus we can say that the clustering approach that uses the semantics of the documents for term weighting produces better results than the approach withoutsemantics.

DATA ANALYSIS BASED ON ONLINE REVIEWS

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Abstract- Users share their view about product, hotel, news and topic on web in the form of reviews, blogs, comments etc. Many users read review information given on web to take decisions such as buying products, watching movie, going to restaurant etc. Reviews contain user's opinion about product, event or topic. It is difficult for web users to read and understand contents from large number of reviews. Here our proposed system will be for the college students who want to pursue engineering after their junior college. System will use database and will match the review with the keywords in database and will rank the review. System will rate the College based on the rank of review and give the suitable suggestion or recommend the option.

The Coin Vocab:AnAndroid GameApplication

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Abstract—This paper will give you a brief idea about the game 'The Coin Vocab'. This game is a good learning opportunity while having fun. What makes this game different from other similar existing games is the added element of vocabulary learning. This game has hurdles such as police, ambulance, and other cars. On crashing with any of the hurdles you lose and the game ends. The coins in the game increase your score and have words which you need to memorize for further levels. It employs Unity3D engine for motion control of cars and gaming environment.

Food Recommendation System using Data Mining and Artificial Intelligence

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Abstract— Every foodie wants to try something new according to his taste ,But existing systems just provide food delivery or we can get reviews of various hotel. In this paper we propose a system which can recommend user what dish he should have according to his or her taste or like. All the features of existing system are included and addition feature in this system is chat bot .We also intend to provide farm fresh products directly to users. In next phase of development we would add features like online delivery ,transport facility for farm fresh products and paymentgateway.

INVISIBLE PIN-GRAPH AUTHENTICATION FOR ATM

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Abstract: Security management for networks and data is an issue now-a-days. Credit card fraud is a common problem in today's world. Fraudsters are increasing day by day introducing new hacking techniques. Financial institutions have registered major loses till today due to users being exposed of their credit card information. The objective is to provide network security for real time application, ATM System. For security purpose PIN, user defined symbols are considered. It is observed that pin numbers have been used for a long time ,and also shoulder surfing attacks have become prevalent . When anyone wishes to use ATM system he has to draw the pre decided graphical authentication pattern on the touch screen panel instead of pin numbers. Every number will be protected by the unique sign pattern that will be distinct for each user . At the time of registration only, user needs to pattern for the given numerical code . These patterns are stored at SQL server database . Authentication is done by extracting patterns from database, and matching with input pattern. After authentication, user will get access for ATM operations. This will be a process comprising of four steps filtering, slope calculation, expansion or reduction and finally matching. Combining these , a proposed system isdesigned.

Analysis of Data Mining Algorithms

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Abstract—Data mining, the extraction of hidden predictive information from large databases, is a powerful new technology with great potential to help companies focus on the most important information in their data warehouses. Data mining tools predict future trends and behaviors, allowing businesses to make proactive, knowledge-driven decisions. The automated, prospective analyses offered by data mining move beyond the analyses of past events provided by retrospective tools typical of decision support systems. Data mining tools can answer business questions that traditionally were time consuming to resolve. They scour databases for hidden patterns, finding predictive information that experts may miss because it lies outside their expectations. Most companies already collect and refine massive quantities of data. Data mining techniques can be implemented rapidly on existing software and hardware platforms to enhance the value of existing information resources, and can be integrated with new products and systems as they are brought on-line. In this paper we will be emphasizing on various data mining techniques, its efficiency and issues.

Stock Market Prediction using Hadoop Map-Reduce Ecosystem

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Abstract-*Now a day's Academia and Industry people are working on large amount of data, in petabyte, and they are using technique of Map Reduce for data analysis. The input for such framework is very large and main requirement for theses inputs are that all the files cannot be kept on single node. After putting all data on single machine, we have to process it parallel. Hadoop is a framework which enables applications to work on large amounts of data on clusters with thousands of nodes.*

This project is based on Hadoop Based Stock forecasting using data mining. Stock Market has high profit and high risk features this why its prediction must be in the parallel of accuracy, the main issue about such data are , these are very complex nonlinear function and can only be learnt by a data mining method such as neural networks to recognize future market trend. We have tried to utilize distributing capability of Hadoop ecosystem which is parallel too. Map-Reduce for managing training of large datasets on the neural network. Our experimental results basically show the speedup achieved by increasing number of processors to the Hadoop cluster.

TODOIST

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mugdha.agharkar@gmail.com**ABSTRACT**

The motivation behind every mobile-based information system is: "To assist the user with the available information at the right place and right time". Remembering small tasks and executing them is quite a challenge in today's world where we are so much dependent on technology. Hence, using an application to remind people of important things is quite logical. We have proposed an android application 'Todoist' will do that job. The user can enter tasks without a fuss, and also keep reminders for the same. /the reminders can be time-based or location-based. Secondly, managing expenses with the ever-increasing costs is also difficult. We have proposed a basic 'expenses manager' section. The user will get an option to set a particular amount, and if the expenses entered exceed that amount, our application will remind the user that he/she needs to reduce the expenses.

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ONLINE EXAMINATION SYSTEM FOR VISUALLY CHALLENGED

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Abstract- The Online - Examination for Visually Challenged is an online examination system, which reflects the justification and objectivity of examination. The system helps to release the workload of the teachers and students. The visually challenged people have to face difficulties while appearing for an examination. Hence, the proposed application is designed for the visually challenged people so that they can appear for examination easily. It is also useful for the other handicapped people with upper limb disability. This project provides the speech user interface for visually challenged people to interact with the application. The proposed application will dictate the questions to the candidate with the help of Speech Synthesis. The application will accept the answers from candidates through voice commandsusing Speech Recognition. The proposed system also allows users (examiners/teachers) to add their questions to conduct the examination. The questions can be added easily by uploading a file. The proposed system being online, the result generation will bequick.

Framework for secure SDN (Software Defined Network)

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Abstract— Software-Defined Networking (SDN) is an emerging architecture that is dynamic, manageable, cost effective and adaptable. This architecture decouple network control and forwarding functions, enabling network control to become directly programmable and the underlying infrastructure to be abstracted from applications and network services. However, before this technology evolves on a large scale, it is important to understand the vulnerabilities associated with it. This paper aims at the study of SDN technology, OpenFlow protocol, types of attacks on the three layersoftheOpenFlowprotocolandthepossiblemitigationstrategiestoreducetheimpactofthose attacks on the network. For this purpose we will be using mininet simulator for the experiment purpose.

VRIEW 360- Virtual Reality Enabled Wheelchair

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Abstract—Although virtual reality set out to be just a mere kind of amusement, currently, it has become a rather necessary tool that will reshape the lives of many and more importantly the lives of the disabled .virtual reality is being tried as the way to assist the disabled in exploring the globe that may otherwise be robust. It allows users to try things that may facilitate them with their life skills. It also offers them with a chance to experience as well as learn things that they wouldn't normally be able to do or even try. The planned system aims at making a VR-based low price chair machine for those disabled who find it tough to maneuver a wheelchair and need some coaching. The planned systemcandevelopatactileinterfacewhichcanpermitchairuserstonavigateamongVRsimulation viatheemploymentoftheirownchair,thatadditionallycangivetheuserwithafeedbackassociated withthesenseofeffortthat'sneededtopropelthechairoverchangesinfloorsurfaceandslope.

Cloud Based Solution for Small and Medium Franchisees (SMFs)

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Abstract—Cloud Computing is a leading sector of IT and is attracting the attention of various industries as well as for personal computing. A business that adapts cloud infrastructure has access to various functionalities and advantages that would otherwise either not be available to them or would have to expend a lot of resources and money to avail them. Normally the word Cloud Computing is usually associated with bigger organizations, however with the evolution and advancement in the field of cloud computing, it has become easier to developand utilise cloud applications and has increased their overallaccessibility.

Small to Medium businesses or organisations, particularly those with multiple branches are beginning to adopt cloud technologies or are basing their business models on top of cloud computing as they are realising the benefits that it can bring to their organisation. In this paper, the focus is on Small to Medium sized Enterprises (SMFs) that use existing traditional applications for their management and the problems that these applications face. We have proposed a cloud based application for the management of SMFs and show how it will beexecuted and with the help of research and analysis describe how it will benefit the SMFs, the developers and the cloud providers.

WE CARE 24*7 HUMAN TRACKING ANDROID APPLICATION

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Abstract—: Considering the current social situations of the country, it has become mandatory for the society to come up with a solution that not only helps in decreasing the crime against children but also finding missing children. It should be a reliable and user friendly solution which can be accepted and used by the people with mere knowledge of technology. Especially in India child security is a major concern. Due to the increase in crime against children and women we have decided to develop an application which will act like a life guard. There are existing system but due to their limitation and high cost, Indians do not use the existing system of its high costs, poor security and lack of awareness. The main aim of the application is to provide security, confidentiality, real time response and quick help and free software so that the crime against child and women get reduced and make investigation of missing children more easily.

INTERACTIVE COLLEGE APPLICATION

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Abstract – Interactive college application system is an android based application which is helpful for students as well as the teachers. In the existing system, all the activities are done manually viz., attendance, displaying notices on notice board, etc. These are very time consuming task as well as even if a single noticed is missed then this can lead to great chaos. In our proposed system, students can view their attendance using Android phones. The faculty can login into their account through the app and update the notices and provide assignments and question banks to the students as well as and can post video lectures. In this system, students have easy access for viewing the attendance, provided their authentications are correct and they are not permitted to change/update them. Teachers and students need to register using id and password provided by college. Teacher's module maintains the student's attendance of college. Other than this the advanced features are students will be notified when a new post is uploaded, students can ask queries to teachers through application directly. Any new notice for a particular semester will be uploaded by professor through application notifying to respective semester students. Teacher can also display unit test marks through theapplication.

Electronic Help Desk

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Abstract—Ahelpdeskisaresourceintendedtoprovidetheemployee orenduserwithinformationandsupportrelatedtoa companies or institution's products and services. The purpose of a help desk is usually to troubleshoot problems or provide guidance about any technical issue faced by the users. Corporations usually provide help desk support to their customers through various channels such as websites, instant messaging or email. There are also in-house help desks designed to provide assistance to employees. As the project is being built for Tata Institute of Fundamental Research (T.I.F.R),this paper describes a web based application which systematically handles and solves the technical issues of the employees of T.I.F.R and also provides a complete insight of online help desk through visualization techniques like pie charts and histogram. The Electronic help desk serves two main functions which are to get a complaint solved and maintain a thorough record on the system called as reporting. The first function allows a registered employee or newly joined employee to raise a complaint when he/she faces any technical difficulty and needs a technical assistance. The employee is being provided with the solutionfromtheconcernedengineer.Everycomplaintgeneratedisfirstreportedtotheadminwhothenassignsrespective engineer to solve the complaint. The complaint is supposed to get solved in stipulated time period of two hours. Additional feature of complaint function is generating follow up. Follow up is basically a chat box allowing the employee to ask more questionsaboutthetechnicaldifficultyfacedandgetsolutionsforthesame.ThesecondmostimportantfeatureoftheHelp Desk is maintaining data of all the complaints made and solved in a systematic manner. The Reporting module acts as storage of all the data and reports are maintained via graphs and pie charts. The aim of reporting module is to maintain a centralstorageofinformationwhichcanbeusedforperformanceevaluationsandappraisals.

Skedule

A System for easy user access

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Abstract—In today's world the booking of the services like Spa, Saloon, Car Servicing, Car Cleaning, Restaurant Tables, and Astroturf has been time consuming if we go through the normal process of calling the respective Service provider and ask for its availability and also there is unavailability of call support of certain service provider during closed business hours. To overcome this problem of Service provider and the customer we are developing the software which will help the customer to get the best service provider of his choice near to its location and the work of the service provider will get easy due to the direct transparency of the booking hours in the application.

Store Finder App With Active Notifications

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Abstract—Store Finder App with Active Notifications underpins finding nearest stores with their name, ratings, stock, etc. Exploring and emphasizing importance, capabilities of store finder and to develop Android mobile application with an improved virtual experience for user. We are trying to explain the importance of Location Based system which will reduce our efforts during various tasks like shopping, finding particular address of some shops, getting and knowing some good offers on the different products.

Present application only find shops and displays its location and address, has no centralized database which is causing the problem of data management and portability; it doesn't show stocks availability and notification of new stock.This mobile application is a location aware application, as this application incorporates location based services to receive location store stocks updates. The application is able to help the users to learn about their surrounding areas, locating and navigating through their respective environments and this is done by showcasing the possibility of using smart phone features and takes advantage of the different sensors available on most android based phones such as sensing capability of GPS, digital compass, accelerometers, audio/video recording and text annotation.

By using this application customer will search for shop in his local area up to 3/4km then GPS system

work to display all the shop related to that particular area with map. According to product list user can select the shop and visit that shop using application provided map.

E-commerce portal for Jewellery designers and manufacturers

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Abstract— The online e-commerce is a fast growing industry and the online presence of various sectors of businesses is rapidly expanding and gaining a steady growth in terms of profit and popularity. There is an ever increasing demand and awe with regards to jewellery in nearly all major demographics. Our e-commerce application is focused on connecting jewellery designers and manufacturers and providing artists a platform to showcase theircreativity.

Q-R based Mobile Ticketing System

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Mobile ticketing or 'M-Ticketing' in which a virtual ticket is held on a mobile phone provides an opportunity to increase the efficiency of ticketing operations in the transport and entertainment sectors and to drive increased business by improving access to ticketed services.

While there is a simple convenience to carrying 'tickets' on a mobile phone that most ubiquitous of devices which is always to hand the GSMA's market research, indicates that there is significant additional customer attraction in buying and managing tickets via a mobile phone.

SESSION BASED PASSWORD AUTHENTICATION SYSTEM

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Abstract - A highly severe menace to any computing device isthe impersonation of an authenticate user. The most common security authentication scheme is to use alphanumeric combinations for usernames and passwords. But these combinations might prove to be vulnerable to security as they can be accessed by trial and error methods. The most common threats include shoulder surfing, eaves dropping and dictionary attacks. As such, graphical passwords have been introduced as an alternative to the traditional authentication process. Though graphical passwords provide a security to the system but is prone to shoulder surfing. To address this problem, the alpha numeric combination can be used to create a unique password that is used for a particular session. After the session, there is no trail of the session password.

UNWANTEDMESSAGE FILTERING SYSTEM

From OSN'S USER WALL

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Abstract— In today's Online Social Network(OSN)usercan communicate with his/her friends by sending and receiving different types of information or messages like text, audio and video data. Today's OSN websites do not provide enough privacy/security options to the users to avoid undesired or offensive messages displayed on their social user wall. To deal with this problem we proposeasystem which gives the social users ability to control the messages posted/displayed on their social wall to avoid undesired/unwanted messages. Messages are filtered based on FilteringRules and then displayed on Filtered Wall. The main focus is on recognizing special characters and evaluating the meaning of the message.

Data Mining On Clinical Observations

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Abstract— Data mining is the methodology to find hidden values from huge amount of data. The patient's population is increasing day by day therefore the medical databases also growing every day. So the transactions and analysis of these huge medical data is very complex. We need computer based analysis system for processing these dada. Data mining is one of the essential areas of research which is more popular in health organization.Healthcare institutes enrich the repository of patients disease related information in an increasing manner which could have been more useful to carry out relational analysis. Data mining algorithms are very useful in exploring useful correlations from larger data repositories. In this paper we have implemented Association Rules mining based a novel idea for finding co-occurrences of diseases which are carried by a particular patient using the healthcare database. This is a system-prototype Data Mining on Clinical Observations. This extracts data from patient's healthcare database. It gains results by generating association rules. This system helps to reveal relations among different diseases. This system predicts the correlation among primary disease (the disease for which the patient visits the doctor) and secondary disease/s (which is/are other associated disease/s carried by the same patient having the primarydisease.)

TWO LEVEL QR CODE FOR SECRET MESSAGE SHARING

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Abstract: The Quick Response (QR) code was created for storing information and large performance interpretation applications. In this paper, we recommend a unique QR code that has two volumes and can be used for secret message sharing. This unique QR code, called two level QR code (2LQR) contains two volumes, i.e., public and private. The public volume is identical as the normal QR code storage level; therefore it is understood by standard QR code application. The private volume is designed by displacing the black modules by distinct textured patterns. The private volume contains a message zipped by adopting q-ary code with an error correction capacity. This allows us not only to raise the storage capacity of the QR code, but also to discriminate the original document from a copy. The pattern identification method that we use to interpret the private volume data can be used in secret message sharing. It is based on expanding the correlation values between P&S depraved patterns and reference patterns. The storage size can be considerably improved by raising the code alphabet q or by enhancing the textured pattern size. The test results display a perfect restoration of private information. It also focuses on the opportunity of using this unique QR code for documentverification.

Recommendation System for an Android Launcher

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Abstract—An android launcher completely changes the experience of using a mobile phone. It is the part of an android user interface that lets users customize the home screen, launch mobile applications, make phone calls, and perform other tasks. Currently, launchers offer mainly customization that provides cosmetic features and very few operational functionalities that are used on a daily basis. This launcher aims to create a user modeling system that develops unique customized user profiles based on their daily activities and offer them suggestions and smart notifications in the launcher itself based on the contextual data corresponding to tasks, interests, andhabits.
Wide linear models and deep feedforward neural networks combine the benefits of both memorization and generalization to learn a unique user profile and provide recommendations, but they suffer from a poor initial performance due to lack of sufficient data. This paper proposes a new model that integrates the Wide & Deep model with aBayesian linear hierarchical model that can help learnabasicuserprofile,byborrowinginformationfromotheruserprofiles.

Face Detection Using Viola-Jones Algorithm

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Abstract- This paper presents face detection technique using Viola-Jones algorithm. The main objective is to build a system that can detect facial features in images. The study of face detection helps in detecting faces from complex backgrounds. The algorithm is divided into 3 phases which include constructing an integral image, haar feature extraction and ad-a-boost classifier. Face Detection is used in a wide variety of applications which include security surveillance, biometrics, human computer interaction, safety monitoring etc. The study presents a simple approach of combining geometric and symmetric information of face parts from the image.

INTERACTIVE IMAGE RETRIEVAL

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Abstract:Theobjectiveis to improve the current state of Content-Based Image *Retrieval*(CBIR). This can be accomplished by using *Relevance Feedback* (RF) algorithm. Along with RF algorithm this also uses *Biased Discriminative Euclidean Embedding* (BDEE) for CBIR, *K-means* clustering algorithm, *Rough Filtering &Precise Filtering.*

With many recently used multimedia applications, CBIR has nowbecame more popular for image management and web search. To improve the performance ofCBIR systems, a many number of Algorithms are available. Based on the user's preferences RF Algorithm link the semantic gap. RF Algorithm avoids the various structure of image low-level visual features.

To discover the intrinsic coordinate of image low-level visual features we have used the methodology named as Biased Discriminative Euclidean Embedding (BDEE). BDEEparameterizes samples in the original high dimensional ambient space as well as it precisely models both the interclass geometrydiscrimination& never meets the under sampled problem**.**

REVIEW ANALYSIS USING OPINION MINING

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Abstract - Opinion mining and Sentiment analysis have emerged as a field of study since the widespread of World Wide Web and internet. Opinion refers to extraction of those lines or phrase in the raw and huge data which express an opinion. Sentiment analysis on the other hand identifies the polarity of the opinion being extracted. In this paper we propose the sentiment analysis in collaboration with opinion extraction, summarization, and tracking the reviews from the customer in online shopping. The paper modifies the existing algorithm in order to obtain the collaborated opinion about the reviews. The paper is based on a case study where customer give their reviews about the product and by applying the proposed sentiment analysis algorithm the opinion is extracted and represented.

Disease Prediction using Data Mining Technique

(Android application)

Shweta Prajapati Monika Pandey Vikas Dadhich Priyanka Wakte

Abstract—It might have transpired so many times that we or someone ours need doctors help immediately, but they are not available because of some reason. The disease prediction application is an end user support and online consultation project. Here we propose a Android application that allows user to get instant direction on their health issues. The application is fed with various symptoms and the disease /illness associated with those system. The application permits user to share their side effects and issues.It then processes client's indications to check for different diseases that could be related with it. Here we utilize some wise information mining methods to figure the most exact disease that could be related with patient's indications. Proper home cures are additionally recommended by this application. User can also chat and contact doctor/specialist using this application.Thisistheinitialsteptodiscoverwhatcouldbringaboutyoursideeffects.

An Intrusion Detection System Based on Soft Computing Techniques Using Neuro-Fuzzy Classifier for Packet Dropping Attack in MANETs

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Abstract – This Wireless ad hoc networks have gained lots of attention due to their ease and low cost of deployment. A Selective packet drop attack is notorious security problem in MANET. A mobile Ad-Hoc network is wireless networks without any subsequent infrastructure and centralizes control. From the security point of view, prevention based methods such as encryption and authentication are not considerably good solution for mobile ad hoc networks to prevent the attacks so that IDS are applied as an integral part in these types of networks. The main objective of intrusion detection system is to differentiate the normal and abnormal activities in the network. This paper proposed a novel intrusion detection system based on soft computing techniques for mobile ad hoc networks. Our proposed system is based on neuro-fuzzy classifier in binary_form to detect, one of most probable attack, i.e. packet dropping attack in mobile ad hoc networks.

Carry Smart

(we change the way you carry)

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Abstract—Carry Smart is a smart bag that can help human beings in being more efficient when it comes to carrying certain items. It will help the user by reminding him of the materials needed to be carried in the bag. Sometimes, there is a need to check the contents of the bag. In most fields, having a glimpse can save both time as well as money. The main idea is to track the field of a non•transparent bag that can be used for multiple purposes. An integrated reading device is built into the Smart Bag that can be used to scan the contents, report the presence of the objects and generate a detailed dynamic packing list at any given time to the bag. The Smart Bag is connected to a mobile device via Bluetooth and the device runs an exclusively designed Android application working dynamically with updates and an incompleteness notification along with the ability to edit and manage the lists for purposes desired by the user. Every object in the Smart Bag is marked with a RFID tag. An integrated RFID reader is built into the Smart Bag which can be used to scan the contents of the bag. The Smart Bag will be fitted with an Arduino Uno microcontroller board enhanced with an RFID reader and a Bluetooth module. The items detected by the RFID reader are reported to the mobile device via Bluetooth. It also enables a designated personalized user/owner to put together an ideal configuration for each specific travel purpose. Bluetooth enables the Smart Bag to collect user data which would encompass the underlying RFID, sensors and smartphone .The user will then be logged into the application after entering the password after which he/she will determine what exactly has to be in the bag and check to see if he/she really has everything that he/sheneeds.

HIDDEN CAMERA DETECTION

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Abstract--This paper intends to aid in maintaining the safety and security of people by developing an application with the help of which spy cameras can easily be detected, also the location and the perpetrator's identity would be sent to the concerned authorities. It finds its application in courts and places where cameras are not allowed. The camera retroreflects the light beam and then images are captured which are image processed to detect the camera. The area to be protected is scanned bynormal ledlight. At the end, colour segmentation is used to identify the green component that represents the area where camera ispresent.

IMPLEMENTING BRAIN COMPUTER INTERFACE BY CLASSIFYING MOTOR IMAGERY EEG SIGNALS INTO DISTINCTIVE COMMANDS

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*Abstract:*As the capacity of modern computers increases with our understanding of the human brain, we are very nearer to making some imaginary things into reality. Imagine sending signals directly to someone's brain that would allow them to see, hear,feel specific sensory inputs. Consider the potential to control and make some changes in computers or machinery with the help of thought. It is not about ease, for severely disabled people,handicapped people, those who are paralyzed, development of a brain-computer interface could be the most important helpful technology in decades. A Brain-computer interface, is nothing but the direct communication pathway or medium between a brain and an external device. This is the remarkable advancement of human-computer interfaces . A motor imagery based brain-computer interface converts the someone's motor intention into a control signal by using real-time detection of characteristic electroencephalograph (EEG) spatial distributions corresponding to motor imagination of different body parts. We study their all aspects like advantages,disadvantages, drawbacks, and latest advances, and we also survey the various technologies reported in the scientific literature to design each step of a BCI in properway.

Privacy policy inference for user uploaded images on content sharing sites

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Abstract— User Image sharing social site maintaining privacy has become a major problem, as demonstrated by a recent wave of publicized incidents where users inadvertently shared personal information. In light of these incidents, the need of tools to help users control access to their shared content is apparent. Toward addressing this need an Adaptive Privacy Policy Prediction (A3P) system to help users compose privacy settings for their images. The solution relies on an image classification framework for image categories which may be associated with similar policies and on a policy prediction algorithm to automatically generate a policy for each newly uploaded image, also according to user's social features. Image Sharing takes place both among previously established groups of known people or social circles and also increasingly with people outside the users social circles, for purposes of social discovery-to help them identify new peers and learn about peers interests and social surroundings, Sharing images within online content sharing sites, therefore, may quickly lead to unwanted disclosure. The aggregated information can result in unexpected exposure of one's social environment and lead to abuse of one's personalinformation.

IMPLEMENTATION OF FARM TO PLATE: FOOD QUALITY ANALYSIS

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Abstract—An important factor which holds emphasis in human life to improve the standard of living is quality and there is a constant urge to ameliorate it. In this system we propose to incorporate the supply chain model allowing the organization to monitor the food quality. The organization can monitor the vehicle during transportation with the aid of GPS technology and determine the quality using image processing once the products arrive. Also the determined quality would be displayed on the website for consumer access.

MUMBAI COMMUTER

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ABSTRACT: Due to the wide spread of the population and location of business areas, the rail network is the principal mode of mass transport in Mumbai. Buying Tickets in queue is quite frustrating as we have to stand in the queue to purchase Ticket. Thus, we introduce this application where Mobile tickets are generated conveniently for users using an application. Mumbai Commuter app is an mobile application to buy the local railway tickets, where user can carry his railway tickets in his smart phone as QR-code.

It uses the smart phone's "GPS" facility to authenticate and erase ticket automatically after a specific interval of time when user reaches to the destination. User's ticket information is stored in database for security. Also the ticket checker is provided with a checker application to look for user's ticket with the ticket number in the cloud database for checking purposes.

Augmented Reality Tensor (ARTensor)

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Abstract-The real estate sector is one of the mostglobally recognized sectors. In India the real estate sector has witnessed high growth in recent times with the rise in demand for office as well as residential space.
Today builders are facing more competition than ever before .They generally show the customer their flats and apartments on pamphlet or on website which is just an image or video which is just an image or a video which they offer. So it is very difficult for the customers to predict the inner and outer view of thebuilding.
To avoid this problem Augmented Reality(AR) will provide solution to the customers.AR artificially creates sensory experience & will offer an effective impactful and engaging medium to better showcase construction site.AR Tensor will help customer to decide which apartment they want to book & make quicker purchase decisions.

Smart Car Parking System

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Abstract--Duetotheproliferationinthenumberofvehiclesontheroad,trafficproblemsareboundtoexist.This is due to the fact that the current transportation infrastructure and car park facility developed are unable to cope with the influx of vehicles on the road. To alleviate the aforementioned problems, the smart parking system has been developed. With the implementation of the smart parking system, patrons can easily locate and secure a vacant parking space at any car park deemed convenient to them. Vehicle ingress and egress are also made more convenient with the implementation of hassle free payment mechanism. With parking space detection using database and GPS navigation aplenty on the market, the choices made may defer due to the different requirements in addition to the its pros and cons. Subsequently, the various sensor systems used in developingthe systems in addition to the recent research and commercial system on the market are examined as vehicle detection plays a crucial role in the smart parkingsystem.

Smart Grocery Store

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Abstract—In the 21st century, India is taking steps towards the digitalization. Every person has a great opportunity to transform their activities from web to mobile. Android is an open source platform to build android application for mobiles. The survey made by Google India Study reports 89% users were heavy user of internet in 2012 from which 40% were using for internet shopping. In recent study online shopping industry is growing by 78% as a whole in 2016. Remaining customers still prefer for manual shopping over online shopping. This application will make the customers to move from manual to online shopping. In this modern and fastidious world, each minute is valuable. By counting this our application provides better shopping experience to users with whole new concept of GPS tracking of user location.

Franchise Management as a Service

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Abstract— Cloud Computing (CC) is currently one of the leading sectors of IT. Businesses and organizations in every field are looking to integrate cloud technology into their daily operations in some way. One such field is that of business franchises for which CC is a perfect fit. In this paper we have discussed the concept of Franchise Management as a Service (FMaaS) which is a model in which franchises use cloud technology to perform daily operations and to aid them in the management of the different branches and provide tools for analysis. We have explored the need for FMaaS and about what is required for its implementation. A detailed explanation of the working of the system is also demonstrated. A business model details how and what the application provider and the franchises stand to gain from this model such as reduced costs and improved performance and scalability.

Miner: The Automated Data Scraping and Mining Service

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Abstract: Web is the largest repository of information available and this information can be converted into knowledge for drawing out conclusions. Much of this data resides in a semi-structured format, distributed over multiple semantically similar web pages. However the extraction or acquisition of this data is a huge challenge for the users. Here we present a simple web application that facilitates data acquisition over multiple similar pages. The data collected by the user can be applied to certain data mining algorithms if required by the user within the same application

HIDDEN CAMERA DETECTION

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Abstract--This paper intends to aid in maintaining the safety and security of people by developing an application with the help of which spy cameras can easily be detected, also the location and the perpetrator's identity would be sent to the concerned authorities. It finds its application in courts and places where cameras are not allowed. The camera retroreflects the light beam and then images are captured which are image processed to detect the camera. The area to be protected is scanned bynormal ledlight. At the end, colour segmentation is used to identify the green component that represents the area where camera ispresent.

IMPLEMENTING BRAIN COMPUTER INTERFACE BY CLASSIFYING MOTOR IMAGERY EEG SIGNALS INTO DISTINCTIVE COMMANDS

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*Abstract:*As the capacity of modern computers increases with our understanding of the human brain, we are very nearer to making some imaginary things into reality. Imagine sending signals directly to someone's brain that would allow them to see, hear,feel specific sensory inputs. Consider the potential to control and make some changes in computers or machinery with the help of thought. It is not about ease, for severely disabled people,handicapped people, those who are paralyzed, development of a brain-computer interface could be the most important helpful technology in decades. A Brain-computer interface, is nothing but the direct communication pathway or medium between a brain and an external device. This is the remarkable advancement of human-computer interfaces . A motor imagery based brain-computer interface converts the someone's motor intention into a control signal by usingreal-time detection of characteristic electroencephalograph (EEG) spatial distributions corresponding to motor imagination of different body parts. We study their all aspects like advantages,disadvantages, drawbacks, and latest advances, and we also survey the various technologies reported in the scientific literature to design each step of a BCI in properway.

Privacy policy inference for user uploaded images on content sharing sites

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Abstract— User Image sharing social site maintaining privacy has become a major problem, as demonstrated by a recent wave of publicized incidents where users inadvertently shared personal information. In light of these incidents, the need of tools to help users control access to their shared content is apparent. Toward addressing this need an Adaptive Privacy Policy Prediction (A3P) system to help users compose privacy settings for their images. The solution relies on an image classification framework for image categories which may be associated with similar policies and on a policy prediction algorithm to automatically generate a policy for each newly uploaded image, also according to user's social features. Image Sharing takes place both among previously established groups of known people or social circles and also increasingly with people outside the users social circles, for purposes of social discovery-to help them identify new peers and learn about peers interests and social surroundings, Sharing images within online content sharing sites, therefore, may quickly lead to unwanted disclosure. The aggregated information can result in unexpected exposure of one's social environment and lead to abuse of one's personal information.

IMPLEMENTATION OF FARM TO PLATE: FOOD QUALITY ANALYSIS

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Fr.CRIT

Abstract—*An important factor which holds emphasis in human life to improve the standard of living is quality and there is a constant urge to ameliorate it. In this system we propose to incorporate the supply chain model allowing the organization to monitor the food quality. The organization can monitor the vehicle during transportation with the aid of GPS technology and determine the quality using image processing once the products arrive. Also the determined quality would be displayed on the website for consumer access.*

Augmented Reality Tensor (ARTensor)

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Abstract-The real estate sector is one of the mostglobally recognized sectors. In India the real estate sector has witnessed high growth in recent times with the rise in demand for office as well as residential space. Today builders are facing more competition than ever before .They generally show the customer their flats and apartments on pamphlet or on website which is just an image or video which is just an image or a video which they offer. So it is very difficult for the customers to predict the inner and outer view of the building.

To avoid this problem Augmented Reality(AR) will provide solution to the customers.AR artificially creates sensory experience & will offer an effective impactful and engaging medium to better showcase construction site.AR Tensor will help customer to decide which apartment they want to book & make quicker purchase decisions.

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Smart Car Parking System

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Abstract-- Due to the proliferation in the number of vehicles on the road, traffic problems are bound to exist. This is due to the fact that the current transportation infrastructure and car park facility developed are unable to cope with the influx of vehicles on the road. To alleviate the aforementioned problems, the smart parking system has been developed. With the implementation of the smart parking system, patrons can easily locate and secure a vacant parking space at any car park deemed convenient to them. Vehicle ingress and egress are also made more convenient with the implementation of hassle free payment mechanism. With parking space detection using database and GPS navigation aplenty on the market, the choices made may defer due to the different requirements in addition to the its pros and cons. Subsequently, the various sensor systems used in developing the systems in addition to the recent research and commercial system on the market are examined as vehicle detection plays a crucial role in the smart parking system

Smart Grocery Store

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Abstract— In the 21st century, India is taking steps towards the digitalization. Every person has a great opportunity to transform their activities from web to mobile. Android is an open source platform to build android application for mobiles. The survey made by Google India Study reports 89% users were heavy user of internet in 2012 from which 40% were using for internet shopping. In recent study online shopping industry is growing by 78% as a whole in 2016. Remaining customers still prefer for manual shopping over online shopping. This application will make the customers to move from manual to online shopping. In this modern and fastidious world, each minute is valuable. By counting this our application provides better shopping experience to users with whole new concept of GPS tracking of user location.

An Efficient Certificateless Encryption for Secure Data Sharing in Public Clouds

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Abstract – We are implementing a mediated certificate-less encryption without pairing operations for sharing information and data in public clouds. Mediated certificate-less public key encryption (mCL PKE) provides the solution for the key escrow problem which is present in identity based encryption and certificate revocation problem associated with public key cryptography. However, existing mCL-PKE encryption schemes are either inefficient because it requires the use of expensive pairing operations or they are vulnerable against partial decryption attacks. In order to specify the performance and security issues, in this paper, We are using mCL PKE scheme along with AES Algorithm to solve problems of sharing information in public clouds. The cloud is used as a secure storage. In our system, the data is encrypts by data owner and uploded in public cloud.The user who want to acess that data should request to data owner for decrypt then only he can download the data using private key.

Image Steganography for Criminal Case

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*Abstract :*Crime scene investigators document everything they collect at a crime scene, keeping detailed records of what they found and in what position they found it. Maintaining documents secrecy is very important aspect otherwise forgery could happen. To help maintain data privacy and security, we can make use of image steganography. The algorithm implemented in this system is used to embed data inside an image using the steganography technique. The original data can also be retrieved from the image using the same approach. Hiding data inside an image is a practical way of hiding secret information from intruders. Image processing can then be used to get the data back from the image. The scope of the project is implementation of steganography tools for hiding sensitive information.

Railway Concession Automation

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Abstract— As android is the most widely used in the field of mobile computing, an android application would allow users to register and apply for Railway concession at anytime as per their convenience. Thus the application would be easily available as most of the students in today's world use android phones and also android applications are compatible with other platforms. QR code is used to identify each student uniquely. This QR code will contain some personal information of the student that is unique to him.

Event and Meeting management Android application using real time GPS technology.

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1. Abstract:

Members of companies and organisation attend events and meetings on a regular basis and reaching the venue on time becomes a major concern. On part of the event coordinator, it is important to know if any member is going to be late for the event. Coordinating with each member of the event, to check whether he/she will reach the venue on time or not, through messaging and calling is inefficient and a lengthy procedure to follow in less span of time. Providing real-time location of the members helps to predict the arrival time of each member on the venue. It gives an idea to the event organizers whether to start their event on time or should they delay it by some time, so that every member reaches the venue and can attend the event from the very beginning. Also if the event is going to be delayedalltheother members could be notified about it well in advance along with the accurate information of the time of delay. This paper illustrates the idea of developing an android application that can help every organization or company to handle their events and meetings efficiently with best time utilization and also helps in analyzing:i) Footfall of the event; ii) Effectiveness of meeting iii) Feedbacks and suggestions; iv) Check in and check out time of each individual. The application will use Android platform along with Google Maps API and Fused Location Provider API for real time location tracking of each member. Also statistics of the event will be reported directly to the administrator of the group and EventCoordinator.

Miner: The Automated Data Scraping and Mining Service

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Abstract: Web is the largest repository of information available and this information can be converted into knowledge for drawing out conclusions. Much of this data resides in a semi-structured format, distributed over multiple semantically similar web pages. However the extraction or acquisition of this data is a huge challenge for the users. Here we present a simple web application that facilitates data acquisition over multiple similar pages. The data collected by the user can be applied to certain data mining algorithms if required by the user within the same application.

APPLICATION OF INTERNET OF THINGS AND DEEP LEARNING IN THE FIELD OF EDUCATION: REVIEW

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Abstract:The "Internet of Things" (IoT) is becoming atremendously growing topic of conversation both in the workplace and outside of it. It's a concept that not only has the potential to impact how we live but also how we work. This paper is written on the emerging technology of IoT and deep learning concepts. In this paper it is explained what is IoT, features, its application in various fields of day-to-day life. It also discusses about the components of IoT, what other fields are associated with it like wireless technologies, micro-electromechanical systems (MEMS) and the internet. In IoT, the internet connection is extended to physical objects making them smarter. The everyday objects are equipped with identifying, sensing, networking and processing capabilities that will allow them to communicate with one another and with other devices and services over the Internet in order to achieve some useful objective. IoT is aimed at providing more extensive interconnection, thorough information perception, and intelligent service. In this work we propose the idea of merging IoT and concepts of Deep Learning. The major focus is on Applications and software that enables teachers, students and educational administrator's for smooth and efficient functioning of schools and colleges to achieve quality education.

Drowsy Driver Alert System

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Abstract— The system describes a way to identify whether a driver is drowsy or not. Firstly, the system captures the images and identifies the face of the driver. Then using that image the location of the eyes is identified and by performing binarization on the segmented image, the system then calculates the ratio of the white (true) pixels with respect to the total number of pixels to create a criteria that concludes whether the driver is drowsy or not. Secondly, if drowsiness is observed for a set of consecutive frames then the system issues a warning signal indicating that the driver should take rest.

DDDS

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Abstract— The system describes a way to identify whether a driver is drowsy or not. Firstly, the system captures the images and identifies the face of the driver. Then using that image the location of the eyes is identified and by performing binarization on the segmented image, the system then calculates the ratio of the white (true) pixels with respect to the total number of pixels to create a criteria that concludes whether the driver is drowsy or not. Secondly, if drowsiness is observed for a set of consecutive frames then the system issues a warning signal indicating that the driver should take rest.

Carry Smart

(we change the way you carry)

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***Abstract*—Carry Smart is a smart bag that can help human beings in being more efficient when it comes to carrying certain items. It will help the user by reminding him of the materials needed to be carried in the bag. Sometimes, there is a need to check the contents of the bag. In most fields, having a glimpse can save both time as well as money. The main idea is to track the field of a non•transparent bag that can be used for multiple purposes. An integrated reading device is built into the Smart Bag that can be used to scan the contents, report the presence of the objects and generate a detailed dynamic packing list at any given time to the bag. The Smart Bag is connected to a mobile device via Bluetooth and the device runs an exclusively designed Android application working dynamically with updates and an incompleteness notification along with the ability to edit and manage the lists for purposes desired by the user. Every object in the Smart Bag is marked with a RFID tag. An integrated RFID reader is built into the Smart Bag which can be used to scan the contents of the bag. The Smart Bag will be fitted with an Arduino Uno microcontroller board enhanced with an RFID reader and a Bluetooth module. The items detected by the RFID reader are reported to the mobile device via Bluetooth. It also enables a designated personalized user/owner to put together an ideal configuration for each specific travel purpose. Bluetooth enables the Smart Bag to collect user data which would encompass the underlying RFID, sensors and smartphone .The user will then be logged into the application after entering the password after which he/she will determine what exactly has to be in the bag and check to see if he/she really has everything that he/sheneeds.**

Air Core Generator

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Abstract - In present days the energy generation through alternate energy sources such as biogas, biomass, and residue from sugar factory. The energy is generated in the different forms such as heat, electricity, etc. the biogas is used for the general purpose such as cooking. The biomass and residue from sugar factory is used as fuel for thermal power plant for the generation of electricity. The sources which are mentioned above are the type of utilization of waste for power generation to regain or to use the waste for desired purpose as well as waste reduction. But we have put our effort to generate energy i.e. electricity by the air core generator. This system is more efficient then existing as it gives good output from low input fromwater flow or airflow.

Development of Automatic Tripping Mechanism to Protect the Load under Various Faults

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Abstract-Thispaperisdesignedtodevelopanautomatictrippingmechanismforthethreephasesupplysystem.The output resets automatically after a long interruption in the event temporary fault while it remains in tripped condition in case of permanent fault. The electrical substation supplies the power to the consumers, industries or domestic can have failures due to some faults which can be temporary or permanent. The faults that occur during the transmission or distribution due to failures in supply system The faults may be LG (Line to Ground), LL (Line to Line), 3L (Three lines) in the supply systems and these faults in three phase supply system can affect the power system. To overcome this problem a system is built, which can sense these faults and automatically disconnects the supply to avoid large scale damage to the control gears in the grid sub-stations. This system is built using three single phase transformers which are wired in star input and star output, and 3 transformers are connected in delta connections, having input 220 volt and output at 12 volt. This concept low voltage testing of fault conditions is followed as it is not advisable to create on mains line. 555 timers are used for handling short duration and long duration fault conditions. A set of switches are used to create the LL, LG and 3L fault in low voltage side, for activating the tripping mechanism. Short duration fault returns the supply to the load immediately called as temporary trip while long duration shall result in permanenttrip.

Smart Irrigation System to Reduce Water Wastage in Farm Field

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Abstract:The water requirements in irrigation being large, there is a need for a smart irrigation system that can save about 80% of the water. This prototype aims at saving time and avoiding problems like constant vigilance. It also helps in water conservation by automatically providing water to the plants/gardens depending on their water requirements. It can also prove to be efficient in Agricultural fields, Lawns & Parks. As technology is advancing, there is always a chance of reducing risks and making work simpler. Embedded and micro controller systems provide solutions for many problems. This application precisely controls water system for gardens by using a sensor micro controller system. It is achieved by installing sensors in the field to monitor the soil water level which transmits the data to the microcontroller for estimation of water demands of plants.

Improving power reliability to load using Sequential Switching Circuits Replacing PLC

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Abstract - In this project uses four switches to demonstrate the respective failure of that power supply. When any of the switches is pressed it shows the absence of that particular source, switches are connected to microcontroller as input signals. A microcontroller of 8051 family is used. The output of microcontroller is given to the relay driver IC, which switches appropriate relay to maintain uninterrupted supply to the load. The output shall be observed using a lamp drawing power supply from mains initially. On failure of the mains supply (which is actuated by pressing the appropriate switch) the load gets supply from the next available source, say an inverter. If the inverter also fails it switches over to the next available source and so on. The current status, as to which source supplies the load is also displayed on an LCD. As it is not feasible to provide all 4 different sources of supply, one source with alternate switches are provided to get the same function.

Identification of Fault Locations in Underground Distribution System using Discrete WaveletTransform

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Abstract— in this paper, a technique for detecting the faults in Underground distribution system is presented. Discrete Wavelet Transform (DWT) based on traveling wave is employed in order to detect the high frequency components and to identify fault locations In the underground distribution system. The first peak time obtained From the faulty bus is employed for calculating the distance of fault From sending end. The validity of the proposed technique is tested With various fault inception angles, fault locations and faulty Phases. The result is found that the proposed technique provides satisfactory result and will be very useful in the development of Power systems protection scheme.

Design of Marshalling Box to Protect Transformer from Internal Faults

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Abstract: This paper describes the protection of transformer system by using mechanical relays. The system includes facilities for discrimination between internal fault In this paper, the role model of any kindofbasicmarshallingboxhavebeenexplainedanddesigned.Thedesignimplementationandtestingof the system are alsopresented.

A wireless marshalling panel includes a field device protocol communication link. The wireless marshalling panel is capable of receiving a message from a wireless device and transmitting a corresponding message to a process controller via the communication link. The panel is also capable of receiving a message from the process controller via the communication link and transmitting a corresponding message to the wireless device. The messages transmitted and received via the communication link may be an analog current signal or a frequency shift keying signal. The wireless marshalling panel may include a second field device protocol communication link and also be capable of receiving a message via the second communication link and transmitting a corresponding message to a second wireless device. The wireless marshalling panel may also be capable of receiving a message from the second wireless device and transmitting a corresponding message via the second communication link.

Vehicle Security System

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Abstract—Currently most of the people have their own vehicle, if theft is happening on parking and sometimes driving in insecurity places. The safety of vehicles is extremely essential for public vehicles. Vehicle Security System installed in the vehicle, is used to track the place. The place of the vehicle identified using Global Positioning system(GPS) and Global System Mobile Communication(GSM). These systems constantly watch a moving vehicle and report the status on demand

POWER REALIBILITY ENHANCEMENT WITH HYBRID GENERATION

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Abstract-Now a day's electricity is most needed facility for the human being. All the conventional energy resources are depleting day by day. So we have to shift from conventional to non-conventional energy resources. In this the combination of two energy resources is takes place i.e. wind and solar energy. This process reviles the sustainable energy resources without damaging the nature. We can give uninterrupted power by using hybrid energy system. Basically this system involves the integration of two energy system that will give continuous power. Solar panels are used for converting solar energy and wind turbines are used for converting wind energy into electricity. This electrical power can utilize for various purpose. Generation of electricity will be takes place at affordable cost. This paper deals with the generation of electricity by using two sources combine which leads to generate electricity with affordable cost without damaging the naturebalance.

Solar Tracking System With Visitor Counter

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Priyanka M. Kothoke**

Department of electrical Engineering, B.R.H.C.E.T

Abstract:-

Solar energy, radiant light and heat from the sun, is harnessed using a range of ever-evolving technologies such as solar heating, solar photovoltaic,solar thermal electricity, solar architecture.
Such systems are based on a solar collector, designed to collect the sun's energy and to convert it into either electrical power or thermal energy. Solar trackingallows more energy to be produced because the solar array is able to remain aligned to the sun. Due to theatmosphere the sun energy is not as great in the morning and evening compared to noontime, which initiated thedevelopment of solar tracker.

FRICTIONLESS BREAKING USING NEODYMIUM MAGNET

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Abstract:-

In this paper the basic of magnetic braking are introduced. Firstly, a simple theory is proposed using Faraday's law which states that; "When a conductor is placed in a magnetic field, it generates an E.M.F across a conductor".And by Lenz law which states that "The electromotive force (emf) induced in a conductor moving perpendicular to a magnetic field tends to oppose that motion". With the theory of magnetic braking on copper rectangular sheet moving linearly through the magnet is explained. Secondly, a magnetic drag force and a magnetic lift force on a magnetic dipole moving over a nonmagnetic conducting plane are explained with image method based on Maxwell's equations. Also effect of eddy currents on braking system is explained without generation of heat energy while operation of braking system. The setup operates like an eddy current brake, a device commonly used in heavy vehicles to dissipate kinetic energy by generating eddy currents. A set of simple experiments is proposed to measure eddy current losses and to relate them to various relevant parameters. Typical results for each of the experiments are presented, and comparisons with theoretical predictions are included.

WISE CIRCUIT BREAKER

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.**Abstract**:

In India there are frequently problem of fire catch in home due to the earth leakage, short circuit, over load, high voltage, low voltage. The "WISE CIRCUIT BREAKER" is specially designed for home appliances to protect from Over-voltage, Earth leakage, Short circuit, over load, high-low voltage fluctuations, over temperature, gas leakage, water logging . The circuit is used for single phase A.C. main supply i.e.-230V at 50Hz.

Home appliances such as heater, fridge, mixer carrying current, when in case there is over load happens or short circuit happens the appliances get sparked and due to that it catches the fire. "WISE CIRCUIT BREAKER" So that any fault will occur it disconnect the appliances from the mains and it reset the circuit automatically when fault get corrected. The circuit uses an electronic relay for its protection operation. The "WISE CIRCUIT BREAKER" can prove as benefited and user friendly operation.

On Load Tap Changing Transformer Using TRIAC & µC8051

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Abstract—The main reason for using TRIAC is to replace the existing system used for OLTC. Whenever the load on the line increases the voltage drops increases proportionally. For achieving a constant voltage at the load side the OLTC is implemented. Traditionally, there are Selector Switches, Vacuum switches, Bypass switches, Reactors, Oil tank (for higher rating). The OLTC operation is very complicated task and requires few minutes to complete the process. There are lot of maintenance issue with the traditional mechanism. To overcome all the shortcomings in the traditional system, we can use High Speed Switching Devices for example SCR or TRIAC. The use of semiconductor devices increases the system reliability, at the same time system becomes more responsive to changes in voltage. The µC allows us to operate the systemautomatically.

Battery Health Monitoring System using PIC16F

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LTCOE

ABSTRACT -Battery is a device that converts chemical energy into electrical energy. They provide the current by which protective relay can trip high voltage circuit breakers at the event of fault. Batteries are used in power systems to provide continuous power to the load without interruption. Therefore periodical monitoring of battery becomes mandatory for efficient working of the power system. The objective of this system is to monitor the electrical parameters like Battery terminal voltage, Charging voltage, Discharge time through SCADA. This system incorporates microcontroller, GSM modem,SCADA.

Two Tier Transportation System

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Abstract - In 2010 Bus designer "youzhou song unveiled" his idea to help ease china's traffic. This is an actually elevated bus and china hopes it holds the answer to its crazy traffic jams. It is not quired bridge. It runs on the support of the road. The transit elevated bus (TEB) would see passengers ride above the traffic below with stops placed along the route in a similar system to the subway the Straddling bus that shows the vehicle navigating streets as a structure that steps across two traffic lanes with a hollow lower part that lets cars pass through. TBS China claims that compared to Metro, the new public transportation vehicle would cost less, have a shorter construction period and almost match passenger capacity. It is an economical and safe way of commuting that eliminates spending hours stuck in traffic.

Digital Control Strategy of Four Quadrant Matrix Inverter to Control Speed of BLDC Motor

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Abstract—BLDC motors are becoming more popular in industrial, traction & household appliance. It is having properties like good efficiency, more power density and less maintenance cost. It is having a PM rotor also a 3ph stator winding. For commutation BLDC motors don't use brushes. By using switching devices like MOS-FET,IGBT,etc. commutation is performed electronically. By using matrix converter & PWM technique the speed control of 3ph BLDC motor is shown. The PWM signal will send to matrix converter to vary the voltage supply to motor to maintain at constant speed. The simulation of a BLDC motor using matrix converter is shown in MATLAB.

Active Synchronization of Microgrid

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Abstract— Microgrid is an group of multiple distributed generators (DGs), such as conventional generators, renewable energy sources and energy storage system that provides both electric power and thermal energy. Typically, a microgrid operates in parallel with main grid. But there are the cases in which a microgrid operates in an islanded mode, or in a disconnected state. Islanded microgrid can change its operational mode to grid connected mode by reconnection to grid, which is referred to as synchronization. Generally a single machine can be easily synchronized with the grid using synchronizer. However, the synchronization of microgrids which operates with multiple distributed generators and loads cannot be controlled by a traditional synchronizer. It is required to control multiple generators and energy storage system in a co-ordinated way for the microgrid synchronization. It is not simple problem considering a microgrid consisting of various power electronics-based DGs as well as alternator–based generators that produces power together. This paper proposes an active synchronization scheme that adopts the network based coordinated control of multiple DGs. From simulation results using simulink dynamic models, It is shown that the scheme provide the microgrid with a deterministic and reliable reconnection to the grid. The proposed method is verified by test cases ofsimulations.

Analysis of Total Harmonic Reduction By Using Cascaded H-Bridge Technique

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Abstract: A multilevel inverter is a boon to today's world where we are under certain crisis due to exhaustance of fossil fuels and environmental concerns, So there is a need to adopt renewables like solar, wind,geothermal,etc. It is noticeable that our majority loads are in AC but generation from renewables such as solar cell is DC and so there rises a need for conversion of DC to AC i.e an inverter.But now the case arises that the AC obtain from inverter should be pure sine or should have least harmonic content which is the ultimate aim of our paper.This paper focuses on improving the efficiency of the multilevel inverter and quality of output voltage waveform by comparing various results on basis of controlling schemes, switching frequencies and bridge levels of cascaded h bridge multilevel inverter.

A REVIEW ON NEW MATERIAL REQUIREMENT FOR SUPERCONDUCTER GRID TECHNOLOGY

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Abstract - Superconductor ac and dc cables, fault current limiters and wind turbine generators offer solutions to key challenges in modernizing electric power infrastructure around the world. High critical current J_c is an essential requirement for the practical commercial operation of such systems. High temperature superconductor (HTS) wires have met the basic J_c requirements, and some initial systems have been successfully installed in the power grid. From an applications perspective, further progress in increasing the superconductor critical temperature T_c and critical current J_c could open up an even broader impact. However, thermal fluctuations and the resulting flux creep depress critical current, creating a trade-off between higher temperature and higher critical current. The origins of this trade-off are discussed. The YBCO material used in today's second generation HTS wires strikes a good compromise between these competing effects, and because of the flux creep problem, applications needs call for further research to be focused more on increasing J_c than on increasing T_c.

Analysis and Design of Traction System Using WPT

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Abstract- Air gap is a significant part of magnetic circuit, especially in high powerinductors. It significantly modifies parameters of high magnetic devices by increasing the saturation current. Although the battery technology is evolving the drawbacks of battery such as cost, size, weight, etc. would be still dominating constraints for development of EV. To address the battery related problems, a concept of WPT enabled EV came into existence. It has several advantages like elimination of overhead line, constant power supply, weather proof, etc. Although the initial cost is very high, once it is implemented, it will significantly reduce the operationalcost.

APPLICATION OF THERMOELECTRIC GENERATOR

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Abstract— Recent trend is about the best ways of using the renewable sources of energy in to useful work in order to reduce the rate of consumption of fossil fuel as well as pollution. Presently, high fuel costs and concerns about foreign oil dependence have resulted in increasingly complex engine designs to decrease fuel consumption.Many commercial, environmental and socio-economic benefit can be attributed to improvement in fuel economy. In actual operation of automobile, many electrical loads, lights, fans for AC or heat, radio, electrical power steering, etc, that could total 700 to 1500 watts might be on. Therefore any update of electrical load will be a challenge for the automotive companies to meet these requirements. Investigated the feasibility of designing a TEG which could provide auxiliary electrical energy for an automobile.It was also concluded that utilizing a thermoelectricgeneratoronanautomotiveenginewasworthyoffurtherinvestigationifthe heat source could be kept at hightemperature.

Energy Harvesting Model Using Thermoelectric Generator (TEG) In Addition with DC/DC Converter for Power Conditioning

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Abstract—As we know, day by day need of electrical energy is increases due to increases in population and due to use advance technology. Hence there is gap between demand energy and generated energy. To bridge the gap we have to generate the more electricity which is quite completed. Hence best way is suggested in this paper for harvesting energy. For harvesting waste heat TEG (thermo electric generator) is used which works on seebeck effect. The efficiency of TEG module is approximately 10% and if temperature difference between hot side and cold side is maintained about 270 degree we get output voltage around 2v.This paper describe modeling of TEG system and power condition unit. In the power conditioning unit we use DC-DC Boost converter. Using this converter we get out voltage around 5v.

Simulation of D-STATCOM in Power Distribution System for Power Quality Enhancement using MATLAB Simulink Tool

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Abstract—The major issue existing in the power system are due to the nonlinear characteristics and fast switching of the power electronic equipment's. Power quality issues are becoming more and more relevant due to the effects that causing the power system .It leads to reduction in efficiency of the system and increase in utility costs, efficiency and cost are considered today almost at the same level. The power quality issues can be mitigated by making use of the active power filters. Among this shunt active power filter can be used for harmonic as well as reactive power compensation. In this work DSTATCOM is used for mitigation of harmonics. The reference quantities are generated using instantaneous symmetrical component theory (ISCT). Switching pulses for the inverter is derived using hysteresis PWM control and DC link voltage has been regulated using conventional PI controller. MATLAB software is used for the simulation studies. Various simulation results are presented under steady state conditions and performance.

LTV (LEVITATE TRANSPORT VEHICLE)

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ABSTRACT :

Levitate transport vehicle are based on the concept of magnetic levitation. The main emphasisfor magnetic levitation is for transportation."Maglev", is an advanced mode of surface high speed transportation, whereby a vehicle gliding above a guideway is suspended, guided, and propelled by magnetic forces.This method has the potential to be faster, quieter and smoother than wheeled mass transit systems.The power requirement for levitation is small of the overall consumption most of the power used is needed to overcome air drag.Levitate transport vehicle system uses a conveyor belt arrangement for movement which is driven by motor. It uses electromagnet energized by direct current supply, fixed along with the conveyor belt upon which trolley/vehicle is to be levitated. As the motor drives belt, electromagnet moves with it and the permanentmagnet arranged beneath the coach and by principle of levitation trolley/vehicle is suspended, guided and propelled. The greatest advantage to this is the absence of friction.However, this system is inherently unstable.The structures wrap around and under either side of the guide way. Without some additional supporting mechanism there might be a possibility that magnetic force causes a vehicle to guide away from its intended path. Transportation systems that use Maglev have been in airports for ground transportation and in manufacturing & processing industries and mining areas.Maglev can beconveniently considered as a solution for the future needs of the world as it comprises of clean energy. This research paper tries toput the idea of how magnetic levitation technology can be use as improved mode of transportation inindustry.

Particle Swarm Optimization Applied to Static Transmission Expansion Planning Problem

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Abstract- Transmission Network Expansion Planning (TNEP) consist of obtaining the plan to expand a transmission network use to reduce construction and operational cost. Transmission network expansion planning determine all the changes needed in the transmission network i.e. addition, modification or replacement of old facilities. Transmission expansion planning is a very complex problem to power system. The complexity of problem is due to its mixed integer, non-linear, non-convex nature. To solve such problem, Particle Swarm Optimization Technique is introduced. Particle Swarm Optimization (PSO), a population based stochastic optimization technique.It is a derivative free process and easy to implement. The main goal is to determine the optimum operating condition of the control variable and minimization of transmission losses at normal operatingcondition.

POST FAULT DIAGNOSIS OF TRANSFORMER USING DISSOLVED GAS ANALYSIS

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Abstract:

Dissolved Gas Analysis is one of the most useful method to detect incipient faults in transformer. Amongst the conventional DGA methods, IEC three ratio method is widely used. One of the disadvantages in its present form is that a significant number of DGAresults in- service fall outside the existing IEC codes and cannot be diagnosed. We emphasis on the wide application of DGA for transformer. This will help to minimize the inventory and loss ofpower.

A REVIEW ON NEW MATERIAL REQUIREMENT FOR SUPERCONDUCTER GRID TECHNOLOGY

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Abstract - Superconductor ac and dc cables, fault current limiters and wind turbine generators offer solutions to key challenges in modernizing electric power infrastructure around the world. High critical current J_c is an essential requirement for the practical commercial operation of such systems. High temperature superconductor (HTS) wires have met the basic J_c requirements, and some initial systems have been successfully installed in the power grid. From an applications perspective, further progress in increasing the superconductor critical temperature T_c and critical current J_c could open up an even broader impact. However, thermal fluctuations and the resulting flux creep depress critical current, creating a trade-off between higher temperature and higher critical current. The origins of this trade-off are discussed. The YBCO material used in today's second generation HTS wires strikes a good compromise between these competing effects, and because of the flux creep problem, applications needs call for further research to be focused more on increasing J_c than on increasing T_c.

Power Generation Using HybridTechnology (January 2017)

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Abstract—Todayelectricity has become the most important aspect of our present generation. Smart cities represent the new and emerging technology in the surroundings. The proposed system has been designed to produce power if there is any wind strong enough to cause bending in the energy converting elements. This project is basically the combination of the wind energy and the solar energy. As these are renewable sources of energy and are available naturally we can make use of them to the fullest to build energy generation units and use these energies instead of fossil fuels which are becoming extinct day-by-day. This paper focuses on power generation using hybrid technology and the suitable components required for building up of theprogram.

ENERGY AUDIT: A CASE STUDY TO REDUCE LIGHTING COST

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ABSTRACT : *Lighting is an essential service in all the commercial. The power consumption by the commercial lighting varies between 2 to 10% of the total power depending on the type of commercial load.. Lighting is an area, which provides a major scope to achieve energy efficiency at the design stage, by incorporation of modern energy efficient lamps, luminaries and gears, apart from good operational practices. It provides merely to indicate some of the options that energy auditor can consider when performing an analysis of an industry.*

Energy conservation and exploration of new energy avenues are the well accepted solutionto fulfill the growing commercial demand in future. Implementation of energy audit is necessary to conserve the energy in futureaspects.

This paper presents a physically based model and formulation forcommercial

load management.

Industrial Automation and Control

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Abstract - This paper mainly focuses on monitoring andcontrolling of Industrial Appliances remotely when the user is away from the place. Micro- controller is the core component of this project. Objective of this project is to avoid number of accidents, human errors, and for manual safety. As Human errors and manual safety systems lead to increase in industrial accidents, So here we are proposing a micro controller based industrial automation system that detects motion, Temperature ,current , LPG Gas, controls DC motoretc, to keep track of accidents, accordingly it on/off various load such as cooling fan, exhaust fan, water sprinkler and also it gives the information about detection to the supervisor through LCD Display. This paper includes the study of various electronic devices using sensors.

Auto Power Supply Control from 4 Different Sources

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Abstract — The main purpose of this project is to provide continuous power supply to a load, by selecting the supply from any of the four sources namely solar, inverter, main and generator automatically in case if one the source is absent. The need of electricity is increasing day by day and the frequent power cuts of electricity are causing many problems in different areas like banks, colleges/schools, hospitals, houses and industries. Thus there is requirement for an alternate arrangement of power supply. This arrangement can be designed by using ARM7 microcontroller and relays. When a source, say mains fails the supply automatically shifts to next priority source generator and so on. LEDs (Light emitting diodes) can be used to show that which source is used to provide thesupply.

CONTRA ROTATION WINDMILL

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Abstract: **We would be discussing about the various ways that can be implemented in order to use the natural resources .The focus would be made on the wind energy: The paper deals with the technical details involved in the generation of power through wind technology. It discusses the factors responsible for generation of wind power and the limitations of the generator. While the emphasis is given on the various schemes used for production of electricity using wind power.**

Hybrid Wind-Solar System for the rural exchanges can make an ideal alternative in areas where wind velocity of 5-6 m/s is available. Solar-wind power generations are clear and non-polluting. Also they complement each other. During the period of bright sunlight the solar energy is utilized for charging the batteries, creating enough energy reserve to be drawn during night, while the wind turbine produce most of the energy during monsoon when solar power generation is minimum. Thus the hybrid combination uses the best of both means and can provide quality, stable power supply for sustainable development in ruralareas.

Simulation of vertical axis wind blade and chargecontroller circuit by using ANSYS and MATLAB software forRooftop Hybrid PowerSupply

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Abstract— In recent years, wind turbines and solar panels have became an acceptable alternatives for electrical energy generation by fossil or nuclear power plants, because of the environmental and economic benefits. This paper emphasize on modeling of vertical axis wind turbine for rooftop hybrid power supply. The selected savonius helical type blade was simulated using ANSYS (Flunet) software. Also charge controller circuit used to protect battery from overcharging and deep discharge is analyzed on MATLAB simulink. This simulation results will be utilized for fabrication of the hybrid model which will be consisting of vertical axis wind turbine (VAWT) and solar panel in one single unit. The energy availability of solar and wind are complimentary not only seasonally but also on a daily basis. Hence hybrid concept is an efficient way of combining the power of wind and solar.

Voltage regulation and reactive power compensation by SSSC based on 48-pluse GTO (VSC)

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Abstract—In this paper, the performance of power systems decreases with the size, the loading and the complexity of the system networks. This is related to problems with power oscillations, large power flow and voltage instability with inadequate control, so the power flow control plays a major role in power systems. In this paper SSSC series FACTS device are regulates system voltage by absorbing or generating reactive power and the control of active, reactive power flow and voltage well as damping power system oscillations in long transmission line. In this paper Simulation studies were carried out in the MATLAB simulation environment to observe the compensation achieved by the SSSC device. The system parameters such as voltage, current, active power and reactive power transmissions are observed when the SSSC is connected to the power system.

REVERSIBLE FUEL CELL- THE FUTURE OF RENEWABLE ENERGY

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Abstract:-Grid-independent electric power systems using renewable power sources (such as solar, wind, and water) are in extensive need today because of depletion of fossil fuels. Cost is the major barrier to the practical use of systems of this type. Because power is generated intermittently and is variable -- the nature of renewable generation --such systems typically require both a large energy storage capacity and a backup generator. Though batteries can achieve high energy storage efficiencies near 80%, the battery/generator combination is quite expensive (first cost plus maintenance costs) and has lower life expectancy. In addition, transportation and its large size to need the demands is practically expensive and has developed a need to invent an substitute for existing renewable energy. Fuel cell technologies are cost effective, highly efficient, and critical for overall success in the Hydrogen Program Strategic Plan. Fuel cells serve as both a transitional technology -- as the world moves away from fossil fuels, and as an end point technology -- for the efficient production and utilization of hydrogen. Reversible fuel cell is a promising future of energy generation which aims to provide 24 hours of continuous supply at betterefficiencies.

Smart Lighting System

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ABSTRACT –

The main aim of this project is to save energy. This project presents the implementation of a lighting system which is able to detect the approach of the human and then turn the lighting onto the normal intensity to let the large scale sectors be bright enough. This project is going to implement in the classroom. All lights are equipped with the energy-saving function which will turn itself to the dimming level automatically after the human leaving. PIR (Passive Infrared) sensors are utilized in the system instead of a video camera for the purpose of both cost-down and privacy issue. The project is developed in such a way that saving should be easy than to generate energy. The Project is automatic lighting control system using PIC Microcontroller. This system switches ON the lights or controls the intensity of light as required. As it works with PIR sensor, no battery back-up & programming of timings is required. When the light focuses on PIR it sends signal to microcontroller & depending on that signal the lights will adjust its intensity level or it will turned off through relays if intensity is more and when PIR detects darkness the lights will be automatically turned on. There is no need for manual controlling system. This is a simple and very useful system. The benefits of lighting system are as follows: No need to worry about your landscape lights again, Dimming thelightssavesenergy&itwillextends thelifeofbulb,Neveragainhave lightsoninanemptyroometc…

APPLICATION OF WIRELESS POWER TRANSFER IN TRAIN

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Abstract: - Wireless power transfer (WPT) using magnetic resonance is the technology which could set human free from the annoying wires. In fact, the WPT adopts the same basic theory which has already been developed for at least 30 years with the term inductive power transfer. WPT technology is developing rapidly in recent years. At kilowatts power level, the transfer distance increases from several kilometres to several hundred kilometres with a grid to load efficiency above 90%. In this paper we used the wireless power transfer technology to Train system. By using resonance inductive coupling principle we transfer power from track side coil to train side coil. In this paper we discuss about the application of WPT for train system.

LabVIEW based detection of Pulse Transit Time from Plethysmogramand ECG signals for estimation of Blood Pressure

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Abstract—Blood Pressure is the pressure exerted by blood on the walls of arteries. Normal blood pressure is considered to be a systolic blood pressure of 120 millimetres of mercury and diastolic pressure of 80 millimetres of mercury (stated as "120 over 80"). If an individual were to have a consistent blood pressure reading of 140 over 90, he would be evaluated for having high blood pressure. If left untreated, high blood pressure can damage important organs, such as the brain and kidneys, as well as lead to a stroke. Thus it becomes important to measure blood pressure as it can lead to early diagnosis of diseases that may be linked to high or low blood pressure. PTT is the time taken by the arterial pulse propagating from the heart to a peripheral site. This can be calculated from ECG signals and PlethysmoGram signals. Since, PTT has been found to be correlated to Blood Pressure, it is imperative to calculate PTT accurately. In this paper, algorithms used to calculate the points of interest in the ECG signal and the signal along with the calculation of PTT from them is developed. The coding has been done in LabVIEW which is has a graphical programming syntax that makes it simple to visualize, create, and code engineering systems.

Hybrid Based MVDC Railway Track Electrification

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Abstract: ELECTRIC traction offers many advantages over diesel based systems generating power on board (faster acceleration, better performance on steep gradients possibility of regenerative braking, environmentally more friendly, etc.), which surely explain its sustained growth both in developed and emerging countries . Currently, two main categories of railway electrification systems coexist depending on the power needs . DC systems, with voltages ranging from 600 V to 3 kv, which are adopted mainly for trams, suburb trains and medium distances.

Design and Simulation of Flyback Transformer

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Abstract- High frequency fly-back transformer is most popular in switch mode power supply due to its advantages over other transformers. This paper presents the design of 5kV, 5 watts, 20kHz fly-back transformer. Input voltage to the transformer is 12V from the dc supply. Also various applications of fly-back transformer, its advantages and disadvantages are mentioned in this paper. Simulation model of fly-back converter using MATLAB SIMULINK is presented in this paper.

Remote Monitoring of Eight Parameters of Transformer

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Abstract: This paper presents wireless transformer monitoring parameters. The main aim of this system is monitoring and controlling through GSM module. The monitoring and control of transformer is done by using temperature sensor, microcontroller and GSM transmission which is wireless communication. The three parameters of the transformer i.e. voltage, current and temperature are monitored. Then send the same data to a remote location. Controller will make transmission between GSM and client.

Power Enhancement by Simultaneous AC-DC Power Transmission

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ABSTRACT:Long extra high voltage (EHV) ac lines cannot be loaded to their thermal limits in order to keep sufficient margin against transient instability. With the scheme proposed in this paper, it is possible to load these lines very close to their thermal limits. The conductors are allowed to carry usual ac along with dc superimposed on it. The added dc power flow does not cause any transient instability. This paper presents the feasibility of converting a double circuit ac line into composite ac–dc power transmission line to get the advantages of parallel ac–dc transmission. Simulation and experimental studies are carried out. No alterations of conductors, insulator strings, and towers of the original line are needed.

Cockcroft Walton Voltage Multiplier as High Voltage Dc Source

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Abstract— This paper describes the details of Cockcroft Walton voltage multiplier as source of high voltage DC. DC high voltage is one of the means used in a variety of insulating material testing and laboratory equipment. The project is designed to develop a high voltage DC around 1.8KV from a supply source of 230V AC using the capacitors and diodes in a ladder network based on Cockcroft Walton voltage multiplier concept. This multiplier is suitable for testing of high voltage cables, as prime DC source impulse voltage charging unit due to its light weight, compactness, low cost and portability. Proposed generator is consists of four stages of Cockcroft-Walton voltage multiplier so the output obtained is approximately four times of input voltage that is 1.8KV.

Analysis of Total Harmonic Reduction By Using Cascaded H-Bridge Technique

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Abstract: A multilevel inverter is a boon to today's world where we are under certain crisis due to exhaustance of fossil fuels and environmental concerns, So there is a need to adopt renewables like solar, wind,geothermal,etc. It is noticeable that our majority loads are in AC but generation from renewables such as solar cell is DC and so there rises a need for conversion of DC to AC i.e an inverter.But now the case arises that the AC obtain from inverter should be pure sine or should have least harmonic content which is the ultimate aim of our paper.This paper focuses onimproving the efficiency of the multilevel inverter and quality of output voltage waveform by comparing various results on basis of controlling schemes, switching frequencies and bridge levels of cascaded h bridge multilevel inverter.

Precise Control of Three Phase Induction Motor through Timer Panel

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Abstract: Three phase induction motors comprise of the majority of load of industrial load. Traditionally hardware based timer circuits were used in the control system. Implementation of Programmable Logic Controllers for control and monitoring is described. The comparison between hardware based timer circuit control and PLC based timer panel is made. Variable Frequency Drives(VFD) are used for speed control. VFD works on V/f method of speed control and comprises of converter , filter, and PWM inverter. Thus the input to induction motor is given through VFD which is automatically controlled by PLC. The application of this hybridized control panel in pharmaceutical blending machine is described and operation isexplained.

Ropeless Ambivalent Electromagnetic Elevator

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Abstract— Elevators are generally powered by electric motors that either drive traction cables or counter weight systems like a hoist. At present, elevator consists of cage and a counterweight attached to the ends of a cable that runs over a pulley. Present concept of elevator has many disadvantages like use of counter-balancing system which occupy more spaceanditmakeuseof3phasemotorsforelevationwhichconsumesmorepowerandalso needs speed control devices and circuits. Use of rope and pulley adds more to the cost and enormousamountofoilisusedforlubricantpurpose.Ourprojectconceptgivesrisetoanew implementationthatuseselevatorwhichisropefreeandmotorless.Thisprojectisbasedon the electromagnetic principle of Faraday's law in which permanent magnet and electromagnet plays a vital role. Biggest advantage of this concept is that it uses land effectively and safety precaution is taken wisely. In future, there is large scope for this elevator which will be constructed according to the architecturedesign.

Cognitive Radios -Technology for Green Communications

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Abstract—It is estimated that 3 percent of worldwide energy consumption is caused by the ICT infrastructure that generated about 2 percent of the worldwide CO2 emissions, contributing global warming.Amajorportionofthisexpandingtraffichasbeenmigratingtomobilenetworksandsystems. Theconceptof"greencommunications"isextendedtotheradiocommunicationsworld.Toreducethe global CO2 emission to protect our environment is not the sole way to address this green concept in wireless communications. The proper use and the optimal sharing of spectrum resources is also a very important,theelectromagneticwavescanbeconsideredasapollutionforotherusersandweshallalso deal with this problem. Sustainable development should also address the human aspects both from the social and the health point of views. In this paper, Cognitive Radio (CR) is proposed as an efficient technologytomeettheGreencommunicationsconcept.Ithasbeenapromisingtechnologytoincrease spectrum utilization through spectrum sharing between licensed users (primary users) and unlicensed users (secondaryusers).

Amphibian Robot

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Abstract—Need of security is growing day by day due to enormous development in the field of technology, but this security has to be achieved at minimum cost and minimum risk to human life. This is a factor which has encouraged us to develop this project which can achieve security at minimum risk and cost. Thus instead of exposing the soldier to do the hazardous job such as dangerous gas detection or hostile environment detection we have designed the machine which will do the same job more efficiently. In addition to this, due to increasing demands in industrial transportation via roadways as well as water ways, also for providing security at international borders there is need of developing a model which can loco mote on land as well as water. This paper deals about an evolutionary non-humanoid robot for surveillance with intruder protection capability. Also a new guaranteed technology of ASK RF transreceiver is used to control the robot accordingly as per the requirements of the operator. Our design offers wireless technology which is flexible & cost-effective

Mutual Coupling Reduction and Bandwidth Enhancement of Microstrip Antenna using MIMO configuration with polarization diversity

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Abstract— There has been tremendous growth in wireless communication recently. The wireless communication systems are everywhere around us such as mobile communication, GPS, Wi-Fi, Bluetooth etc. and the antenna is the fundamental component of any wireless system. There are several types of antennas are available in practice and the basic antenna used in this paper is Microstrip Antenna (MSA), as it offers many advantages such as low weight, low profile, compact in size and can be easily integrated with microwave integrated circuits. The limitations of this antenna are, low gain and narrow bandwidth. Therefore in this project an attempt has made to increase the bandwidth and the coverage area by using suspended MIMO-MSA antenna. The polarization diversity is used to increase the isolation between antenna elements. The two rectangular microstrip patch antennas are printed orthogonally on one side of the low cost easily available mm thick FR4 dielectric substrate, which is placed 1mm above the 0.5 mm thick metal plated copper groundplane.ThebandwidthofMSAhasincreasedbysuspendedconfigurationandmutualcouplingbetween two antenna elements has reduced by using polarizationdiversity.

PORTING AN APPLICATION ON REAL TIME OPERATING SYSTEM

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Abstract—ARealTimeOperatingSystem (RTOS)isan information processing system that comprises of two components, viz.,'Real-Time'and'Operating System'. This paper proposes the processofporting an application code from MSP430, a 16bitcontroller,on M S P 4 3 2 , a 32bit controller having RTOS.'Porting 'is a process of adapting a software on a hardware so that an executable program can be created for a computingenvironmentthatisdifferentfromtheoneforwhich it wasoriginallydesigned.Atestprogramofblinkingan LEDis implemented to inspect thesuccessofporting. The topic would be explored by fewotherapplications.

Magnetic Levitation Train

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Abstract — This project investigates an alternative technology for mass land transit travel. The paper presented introduces techniques for creating a small-scale version of current industrial versions in use today. The group chose this project as a method to explore this relatively obscure technology in the hopes of informing and educating.

Power Generation and Refrigeration without compressor Gas

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Abstract-ThetrekkersorhikerswhengofortrekkingtheyalwaystakessmartphoneswithGPS andmaybeotherelectronicequipment'swiththem.Theyneedelectricityforrecharging.Spare batteries or chargers are used for this purpose. But in raining or other circumstances it is impossible to charge with solar panels. Even when it is clear weather it's simply take toolong time to charge. This project provides charging with available and portableresources. The medicines which is to be refrigerized most of the time cannot be transported for the long distances, so it makes them possible to use the portable refrigerator which can be easily turn ON on car batteries. So this can be used as a portable refrigerator by many of theusers.

DESIGN AND SIMULATION OF 4 BIT ALU USING MICROWIND AND DSCH3.5

Guide: Dr. D.J Pete
Rutuja.Chaudhari *Shweta.Khedekar* *Sampada.Lambe* *Jyoti.Maurya*

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ABSTRACT:

This paper presents a design of a 4-bit arithmetic logic unit (ALU) by implementing CMOS technique. ALU is the most crucial and core component of central processing unit as well as of numbers of embedded system and microprocessors. In this, ALU consists of 4x1 multiplexer, 2x1 multiplexer and full adder designed to implements logic operations, such as AND,OR,EX-OR,EX-NOR etc. and arithmetic operations as ADD,SUBTRACT, INCREMENT, DECREMENT. The simulation shows that the design is more efficient with less power consumption, less surface area and is faster as compared to pass transistor and CMOS techniques.

Natural Disaster Warning via Social Media

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Abstract: As we all know that there are many natural disasters occurring in this world which ruins human's life and destroys the nature. In this paper we propose description of an alert generating system for natural disasters like Floods, Earthquakes and Landslides using float sensor,accelerometerandpiezosensorandgiveswarningthroughsocialmediasuchastwitter. We are using social media to give warning, becausesocial networking is one of the best and most popular medium of communication, sending an alert through it would reach a larger distance.

E-Bus Stop

AbdulrazzakPathan (Author 1) Pooja Shetty (Author 3)
Abhishek Shukla (Author 2) NehaYavagal (Author 4)
Prof. R.V. Adokar (Guide)

Abstract: E-Bus Stop will serve as a viable notification system that will effectively assist passengers in making the decision of whether to wait for the bus or not. This system is a standalone system designed to display the real-time location(s) of the buses.

The System is divided in two parts: Bus unit and Bus Stop unit. Bus unit consists of GSM, GPS modules and microcontroller. Bus Stop unit includes a Display that will show the real time location of bus with no. of passengers in bus

No matter where the bus is in the city, its location will be updated in the real time on the Bus Stop.

Project also includes an Android App that provides the service of Cashless Ticketing for the passengers.

Quad-Copter Using Speech Recognition

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*Abstract:*Theprojectgoalwastodesignasemi-autonomousQuad-coptercapableofsemisustainflight via wireless communication while utilizing a Arduino (v5.5). Quad-copter consist of brushless motors which is control by Electronic speed Controller(ESC) for managing equivalent speed of motors.The main objective is to provide a mechanism for controlling an autonomous Quad-copter for various applications.In this project we evaluate a Quad-copter using speech recognition system. We are trying tocontrolmovementsofQuad-copterbyspeech(up,down,rightandleft).Thereareseveralapplications ofourprojectsuchusitcanlocatethepositionsofourenemyandwecaneasilyplananattackonthem. This will also save many soldiers life. Another application is that it can be used in particular areas for purpose such as delivery, thermal scanning and mapping in areas which are time consuming, difficult orunsafe.

GSM Based Home Automation

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Abstract: The project aims at a system allowing user to control home based appliances through SMS along with acknowledgements. Here user need not switch home appliances on and off manually. Our system allows user to operate these devices through SMS, also the status weather the device is switched on or not is sent to user via a return SMS. This can be used by domestic users and company users to operate as well as check status of home and company appliances from anywhere in the world. It is a very convenient system for users since it allows them to easily control and monitor these appliances from anywhere. An example is that a person may switch on his House or office AC 15 minutes before he arrives so that he gets a cool environment as soon as he reaches there. The system works in the following manner; the SMS sent by user is received by the GSM receiver and then sent to an 8051 microcontroller in order to process it. The microcontroller then activates the appropriate relay for that appliance and controls it.

CLASSROOM ENERGY SAVER

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Abstract-Recently, many research projects are being carried out to save the energy in various aspects such as producing a device which consumes very less energy or designing a system which helps to reduce the power consumption using the existing devices. In this paper, a room light and fan control system is proposed which is named as light and fan control system (LFCS). This proposed system will abletoprovidetheneededlightandfanwhichprovidesthesatisfactionofusersandwillprovideenergy saving andmanagement.
InthispapertheLightingandfanControlSystemandthedecisionmakingalgorithm,arediscussed.As per the algorithm the system will first check any occupant is there in the room. If so then the system will check the intensity of light in the room and if it is low then it will switch on the light. Similarly it willcheckforuserintheroomandaccordinglyswitchonthefansystemdependingonthesurrounding temperature.
Our proposed system will be able to minimize the energy consumed for lighting and fan in a room and can provide it efficiently.

Ropeless Ambivalent Electromagnetic Elevator

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Abstract—Elevators are generally powered by electric motors that either drive traction cables or counter weight systems like a hoist. At present, elevator consists of cage and a counterweight attached to the ends of a cable that runs over a pulley. Present concept of elevator has many disadvantages like use of counter-balancing system which occupy more space and it make use of 3 phase motors for elevation which consumes more power and also needs speed control devices and circuits.Useofropeandpulleyaddsmoretothecostandenormousamountofoilisusedforlubricant purpose.Ourprojectconceptgivesrisetoanewimplementationthatuseselevatorwhichisropefree and motor less. This project is based on the electromagnetic principle of Faraday's law in which permanent magnet and electromagnet plays a vital role. Biggest advantage of this concept is that it uses land effectively and safety precaution is taken wisely. In future, there is large scope for this elevator which will be constructed according to the architecturedesign.

21st Century Industrial Farming

-Auto Green House

Sneha Jadhav Pragati Narnaware MananMehta AvinashNinawe

Prof. Mrs. Roshani V.Bhaskarwar

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Abstract— Industrial farming is the technique of providing most favorable environment condition to the plants. It is rather used to protect the plants from the adverse climatic conditions such as wind, cold precipitation, excessive radiation, extreme temperature, insects and diseases. This is possible by erecting a greenhouse, where the environmental conditions such as light, temperature, humidity and water supply are so modified that one can grow any plantinanyplaceatanytimebyprovidingidealenvironmentalconditionswithminimumlabor as it can be controlled from a place far away using internet based system (IoT). Ideally suited for vegetables and flower crops - Year round production of floricultural crops and off-season production of vegetable & fruit crops. Disease-free and genetically superior transplants canbe produced continuously by efficient utilization of chemicals and pesticides. Water requirement of crops is very limited and easy to control using water sensors and pump control system. Arrangements for natural ventilation, fans and light sources are made for regulation of temperature,humidityandlightconditionsdetectedbysensorsplacedatdifferentplacesinside thegreenhouse.

An Intelligent Wheelchair for Patients Suffering from Physical and Ocular Limitations

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ABSTRACT:

We propose to design a smart wheelchair which can be controlled by a patient simply by spelling out the direction in which he or she wants to go.Moreover,the wheelchair will stop automatically when it comesnearawallornearastaircase..Theswitch,whichisnormallyclosedwillopenassoonasitloses contact with the floor.Thus,the wheelchair will stop when it comes towards the edge of a staircase.The wheelchair has two DC motors,one for the left rear wheel and another for the right rear wheel.There will be two caster wheels which will act as two front supporting wheels.We will develop an android application using B4A Software.The application will act as an interface on which the entire voice control system will work.These voice commands will be transmitted to the chair circuitry through an HC-25Bluetoothmodule.A16X2LCDdisplayisinterfacedwiththechaircircuitrytodisplaywhether the commands given on the mobile phone have reached the wheelchair or not. In order to control the wheelchairintheeventoffailureofthevoicecontrolmechanism,acontrolpanelwillalsobedeveloped on the application which can control the wheelchair through direction keys in case the voice control systemfails.Thewheelchaircircuitrybasicallyhasarelaycircuitwhichwillacceptcommandsfromthe 89s51 microcontroller and control the direction of rotation of the two DCMotors.

Braille Embossing Printer Using Analytical And ComputationalTechniques

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Abstract: Braille is reading and writing system used by people who are blind or visually impaired. Braille Printer proves to be of a very great help for visually challenged people. They are specialized printer or embossers that are used for printing. Braille format unlike normal printer they use a special type of paper for printing purpose. They are very noisy and very costly. The institutes working for visuallyimpairedpeoplecannotaffordtheseprinterswhichcostsinlakh.Henceourprojectaimsatthe development of Braille printer using inexpensive components and better the knowledge understanding about various aspects that needs to be considered while designing similar types of product infuture

Display of Underground Cable Fault over Internet of Things

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Abstract— In this paper we aim to determine the distance of underground cable fault from the power distribution station in kilometers and displayed over the internet using internet of things. Underground cable system is a common practice followed in major urban areas as it is not affected by any adverse weather condition. Proposed system is used to find out the exact location of the fault and to send data in graphical format to a dedicated website together with on board LCD display using a Wi-Fi module

MSP430 based WSN for disaster management

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Abstract-This architecture fulfils the requirements of low power, compact size and self-organization with a new feature of adaptive Power Control. For Low power consumption Adaptive Power control technique is used. One cycle of sleep, wakeup, and run is typically the cost of acquiring a single set of sensor samples. For the majority of the time the node is sleeping. While asleep, the microcontroller must maintain its state, while consuming little power and shutting down or dis-connecting all peripherals including the radio. For our WSN node design, we chose the Texas Instruments MSP430 microcontroller. In this paper, the utilizationoftheHeteroge-neousSensorNetworksforDisasterManagement(DM)isanalyzed.
Also, this paper reviews the types of disasters and the different sensors utilized for measuring their intensity. Heterogeneous clustering protocol is suggested for disaster management using wireless sensornetworks.

Investigation on the Electrical Conductivityof ZnO and ZnO Doped with Vanadium and Nitrogen Nano-particles

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***Abstract*—ZnOwithalargebandgapenergy(3.3eV),largeexcitonbindingenergy,highelectronmobilityandhighthermal conductivitymakesitsuitableforawiderangeofdevices,includingtransparentthinfilmtransistors,photodetectorslight emitting diodes and laser diodes that operate in the blue and ultra violet region of the spectrum. In the present investigation zinc oxide nano-particles and ZnO doped with Vanadium and with Nitrogen were synthesized by sol-gel method. Samples were annealed for 2 hours at 600°C and are characterized by XRD, UV-Vis spectroscopy and SEM. The incorporation of dopant in the ZnO lattice was observed in the XRD of the samples and a red shift by introduction of Vanadium ion was observed in the UV-Vis curve. With rapid development controlling the electrical conductivity of ZnO hasremainedamajorchallenge.Halleffectmeasurementscarriedoutofallthesampleshasgivenarepresentationofthe electrical conductivity and carrier concentration changes to be used for opto-electronicdevices.**

Enhanced Security Using Biometrics and Elliptic Curve Cryptography

Himanshu Ganu Neeraj Mhatre Soniya Jadhav Gargi

Pramila Shinde

Information Technology

Shah and Anchor Kutchhi Engineering College chembur

ABSTRACT

Biometric Systems are systems which acquire, process, analyze and match Biometric credentials with those that are present in the Database providing Verification and Validation. Nowadays,simplebiometricslikefingerprintsandfacerecognitioncanbereplicatedwithsome effort. This compromises the level of security. However, combining two or more features like FingerprintandFaceasanauthenticationparameter,wecangrouptogetherthefeatureswhich willsignificantlyincreasethelevelofsecurityasitwillbemuchharderforunauthorizedpeople toreplicatebothfingerprintandfacialcharacteristicsofauser.Thispaperdiscussesthesystems which provide secure verification to incorporate the method with Elliptical Curve cryptography[1] using Genetic Algorithm[4]. Elliptic Curve Cryptography is based on a curve whichisgeneratedsuchthatalinepassingthroughanytwopointsofthecurvewillsurelypass throughathirdpointsomewherealongthecurve.PointsgeneratedusingEllipticCurvecannot be regenerated by reversing the algorithm. This makes it very secure to generate encryption keys.

Brain Tumor Segmentation Using MS Algorithm

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***Abstract*— In this paper we developed Brain tumor techniques using tomography, such as MRI (Magnetic Resonance images) provide a plethora of pathophysiological tissue informationthatassiststheclinicianindiagnosis,therapydesign/monitoringandsurgery. Robust segmentation of brain tissues is a very important task in order to perform a number of computational tasks including morphological measurements of brain structures, automatic detection of asymmetries and pathologies, and simulation of brain tissuegrowth.Inthispaperwepresentbrainstructuresegmentationresultsbasedonour implementation of the mean-shift algorithm and compare them with a number of well-known brain-segmentation algorithms using an atlas dataset as ground truth. The results indicatethatthemean-shiftalgorithmoutperformstheothermethods.Last,thevalueof thisalgorithminautomaticdetectionofabnormalitiesinbrainimagesisalsoinvestigated.**

STUDENTS PROFILING FOR PLACEMENT & PROVIDENCE.

A Web Apllication for students training & placement

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Abstract— Students Profiling for Placement & Providence (SP3) is a Web application which automatesactivitiesoftrainingandplacementcell&providesopportunitiestothestudentcommunity to use collective intelligence to increase selection ratio and eases out process of creation of managementinformationautomatically.Itfocusesontheautomationoftheplacementcell.Generating the resumes, communicating about the various job openings to the student community, managing the corporate relationship for inviting them for the placements as well other activities, creating the placementmetrics,monitoringtheprogressoftheselectionprocessandcommunicatingwithdifferent users.ManageCompanyProfiles,ManageJobPostings,Authenticateandactivatethestudentprofiles, Send Notifications to students, Create list of students as per company HR Manager Job criteria, automatically generates resume for students as per industry standards, graphically shows the information of studentsplaced.

Predictive Risk Modeling of Diabetes Using Data Mining

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Lokmanya Tilak College of Engineering

Abstract: Data mining is a new technology, which helps organization to process data through various algorithms. Following paper uses the data mining technology to predict if a person is diabetic or not. Data collected is used for analysis and prediction of the diabetes.

Establishing Cloud Computing Security in trust-based Cloud Service Provider

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ABSTRACT

Incloudserviceenvironments,thequalityofservicelevelsisimportanttocustomers. Client's use cloud services to store, backup, recover and process data. If customer loss their data because of many reason, the customer's business may get affected. Thereforeitisbigchallengeforaclienttoselectanappropriatecloudserviceprovider to ensure guaranteed service quality. To support customer's in reliably identifying cloud service provider, this work offer a framework selection of cloud service providers(SCSP), which involve trustworthiness, competence to estimate risk of interaction, data backup and data recovery. Trustworthiness is obtained from feedbacksrelatedtoreputationsofserviceproviders.Competenceiscomputedbased on transparency in provider's service. This work proposes a case study that has been presented to describe the application of ourapproach.

Facial features and Body parts Detection Methods: A Comprehensive survey

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Abstract—The aim of this research work is to give anoverview of recent research & development in the field of detection methods of human facial features and body parts. The need for a facial features and body part localization is being discussed here to find its possibility in actual practices.In this paper, the methods applied for face recognition and detection techniques, various algorithms for machine learning like adaboost algorithm and Cascade Classifiers are discussed here. Computer vision in object and body parts detection method is a very useful technique alongwith embedded system.

SECURE DATACOMMUNICATION IN CLOUD USING TEES

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***Abstract*—Cloud storage allows a convenient, massive, and scalable storage at low cost, but data privacy is a major concern that prevents users from storing files on the cloud trustingly. One way to increase privacy from data owner point of view is to encrypt the files before outsourcing them onto the cloud and decrypt the files after downloading them. However, data encryption is a heavy overhead for the mobile devices, and data recapture process incurs a complicated communication between the data user and cloud. Normally with restricted bandwidth capacity and restricted battery life, these issues introduce heavy overhead to computing and communication as well as a higher power consumption for mobile device users, which makes the encrypted search over mobile cloud very challenging.**

We have implemented TEES (Traffic and Energy saving Encrypted Search), a bandwidth and energy efficient encrypted search architecture over mobile cloud. The proposed architecture unloads the computation from mobile devices to the cloud, and we further enhance the communication between the mobile clients and the cloud. Our experiments show that TEES reduces the computation time significantly.

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Wireless Capsule Endoscopy

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***Abstract*- This paper considers the problem of using traditional endoscopy for detection of tumours of small intestine and vascular disorders. Endoscopy is a diagnostic medical procedure that is used to access the interior surface of an organ by inserting a long tube into the body. However endoscopy is a painful procedure and patient requires sedation, involves potential complications, causes patient anxiety discomfort and pain and also requires substantial time commitment. In this paper , the concept of nanotechnology has been used which introduces an inexpensive and beneficial product known as pill camera. 'Pill camera' or Capsule endoscopy is a new diagnostic tool that permits a direct visual examination of the small intestine, an area of the body not previously accessible using upper endoscopy. It has made revolution in field of medicine.**

DESIGN OF SIMULATOR FOR ALARM MODULES

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Abstract—Implementation of a hardware system to a software system is done by using a simulator. This simulator will not only enhance the analytic process of system but also enact erroneous conditions which will foretell the faults occurring within the system. This will in turn help in alleviating these erroneous condition thereby increasing the efficiency, rigidity and robustness of thesystem.

Dual Compressor Controller

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Abstract–The cooling systems have a variety of ways. The various methods of cooling systems are based on coverage area. A very large number of industrial processes use air as a cooling medium, either directly or indirectly.Forexampleairconditioning,itistheprocessofremovalofheatfromaconfinedspace,thuscooling the air, and removing the humidity. This process is mainly used to achieve a more comfortable interior environment,typicallyforhumansoranimals.However,thetechniqueofairconditioningisalsousedtocool ordehumidifyroomsfilledwithheat-producingelectronicdevices,suchascomputerservers,poweramplifiers etc.Itisaverycommonprocessinwhichtheairinaroom,orawholebuilding,iscooledinordertomaintain acomfortableenvironmentforitsoccupants.Thispaperaimsatcoolingsystembyloadsharingofcompressor usingmultiplemachine.Thismethodsharestheloadofonemachineifitcrossescertainthresholdbyswitching it OFF and switching ON the other machine. Thus, sharing improve the efficiency as well as save power. The switching ON-OFF and setting the threshold is done by programming using a PIC microcontroller. The temperature levels are indicated on LCD and all the changes are also indicated on thedisplay.

Real Time Traffic Light Control System Using Image Processing

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Abstract: - Due to aware of the fact that, the population of city and number of vehicles on the road are increasing day by day. With increasing urban population and hence the number of vehicles, need of controlling streets, highways and roads is major issue. The main reason behind today's traffic problem is the techniques that are used for traffic management. Today's traffic management system has no emphasis on live traffic scenario, which leadsto inefficient traffic management systems. These traffic timers just show the preset time. This is like using open loop system. If we incorporate a closed loop system using camera, it is possible to predict the exact time on traffic light timers. If the traffic light timers are showing correct time to regulate the traffic, then the time wasted on unwanted greensignals (green signal, when there is no traffic) will be saved. Timer for every lane is the simplest way to control traffic. And if those timers are predicting exact time then automatically the system will be more efficient. This project has been implemented by using the Matlab software and it aims to prevent heavy traffic congestion. This project measure the number of vehicles present on the road. Moreover, for implementing this project Image processing technique is used. At first, film of a lane is captured by a camera. A web camera is placedin a traffic lane that will capture images of the road on which we want to controltraffic. Then these images are efficiently processed to know the traffic density on the number of count of vehicles. According to the processed data from Matlab, the controller will send the command to the traffic LEDs to show particular time on the signal to manage traffic.

Design and Implementation of Safety Armband for Women and Children using ARM7

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Abstract: There has been many situations and incidence where the culprit does the crime and because of lack of evidence the victim suffer and the culprit gets encouragement to do more crime. In order to stop this atrocitiesand crime, our paperproposes a system which is based on human intervention which collect images, send the messages and streams live video to the control room for the security. It is also having a GPS system whichtracksthelatitudeandlongitudeofthelocationoftheplacewhereincidenthappenedandthensendtothe control room for navigation purposes. By using a GSM system messages are send to a predefined number. It is also having a manual switch which can be used to activate the system. The system is designed using ARM 7 Microcontroller and can also be used as an alert system during medicalemergencies.

AUTOMATED OPD CARD SYSTEM

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Abstract— ***In today time hospitals are facing a need of better patient-doctor management system. In peak hours, when the number of patient are more, better data and patient management is required. Our project 'Automated OPD Card System' is based on this intension to reduce and improvise the patient-doctor management. This project is designed to automate OPD system. This is achieved by using RFID technique, HTML and PHP language. RFID is used so that the data can be synced at one place and it can be retrieved after scanning. For e.g., if the user wish to take treatment, he or she has to follow some protocols. By using 'Automated OPD Card System' efforts of paper work and storage of data are reduced. Automate OPD card is used to keep a tract of services provided to patient and medical history of patient. Data of patient will be stored on the server and whenever RFID is scanned, data will be displayed on the computer. GUI of the system is made up of using HTML codes and Data is connected with database using PHP language.***

TOUCH SCREEN BASED ORDERING SYSTEM & DISPLAYING SYSTEM FOR RESTAURANTS

Jilesh Bhadesia, Sanika Devlekar, Samita Bhandari

Abstract

In this generation, we have advanced in almost all the areas except one field where there is still lack of technology. It is the hotel management system and services and so far there is no step being taken to introduce technology in this area. The above stated project works mainly on the method by which anyone can select any items by their choices which are in the menu display and that order will be sent to the pc of the manager using zig-bee module & that ordered item will be served to that customer. With the information we have received; we are engaged in an iterative design cycle to develop a final graphical user interface for our touch screen based ordering system & displayingsystem.

Electronic Implementation of PDS with Dual Authentication of User with PC Interface

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***Abstract*- SMART CARD based automatic ration shop is novel approach in Public Distribution System (PDS) useful for more efficient, accurate, and automated technique of ration distribution. Public distribution system also called rationing distribution system is one of the widely controversial issues that involve malpractices. The present ration distribution system has drawbacks like inaccurate quantity of goods,lowprocessingspeed,largewaitingtime,materialtheftinrationshop.Theproposedsystemreplaces themanualworkinrationshop.Themainobjectiveofthedesignedsystemistheautomationofrationshop to provide transparency. The proposed automatic ration shop for public distribution system is based on Smartcardthatreplacesconventionalrationcard.Customer'sdatabaseinstoredinmicrocontrollerwhich is provided by government authority. Customer needs to scan smart card reader, and the then microcontrollerchekscustomer'sdetailswithstoredtodistributematerialinrationshop.Aftersuccessful verification, customers need to enter type of material as well as quantity of material using keypad. After delivering proper material to consumer, the microcontroller sends the information to customer as well as PDSauthorities.**

Realization of Tri-Band Printed Monopole Antenna for Wireless Application

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ABSTRACT:

Thedesignofacompactprintedmicrostripmonopoleantennaisproposedcoveringafrequencyrange of wireless local area network (WLAN). The antenna is simulated and its performance is analysed by measuringvariousantennaparameterssuchasbandwidth,vswr,gain,radiationpatternandreturnloss. The antenna is constructed of a Flame Retardant 4 (FR4) dielectric substrate. The overall dimension oftheradiatingpatchis$42\times30\times1.59mm^3$.Thetribandperformancecanbeachievedbytuningthe length and width of the resonating patch. A tri-band printed monopole antenna is created by introducing two notched bands in the wideband antenna. Etching an n-shaped slot on the radiating element and embedding a U-shaped parasitic strip on the bottom. In addition, the proposed antennas has good omnidirectional radiation characteristics and stable gains over the whole operatingbands.

Automatic Indian Number Plate Recognition System

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Abstract:*AnAutomaticIndianNumberplaterecognitionsystemisonekindofanintelligent transport system and has great importance because of its potential applications in highway electronic toll collection and traffic monitoring systems. It is shown that the number plates are different shape and size and also have different color in different countries. In India the most common vehicle license plate used yellow or white as background and black used as foreground color. This paper presents an approach based on simple and efficient morphological operation and template matching method. The proposed model consists of four main parts pre-processing of image, localization of license plate, character segmentation and character recognition. In this paper, our main focus is on license plate detection and character recognition.The project develops by using MATLABR2013a.*

Long Wave Diathermy Therapy for Pain Relief

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Abstract—Heat has been used as a therapeutic modality for a number of years and is described by two categories: superficial and deep heating agents. Deep heatingmodalities include therapeutic longwave and shortwave diathermy, ultrasound, other electrical simulations. Long Wave Diathermy is generally described to decrease pain, increase metabolic functions, increase deep tissue temperature, and increase range of motion. While the depth of tissue heating varies with each thermotherapy modality, the primary physiological effects and benefits of using heat remain relatively constant and include the following: increased circulation and blood flow increased metabolism, increased muscle temperature, increased tissue temperature, decreased pain, decreased tissue stiffness and muscle spasm relaxation.LongWaveDiathermyusesanelectriccurrenttoproduceheatdeepinsideatargetedtissue.
It can reach areas as deep as two inches from the skin's surface. This project proposes a simpler version of the existing Long Wave Diathermy modalities.

An Approach for Real-Time Road Deformation Detection Using Image Processing

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ABSTRACT

Wearing out of roads which causes cracks and potholes is a serious, commercially very expensive, time consuming and such an issue, that it not only can, but indeed always results in road mishaps, fatal accidents and so on. Also it is an issue which keeps on growing as the time ticks, which is dangerous not only to elderly or sick people, small vehicles, but also bigger vehicles with enormous damagestolifeandproperty.Potholesarerisktowardsroadsafetyandtravelefficiency. Sothere is a dire need to reduce driving hazards due to such dangerous road deformations/potholes by using Real-time detection and warning systems. In this paper, the method proposed, portrays a combination of Structured-Light generator (line laser) for plotting, measuring 2D deformations and imageprocessingusingSpectral-Clusteringforroughestimationofthedistresspresentontheroad, which together will continuously monitor road for real time potholedetection.

Automatic Locking Door Using Face Recognition

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A. Abstract—*Nowadays people use keys, security cards, password or pattern to open the door. The aim of this paper is to help people for improvement of the door security of sensitive locations by using face detection and recognition. Face is a complex multidimensional structure and needs enhanced computing techniques for detection and recognition. This paper comprises of three subsystems: namely face detection, face recognition and automatic door access control. Image acquisition is the process of capturing an image. The face is detected by using the Viola Jones method and face recognition is implemented by using the Principal Component Analysis (PCA). Face Recognition based on PCA is generally referred to as the use of Eigen faces. If a face is recognized, it is authenticated, vice-versa. The door will open automatically for the authenticated person due to the command of the microcontroller. Since PCA reduces the dimensions of face images without losing important features, facial images for many persons can be stored in the database. Although many training images are used, computational efficiency cannot be decreased significantly. Therefore, face recognition using PCA can be more useful for door security system than other face recognitionschemes.*

The Future of Cancer Treatment-Nanorobotics

Lavanya Ashok Swaminathan Parvathi P. Pillai Gouri P. Pillai

N.H.I.T.M.

Abstract— This paper presents how effectively nanorobotics can be implemented for cancer treatment, prevention and detection. Over the years, nanoparticles like fullerenes, carbon nanotubes, nano crystals are used for drug delivery, diagnostics, and treatment of diseases at molecular level. Nanoparticles are typically of the range10^-9 m or to say 100 times smaller than most human cells. This quality gives them ability to be easily injected to the blood stream as they are much less traumatic compared to other treatment used in cancer like Chemotherapy and cancer specific surgery. Moreover, it will preserve and improve human health using molecular knowledge in human body on nanosacle. Thus over the years, nanomaterials are successfully used to treat various diseases like Cancer, Arthritis, Blood Clotting, etc

Mach Zehnder Interferometer True Time Delay Line

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ABSTRACT

Inthispaperweproposeanopticaltruetimedelay(TTD)lineforPhasedarrayantennabeamforming, consisting of Mach-Zehnder Interferometer (MZI) switches on the silicon platform.The proposed delaylinediffersfromtheconventionaldelaylinewhereelectroopticeffectisusedtocreatethephase shift.TheconceptofvariablewidthunequalarmMZIisused.Thedelayofferedisonebit.Moredelay canbeobtainedusingnumberofwaveguidesattheoutputwithvariablewidth.FinitedifferenceTime Domain (FDTD) method is used for computation. If the cross talk level is high, a multimode interference coupler (MMI) can be added in series. The device is simulated for Transverse Electric (TE) polarized light at1550nm.

Integrated Automation & Control of Heating Ventilation and Air Conditioning System

Minakshi Bagde Sumit Gavande

ABSTRACT

Integrated Automation & Control of Heating Ventilation and Air Conditioning is a centralized and interlinked network of hardware and software which controls and monitors the HVAC system. The function of integrated automation system is to control & monitor the temperature, humidity, air flow distribution and clean air of the HVACsystemwithminimumconsumptionofenergyforcostsavings.Itisaconcept,designandimplementation to achieve an intelligent building management platform. This paper includes study and review in the area of automation and controls for the HVAC system. With the study and review of different strategies it has been observedthatasupervisorycontrolanddataacquisitionsystemwiththeuseofDirectDigitalControlleriswidely used in buildings which are well versed with automatic programmable sequence, full manual operation option, data storage, display fault conditions and system monitoring. The application program is configured in a hierarchical manner that integrates the system using Internet protocols and open standards like XML, BACNET, LONWORKS andMODBUS..

Self Adaptive Utility-Based Routing Protocol (SAURP):A Result

By
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ABSTRACT

This report introduces a novel multi-copy routing protocol, called Self Adaptive Utility-based Routing Protocol (SAURP), for Delay Tolerant Networks (DTNs) that are possibly composed of a vast number of devices in miniature such as smart phones of heterogeneous capacities in terms of energy resources and buffer spaces. SAURP is characterized by the ability of identifying potential opportunities for forwarding messages to their destinations via a novel utility function based mechanism, in which a suite of environment parameters, such as wireless channel condition, nodal buffer occupancy, and encounter statistics, are jointly considered. Thus, SAURP can reroute messages around nodes experiencing high buffer occupancy, wireless interference, and/or congestion, while taking a considerably small number of transmissions. The developed utility function in SAURP is proved to be able to achieve optimal performance, which is further analyzed via a stochastic modeling approach. Extensive simulations are conducted to verify the developed analytical model and compare the proposed SAURP with a number of recently reported encounter-based routing approaches in terms of delivery ratio, delivery delay, and the number of transmissions required for each message delivery. The simulation results show that SAURP outperforms all the counterpart multi-copy encounter based routing protocols considered in thestudy.

Automatic Power Factor Correction Using Microcontroller

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Abstract- The power factor correction of electrical loads is aproblem common to all industrial companies. Earlier the power factor correction was done by adjusting the capacitive bank manually. The automated power factor corrector (APFC) using capacitive load bank is helpful in providing the power factor correction. Proposed automated project involves measuring the power factor value from the load using microcontroller. The design of this auto-adjustable power factor correction is to ensure the entire power system always preserving unity power factor.Thesoftwareandhardwarerequiredtoimplementthesuggestedautomaticpowerfactor correction scheme are explained and its operation is described. APFC thus helps us to decrease the time taken to correct the power factor which helps to increase theefficiency.

Hand Gesture Recognition And Device Control

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***Abstract* - Hand gesture based electronic device control is gaining more importance nowadays. Most of electronic devices focus on the hand gesture recognition algorithm and the corresponding user interface. This paper presents hand gesture recognition based Device control by using microcontroller. Gesture recognition is interpretation of human motion by computing device An automatic gesture segmentation algorithm is developed to identify individual gestures in a sequence and The device is control by microcontroller. The purpose of project is to design & develop a hand gesture based Device control which can be easily controlled by the help of gesture recognition system.**

CloudMoV: Cloud-based Mobile Social TV

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Abstract : Everyone in day to day world wish to have mobiles with newly updated versions and features. People don't want to lack any of the advancefeatures of the mobile. New mobile accessory shops are everywhere with mobiles and tablets. The limited battery life time of mobile devices and much variationin wireless connectivity, which makes the highest possible quality of service experienced by mobile users are unfeasible, made the highest demand of mobile to come down. The design of a Cloud-based novel Mobile social TV system (Cloud MoV) utilizes both PaaS (Platform-as-a-Service) and IaaS (Infrastructure-as-a-Service) cloud services to offer the living-room experience of video watching to a group of mobile users. Video is encoded at server side.These videos are stored in online web hosting server. In CloudMoV, mobile users can import a live or on-demand video to watch from any video streaming site like YouTube, Vimeo, Ustream etc. and invite their friends and family for watching the video concurrently. They can also chat with each other while enjoying the video.

An experimental investigation of vortex tube

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***Abstract* - A vortex tube is a device of a simple structure with no moving parts that can be used to separate a compressed gas into a hot stream and a cold stream. Many studies have been carried out to find the mechanisms of the energy separation in the vortex tube. Recent rapid development in computational fluid dynamics is providing a powerfultooltoinvestigatethecomplexflowinthevortextube.Experimentshavebeen performedonvortextubethoroughlyandthereafterCFDanalysishasbeenperformed. Results offer good insight in to the physics of theproblem.**

First detailed experimental treatment has been provided at different valve opening and closing positions and steady and unsteadiness in the system has been critically analysed.Toaddtothispressurestudyhasbeenperformedandcriticalpressureshave been noted down. Based upon this then simulations have been performed to get the better of the physics of complex heat exchange and situation like multiphase flow. Interactivestudyhasbeenperformedandcriticaldevelopmentsarenoteddownbefore lettingconclusions.Thiswillpioneernewbenchmarksintheareaofvortextubedesign.

Design and Fabrication of Automatic Wood Drilling Machine

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Abstract—CNC is a Computerised Numerical Control machine which is widely used in today's major industries to increase the production rate and thus the profit. It makes utilisation of latest electronic and software developments to bring automation along with ease of being operated in less time. Thus, high degree of advancement in machine comes with very high cost thus increases the capital cost. It is sometimes impossible for start-ups & small scale industries to afford them.

This paper aims to design and fabricate an automatic vertical drilling machine for point to point drillinginwoodenplanks.Thesystemconsistsoftwomain parts:amechanicalsetupthatcanmove in X, Y and Z directions, and a software program that controls overall operation of the whole system. We show that our system successfully performs both of the above tasks. Operator would put coordinates of proposed holes in the given graphical window on computer. The drilling machine will travel to the respective co-ordinates with lead screw mechanism which is driven by stepper motor, being controlled by Arduino Mega microcontroller. This paper emphasises on implementation and testing of suitable mechanism and software to bring automation and accuracy with negligible cost. It also enables lesser skilled operators to create components using CNC mechanism.

Development of Data Acquisition System for Driver Testing in Vehicles

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Abstract

This research paper is an attempt to solve the problem related real time observation of drivers in the test conducted by Regional Transport Authority(RTA) of India for providing driving license to the drivers. The general process of driver testing by Regional Transport Authority includes written test, viva and practical test on road. The practical test on road has a very less sample size of testing which results in improper results and the consequences are road accidents. In India over 1,37,000 people were killed in road accidents in 2016 alone, that is more than the number of people killed in all our wars put together.

Dispersion Compensation Techniques: A Comprehensive Review

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***Abstract*–**Optical fiber is one of the most important media used for communication. It offers high potential bandwidth and flexibility for high bit-rate transmission. However, their performance slows down due to some parameters like dispersion, attenuation, scattering and unsynchronized bit pattern. In long haul applications, dispersion is the main parameter which needs to be compensated in order to provide high level of reliability of service (ROS). Dispersion causes pulse broadening and pulse distortion, thus degrading the performance of the optical fiber. Dispersion compensation in optical fiber communication system has become a topic of great importance because any presence of dispersion might cause inter-symbol interference (ISI) leading to signal degradation.It is the most important and challenging aspect of the optical fiber communication to maintain a high optical SNR for good quality of the signal. There are various methods for dispersion compensation.

Although dispersion compensating fiber is a reliable and mature technology but it gives high insertion loss and introduce non-linear distortion when the input power is high. Consequently other techniques such as Electronic Dispersion Compensation, Fiber Bragg Grating Dispersion Compensation and dispersion compensation using digital filter are also in use.

COMPENDIOUS ELUCIDATION ON ISSUES OF NETWORK SECURITY

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Abstract

The term security has one purpose '**to protect assets'.** Network security describes the policies and procedures implemented by a network administrator to avoid and keep track of unauthorized access, exploitation, modification, or denial of the network and network resources. Network security has become very important in today's world because with the advent of the internet, many security threats have occurred and is still prevailing. Many business organizations secure themselves from the internet with the help of firewalls and encryption mechanisms. The businesses create an "intranet" to remain connected to the internet but secured from the possible threats. The field of network security is very vast. This paper outlines the various types of network security attacks and the methods used to overcome them.

Key Word based Classification Framework for Indexing and Retrieval of Deep Web Resources

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Abstract

TherehasbeenanenormousincreaseintheuseofDeepWebresourcesinthelastquinary.DeepWeb comprises of high-quality, subject-specific, well-managed, dynamic information that is extremely voluminous. Though this information is freely accessible as well as valuable, Deep Web can be accessed only by queries, but not through traditional search engines, as the content is not indexed. Improving search results through better indexing plays a vital role in accessing Deep Web resources. We proposed a key word based framework for indexing and optimization of Deep Web access in this paper. The framework has been designed for fetching search results from the Deep Web according to the keyword. Then, the retrieved results will be processed and subjected to classification. Compared with Bag of Words and SVM models, Key Word Specific Random Forest has scored high accuracy. Wehaveshownthattheuseofconvolutionhasapositiveeffectontheaccuracyrate,whencompared to non-overlapping window based featureextraction.

Current Harmonic Compensation and Voltage Sag Mitigation using Eight-Switch Power Conditioner

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Abstract*—Apowerconditioner'staskistoprovidepoweroutputwithreducedelectricalpollutionin it. Various configurations can be formed using different converter & filter topologies. In this study, aneight-switchpowerconditionerforcurrentharmoniccompensationandvoltagesagmitigationhas been investigated for its performance. The architecture of this power conditioner presents a transformer-less hybrid filter based on 4-switch 2-leg inverter and a 6-switch dynamic voltage restorer. In the result, we will see that, it is a good harmonic compensator and provide optimum voltage sag mitigation with the advantage of having a reduced number ofswitches.*

Design and Development of Nano pH Sensor and Interfacing with Arduino

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ABSTRACT – Day by day the demand of pH sensor is increasing especially in the industry and in precision agriculture field. The main purpose of this research is to enhance the developing rate of agriculture products and precise measurement. Many sensor and actuators have been developed for this purpose in which some are commercialized and some still remained. Now days nanotubes are famous as their increasing demand, Carbon nano tube is predictable to be one of the majority promising field in prospect biomedical. The benefits of nanotube over the normal sensor are more accurate, higher resolution, higher sensitivity and micrometer size. pH measurement is basically the concentration of H+ ion present in sample. This research paper includes the aspect of nanomaterial and interfacing of nano sensor with microcontroller. The main purposes of interfacing are to make the hardware valuable over the field level and industrial level as well. Many technologies and sensors have been developed already but still research work is going on.
The main aspect of this research paper is to develop the real time monitoring of the data or pH value and display it out of the field. it is well known fact that pH value of soil or the water is very important information in the precision agriculture field.

Architecture of Power Injection System for On-Grid Photovoltaic Systems based on Parallel Inverters

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Abstract — Solar energy is gaining popularity is coal dependent economies. Power generated by Photovoltaic systems needs to directed to the grid, which is done by power injection circuits which synchronise with the grid parameters and invert the power into it. In this paper, we will study a new architecture for the power injection system that is based on the parallel association of two inverters, one is operated using a quasi-square voltage waveform strategy and the other operates with a Pulse Width Modulation based strategy. The aim of this design is that the quasi-square inverter injects the power from the photovoltaic generation system and the PWM inverter controls the current quality. The design permits reduction of system losses and an increase of the energy injected into the grid.

Comprehensive Review on Utilization of Optical Amplifier for the Deployment of High Speed Network

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Abstract- For the need of higher capacity and speed, optical fiber communication system is being extensively used all over the world for telecommunication, video and data transmission purposes. Optical communication systems are employed in order to meet the challenge of high bandwidth but signal attenuation is the major limitation. Electronic regeneration of signal is used to overcome the problem but it increases the cost and introduces the latency. To overcome this, electronic regeneration is replaced by optical amplifiers, which eliminates the need for costly conversion from optical to electric signal and vice versa. Here, performance of optical amplifiers has been analyzed. Various configurations of optical amplifiers have been experimented and simulated to study optical amplifier. Performance of Erbium Doped Fiber Amplifier has been analyzed for different lengths of fiber, radius of core and numerical aperture. Performance of Semiconductor Optical Amplifier has been analyzed for different injection currents for the same network. It is found that EDFA gives better performance with 18m fiber length, 2.2 micrometer core radius and 0.24 numerical aperture. SOA performs better with 0.05 mA injection current. Also, detailed analysis of the performance of both the amplifiers for a WDM network shows that EDFA gives favorable results than SOA. But, it is observed that with less number of channels, SOA gives better results. With the increased no. of channels, performance of SOAis degraded due to non-linearity induced. To overcome this, the RAMAN amplifier has been observed to be the best alternative and it is being further optimized using different parameters of RAMAN and EDFA such as Raman fiber length, Raman pump wavelength, Raman pump power, EDFA noise figure and EDFA output power.

Remote Controlled Quadcopter for Image Capturing

Mahendra Gupta, Roshan Varghese, Thomson Johnson, Abhimanyu Gupta ,Nilashree W

Abstract-In this paper, we describe system analysis and implementation of a quadcopter controlled by a RC remote. The motion of the quadcopter is controlled based on measurementsofinertialsensorsbycontrollingthespeedofthequadcopterusingtheflight controller from the accurate values obtained from the IMU (Inertial Measurement Unit). We focus on developing a cost effective system capable of stable flight. Next a camera is coupledwiththequadcoptertocaptureimagesduringtheflight.Theimagesareprocessed by resolution improvement, noise removal and by deblurringtechniques.

REVIEW PAPER ON MUSIC THERAPY

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Abstract: This paper presents a brief review of various effects of Indian Raga music on the human body parameters. Music is a best medicine to maintain the health along with medicines. This study analyses how music helps to control the BP, sugar. Impact of music can be observed through ECG, EEG. This effect depends on individual's perception. Music therapy gives better results for interested people. Some ragas are also effective for IRM ignorant people, which depend on its properties .These properties can be studied through time, spectral, cepstral domain analysis

Security in Database Systems: A Comprehensive Review

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Abstract– Data is considered to be the most valuable asset these days because it is used everywhere, from a single individual to large organizations. It is being stored in database for their easy and efficient management. All the operations of data manipulation and maintenance are done using Database Management System.
Considering the importance of data in organization, it is absolutely essential to secure the data present in the database. Databases are a favorite target for attackers because of the data these are containing and also because of their volume. The paper focuses on security issues that are associated with the database system. Many firms are falling victims of cyber crimes. These are malicious people who target their data and compromise its integrity. This is occasioned by unauthorized access, due to which data loses its integrity and lastly operations of the business are affected negatively. This paper discusses about various issues in database security such as the database security requirements, properties of database security, threats to database security and the different control methods for database security maintenance.

An Efficient Data Possession Method for Authenticating Integrity in Multi-Clouds.

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ABSTRACT

Cloud Storage is asked a series of non-interesting emerging trend in security matters. Provable data possession (PDP) is a method to ensure the integrity of external data storage. This research, data transport and collaboration client's data to store and maintain multiple cloud service providers consider the presence service, the scalability to support distributed cloud storage for the Cooperative PDP (CPDP) mechanism called efficient PDP construction fixes. Cooperative PDP (CPDP) homo-morphic verifiable response mechanism, dynamic scalability, security encryption to encrypt the hash index is based on hierarchy. In addition, the robustness of knowledge, complete and zero-knowledge can satisfy the properties of multi-prove zero-knowledge proof system based on the scheme is proving safety. This research was lower compared with non-cooperative approach introduces computation and communication costs.

Bandwidth Enhancement of Antenna through Defected Ground Structure

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***Abstract*—ThispaperproposedtheMicrostripAntennawhichenhancesthebandwidthwiththeuseof Defected Ground Structure (DGS).The study and implementation of proposed antenna are discussed in this paper. With the use of DGS, the bandwidth is increased efficiently to 47.55% as compared to the normal rectangular patch antenna. The proposed antenna is designed for Wi-Fi/WiMAX application at theresonantfrequencyof5.5GHz.TheT-shapeddefectedgroundstructure(DGS)antennashowstheFR4 substrate characteristics with permeability 'μ' and permittivity 'ε'. The antenna was designed by using High Frequency Structural Simulator (HFSS) version 13.0. Based on the simulation result the antenna shows the improvement in term of return loss which is52.11%.**

Comparative Analysis of Maximum Power Tracking Algorithms for Solar Photovoltaic System

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Abstract- *Solar Photovoltaic System is presently the most intensively increasing form of energy generation system among renewable energy categories. The positive approach from governmentbodieshasboosteditsoperation.Presently,SolarPaneltechnologyhasmatured enough to provide a cost effectivegeneration.*

To help in the power generation process, a maximum power point tracking (MPPT) system plays a major role in keeping the inclination of panel such that it works at maximum energy densityandgeneratespoweratmaximumefficiency.Inthispaper,adescriptivecomparative analysis of major MPPT technologies are worked on and a conclusion is drawn regarding the effectiveness of the methods and their activity under various level ofillumination.

Simulation of D-STATCOM in Power Distribution System for Power Quality Enhancement using MATLAB Simulink Tool

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Abstract—The major issue existing in the power system are due to the nonlinear characteristics and fast switching of the power electronic equipment's. Power quality issues are becoming more and more relevant due to the effects that causing the power system .It leads to reduction in efficiency of the system and increase in utility costs, efficiency and cost are considered today almost at the same level. The power quality issues can be mitigated by making use of the active power filters. Among this shunt active power filter can be used for harmonic as well as reactive power compensation. In this work DSTATCOM is used for mitigation of harmonics. The reference quantities are generated using instantaneous symmetrical component theory (ISCT). Switching pulses for the inverter is derived using hysteresis PWM control and DC link voltage has been regulated using conventional PI controller. MATLAB software is used for the simulation studies. Various simulation results are presented under steady state conditions and performance.

Efficient IP-based Video Communication Using

Session Initiation Protocol (SIP)

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***Abstract*— Video telephony is the standard-based technology available on personal computers and mobile phones. Video telephony technology has been developed using internet technologies. This can be simplified intotwofundamentalparts,i.e.,serverandclient.Theserverenablestheclientstokeepconnecttoeachother. And client captures the video and audio data for transmission and converts it back to the form of audio and video signals. In this system, Session Initiation Protocol (SIP) server is used. And for video compression video codecsareusedandSoftphonesisusedintheclientside.Hereopensourcesystemareusedforvideocalling.**

2-Tier Image Forgery Detection using Contrast Enhancement and 3D Lighting

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Abstract

Nowadays the digital image plays an important role in human life. Due to large growth in the image processing techniques, with the availability of image modification tools any modification in the images can be done. These modifications cannot be recognized by human eyes. So Identification of the image integrity is very important in today's life. Contrast and brightness of digital images can be adjusted by contrast enhancement. Another type of modifications include copy and paste tyepe, in which some partbof one image is copied and pasted to another image. Here in this topic contrast enhancement technique is used which aimed at detecting image tampering has grown in different applications area such as law enforcement, surveillance. Also with the contrast enhancement, we propose an improved 3D lighting environment estimation method based on a more general surface reflection model. In this we are dealing with the light direction angle.

Also we intend to use face detection method to detect the face existence and 3D lighting environment estimation to check originality of human faces in the image.

Evaluation of Performance Parameters of Commodity Storage Cluster using RAID

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Abstract— ***Tremendous growth in the data generation using applications like networks, file, and video sharing is demanding for the data availability and reliability. Distributed storage clusters performs an important role in this case by providing data redundancy over network storage node.***

This paper presents the performance evaluation of the distributed storage cluster build using commodity storage devices. In this paper we focus on the performance parameters such as storage efficiency, repair bandwidth and I/O throughput. The storage cluster test-bed is setup using commodity storage devices for the parameters evaluation. Experimental results for the RAID are presented in this paper and in future we plan to carryout evaluation for other network codes such as erasure, self repairing and regenerating.

Mitigation of Chromatic Dispersion for Radio over Fiber System employing Fiber Bragg Gratings

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Abstract-In this paper, the dispersion compensation can be accomplished by incorporating the fiber bragg gratings for high speed Radio over Fiber transmission system. The proposed model aims to investigate the performance of DWDM system utilizing Erbium Doped Fiber amplifiers EDFAs and fiber bragg gratings for different length of optical fiber and bit rates. The most essential factors that causes performance degradations are the attenuation and dispersion. EDFA was introduced in the proposedsystemmodelasasolutiontoencountertheeffectsofattenuationandscatteringlosses,while the fiber bragg gratings utilized to mitigate the effect of dispersion. The performance of proposed methodhasbeenanalyzedusingOptiSystem(14.0).ThesimulationresultsshowsthattheuseofEDFA and fiber bragg gratings make significantly boosts the performance of DWDM RoFsystem.

Arduino Based Car Security System

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Abstract—The project entitled 'Arduino Based Car Security System' is a system which is designed to provide high security in vehicles. This system is based on Arduino controller with GSM and Sensor networks. This project is solely based on securing a vehicle and passenger's safety.

In many instances, the car is parked at an unfamiliar location where securing them is must. Car has to be secured externally as well as internally. Every part in the car is valuable. The existing systems which are used are now obsolete, where siren is the only way for alerting the owner which can be easily turned off. Older system does not trigger the alarm if there's a break in through window. Such kind of theft needs to be stopped. The human movement is detected using the PIR sensor and the Tilt sensor will trigger Arduino if the vehicle is being towed. The limit switch will provide the condition of the door which is open or closed. Thus the system triggers an alarm detecting the presence of the person or towing vehicle or opening the door in a specific interval of time and the GSM call to user gets activated.Second important aspect is safety of driver for prevention of accident. Driver's drowsiness is one of the important factor which leads to accident. Eye blink detection technique helps to prevent this by controlling the vehicle's speed. It is a known fact that the few hours after an accident are very critical in saving the person's life and timely help can increase the odds of his or her survival. In case of accident, sensors involved in the system will detect the occurrence of accident and also helps in informing the family about the accident along with the location of accident.

Safety in Operation Logic – FPGA Approach

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Abstract— **Manual Safety Logic Unit implements the interlocks using Field Programmable Gate Array (FPGA) for safe operation of Fuel Handling components of Advanced Heavy Water Reactor (AHWR). The interlocks have been designed to prevent any mal-operation and damage to the fueling components. Interlocks are the instrumented functions and the interconnections between them are determined by the user. This paper summarizes the safety operation of Fueling Machine component i.e. RAM Assembly by checking the output commands given by Control Computer after verifying again through a separate standalone hard-wired Manual Safety Logic (MSL) Unit. This provides an independent and diversified implementation to prevent any mal-operation of the system and takes the system to the safe state during any fault conditions.**

Summarization of changes in dynamic text collections using Latent Dirichlet Allocation model

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ABSTRACT-

In this digital world, it is very difficult to retrieve information from where the documentsareupdatedormodifiedusually.LetustakeexampleofWorldWideWebwhere the information changes both usually and importantly over time. Previous projects of abstractionofwebdocumentssimplyreflectsthelatestversionofeachdocumentdiscarding the dynamic nature of the web. This paper proposes a project with new challenge of the automatic abstraction of changes in dynamic text collections. Along with standard text summarization, this retrieval techniques displays a summary to the user by capturing the major points expressed in the most recent version of an entire document in a compressed form. A system based on Latent Dirichlet Allocation model (LDA) which is used to find the invisible topic formation of changes. The purpose of using the LDA model is to recognize different topics where the changes aremade.

Spoofing and anti-spoofing of automatic Speaker verification

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ABSTRACT

This venture show a deliberate investigation of the defenselessness of programmed speaker[1] confirmation to an assorted scope of ridiculing assaults. It begin with an investigation of the satirizing impacts of five discourse blend and eight voice transformation frameworks. It then acquaint various countermeasures with keep ridiculing assaults from both known and obscure assailants. The errand of programmed speaker confirmation framework (ASV) is to acknowledge or dismiss a guaranteed character in light of a discourse test. Content ward ASV expect obliged word contentand wasordinarilyutilizedasapartofconfirmationapplicationssinceitcanconveythe high ssprecision required. Confirmation prepare for the most part happens under remote situations withno up close and personal contact, a ridiculing assault – an endeavor to control a check come about by impersonating an objective speaker's voice by utilizing voice change or discourse combination – is a central concern. It concentrates on caricaturing and hostile to parodying for content autonomous ASV. Known assailants were satirizing frameworks whose yield was utilized to prepare the countermeasures, while an obscure aggressor was a parodying framework whose yield was not accessible to the countermeasures amid preparing. At last, framework assesses against human execution on both speaker confirmation and ridiculing discoveryerrands.

Object Tracking Methods – A Survey

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Abstract—Object tracking is the process of locating moving objects in video sequences. Object tracking is an essential task in many application of computer vision such as vehicle navigation, autonomous robot navigation, human-computer interaction, security and video surveillance, augmented reality, traffic control etc. To perform video tracking an algorithm analyzes sequential video frames and outputs the movement of targets between the frames. Its main task is to find and follow a moving object or multipleobjects in image sequences. Tracking a target is still one of the challenging problems of video surveillance. The process of object tracking consists of a number of stages, some of them being feature detection, object detection, its classification and tracking. This paper presents a brief overview of various video object tracking stages and techniques and examines their pros andcons.

SEARCHABLE ENCRYPTION USING KEY AGGREGATE FOR DATA SHARING IN CLOUD STORAGE

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***Abstract*—**Datasharingisanimportantfunctionalityinacloudstorage.Weproposeasearchable encryption using key aggregate for data sharing in cloud storage. In this if user wants to access some information, data or files in cloud storage then the user send request to the authorized person. Then authorized person send one registration form to the user. The user fills the registration form and send to the authorized person. Then the authorized person checks which typeofaccesslikepublicorprivateinformationorfiles.Ifuserwantstoaccesspublicinformation or files then they can directly search in cloud storage and access data or information. In this user can not modify and delete data on cloud storage, users can only view and download these data. In the other hand, if the user wants to access private Information in cloud storage, then the authorized person sends the aggregate key to the user through an E-mail. In this we provides features like Integrity, Security, Encryption, Decryption and Searchable encryption. If the authorized person sends key to user to access the information or file and if user share these key toanotheruser.InsuchasituationweprovideOTPandtimestampforextralevelofsecurity.

Performance Assessment of Zigbee baesd home automation system

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ABSTRACT

This paper present a empirical comparison study of ZigBee and Bluetooth. The parameters investigated are power consumption and distance in different environments. This study shows the differences and similarities for the two different short rang radio technologies and results obtained for physical tests done for Zigbee.

Productive Key Administration in WSN

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Abstract—Wireless Device Networks or Wireless Sensor Network (WSNs) comprises tiny sensor nodes with strained energy, memory and computation capabilities. They are typically deployed within the unattended and hostile environment. So device no des area unit susceptible to attacks such as no de capture and collusion attack by adversaries. Its associate degree energy efficient dynamic key management scheme that performs localized re-keying to reduce overhead. Key management has remained a difficult issue in Wireless Device Networks (WSNs) as a result of the constraints of device no de resources. Various key management schemes that trade off security and operational necessities are proposed in recent years. A certificate oriented-effective key management (CO-EKM) protocol for secure communication in dynamic WSNs characterized by node mobility. The CO-EKM underpins key upgrades once a node leaves or joins a cluster and guarantees forward and in reverse key secrecy. The protocol furthermore supports key revocation for traded off or compromised nodes and limits the effect of a node compromise on the protection of alternative links for communication. A security analysis of theme shows that protocol is effective in defensive against varied attacks and simulates it using Network Simulator2 to assess its time, energy, communication, and memory performance.

A Programmable System on Chip (Psoc) for Active Power Filter (APF) based on Cortex M3

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Abstract— The proper power distribution is more important in present days as the power demand is increasing rapidly. The parameters like reactive power and the harmonic current poses some serious problems like transformer heating, machine vibration and line losses. There is various control techniques has been adopted in recent past to overcome the above issues. The Synchronous Reference Frame (SRF) based control algorithm gives the high response as it divides both the reactive power and harmonic components. The drawback of SRF based control algorithm is that it needs proper synchronization of input current with utility voltage. The synchronization can be achieved by using the microcontroller or digital signal processing (DSP) but face fundamental challenges like high computational time, less accuracy, limited sampling time etc. This paper gives a novel PSoC by using the FPGA board, Cortex M3 board, and analog-to-digital converter (ADC), digital to analog converter (DAC) boards. In this, the existing Cypress 1/3/5 PSoC board is discussed. In order to perform the simulation over the proposed PSoC we have used the modelsim-6f and Xilinx 14.7 platforms. Also, the cathode-ray oscilloscope *(*CRO*) is used to observe the output signals.*

Keywords— Directed Current Controller , FPGA, Harmonics, , PSoC, PWM, PLL, reactive power, SRF.

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CHARACTERIZATION OF ENHANCEMENT AlInN/GaN HEMTS USING PARTIAL P-TYPE GaN GATE

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Abstract. This work attempts to characterize the Enhancement mode (E-mode) AlInN/GaN HEMT devices implemented using p-GaN gate for getting positive threshold voltage (Vt). The device channel consists of a lattice-matched wideband **Al0.83In0.17N** and narrowband GaN layers, along with p-GaN layer below the E-mode device. The 2D Sentaurus TCAD simulation is done using the hydrodynamic model. The simulation model is calibrated with the initially published experimental result. A comprehensive, quantitative investigation of transfer characteristics, transconductance, gate capacitance, gate leakage and RF gain for E-mode devices is done. The E-mode device exhibit a Vt of + 1.0 V. This new device exhibit almost similar transconductance characteristics. The E-mode device shows lower off-state leakage current, higher ION/IOFF ratio and lower SS. These results demonstrate the feasibility for fabricating an E-mode AlInN/GaN HEMT device which is extremely desirable for high speed and high-frequency.