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ON
SCIENTIFIC RESEARCH AND INTEGRATED EMERGING TECHNOLOGIES
(NCSRIET- 2020)

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NCSRIET01

Kgram-Based Composite Secret Sign Search over Encrypted Cloud Information

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Abstract— A Large numbers of data owners have moved our data into cloud servers. Cloud data owners prefer to outsource documents in an encrypted form for the function of confidentiality preserving. Therefore, it is essential to develop efficient and reliable cipher text search method. One challenge is that the relationship between documents will be normally concealed in the procedure of encryption, which will lead to major search accuracy performance degradation. All access the data from cloud by using the keyword-based search. The secure multi-keyword ranked search from the encrypted data from the cloud, top-k search problem for big data encryption against privacy breaches, and attempt to identify an efficient and secure solution to this problem. It accessible operations like update, delete, insertion of documents. Here using tree structure and nebulous search method for retrieve the data from the cloud. These types of techniques are used to solve the problem of keyword guessing attack. The blowfish algorithm for the encryption process. We propose a group multi-keyword top-k search scheme based on the idea of partition, where a group of tree-based indexes are constructed for all documents. We combine these methods together into an efficient and secure approach to address our proposed top-k similarity search here to reduce statistical attacks. The extensive experimental results on real-life data sets demonstrate that our approach can significantly improve the capability of defending the privacy breaches, the scalability and the time efficiency of query processing over the state-of-the-art methods. It can achieve sub-linear search time and the search result like a number of file retrieval also deal with deletion and insertion of documents flexibly.

Keywords— searchable encryption, semantic-based keyword search, semantic similarity, compound concept

NCSRIET02

An IP Traceback Scheme For Securing Networks From IP Spoofers

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Abstract : In computer networking, IP address spoofing or IP spoofing is the creation of Internet Protocol (IP) packets with a forged source IP address, with the purpose of concealing the identity of the sender or impersonating another computing system. The basic protocol for sending data in the Internet network and many other networks is the Internet Protocol ("IP"). The header of each IP packet contains the numerical source and destination address of the packet. The source address is normally the address that the packet was sent from. By forging the header so it contains a different address, an attacker can make it appear that the packet was sent by a different machine. So that the IP Spoofing comes into place. Cloud services offer better options for practical deployment of an IP traceback system. We first present novel cloud-based traceback architecture. We have proposed a novel solution, named Man in the Middle Attack () to avoid the challenges in operation. To capture the origins of IP spoofing traffic is of great importance. As long as the real locations of spoofers are not disclosed, they cannot be deterred from launching further attacks. Even just approaching the spoofers, for example, determining the ASes or networks they reside in, attackers can be located in a smaller area, and filters can be placed closer to the attacker before attacking traffic get aggregated. The last but not the least, identifying the origins of spoofing traffic can help build a reputation system for ASes, which would be helpful to push the corresponding ISPs to verify IP source address. The proposed solution ensures that the entity requesting for traceback service is an actual recipient of the packets to be traced.

Keywords— spoofing, traceback

NCSRIET03

Intelligent Transportation And Control Systems Using Data Mining And Machine Learning Techniques: A Comprehensive Study

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ABSTRACT- Traffic congestion means excess of vehicles on a roadway at specific time resulting in slower speeds and longer trip times and this is a major challenge in the area of traffic control and transportation decision. It cannot be solved completely, but it can be solved to some extent. Informing road users in advance about the road status will help in minimizing the traffic congestion and allowing road users to make better decisions during their journey. Using data mining technology, traffic management provides a powerful analysis and processing function of mass traffic data and directs drivers and systems to make better decisions. The aim of the system is to predict the appropriate class output to each conversation, whether it is related to traffic content or not. System employed m-KNN (Modified k Nearest Neighbour algorithm) as a classification model and PCA (Principle Component Analysis) is used for Feature Extraction. Road traffic prediction is a critical component in modern smart transportation systems. Existing work on near-term traffic prediction (range of four minutes to one hour) relies on the current and past traffic conditions. However, once the forecasting horizon is beyond one hour, i.e., in longer-term traffic prediction, these techniques do not work well since additional factors other than the past and current traffic conditions start to play important roles. To address this problem, in this project, for the first time, we examine whether it is possible to use the rich information in online social media to improve longer-term traffic prediction using the combination of PCA and m-KNN. To this end, we first analyze the correlation between traffic volume and conversation counts with various granularities.

Keywords—Artificial intelligent, data mining, intelligent transportation, machine learning.

NCSRIET04

Hybrid Optimization Based On Genetic Routing and Scheduling Scheme With Robust Transmission In Wireless Networks

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Abstract - In this work, it used an effective proposed scheme, named as Hybrid Optimization System (HOS), for efficient and routing and transmission for wireless networks. This Hybrid scheme consist of many techniques such as, Dynamic Opportunistic Routing, Multipath Scheduling Scheme and Robust Transmission in networks to overcome above limitations in networks. The proposed scheme which maximizes end-to-end connectivity in the network and minimizes faults at link or/and node level. A set of multiple paths are established from source to multicast destinations using energy efficient neighbor node selection mechanism. It provides load balancing at the node and finds a stable path between the source and destination meeting the delay requirement. Results, that the proposed protocol outperforms in terms of packet delivery ratio, throughput, routing overhead and average end to end delay.

***Keywords*—**HOS, clustering, fuzzy, WSN

NCSRIET05

Dynamic Identity –Based Deterministic Multi – Copy Information Custody In Multi – Cloud Repository

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Abstract— The cloud data services, it is common place for data to be not only stored in the cloud, but also shared across multiple users. Unfortunately, the integrity of cloud data is subject to skepticism due to the existence of hardware/software failures and human errors. Several mechanisms have been designed to allow both data owners and public verifiers to efficiently audit cloud data integrity without retrieving the entire data from the cloud server. Public auditing on the integrity of shared data with these existing mechanisms will inevitably reveal confidential information. Cloud Computing has been envisioned as the next-generation architecture of IT Enterprise. It moves the application software and databases to the centralized large data centers, where the management of the data and services may not be fully trustworthy. This work studies the problem of ensuring the integrity of data storage in Cloud Computing. In particular, consider the task of allowing a threshold proxy re-encryption, on behalf of the cloud client, to verify the integrity of the dynamic data stored in the cloud. While prior works on ensuring remote data integrity often lacks the support of either public Audit ability or dynamic data operations, this project achieves both.

Index Terms—Cloud Storage, Data Integrity, Fuzzy Identity, Threshold Secret Sharing.

NCSRIET06

Multi-Indexing Scheme for Cloud Storage System Using U2-HCN

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Abstract— To search the data efficiently, the U2Tree based multi-dimensional index is used in our system. U2-HCN integrates HCN- based routing protocol and the U2Tree based indexing technology. Similar to previous works, U2-HCN is a two-layer indexing scheme with a global index layer and a local index layer. U2-HCN, a distributed indexing scheme for multi-dimensional query processing in data centers, the infrastructure to build cloud systems. U2-HCN is a two-layer indexing scheme, which integrates HCN-based routing protocol and the R- Tree based indexing technology, and is portion ably distributed on every server. Based on the characteristics of HCN, we design a special index publishing rule and query processing algorithms to guarantee efficient data management for the whole network. We prove theoretically that RT-HCN is both query-efficient and space-efficient, by which each server will only maintain a tolerable number of indices while a large number of users can concurrently process queries with low routing cost.

Index Terms—Two-layer index, cloud storage system, data center network.

NCSRIET07

Machine Learning Based Malicious Urls Detection

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ABSTRACT: Malicious URLs have been widely used to mount various cyber-attacks including spamming, phishing and malware. Malicious URL is a URL created with malicious purposes, among them, to download any type of malware to the affected computer, to cause undesired effects. Such URL sites contains malicious code which describes a broad category of system security terms that includes attack scripts, viruses, worms, Trojan horses, backdoors, and malicious active content. Detection of malicious URLs and identification of threat types are critical to thwart these attacks. Detecting malicious URLs is now an essential task in network security intelligence. To maintain efficiency of web security, these malicious URLs have to be detected, identified as well as their corresponding links should be found out. Hence users get protected from it and effectiveness of network security gets increased. For such identification there must be analyzer which should not only detect such URLs but analyze them also. And methods to detect corresponding links of malicious URLs.This approach will prevent the users from attacks and increase efficiency of web crawling phase.

INDEX TERMS malicious URL detection, network attack, character-level embedding, convolutional neural network, neural network model.

NCSRIET08

A Fraud Detection System In Credit Cards Through Map-Reduce

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ABSTRACT - Now a day's online business are happened through the internet by using the credit card, debit card etc. The major issues was in the online transactions is security. While doing the online transactions from one account to another account some fraud activities happening. In the existing system once the fraud activities happened then only we know that whether fraud is occurred or not. In this proposed system we are going to finding the fraud activities before doing the online transactions. By using the Hadoop Framework we are going to give the solution for credit card fraud identification. We from this time suggest a distributed storage and fast data processing framework to work on the large dataset. Next, we classify a party of specific individual direct measures for each consumer from the dataset subject to the threshold level of their transaction. By then us train the method of classifiers for every user based on their previous all transactions. Finally we use the classifiers set to see fraud practices on the transactions and if it is detected, user will be verified by using security question answering and image pixel verification and then only allowed to transfer the money. The provided consequences of our basics show up that our structure is better than various previous works.

Keyword: credit score card fraud location, security questions, pixel verification.

NCSRIET09

A Protection Engine For Examining Distributed Denial Of Service Attack In Computer Networks

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Abstract— The ever rising attacks on IT infrastructure, especially on networks has become the cause of anxiety for the IT professionals and the people venturing in the cyber world. Distributed denial of service (DDoS) is one of the most indirect security attack on computer networks. Many . Once the DDoS attack initiates, it causes huge overhead to the servers in terms of its processing capability and service delivery. Though, the study and analysis of request packets may help in distinguishing the legitimate users from among the malicious attackers but such detection becomes non-viable due to continuous flooding of packets on servers and eventually leads to denial of service to the authorized users. In the present research, to propose traffic flow and flow count variable based prevention mechanism with the difference in homogeneity. Its simplicity and practical approach facilitates the detection of DDoS attack at the early stage which helps in prevention of the attack and the subsequent damage. Further, simulation result based on different instances of time has been shown on T-value including generation of simple and harmonic homogeneity for observing the real time request difference and gaps.

Index Terms—Convergence analysis, data deception attacks, denial of service (DoS) attacks, distributed state estimation, smart grid

NCSRIET10

HETEROGENEOUS INTELLIGENCE DEPORTATION IN VIDEO DESIRE REALIZATION, ATTRIBUTION AND CHARACTERIZATION

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ABSTRACT With the rapid growth in multimedia services and the enormous offers of video contents in online social networks, users have difficulty in obtaining their interests. Therefore, various personalized recommendation systems have been proposed. In addition, none of them has considered both the privacy of users' contexts (e.g., social status, ages and hobbies) and video service vendors' repositories, which are extremely sensitive and of significant commercial value. To handle these problems, it's been proposed a cloud-assisted differentially private video recommendation system based on distributed online learning. In our project we proposed the new optimization technique for recommendation. The video recommendation is based on user's behavior (user's interest) and also using the pattern mining for video tag search recommendation. We have search option as sub category search and global search in our application. Facing massive multimedia services and contents in the Internet is based the content provider. In that group of providers we need to find out the irrelevant content promoters. Content promoters are usually trying to promote their contents to social media service or video service sites in internet. In our project Based on the user's interest we can detect and avoid the irrelevant content and content promoters.

NCSRIET11

Selecting Optimum Cloud Availability Zones By Learning User Satisfaction Levels

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ABSTRACT: Cloud service providers enable enterprises with the ability to place their business applications into availability zones across multiple locations worldwide. While this capability helps achieve higher availability with smaller failure rates, business applications deployed across these independent zones may experience different Quality of Service (QoS) due to heterogeneous physical infrastructures. Since the perceived QoS against specific requirements are not usually advertised by cloud providers, selecting an availability zone that would best satisfy the user requirements is a challenge. In this paper An availability zone is a data center that is physically isolated from other availability zones. Cloud providers offer several of such availability zones in various geographies. In this paper, we present an adaptive and predictive method for automatically selecting availability zones. The predictive models are built from historical usage data for each availability zone and are updated as the nature of the zones and requests change. Simulation results show that our method successfully predicts the unpublished zone behavior from historical data and identifies the availability zone that maximizes user satisfaction against specific requirements.

NCSRIET12

Cloud Data Security Using Backtracking Algorithm and ASCII Stenography

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ABSTRACT— In cloud computing, data security plays an important role where confidentiality, authentication, integrity, non-repudiation are given importance. The usual technique for providing confidentiality of transmitted data is cryptography. This paper provides a technique to encrypt the data using a key involving ECC hash value as the password. Three set of security are used to provide secure data transmission with the ASCII Stenography acting as vital security element thereby providing authentication. In the present world of cloud data transmission it is difficult to transmit data from one place to another with security. This is because hackers are becoming more powerful nowadays. To ensure secured data transmission there are several techniques being followed. One among them is cryptography which is the practice and study of hiding information. The proposed method is BackTrack-ASCII algorithm, this is a new cryptographic algorithm which is used for secure the data in cloud. Encryption and decryption require the use of some secret information, usually referred to as a hash key. ECC algorithm is used to generate the key. The data to be encrypted is called as plain text. The plain text is converted into ASCII code, which is added to ASCII code of cover message which is generated by Backtrack algorithm, also the key is added to these. The encrypted data obtained as a result of encryption process is called as cipher text. Depending on the encryption mechanism used, the same key might be used for both encryption and decryption, while for other mechanisms, the keys used for encryption and decryption might be different.

Keywords- Encrypt, backtrack

NCSRIET13

A PROGNOSIS APPROACH FOR STOCK MARKET PREDICTION BASED ON TERM STREAK INFORMATION

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ABSTRACT: The Stock market process is full of uncertainty and is affected by many factors. Hence the Stock market prediction is one of the important exertions in finance and business. In this system technical analysis are considered. Technical analysis is done using historical data of stock prices by applying machine learning. The learned model can then be used to make future predictions about stock values. The system is trained by using machine learning algorithm. Then the correlation between the stock values is analyzed. The learned model can then be used to make future predictions about stock values. It can be shown that this method is able to predict the stock performance. In this system we applied prediction techniques approach in order to predict stock prices for a sample companies. In stock predictions, a set of pure technical data, fundamental data, and derived data are used in prediction of future values of stocks. The pure technical data is based on previous stock data while the fundamental data represents the companies' activity and the situation of market. All the data will be classified and clustering using the data mining techniques.

Keywords- prediction, performance

NCSRIET14

SEMANTICALLY ENRICHED TEXT MINING ON CUSTOMER TEXT DATA

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ABSTRACT: The wide availability of web documents in electronic forms requires an automatic technique to label the documents with a predefined set of topics, what is known as automatic Text Categorization (TC). Over the past decades, it has been witnessed a large number of advanced machine learning algorithms to address this challenging task. The generated presentation slides can be used as drafts to help the presenters prepare their formal slides in a quicker way. Documents are usually represented by the "bag-of-words": namely, each word or phrase occurs in documents once or more times is considered as a feature.

JFSC (joint feature selection and classification) learns both shared features and label specific features by considering pairwise label correlations, and builds the multilevel classifier on the learned low-dimensional data representations simultaneously. It first employs the regression method to learn the importance scores of the sentences in an academic paper, and then exploits the integer linear programming (ILP) method to generate well-structured slides by selecting and aligning key phrases and sentences. Train a sentence scoring model based on SVR and use the ILP method to align and extract key phrases and sentences for generating the slides. Experimental results show that our method can generate much better slides than traditional methods.

Keywords- text categorization, integer linear programming.

NCSRIET15

Dynamic data chinking and sample partition for bigdata analysis using RSP and compression algorithm

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Abstract— A novel scalable data compression approach is proposed based on calculating similarity among the partitioned data chunks. Instead of compressing basic data units, the compression will be conducted over partitioned data chunks. To restore original data sets, some restoration functions and predictions will be designed. The proposed method is the combination of Data compression algorithm and Random Sample Partition (RSP). The proposed system is a novel technique based on data chunk partitioning for effectively processing big data, especially streaming big sensing data on Cloud. The proposed method is the Random Sample Partition (RSP) with Data compression algorithm, which distributed data model to facilitate block-level sampling and support big data analysis. Our objective is to enable the distributed data blocks of a big data set to be used directly as random samples in approximate big data analysis. In this model, a big data set is represented as a set of small disjoint random sample data blocks, called RSP blocks. The probability distribution in each RSP block is similar to that in the entire data set. Thus, an RSP block is equivalent to a record-level sample from the entire data.

Index Terms—Big Data Analysis, Cluster Computing, Random Sampling, Data Partitioning

NCSRIET16

Recognizing User Portrait for Fraudulent Identification On Online Social Networks

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Abstract—On-line Social Networks (OSNs) are increasingly influencing the way people communicate with each other and share personal, professional and political information. Well known sites such as Facebook, LinkedIn, Twitter, and Google+ have millions of users across the globe. With the wide popularity there are lot of security and privacy threats to the users of Online Social Networks (OSN) such as breach of privacy, viral marketing, structural attacks, malware attacks and Profile Cloning. Social Networks have permitted people have their own virtual identities which they use to interact with other online users. It is also completely possible and not uncommon for a user to have more than one online profile or even a completely different anonymous online identity. Sometimes it is needed to unmask the anonymity of certain profiles, or to identify two difference profiles as belonging to the same user. Entity Resolution (ER) is the task of matching two different online profiles potentially from social networks. Solving ER has a identification of fake profiles. Our solution compares profiles based similar attributes. The system was tasked with matching two profiles that were in a pool of extremely similar profiles.

Index Terms—Graph Mining, Time Series, Fraud Detection, Contrast Suspiciousness.

NCSRIET17

Session-Key Establishment and Authentication in a Smart Home Network using Public Key Cryptography

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Abstract—The development of the applications of the Internet of Things technology continues to grow steadily one of the top applications being smart home environments. A smart home comprises digital devices and systems that operate inside a home to bring efficiency in the home life. Devices with lowcomputational ability and devices with high-computational ability work together in a smart home network and therefore communication between• devices need to be secure. This paper considers a lightweight and secure session key establishment scheme for smart home networks and incorporates the DiffieHellman (DH) key exchange as an alternative method. A trusted Service Provider provides the algorithm parameters to the devices so that a public key can be established between the home gateway and a smart device. The proposed scheme is formally analyzed using Security Protocol Animator for AVISPÅ (SPAN).

Keywords—Diffie-Hellman, public key cryptography, authentication, secrecy

NCSRIET18

Interactive apps for staffs and self-learning tools for enhancing the student learning

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Abstract: The objective of the program is for students to learn some basic concepts of embedded systems and robotics, and apply them in practice. For that purpose, various practical laboratory exercises were prepared to teach different aspects of communications, control, mechatronics, and microcontrollers. The practicals are organized such that the students can systematically solve real-world problems and for staffs to use automated timetable generator to simplify timetable preparation.
Keywords-robotics, generator

NCSRIET19

ONLINE AUCTION SYSTEM

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Abstract– The online auctioning system is a flexible solution for supporting lot-based online auctions. The thesis explains the construction of an auction website. The system has been designed to be highly-scalable and capable of supporting large Numbers of bidders in an active auction. The online auction system lets you easily browse lots and place bids using a secure server. All cost of mailing lots will be paid by the buyer. The objective is to develop a user-friendly auctioning site where any Kind of product can be auctioned and provide value added services to the bidders and the sellers.

Keywords- auction, bidder, seller

NCSRIET20

Reconfigurable Impedance Matching Network using RF MEMS based Switches for 5G Communications

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Abstract—The upcoming transition towards 5G technology leads to tremendous growth in the field of Wireless communications and there is a need for novel technology which is cost affordable and has higher throughput, better coverage and capacity. The 5G technology needs smartphones to fit more antennas into less space. This increases complexity in the RF Handsets as there is a need for redundant Impedance Matching Networks (IMN) corresponding to each antenna to ensure maximum power transfer by reducing mismatch losses. In order to resolve the encountered problem, Micro electromechanical switches (MEMS) incorporated IMN has to be designed as they have better performance, power handling capability, less power consumption and low losses at high frequencies. MEMS based Radio Frequency (RF) switches offer reconfigurable nature to the networks which in turn avoids the presence of hardware redundancy consuming much space in the chip area. In this paper work, RF MEMS switches based Reconfigurable IMN is designed for 5G applications operating at sub-6GHz. The matching network is designed using Lumped Element Network method. Electromagnetic modelling of MEMS Switches is done using COMSOL Multi physics and the simulation results of S-Parameters for the designed reconfigurable IMN are obtained using the Advanced Design System that shows maximum response at desired frequencies.

Keywords—Impedance matching networks, Radio Frequency, Fifth Generation Network(5G), Scattering parameters, RF MEMS Switches, Advance Design Systems, COMSOL Multiphysics.

NCSRIET21

AUTOMATIC GAS LEAKAGE DETECTOR AND MANAGEMENT

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Abstract: Recent trends in the development of internet of things all around the world. IoT based automation has become very affordable and it has been applied in various sectors such as manufacturing, transport, health care, consumer electronics etc.,The aim of this System is to present such a design that can automatically detect, alert and control gas leakage. The device is intended for use in household safety where appliances and heaters that use natural gas & LPG may be a source of risk. The system can also be used for other application in the industry or plant that depends on LPG & natural gas in their operation. The main objective of the proposed System is to build a gas leakage detector using sensors. This system sends the notification to mobile phones at any distortion condition. Arduino UNO is used as the main controller. For communication purpose ESP8266 is used.

NCSRIET22

AN EFFICIENT MISBEHAVIOUR TRACKING FOR SECURE DATA SHARING IN TRUSTED CLOUDS

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Abstract: Cloud computing permits extraordinarily ascendable services to be merely consumed over cyber web on Associate in Nursing as-needed basis. A major feature of the cloud services is that users data unit of measurement generally processed remotely in unknown machines that users do not own or operate. Whereas enjoying convenience brought by this new rising technology, users fears of losing management of their own data (particularly, cash and health data) can become a significant barrier to handle this downside, throughout this paper, we have a tendency the to tend to propose a very distinctive extraordinarily de centralised information responsibility framework to remain track of the actual usage of the users data at intervals the cloud. We have a tendency to tend to leverage the log file manufacture a dynamic and traveling object, and to create certain that any access to users data will trigger to strengthen users management, we have a tendency to tend to in addition offer distributed auditing mechanisms. We provide intensive experimental studies that demonstrate the efficiency and effectiveness of the planned approaches.

Keywords : Cloud Computing , Data flow , Overhead , Pullmode, Log files

NCSRIET23

REAL TIME ANALYSIS OF BIDIRECTIONAL SEPIC-BASED BOOST MULTIPORT CONVERTER BY USING IOT

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Abstract— A non-isolated Single-Ended Primary-Inductor Converter (SEPIC)-based bidirectional Multi-Port Converter (MPC) is presented during this paper. Inputs of the topology are Renewable Energy Sources (RES) like solar and wind, which are stochastic in nature. A battery port is present to support the circuit within the absence of RES. A feedback power flow path is provided to charge the battery from output capacitor also on support the load within the absence of RES. DC output voltage level of RES are low, this voltage must boost for various applications. The proposed topology has non-inverting boost output voltage levels. A coupling capacitor is employed to couple energy from input to the load. Two operating modes are defined in several time intervals depending upon inductors charging and discharging. A 18.7W converter is meant using MATLAB/Simulink to validate the theoretical concepts.

Keywords— Multiport DC-DC Converter, DC grid, Converter Power Loss, Operating Mode, Converter Efficiency

NCSRIET24

BABY MONITORING SYSTEM USING INTERNET OF THINGS

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Abstract: The Internet of Things-based Baby observation System is projected as associate degree economical and low-priced Iot-based system for observation the baby in real time. We tend to additionally projected a brand new algorithmic program for our system that plays a key role in providing higher baby care whereas folks square measure away. Within the designed system, Node Micro-Controller Unit Controller Board is exploited to assemble the info browse by the detector and uploaded via Wi-Fi to the humanoid application. The projected system exploits detector to observe baby is crying stage. The projected system epitome is fictitious and tested to prove its effectiveness in terms of price and ease and to make sure safe operation to change the baby-parenting anyplace and anytime through the network. In addition, additionally we tend to proposing an automatic system that contains sensors to observe the baby.

Keyword – cradle, cloud (node mcu), smart phone

NCSRIET25

Object Detection and Safety Navigation for Visually Impaired Person

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Abstract: Assistive technologies are being developed for visually impaired people in order to live confidently. This project proposes a camera-based assistive text reading, object recognition and navigating framework. This helps visually impaired person to navigate, identifying products, and read texts all from hand-held objects in their daily lives. Previous developments which assist visually impaired person have disadvantages such as instead of Braille language we can use audio speech as an output, Text tracking based algorithm requires to focus on the text position, Simulation platform is not suitable for detecting movable objects, IR and Haptic sensors are restricted by short distances, Alert signals like Vibration and Beep sound are not enough in providing assistance. In order to surpass such disadvantages we are proposing technologies like OpenCV- a Computer Vision Library Software with more than 2500 machine learning algorithm for object identification, text reading, gesture recognition, Color specifications etc.., GPS and ultrasonic sensors for obstacle detection and route planning while walking, Vibration sensor with message generation for emergency signal in case of any accident occurrence, Audio output generated through Raspberry Pi for better assistance.

NCSRIET26

A SYSTEMATIC STUDY OF FORECASTING RAINFALL USINGDIFFERENT METHODOLOGIES

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Abstract:Big data is nothing but a large amount of data that needs new emerging ideas and technologies to extract the value from the analyzing process. The analytics are mostly involved in studying the old historical data to implement in the research. This paper is fully filled with the most fascinating and interesting concept called Rainfall detection predicting the weather is not very easy but with the concept of big data analytics makes it convenient. This will be more helpful to the farmers to be more aware of whether to cultivate their crops. This paper uses concepts like Clustering, Artificial Neural Network and GIS. The clustering is nothing but grouping the entire important data. The analyzing cluster is also known as cluster analysis. The Artificial Neural Network is performed by using the input and outputs of the data because of its non-linear techniques. A geographic information system (GIS) is a structure for a social occasion, overseeing, and investigating information. Established in the study of geology, GIS coordinates numerous kinds of information. It breaks down spatial areas and sorts out layers of data into perceptions utilizing guides and 3D scenes. With this one of a kind of abilities, GIS uncovers further bits of knowledge into information as an example, connections, and circumstances helping clients settle on more astute choices.

NCSRIET27

Emotion Recognition of a Human Facial in MLP Neural Network using Adaptive Sigmoidal Transfer Function

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Abstract-- Facial expressions are a mechanism to communicate the inner feeling status used by humans and are difficult to survive. The variability and controllability makes the facial expression recognition a challenging and interesting problem in computer vision. A two stage based model is applied to carry the Principle component analysis as a feature extractor in first stage and self adaptive based activation function in feedforward neural network as classifier in second stage in this paper. The most dominant state of facial emotions like angry, surprise, sadness, normal, happy and fear have been considered in this paper. The benchmark is the XOR problem classification which is more beneficial for the proposed model of self adaptive activation function in the proposed model. The proposed model is better and provides faster learning.

Keywords-- Facial recognition, Principle component analysis, neural network, Emotion recognition.

NCSRIET28

SOLAR POWERED AUTOMATIC GROUNDNUT DECORTICATOR

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Abstract: In India, agriculture is the backbone of the country. Groundnut is the sixth most oilseed crop in the world. Decortication of groundnut is a tedious and time consuming process. Commercial available hand operated decorticator require more energy with less output. The labour scarcity which includes higher wages. An attempt was made to develop and evaluate pedal operated groundnut decorticator. The study revealed that, the pedal operated decorticator gave an output which was more than hand operated decorticator hand shelling. The output from this method was very less and could not satisfy the market demand as it was time consuming process. A research-work for design, fabricate and performance evaluation of a groundnut Sheller consisting of feeder hopper with a flow rate controlled device, shelling unit and power system. In this project the process of designing the different parts of this shelling and separating machine considering all forces and ergonomic factor for people to use.

Keyword: groundnut, decorticator machine, shelling.

NCSRIET29

AUTOMATIC HEADLIGHT DIMMER USING LDR SENSOR

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Abstract: For a large variety of commercial, safety and automobile applications there is a need to improvise the products based on the current technology. It represents the research work done in the field of automotive safety. As head light are the major important in night travel. In this work prototype of headlight system is made by using Arduino, sensors, LEDs and other accessories.

A prototype of multi featured headlight system provides facility of automatic switching of headlight from low beam to high intensity beam in night time. Also this model eliminates the requirement of manual switch by the driver as switching takes place automatically. These features are automatic light intensity adjustment with respect to opposite light beam and. This concept is very useful in the automobile field applications, which provides safety of driver during driving. To avoid such accidents due to glare of the on-coming vehicle, we have fabricated a prototype of automatic headlight dimmer. This automatically switches the high beam into low beam thus reducing the glare effect by sensing the approaching vehicle.

NCSRIET30

SMART PORTABLE SOIL TESTER

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Abstract: At present soil ingredients are being tested only at Soil Analysis Centre, where they use primitive method. In the existing system the soil can be tested just to check out the fertility and the moisture level. It has to be given to the lab for testing the soil. It will take some days to fetch the results. Farmers are suffering much to get the farm lands survey reports quickly. Farmers get scared of rain every year for their desired yield. This project is intended to provide the soil testing services at the farmers' doorstep by determining the soil parameters such as pH, moisture of the soil. Live updating in a website helps the farmers to get to know the current status of soil. This project helps us in knowing the pH value and moisture content of the soil. Therefore we can increase the yield and able to get the result as soon as we test it. The LCD display is used to display the measured value which helps the farmers to identify the value immediately when they measure. The smart soil testing system will have a database that can support storing and retrieving of the values from which it is possible to be accessed by users later. The GSM helps to send the message to the mentioned users mobile about the value of pH and moisture so that it is possible to access whenever it is necessary. It is very accurate and no special maintenance is necessary. It is low cost hand held. Continuous measurement at same location. Usable over several seasons with proper care. Easy handling , light weight , pocket size , easy installation and direct reading. Large range of operating environment.

NCSRIET31

IDENTIFICATION OF MISSING PERSON USING LORA NETWORK

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Abstract: In pilgrim centre, it is very common far devotee to miss the regular path and get lost in some danger location. It is very difficult for the pilgrim security members to find the devotee because of no GSM signals. To overcome this a Lora Network is established to find the missing devotee .Security is very much important in communication line at the same time balancing all the parameters like functionality, cryptography affordable ,for area-constrained embedded devices constrain adjusted large amount of data. In wrist watch or device there will be button called panic or alert button in case of missing devote pressed that button by using GPS module traces locate and to Base station .The Base station is interference with microcontroller in computer. In computer by using NMES codes decode the program we will find the exact location of missing person.

NCSRIET32

VOICE AND HAND GESTURE BASED VLC PLAYER MANIPULATION FOR DISABLED PEOPLE

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ABSTRACT: Hand Gestures are the movements or actions using fingers which is the sign-language used to communicate important messages. It is used to develop a new type of human computer interaction system and overcomes the problems that users have been facing with the current system and this will be more useful for the disabled people. This paper have been implemented for disabled people and to the initial step of artificial intelligence. Artificial Intelligence is the area of computer science which gives an special importance to creating the intelligent machines that works and reacts as like human. Here, the contour algorithm technique has been applied to control the machine or an PC. This machine learning algorithm is applied to detect the line of all the points along the boundary of the image to access the VLC player automatically by using the hand gestures. The objective of the paper is to manipulate the VLC player using voice and hand gestures for disabled people to perform the gesture task based on the convex hull points.

Keywords—Hand Gestures, Contour algorithm, VLC player, Convex hull points.

NCSRIET33

USE OF SMART CONTRACT AND BLOCKCHAIN IN INTEGRATING HEALTHCARE.

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ABSTRACT:
With the increased number of patients needing medical care, there has been a significant strain on health care providers. At present hospitals still manage the patient problem in record and forms which doesn't have any privacy neither to the hospital nor the patient. There is also delay of time in maintaining such records. In order to overcome this drawback, smart contract technology is used to overcome the delay and drawbacks and provide easy accessing and flexibility. Maintaining records does not provide us any kind of security or privacy to the details. Taking this a major issues block chain is used to provide security which is one of the most powerful use cases. By estimating the overall risk of healthcare and health system expenses over the risk, a routine finance structure is developed, such as monthly premium to pay the money back. This overall system and cost analysis and issues can be solved using smart contract for the benefits of future. As block chain plays major role, the benefits of using smart contracts with block chain in health care are becoming more widely understood. Through smart contract interaction between current transaction system can be supported using this advanced technology. This paper mainly focuses on health care issues and transactions in health care using smart contracts in blockchain. The framework has been developed on Ethereum, an open source permission less network.

Index terms: smart contracts, Ethereum, health insurance, ledger, blockchain, transactions.

NCSRIET34

SMART VACUUM CLEANER

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Abstract— This paper would present the system integration and overview of the autonomous cleaning robot SMART VACUUM CLEANER. SMART VACUUM CLEANER is self-propelled autonomously navigating vacuum cleaning robot. It has many more benefits over conventional household vacuum cleaners such as there is no need for a person to clean the room, classroom and fulfilling the main purpose for cleaning the room automatically. It uses several sensors in order to protect indoor environments and itself while cleaning. We would describe the principle of operation along with system structure, sensors, functions and integrated subsystems. The main motive of this project is to reduce the human resources and move on towards advanced technological systems. The project uses Artificial Intelligence. This varies from the normal intelligence displayed by humans. In Cleanliness, the manual cleaning of classrooms takes time. Usually, the workers will clean the classroom after student time in institutes, but it takes time and human efforts to clean the dust and materials, which take an hour to clean. To overcome this problem, the Smart Vacuum cleaner implemented. The Smart Vacuum cleaner cleans the surface using brushes and vacuum suction. It first collects the dust particles with the help of brushes and throws it inside the collection space. A little amount of vacuum suction provided to provide perfect cleaning. At first, the bushes turned on with the help of a brush motor. A high-speed fan and filter used for vacuum suction and the overall power supply provided with a rechargeable battery. A camera attached inside the structure for avoiding obstacles on the pathway, object recognition, tracking and facial recognition.

Index Terms—Robotics, Machine learning, Image Processing, IoT.

NCSRIET35

MULTIPURPOSE SOLAR POWERED MACHINE FOR AGRICULTURAL APPLICATIONS

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Abstract - India is an agriculture based country in which 40 percentages of population choose agriculture as primary occupation. In recent times every farmers need a machine which can do all their agricultural applications because of lack of farmers. For that a machine is designed which can perform multipurpose agricultural applications such as ploughing, seed sowing, water spraying, and mud closing. All these functions are fitted in a single machine for reducing the efforts of farmers. In this machine a DC motor is used for two purposes, they are ploughing and seed sowing. A water pump is used for spraying water or insecticides to agricultural lands. The mud closing operation is done manually. All these functions are connected to solar panel and battery. Based upon the rating of solar panel and battery the speed of the functions takes place. By introducing this machine we can save time and labor cost is reduced, and it will completely replace the efforts of animals and humans.

Keywords – Agriculture machine; Harvesting; Ploughing; seed sowing; water spraying; mud closing.

NCSRIET36

Approximate Directional Routing Protocol for Hierarchical Network

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Abstract: Hierarchical Network model divides the network into three sub-layers. Each layer is known as tier of the network. Each layer performs some specific functions. As network size increases, latency and delay also increase. To reduce this latency and delay, many such protocols had been invented. This paper discusses the proposal of an Approximate Directional Routing Protocol for Hierarchical Network (ADHRP) which is a sophisticated protocol to reduce latency, interference and collision. The existing ADRP mainly inspires this protocol. ADHRP is a reactive protocol which is simulated in the hierarchical environment and attains a better performance. In the existing system, packet forwarding is done by directional antennas instead of Omni-directional routing schemes. Simulations are done using a Network Simulator NS2. The simulation results reveal that by applying ADRP in Hierarchical network better performance benefit can be achieved. The results assure a considerable increase in its performance and throughput.

Keywords: Hierarchical network, Directional antennas, reactive protocol, delay, Approximation ratio.

NCSRIET37

DESIGN AND IMPLEMENTATION OF SOLAR TRACKING SYSTEM USING LAB VIEW

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ABSTRACT: As the world population is increasing gradually the need for energy is increasing equally. Every day people depend on energy for the purpose of electricity, hot water and fuel for automobiles. Majority of this energy come from fossil fuels, such as coal, oil and natural gas. The energy from fossil fuels are a non-renewable energy source, which means that if people use them all up, they can never get more during our life time, so it is important that they use other energy sources, like renewable energy sources these are energies that can be used again and again such as sunlight, water and wind. The main aim of this project is to absorb maximum solar energy from the solar panel. The solar tracker is the one which traces the sun's movement continuously, such that maximum amount of sunlight falls on the solar panel which we have designed.
The design of hardware and the software are incorporated in this project. The hardware part includes servo motor, Arduino Uno, solar panel, LDR, Resistor and battery. PV (Photovoltaic) systems are one of the most renowned renewable, green and clean sources of energy, Power is generated from sunlight converting into electricity by the use of PV solar cells. Monitoring the data of any system in real-time manner is essential. The monitoring controller for solar cell with the use of Lab view System is proposed in this project. It is a graphical representation and differs from other languages like C, C++, and JAVA etc. By using the Lab View software the system can monitor the function of solar tracking system and other parameters. It will reduce the man power and cost. This will improve the efficiency of the generation by orienting this PV cells in the correct direction to receive maximum sunlight from the sun.

Keywords: SolarPanel, CurrentSensor, LDR, (Light Dependent Resistor), Arduino, DC Gear Motor, DC Supply System.

NCSRIET38

EDUBOT: AUTOMATION OF PYTHON TUTORIAL WITH VOICE INPUT AND OUTPUT

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ABSTRACT: Now a days so many activities are done by chat bots and it is helpful to minimize the users work load .Chat bots are one of the most well-known examples of artificial intelligence. A chat bot is used for chatting purpose and it is a computer program is used to interact with humans to answer their queries and full fill their needs. The development of chat bot has become popular as many traditional chat bots are one of the most replaced with conversational chat bot. There are less chat bots based on educational field and less chat bot based on the programming language. There are so many people who want to know or learn about programming language and it is very helpful to gain knowledge to learners. The chat bots gives answer to the user query and execute the tasks also. Early stages of the chat bots are very difficult to develop but the recent chat bots are easy to develop because of the wide availability of the development platforms and the libraries. A chat bot can developed by the Natural Language Processing (NLP) or Deep Learning in AI. The traditional chat bots are difficult when compare to recent chat bot because it as large amount of data to train. But compared to recent chat bot, using NLP and Natural Language Tool Kit (NLTK) in python is much easier to train. The aim of this paper is to develop educational chat bot which helps users to learn python programming language and it has all the information about python and its coding. It is helpful for all types of learners and increases the educational standards and it is very effective to interact with any field of the technology. This educational Chat-bot could effectively answers study related queries to the learners with an added advantage that it also provide educational knowledge to learners. This chat bot can answer queries about python by voice to voice process. The speciality of this process is using Speech to Text to capture the user's voice, and lastly Text To Speech is used to playback the chat bots response to the user in voice. In this Edubot, it particularly concentrate on the python programming language that the user can raise their queries in this edubot by their voice and it will give the answer by voice and text process. In this chat bot Natural Language Tool Kit (NLTK) is used to train the data that based on the python program and NLP is used to recognise the human language.

Keywords: Artificial intelligence, python programming language, Natural Language Processing (NLP), Natural Language Tool Kit(NLTK), Deep Learning.

NCSRIET39

Breast Cancer Prediction And Diagnosis Using Machine Learning Techniques

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Abstract: Image processing refers to growth the digital portraits and mine attributes from images. Processing a digital photograph will be a difficult task. Image processing technological know-how has been proper occupied in medical science alternatively the critical hazard is that mortality is raised owed to cancer. Breast most cancers has flip out to be the most essential explanations of loss of life in women.To reduce the associated mortality, sickness want to be dealt with as early as possible, however it is difficult to word and diagnose tumors at an early stage. Manual try have validated to be time eating and inefficient in many cases. Hence there is a desire for environment pleasant techniques that diagnoses the cancerous smartphone without human involvement with excessive accuracy It is the most common type of most cancers and the crucial reason of women's deaths worldwide. The cancerous cells are labelled as Benign (B) or Malignant (M). There are many algorithms for classification and prediction of breast cancer: Logical Regression (LR), Linear Discriminant Analysis (LDA), Support Vector Machine (SVM), Decision Tree (CART), Naive Bayes (NB) and okay Nearest Neighbor's (kNN).

Index Terms—Breast Cancer, CART, kNN, LDA, LR, NB ,SVM.

NCSRIET40

3D VISUALIZATION OF PRODUCTS THROUGH AUGMENTED REALITY

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Abstract - Augmented Reality (AR) is a technology which combines virtual objects and real-world environments. Technologies like Computer Vision and Object Recognition can be used with AR to create an interactive and enhanced user experience of the real world. A Product based on Augmented Reality, which is going to help restaurants to provide better service to the customers. This helps the user to get an interactive menu card providing a Three-dimensional image view with the help of Augmented Reality implemented and providing features to know more about Restaurant offers, Ratings, Ingredients information, and feedback option. When the logo is scanned an Augmented category information will be popped up so that category will have to be selected and the information regarding the specified category will be displayed. The image of the food product selected will appear in three dimensional effect with AR implemented along with the description and the making of food. use AR to leverage the increased computing power to build a system that displays 3D objects using a printed image without using any complicated equipment.The ability to use user's hands to manipulate virtual objects is kind of pleasing to the user as it can make interactions more intuitive and enjoyable.

NCSRIET41

Smart license validation and approval system

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Abstract— To prevent non-licensees from driving and therefore causing accidents, a new system is proposed. An important and very reliable identification method is QR code based authentication for driving. The proposed system consists of smart license as in the form of QR code in which license number of a particular person is converted in the form of QR code along with the person details. Vehicle such as cars, bikes should have a QR code reader that is QR scanner capable of reading the codes of license. The proposed project aims at simplifying the field monitoring of license approval and there by saving time and reduces the human error. The project identifies and solves the manual field errors and provides accurate results despite people's concern. The project reduces the manpower required. The further project is developed as a smart app which includes validation verification of license. This system further alerts the local police station about the license details. The license issued by the Government is a smart license which stores different fields such as name, license no., date of expiry , Q R code of 10 members, type of license and blocked status of the license as well as QR code templates. These QR code templates are derived from the QR scanner.The QR code sensor takes digital digits from a QR code of a license number. The QR code scan detects the ridges and valleys of a QR code and converts them into ones and zeroes. Complex algorithms analyze this QR scan to identify characteristics of the QR code, known as the "minutiae". Minutiae are stored in a QR template (a data file usually smaller than the initial scans). There are different types of scanner for QR codes. This type of codes can be very efficient and easy for construct and use. We use link switches which produces pulses when we place the feet on the ground. If the pulse is generated twice or more the result becomes failure.

Keywords: microcontroller, finger print sensor, two way switch, LCD display

NCSRIET42

COMPARISON OF VARIOUS MULTILEVEL INVERTERS

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This investigates the new type of multilevel inverter obtained by cascading two H-bridge inverters using the asymmetric DC voltage sources. The new inverter can operate as a thirty one level multilevel inverter providing asymmetrical DC voltage sources. The proposed cascaded H-bridge multilevel inverter (CHBMLI) using asymmetric voltage sources comprises of eight switches. As per the conventional topology where symmetric voltage sources are being used consist of twelve switches. The main objective of the proposed topology is to increase the number of levels with reduced number of switches thereby reducing the harmonic content less than 5% which is IEEE 519 standard at the output side. The same concept is implement for the fifteen level and twenty seven level cascade H-bridge multi-level inverter and the THD is measure with the help of FET analysis tool. Comparison of the results of various multilevel inverters is presented to reflect the merits of the recommended structures. The operations of the proposed multilevel inverter structures are verified with the experimental and simulation results of an asymmetric 31-level. Verification of the analytical results is performed by using the MATLAB/SIMULINK software.

NCSRIET43

AUTOMATING AND ANALYZING GREEEN HOUSE HYDROPONIC FARM USING IOT

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Abstract: Hydroponics is a method of growing plants without soil. It is the fastest growing sector of agriculture and it could very well dominate food production in the future. This project is used to make a compact system to automate nutrient dose, pH, water supply and temperature of a greenhouse hydroponic farm. To gain information about the farm by plotting graphs using sensor data. This project is used to analyze and monitor the farm temperature, moisture and maintaining pH value in the water. We using IOT based hydroponic farms for food production, so we can control the farm temperature, moisture and nutrients in anywhere. All information about the farm is saved in cloud storage. A standard website made which will take sensor data place correct graphs and help farmers to attain information. This website is used to automate water supply, maintain pH value and temperature of the hydroponic farm and also sending messages automatically to farmers or owners through mail, whatsapp or normal messages. The scope of our project is too many IOT enabled hydroponic farms can be placed near the city areas which will directly cut the transportation cost. Sensors like pH sensor, LM35 temperature sensor, LDR, Arduino Microcontroller, ESP8266, Relays and DC motor.

Keywords: Hydroponics, IOT, Sensors, Nutrients, Cloud, Website.

NCSRIET44

Driver Drowsiness Detection Using Circular Hough Transform(CHT)

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Abstract - Drowsiness is a human characteristic that is not taken seriously by any individual. But this particular human feature can have grave and fatal consequences if not considered and acted upon especially on roads while driving. Distracted driving is considered as main reason for road accidents. Monitoring the driver's activities constitutes the safety of the automobile that reduce the number of accidents. The aim of this system is to help in analysing the factors associated with driver's behaviour for the development of Drivers Drowsiness Detection systems. This article employ Image Acquisition toolbox to capture live video and Snapshot function is to frame conversion. Computer Vision Tool is used to recognise the feature in the face. Finally, Circular Hough Transform algorithm is applied to detect the eyeball to find the drowsiness. An alert will be given to the driver after the drowsiness detection. The algorithm provides 99% of accuracy rate in eye closure detection. The experimental results show that the methodology outperforms efficiently.

Keywords - Drowsiness, Face Detection, Circular Hough Transform, Eyeball Detection.

NCSRIET45

Solution for Monitoring and Analyzing for Energy Consumption-Energy Management System

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Abstract-An energy audit is a study of a plant or facility to determine how and where energy is used and to identify methods for energy savings. There is now a universal recognition of the fact that new technologies and much greater use of some that already exist provide the most hopeful prospects for the future. The opportunities lie in the use of existing renewable energy technologies, greater efforts at energy efficiency and the dissemination of these technologies and options. This energy audit of KCG College Of Technology carried out for our project work.This report is just one step, a mere mile marker towards our destination of achieving energy efficiency and would like to emphasize that an energy audit is a continuous process. There are a list of possible actions to conserve and efficiently utilize our resources and identified their savings potential.

Keywords - Energy audit, visio software, Single line diagram, Micro Controller, SCADA.

NCSRIET46

VIRTUAL TOURIST GUIDE – AR WANDERER

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Abstract-- Tourism in India is an important for country's economy and is growing rapidly. India is known for its historical monuments, beautiful landscapes and hospitality. There are a number of monuments and landmarks depicting the cultural, historical developments of Goa. Due to high inflow of domestic as well as international tourists, the man power required to guide the tourists on these landmarks are not sufficient and sometimes lack in the information that need to be given and highlighted to the tourist. Even the cost needed for the tourist guide is also not affordable by everyone. Hence we propose a solution of this problem by developing the mobile application "AR WANDERER" based on "Augmented Reality". Which renders information to the user about the monument or landmark just by taking their live pictures as inputs through their mobile application.

Keywords: Unity, augmented reality, android app, vuforia database, android studio.

NCSRIET47

COMPARATIVE STUDY OF AI BASED ON ITS CAPABILITIES

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Abstract— Intelligent machines can solve problems by completing a specific task or display cognitive functions that humans can perform.AI, which stands for Artificial Intelligence is a technology revolutionizing 21st century. There are different AI entities for different purposes, Classification of these AI falls under two types. Classification of AI entities based on their capabilities and functionalities falls under Type-1 and Type-2 respectively. While considering these approaches this paper provides a comprehensive study on rising kinds of AI entities dependent on first kind and how they contrast from one another, their features and constraints. In addition, this paper is beneficial and helpful to understand the behavior of AI and its categories. The structure of this article is as follows: In its first section, it briefly recalls what AI is. It then highlights the categories of AI based on their capabilities. This article also presents the comparison of these categories in a tabular form. It also answers why ASI is superior to other AI's. This article concludes with final remarks of a more general nature.
Keywords—Artificial Intelligence, Narrow Intelligence, Super Intelligence, General Intelligence

NCSRIET48

MACHINE LEARNING

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ABSTRACT:The machine learning field, which can be briefly defined as enabling computers make successful predictions using past experiences, has exhibited an impressive development recently with the help of the rapid increase in the storage capacity and processing power of computers. Together with many other disciplines, machine learning methods have been widely employed in bioinformatics. The difficulties and cost of biological analyses have led to the development of sophisticated machine learning approaches for this application area. In this chapter, we first review the fundamental concepts of machine learning such as feature assessment, unsupervised versus supervised learning and types of classification. The, we point out the main issues of designing machine learning experiments and their performance evaluation.

NCSRIET49

FACE TRACKING ON THE LIVE STREAMING

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Abstract-Human face detection by computer systems has become a major field of interest. Face detection algorithms are used in a wide range of applications, such as security control, video retrieving, biometric signal processing, human computer interface, face recognition's and image database management. However, it is difficult to develop a complete robust face detector due to various light conditions, face sizes, face orientations, background and skin colors. In this report, we propose a face detection method for color images. Our method detects skin regions over the entire image, and then generates face candidates based on a connected component analysis. Finally, the face candidates are divided into human face by an enhanced version of the template-matching method. Face recognition from image or video is a popular topic in bio-metrics research and artificial intelligence. Many public places usually have surveillance cameras for video capture and these cameras have their significant value for security purpose. It is widely acknowledged that the face recognition have played an important role in surveillance system as it doesn't need the object's cooperation. The actual advantages of face based identification over other bio-metrics are uniqueness and acceptance. As human face is a dynamic object having high degree of variability in its appearance, that makes face detection a difficult problem in computer vision. In this field, accuracy and speed of identification is a main issue. The goal of this paper is to evaluate various face detection and recognition methods, provide complete solution for image based face detection and recognition with higher accuracy, better response rate as an initial step for video surveillance. A Solution is proposed based on performed tests on various face rich databases in terms of subjects, pose, emotions, race and light.

NCSRIET50

Voltage Doubler Design For Energy Harvesting Systems

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Abstract—This paper deals with the optimization of Voltage Doubler phases in an energy transformation network for Radio Frequency (RF) energy garnering network at 875 MHz The main function of the energy transformation system is to transform the radio frequency signals into direct current at a desired frequency band. Then this will be provided for the circuits or components which wields low power. A 5 stage voltage multiplier network based on Schottky diode is designed and simulated. It yields a DC output potential in measurement. This voltage can be given to power sensors and instead of batteries these can be wielded.

Keywords—Energy harvesting, RF, Voltage Doubler, Schottky rectifier.

NCSRIET51

GPS BASED TUTORING APP FOR STUDENTS IN HIGHER EDUCATION INSTITUTION'S ENTRY EXAM PREPARATION.

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Abstract : Virtual learning is a way of learning, which makes use of mobile phones, computers, tablets, and the internet both outside and inside the facilities of the educational organization. In Virtual Learning Environment educational resources are shared by teachers and students through the internet. Some of the features of a Virtual Learning Environment are planning and management of lessons, access to digital learning materials such as texts, videos, etc., discussions in group and one-on-one chats with a teacher, submitting the assignment, grading, providing feedback, etc, It provides remote access to an unlimited array of topics and tutors offered worldwide, flexible learning in terms of time, location, and pace. Virtual learning has many forms and represented in many terms. Some of them are: Online learning can be done through programs or apps installed on your device, which can also be used offline. E-learning makes use of electronic technologies for learning and teaching without the use of the internet. Web-based learning makes use of a web browser for learning. Distance learning means providing instruction to a learner from place and time different from that of the teachers and other learners. In the present time, with the development of digital technologies, distance learning is increasingly associated with online learning. Blended learning is a type of learning, it combines virtual and traditional forms of teaching where learning content is digitalized and made available online. Mobile phones and tablets are becoming popular platforms for virtual learning application development. With this application development, colleges, schools, and training institutes can save huge money required to manage classroom-based training. From students side, learning through virtual learning applications reduce the time required for travelling as study materials can be made available on their devices such as mobile phones and tablets with internet facility. It helps students in learning based on their interests and comfort. This paper presents an android application which connects student and tutor using GPS. It helps students who are preparing for higher education institution's entry examinations in which they can search and find a tutor to clear their queries related to their subject or exam. The objective is to help students who cannot afford to join coaching institutes and preparing for entrance exams on their own and those students in rural areas.

Keywords—Virtual learning, E-learning, Distance learning, GPS, Blended learn

THANK YOU