



## International Conference on

Advances in Signal Processing, Power, Embedded, 12th 12th January 2019 12th 12th January Prodest 12th Numool, Andrea Prodest Soft Computing, Communication and Control Systems

# **ICSPECS-2019**

Organized by

G.Pulla Reddy Engineering College (Autonomous)

Kurnool, Andhra Pradesh

Institute For Engineering Panel Publication (IFERP)

& TECHNOLOGY FOR WOMEN Chowdaryguda, Korremula (V). Ghatkesar (M), Medchal Dist, T S-500086







## International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems

Kurnool, Andhra Pradesh

11<sup>th</sup> & 12<sup>th</sup> January, 2019

Organized by: G.Pulla Reddy Engineering College (Autonomous) and Institute For Engineering Research and Publication (IFERP)

Principar PRINCETON INSTITUTE OF ENGINEERING & TECHNOLOGY FOR WOMEN Chowdaryguda, Korremula (V), Chatkesar (M), Medchal Dist, T S-500086

From Director's Desk ....





Rudra Bhanu Satpathy.,

Director, Institute For Engineering Research and Publication.

On behalf of *Institute For Engineering Research and Publications (IFERP)* and in association with *G.Pulla Reddy Engineering College (Autonomous)*, Kurnool, Andhra Pradesh. I am delighted to welcome all the delegates and participants around the globe to *G.Pulla Reddy Engineering College (Autonomous), Kurnool, Andhra Pradesh* for the "International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems (ICSPECS-2019)" Which will take place from 11<sup>th</sup> -12<sup>th</sup> January'19

Transforming the importance of Engineering, the theme of this conference is "International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems (ICSPECS-2019)"

It will be a great pleasure to join with Engineers, Research Scholars, academicians and students all around the globe. You are invited to be stimulated and enriched by the latest in engineering research and development while delving into presentations surrounding transformative advances provided by a variety of disciplines.

I congratulate the reviewing committee, coordinator (**IFERP & GPREC**) and all the people involved for their efforts in organizing the event and successfully conducting the International Conference and wish all the delegates and participants a very pleasant stay at *Kurnool, Andhra Pradesh*.

Sincerely,

**Rudra Bhanu Satpathy** 

Principa ETON INSTITUTE OF ENGINEERING & TECHNOLOGY FOR WOMEN Chowdaryguda, Korremula (V) tkesar (M), Medchal Dist, TS-500086

#### Preface

The "International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems" is being organized by G.Pulla Reddy Engineering College (Autonomous), Kurnool, Andhra Pradesh in association with IFERP-Institute for Engineering Research and Publications on the  $11^{th} - 12^{th}$  January, 2019.

*G.Pulla Reddy Engineering College (Autonomous)* has a sprawling student –friendly campus with modern infrastructure and facilities which complements the sanctity and serenity of the major city of Kurnool in Andhra Pradesh.

The "International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems" was a notable event which brings academia, researchers, engineers, industry experts and students together.

The purpose of this conference is to discuss applications and development in area of "Signal **Processing, Power, Embedded, Soft Computing, Communication and Control Systems**" which were given international values by *Institute for Engineering Research and Publication (IFERP).* 

The International Conference attracted over 245 submissions. Through rigorous peer reviews 135 high quality papers were recommended by the Committee. The Conference aptly focuses on the tools and techniques for the developments on current technology.

We are indebted to the efforts of all the reviewers who undoubtedly have raised the quality of the proceedings. We are earnestly thankful to all the authors who have contributed their research works to the conference. We thank our Management for their wholehearted support and encouragement. We thank our Principal for his continuous guidance. We are also thankful for the cooperative advice from our advisory Chairs and Co-Chairs. We thank all the members of our local organizing Committee, National and International Advisory Committees.

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Prof. S. SRINIVAS KUMAR M. Tech., Ph. D (IIT KGP) VICE - CHANCELLOR



#### MESSAGE FROM HON'BLE VICE CHANCELLOR



I am delighted to know that G.Pulla Reddy Engineering College(Autonomous), Kurnool is organizing International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems (ICSPECS-2019) on 11<sup>th</sup> & 12<sup>th</sup> January, 2019. I extend my warm greetings to the Management, Director, Principal and Organizing team of ICSPECS-2019 for organizing such mega event. These technical conferences enable the Engineering community to update the advancements in Technology and Research and create the opportunities for more innovations, knowledge sharing and collaborative research. I acknowledge and appreciate the endeavor made by the Management, Director, Principal and organizers who involved in it.

I wish all the delegates who take part in this mega summit to have an excellent research experience by sharing and acquiring more innovative ideas and skills. And this conference may pave the way for collaborative research and development for concrete Nation building with technological advancements in every walk of our life. I wish the Conference, ICSPECS-2019 more useful and successful.

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Prof. S. SRINIVAS KUMAR

Vice-Chancellor

Principa

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#### Message from Hon'ble Chairman



I am pleased to welcome you to the International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems-2019 (ICSPECS-2019) is held on 11<sup>th</sup>&12<sup>th</sup> January, 2019 at G.Pulla Reddy Engineering College (Autonomous), Kurnool in association with Institute For Engineering Research and Publication (IFERP), Chennai.

The intent of any conference is not only to discuss lively and emerging issues of a particular domain but also dissemination of the awareness among other learned folks. Over the years, dramatic improvements have been made in the field of Soft Computing and Communication Technologies and applications. I hope ICSPECS-2019 will become surely the most important International conference dedicated to bring out latest trends in Engineering and Technology.

In order to provide an outstanding technical level for the presentations at the conference, we have invited distinguished experts to participate in the Technical Program Committee. I hope all the delegates have an excellent experience in presenting their Research contributions and attending plenary sessions by keynote speakers during 2 days of conference. I hope ICSPECS-2019 makesyou aware of state-of-the art systems and provides a platform to discuss various design issues and challenges. I am very happy to know that the articles presented at ICSPECS-2019 will be available for citation at reputed scientific repositories like Science Direct, Research Pedia and academic library. I congratulate the Director, Principal, Heads of concerned Departments and Organizing Team of ICSPECS-2019 for making this event very useful and successful.

Dr.P.Subba Reddy Chairman,GPREC

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#### Message from the Director, GPREC



It is a great pleasure and an honor to extend to you a warm invitation to attend the International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems (ICSPECS-2019) is held on 11th&12th January, 2019 at G.Pulla Reddy Engineering College (Autonomous), Kurnool in association with Institute For Engineering Research and Publication (IFERP), Chennai.

The theme of ICSPECS-2019 'Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems' will underpin the need for participation in forums for collaborative Research and cooperation of individuals from a wide range of professional backgrounds.

I strongly believe that the ICSPECS-2019 Conference will provide a wonderful forum for budding Engineers, Academia and Researchers to refresh their knowledge base and explore the innovations in Engineering and Technology. The Conference will strive to offer plenty of networking opportunities, providing the opportunity to meet and interact with the scientists and researchers

I hope all the technical sessions and keynote addresses will give you rewarding experience and make you to excel in your research areas.

With best wishes.

Dr.P.Jayarami Reddy Director, GPREC

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#### Message from Principal, GPREC



On behalf of the Local Organizing Committee and GPREC, the hosting institution and IFERP, it is my great pleasure to welcome you to International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems (ICSPECS-2019) to be held on 11th -12th January, 2019 at G.Pulla Reddy Engineering College (Autonomous), Kurnool in association with Institute For Engineering Research and Publication (IFERP), Chennai. The idea to host the ICSPECS-2019 in GPREC at Kurnool is to bring together Researchers, Scientists, Engineers, Scholars and Students in the areas of Computer Science, Electronics and Communication Engineering and Electrical Engineering.

The ICSPECS-2019 Conference will foster discussions and hopes to inspire participants from a wide array of themes to initiate Research and Development and collaborations within and across disciplines for the advancement of Technology. I feel it is important to reiterate the need to translate Engineering & Technology into knowledge to help overcome societal challenges.

The various thematic sessions will showcase important technological advances and highlight their significance and challenges in a world of fast changes. I hope the delegates will have a great experience while attending the plenary sessions and oral presentations and will get an opportunity to interact with the conference participants.

The Local Organizing and Conference Committees will make any possible effort to make sure that the participation of delegates will be technically rewarding.

I congratulate all the participants for having their research articles presented at ICSPECS-2019 and sharing a most pleasant, interesting and fruitful conference.

With best wishes,

Dr.B.Sreenivasa Reddy Principal GPREC, Kurnool.

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#### Message by Convener



On behalf of the Conference board I would like to welcome all the delegates to ICSPECS-2019.

The overwhelming response to our initiative to organize ICSPECS-2019 indicates the popularity of this conference and confirms that ICSPECS-2019 will become the world-wide forum for all aspects of Engineering and Technology in the field of soft Computing, Communication, Electrical and Electronics related topics. The current society is already witnessing the stupendous growth of ICT in past few decades. Therefore, every sub domain of ICT is infested with some issues which need to be resolved for the welfare of mankind. There are innumerable issues associated with various segments of communication technologies, networks like security issues, cost minimization issues in high performance computing, energy minimization issues in IoT etc.

The ICSPECS-2019 will facilitate the young researchers, industries and research agencies especially, those, who are carrying out their research work in the aforesaid domain of Computer Science, Information Technology, Electrical, Electronics and Communication Engineering with valuable discussions in order to make the outcomes more realistic.

The main objective of ICSPECS-2019 is to provide an apt platform where awareness about novel researches can be disseminated, scope for further research can be investigated and challenges can be discussed. The delegates with high academic pursuits will join and share their experiences, views for coping up with the recent challenges. This prestigious conference is organized by G.Pulla Reddy Engineering College (Autonomous) in association with IFERP. The conference itself starts with the plenary session on 11th Jan, 2019, where keynote speeches will be given by distinguished experts. I am happy to say that the outcome of this two day Conference is brought out in the form of proceedings. I would like to express my thanks to IFERP for their outstanding Support and association with us in constituting the Technical Program Committee with distinguished experts as members and the competent evaluation of the large number of submissions. All selected papers received by the deadline have been included in the conference proceedings and best quality papers will be published in Scopus Indexed Journals.

On behalf of organizing team, I am thankful to our Management, Director, Principal and Steering Committee Chair for their extensive support and guidance to organize ICSPECS-2019 successfully. I wish all the participants to have a successful and rewarding experience from ICSPECS-2019.

With best wishes,

Dr.S.Nagaraja Rao, Convener, ICSPECS-2019

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## **ICSPECS-19**

International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems

## **Keynote Speakers**

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**Prof G. Panda,** Professorial Fellow, IIT ,Bhubaneswar.

#### MESSAGE:

I am happy to learn that G. Pulla Reddy Engineering College Autonomous(GPREC), Kurnool, Andhra Pradesh and Institute for Engineering Research and Publication (IFERP) are jointly organising an International Conference Advances in Signal Processing, Power, Embedded, Soft computing, Communication and Control systems(ICSPECS-2019) during (11-12)th January ,2019. I learnt that many interesting and reviewed papers in the area of Electrical, Electronics, Communication and Computer Science and Engineering will be presented in the conference by Ph. D students, Faculty members, and researchers from academic institutions and research and development organisations. In addiction eminent keynote speakers from India and abroad will deliver their keynote speeches in the conference.

I hope the conference will be well attended and the paper presentation, keynote lectures, deliberations and interactions during the period of conference will be of immense help to the participants to carry out further research work in their own fields.

I wish the forth coming ICSPECS-2019 at GPREC, Kurnool a grant success

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#### Dr.B.K. Venkataramu.,

Prof. Sathish Dhawan Scientist, Liquid Propulsion Systems Centre, Indian Space Research Organisation, Bangalore – 560008.

#### **BIOGRAPHY:**

Shri. B.K. Venkataramu, graduated from University Visvesvaraya College of Engineering (UVCE), Bangalore in Mechanical Engineering in 1976 and later obtained his MS from IIT Madras.Starting his carrier in ISRO, Bangalore in 1977, Shri. Venkataramu has specialized in the field of Propulsion Systems for Spaccraft. He is responsible for total indigenization of propulsion systems for a range of Satellites, for interplanetary mission (Chandrayaan-1 and Mars orbiter mission), Space capsule recovery experiments etcHe also played a major role in the success of the Chandrayan-1 & Mars orbiter missions.

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Sanjay Hotwani., Data Scientist in British Telecom (A UK Based Company) Bangalore

#### **BIOGRAPHY:**

Lead Data Scientist in British Telecom (A UK Based Company) with an Overall IT Experience of 14 years. Technology Enthusiast, Everyday Learner and Interested in Knowing and learning new cuttingedge technologies. Responsibilities include Architecture, Design and Development of Applications and Skilled in Machine learning, Deep learning, Statistics, Problem solving and Programming. Hobbies include Playing Cricket, Chess, Badminton and Participation in Data Science Competitions. Member of Toastmasters Club. Created Voice Bot integrated with Mobile App for BT Bangalore Employees as part of Smart Office Theme.

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## **ICSPECS-19**

## International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems

Kurnool, Andhra Pradesh, January 11<sup>th</sup> - 12<sup>th</sup> , 2019

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International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems

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# ABSTRACTS

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International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems

Kurnool, Andhra Pradesh, 11th & 12th January, 2019

## A Novel Method for Dental Radiographs Contrast Enhancement for Efficient Diagnosis of Dental Disease

#### N.PRAVEEN BABU

#### Abstract:--

Contrast Enhancement for Low resolution image is an active area of research to attain an effective diagnosis results in the medical field through Digital Medical Images. To do this, a novel contrast enhancement method is proposed in this paper based on the spatial correlation characteristics of image pixels. Considering the spatial correlation as main factor, the proposed method focused to improve the contrast of center pixels based on its neighborhood pixels. Extensive simulations are conducted over the proposed method through several dental radiograph images and the obtained results are analyzed both qualitatively and quantitatively. The Quantitative analysis is done through a metric, called contrast root mean square deviation and the obtained values are compared with conventional contrast enhancement techniques, Histogram related methods and Contrast stretching methods.

#### Keywords:--

Dental Radiograph, Contrast Enhancement, Histogram, Correlation, CMRSD.

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# Neuro-Fuzzy Based Load Frequency Control in Three Area Power Network.

#### **IMRAN SHAIK**

#### Abstract:--

In recent day's industry or load increasing in any area is a huge problem for power systems due to increase in load demand for power consumptions. The steadiness Between iteration and demand is accomplished via utilizing load frequency manipulate (LFC). In this situation there's a necessity of full of life manipulate in each frequency and tie-line power waft programs. This paper offers the evaluation and design of Neuro centered Fuzzy controller structure for LFC in ANFIS in interrelated areas, to preserve watch over the deviation in frequency and vigour deviations in tile line. Each misalliance renowned and new release origins the process frequency to deviate a minor valued at. Hencegreat frequency deviance leadssystem failure. This demands a appropriate and precise controller to keep the minimal frequency in system. This freshly implemented control schemesyndicates the benefit the fuzzyandneural networksimplication system it has simple structure and also easy to apply. Hence, topreserve he performance of system near its optimal, ANFIS swaps the real conservative controller proportional Integral (PI) and controller fuzzy logic (FL) existed also exploits the same error input in area. Simulated outputs are verified in MATLAB/SIMULINK. The performance of the planned Neuro-Fuzzy controller ANFIS damp out the deviation in frequency and achieves the stable state value with low settling time and condenses the peak overshoot of altered deviations in frequency and also shrinks the swapped power in tie line similarlyequates the Conservative Fuzzy and PI controllers.

#### Keywords:--

good Neuro-Fuzzy Controller, Traditional PI Controller Adaptive, Fuzzy judgment Controller, LFC, Controller, Tie Line,Neuro Inference Fuzzy good judgment Fuzzy process,Interconnected vigor procedure.

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Embedded, Soft Computing, Communication and Control Systems

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# Effective use of ICT Tools in Open and Distance Learning

#### **N.PRAVEEN BABU**

#### Abstract:--

Information and Communication Technology (ICT) promotes quality education which plays a vital role in transforming the society and an individual. In this paper we will discuss the benefits of ICT to acquire quality education, various tools and techniques that can be used for ICT in open and distance learning. It is true that education is considered as the major source for transforming an individual for development of Nation. A developed nation possesses citizens who had quality education. Quality education includes healthy learners who are nourished well and are ready to participate and learn in addition to the supportive learning acquired from their families and other related communities.

#### Keywords:--

ICT, quality education, moodle, OER, Flipped class room.

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# Optimal Feature Selection by Distribution Diversity for Sentiment Analysis

#### **IMRAN SHAIK**

#### Abstract:--

In this article, the feature selection method and the classification of opinion methods are compared and discussed. The performance of feature selection methods utilized the z-scores & t-scores statistical measure. The classifier SVM is utilized for comparing and classifying with the Adaboost and NB. The main aim of this article is to discuss and assess the range of the statistical measures to detect the features which are optimal and its importance for the opinion classification utilizing the diverse classifiers. The analysis of performance are conducted on diverse datasets with varied range such as reviews of product, reviews of movies, and tests & tweets are conducted utilizing —Wilcoxon Signed Rank based Z-score and T-score. And from the outcomes of simulation studies, it is obvious that amid 3 classifiers which are tested for the accuracy of classification, the method Adaboost has surpassed the other 2 methods of NB and SVM.

#### Keywords:

Adaboost, SVM, NB, Optimal Feature, Decision trees, K-nearest-Neighbors.

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### Trends and Techniques of Handling Big Health Data

#### K LAVANYA

#### Abstract:--

The current trend of society generates torrents of data across various sources like social networking, health sectors, mobile sensors, industries. This voluminous data raised a scope for uncovering hidden insights of this data. This huge data often called big data could undergo several data analytics to retrieve the unnoticed patterns, trends, associations, querying, and information security. Here, in this paper we focus on health care industry towards applying analytics on the health data like EHR's, medical images, reports, sensors and transform this data to make out a meaningful outcome that helps towards diagnosis and prognosis at an early intervention which reduces the morbidity, sensitizing the adverse effects of infectious diseases[2]. We also discuss the existing mechanisms of handling health care data and its underlying effects that are to be tackled.

#### Key words:--

Big Data, EHR, Data Analytics, Predictive Analytics, Hadoop, Data Visualization

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# Gain-Scheduled Controller Design for Cooperative Adaptive Cruise Control: Towards Automated Driving

#### **IMRAN SHAIK**

#### Abstract:--

In this paper, we present a cooperative adaptive cruise control problem. Here, we have divided our problem into two operational modes. In the first mode, our objective is the gap regulation for safety consideration and in the second mode, our objective is to regulate the speed at driver's (or passenger) preference. The gain scheduling technique is used to meet both the objectives according to real-time external conditions. The gains are tuned on various standard performance parameter. The performance of the proposed technique is tested by simulation in MATLAB environment.

#### Keywords:--

Cooperative Adaptive Cruise Control (CACC), Gain scheduling, VANET.

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# Online Control of a Nonlinear Autonomous Vehicle in Presence of Network Delay

#### K LAVANYA

#### Abstract:--

In this paper, we have designed a controller for cruise mode of the non-linear autonomous vehicle system. Here, we have used the gain schedule method for various speed settings to meet the desired performance. Here, we have applied the Internal model control tuning rules for calculating the gain of the controller algorithm at various speed levels. The look-up table is used to store the calculated gains at various design points. The appropriate gain can be chosen online according to the scheduling policy. Numerical simulation of the process is done in python environment to show the effectiveness of the scheme.

#### Keywords ::--

Network delay, IMC tuning, Gain scheduling, Cruise control

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# Survey on Channel Estimation of the Orthogonal Frequency Division Multiplexing

#### **Dr. ARUL DALTON**

#### Abstract:--

Orthogonal Frequency Division Multiplexing (OFDM) system is significantly used in several communication devices such as smart phones, television, radio, and so on. Nowadays, OFDM is the most important system for effective communication in wireless domain. In communication systems, the Channel Estimation (CE) plays a major role in finding the characteristics of the channel based on the received data value. In order to manage the communication data, most of the researchers focused on the channel estimation by using different techniques like Minimum Mean Square (MMSE), Least Square, blind, semi-blind and also developed new methodologies for the OFDM. This survey paper summarizes previous research works based on the channel estimation algorithms of OFDM and also examined the major limitations of those techniques. This paper will help the researchers about the present drawbacks in the OFDM system.

#### Keywords:

Channel estimation, Communication system, Internet, Orthogonal Frequency Division Multiplexing.

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# Dynamic Susceptibility Contrast Perfusion Quantification using Spread Bases Function

#### T. KANAKAIAH

#### Abstract:--

Dynamic Susceptibility Contrast (DSC) perfusion imaging of the brain provides characterization of tissue perfusion. This characterization can be done by recovering scalar parameters like cerebral blood volume (CBV), cerebral blood flow (CBF), and mean transit time (MTT) and also tissue impulse response function. Scattering effect of bolus causes not only the information to reflect tissue perfusion and also provide macro vascular properties. The possibilities of obtaining disperse response functions and parameters can be done by performing deconvolution. The proposed method of Spread Bases Function (SBF) used to represent the response function both in the presence of scattering for effective parameter estimation. The simulated results show that SBF deconvolution gives better performance than oSVD in the estimation of effective perfusion parameter, irrespective of the scattering presence. Furthermore, the SBF method recuperates effective response functions that carry out with healthy and pathological situations, and offers the benefit of making no suspicions about the nature of dispersion at different levels of perfusion. The simulated results are implemented on the digital head phantom.

#### Ker Words:--

Perfusion, Dynamic Susceptibility Contrast, Spread Bases Function

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# Detection of Cumulonimbus Clouds Using Frequency and Spatial methods on NOAA Data

#### T. KANAKAIAH

#### Abstract:--

Tremendous changes for the field of remote sensing in the last decades with advancement of sensors and increase in spectral resolution. To detect rain baring cumulonimbus clouds NOAA AVHRR Satellite data is very useful during daytime as well as night time due to its spectral resolution. The spatial and frequency domain methods were considered in this paper. The spatial domain method based on mean of mean and frequency domain methods based on 2-Dimensional Discrete Cosine Transform (DCT) were used to detect the thunderstorm cumulonimbus clouds. These two methods gives almost same results of cloud coverage but 2D-DCT method deemphasise of thick cirrus clouds over cumulonimbus clouds and accuracy of these results is reasonably good compared with ERDAS image which is the ground data image.

#### Keywords :-

NOAA Data, mean cloud, Discrete Cosine Transform.

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# Control Aspects of Cooperative Adaptive Cruise Design of log periodic dielectric resonator array for wide band applications

#### K YAKOOB

#### Abstract:--

In this paper ,LPDRA is designed in log periodic fashion using Teflon based dielectric material for 3,5,7 elements. these LPDRA resonators are gratified with source using micro strip feed line technique to accomplish better coupling between elements and feed line. HFSS tool is used to resolve the return loss and gain factor by simulating LPDRA elements. LPDRA Designed with 7elements furnishes better return loss of -40db at 13.54GHz and at gain factor of 5.83db at 15.4Ghz.

#### Keywords:

Dielectric Resonator Antenna (DRA), Log Periodic DRA, ,Micro strip Line Feeding, Broadband Applications.

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Kurnool, Andhra Pradesh, 11th & 12th January, 2019

# Control Aspects of Cooperative Adaptive Cruise Control in the Perspective of the Cyber-physical System

#### N.PRAVEEN BABU

#### Abstract:--

Cooperative adaptive cruise control (CACC) enables vehicles to communicate with each other to form a group which coordinate for advanced applications on highways and freeways. There are three backbone technologies, autonomous cruise control, collision avoidance and dedicated short-range communication(DSRC), to realise it. In this paper, we aim to control longitudinal motion of homogeneous vehicle platoon. We proposed a model following control strategy to control and manage real-time dynamics of a platoon in the perspective of the cyber-physical point of view. We have assumed wireless transmission for information flow and considered a constant delay in message hopping. Numerical simulation is done to show the feasibility of this technique.

#### Keywords:

Cyber-physical system, Vehicle platoon, Cooperative adaptive cruise control, Model following control

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# Effects of Communication on the Performance of Cooperative Adaptive Cruise Control

#### T.KANAKIAH

#### Abstract:--

Advancement 5G communication technology paves the way for inter-vehicle communication like V2V or V2I. These technologies gave direction for future transportation system such as Cooperative Adaptive Cruise Control (CACC). In this article, we will analyse and show the effects of network issues on the performance of individual vehicle and CACC. We will do sensitivity analysis for delay variation. We will study time delay approximation technique and validate with the original system. Numerical simulation is done in MATLAB and Python environment to validate the theoretical analysis.

#### Keywords:--

Cooperative adaptive cruise control, Time delay, Performance evaluation, Networked control system

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# Wireless Indoor Positioning Techniques Based on Ultra Wideband (UWB) Technology

#### **K.MANJULA**

#### Abstract:--

Indoor positioning is a challenging research area, and numerous varieties of indoor positioning systems have been advanced based on specific technologies. Now a day, localization in indoor has appear as a tough characteristic in lots of end person utilizations; which includes civilian, navy, catastrophe remedy. In evaluation to outdoor area, information of location in indoor needs a better accuracy and it is a tough assignment in element due to numerous items return and scatter wave forms. Ultra Wideband (UWB) is a come up generation of indoor localization and proven superior overall precision in comparison to alternatives. This paper affords an outline of indoor positioning solution primarily based on UWB technology. First, the theory, standardization, and benefits of UWB had been added, followed by means of an in depth relative survey of UWB localization techniques. For put down the degree for the effort, we offer an analysis of the modern technology. Dissimilar to prior work, this paper provides new classifications, evaluating main recent advances, and disputes for more investigation through the studies.

#### Keywords:

Indoor positioning, Ultra-wideband, UWB, Measuring techniques

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Kurnool, Andhra Pradesh, 11th & 12th January, 2019

### Automated Seed Sowing Machine Using ATMEGA2560

#### S.VASAVI

#### Abstract:--

In this paper we are discussing about the sowing techniques which are useful in farming. Agriculture plays an important role in economic status in india. As india is the second largest producer of wheat and rice. still traditional agriculture methods are being implemented in farming which is very cost because of farm workers. Farm workers availability inclines the farmers as workers expenditure is huge, this vehicle creation minimizes the endeavors and reduces the spending amount on sowing seeds. Compare to traditional method this process has a various advantages in sowing the seeds and removing the weeds during cropping seasons. Seed sowing vehicle is regulated manually but slashes the exercise of farmers and increases the capability of seed planting compare to normal planting which was performed by farm workers[1]. seeding machine can be utilized for various types of seeds and small plants also we can automize the spacing between the seeds while operating the seed sowing machine. it increases the planting efficiency and accuracy rate will be high compare to traditional sowing process. It is an simplified design which even can operated by unskilled farmers. machine is designed using low cost equipment so it can be easily available for small scale farmers.

#### Keywords:--

ARDUINO atmega2560 microcontroller, motor driver L2930, IR Sensors.

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# Segmentation of tumor along with healthy tissues of brain Via Kernel Support vector machine and GLCM

#### **G.VINODA**

#### Abstract:--

In Present Day the detection of brain tumor and its classification is more complicated and time consuming task. Further experts are required for detection of tumor in brain which may lead to misclassification. Brain tumor is an unwanted growth of cells which lead to cancer. In this paper an automatic Segmentation and classification of brain tumor from MRI images is developed using SVM Classifier. Segmentation method proposed in this paper is K means clustering which can improve segmentation accuracy. Gray level co-occurrence matrix was applied for segmented tumor area, to Extract features such as Mean, median, skweness etc.. This Extracted feature will give more information content of tumor which helps in classification of tumor as benign or malignant using Kernel SVM Classifier.

#### Keywords:--

MRI Image, GLCM, K Means clustering, Kernel Support vector machine.

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## Multi Quadrant Operation of Brushless Direct Current Motor Drive with PI and Fuzzy Logic Controllers

#### **M.LALITHA**

#### Abstract:--

This paper presents that the simulation of control of three phase Brushless Direct Current (BLDC) motor in all four quadrants with PI and Fuzzy Logic controllers. Traditionally the speed control of motors is carried out by conventional motors with using P, PI, PID and some other control techniques. But it provides a chance to occurrence of nonlinearity & uncertainties that causes some internal and external parameter errors. The efficient speed control in four quadrant operation – can be achieved by using a fuzzy logic controller. The improvisation of BLDC motor drive through fuzzy logic controller in all four quadrants is done using simulink/MATLAB.

#### Keywords:--

BLDC motor, proportional Integral (PI) Controller, Fuzzy Logic controller, Multi quadrant operation

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# A Comparison on Control Algorithms for a BEV Propulsion Motor with Road load under NEDC

#### **DR.G.ARUL DALTON**

#### Abstract:--

In this paper a Comparative analysis is made between Indirect field oriented control and Space Vector Modulation based Direct torque control (SVM-DTC) methods applied to propulsion motor of a Battery Electric Vehicle(BEV) with road load under NEDC drive cycle. Owing to the splendid characteristics like fast torque response and high performance efficiency the Induction Motor (IM) is adopted as the best choice for BEV propulsion motor. The most significant techniques used for propulsion motor torque and speed control are Indirect field oriented control (IFOC) and Space Vector Modulation based direct torque control (SVM-DTC). In IFOC the propulsion motor control is achieved by synthesizing stator currents from two quadrature components, corresponding to flux and torque respectively. In SVM-DTC decoupling and linearization of current vectors through coordinate transformation is eradicated and a reference stator flux vector generated by the adaptive motor model provides reference d and q axis voltages fed to SVM. Simulation results are explored to accentuate the performance of the propulsion motor with road load for both methods under NEDC drive cycle.

#### Keywords :---

Induction Motor, Indirect field oriented control, NEDC drive cycle, Road load, Space Vector Modulation-Direct torque control.

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## A Study on Underwater Image Enhancement Techniques

#### I.SWAPNA

#### Abstract:--

Underwater image processing is one of the challenging field in Digital Image processing because of the physical properties of underwater environment. Underwater image processing is used in a wide variety of research areas such as detection of man made objects, marine biology, ocean resources exploration, mine detection etc. However, Underwater images suffers from three major problems: Color distortion, fuzz and under exposure due to scattering and absorption of light in underwater environment. This paper mainly focus on brief study of different underwater image enhancement techniques available. Finally we summarize the performance analysis of underwater image enhancement methods .

#### Keywords :---

Color balancing, Image enhancement, Underwater images, Histogram equalization, Contrast stretching.

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## Comparison of Closed Loop Optimal High Level Novel Multilevel Inverter fed Induction Motor Drive using PI Controller and Fuzzy Logic Controller

#### **K.INDHUMATHI**

#### Abstract:--

The Multilevel inverter technologies which are widely used in medium, high voltage and high power requirements have attracted many researchers around the world. In comparison with conventional two level inverters, the multilevel inverters(MLIs) gives better performance by the way of lower harmonic distortion, low electromagnetic interference and produces quality output. Control techniques such as complex PWM technique and more count of components need in MLI for achieving power quality. This paper primarily presents a new high performance one phase MLI topology with least number of switches. Later on the same is extended for three phase high performance MLI, that offers minimum THD. Three phase induction motor is coupled to the proposed MLI in open loop form and then implemented in the closed loop form with proportion integral (PI) controller. This is further extended by replacing the PI controller with a fuzzy logic controller (FLC). The validity of proposed drive with respect variations in torque and speed is verified with MATLAB/SIMULINK.

#### Keywords:--

Multilevel inverter, Induction motor, PI controller, FLC, THD, speed, Torque

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# Deep Stock Prediction using Visual Interpretation: DeepClue

#### **P.RENUKA**

#### Abstract:--

This paper presents DeepClue, a system built to bridge text-based deep learning models and end users through visually interpreting the key factors learned in the stock price prediction model. This take advantage in advancement of deep learning that has enabled trading algorithms to predict stock price movements more accurately. This paper makes three contributions in DeepClue. First, by designing the deep neural network architecture for interpretation and applying an algorithm to extract relevant predictive factors, useful case is provided on what can be interpreted out of the prediction model for end users, second one is by exploring hierarchies over the extracted factors and displaying these factors in an interactive, hierarchical visualization interface, we shed light on how to effectively communicate the interpreted model to end users, third, we evaluate the integrated visualization system through case studies in predicting the stock price with online financial news and company-related tweets from social media. Quantitative experiments comparing the proposed neural network architecture with state-of-the-art models and the human baseline are conducted and reported. The effectiveness of DeepClue is analyzed by complete stock market investment and analysis tasks.

#### Keywords:

DeepClue, stck market, Text Based Visualization, Neural Network

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### Deep Learning: An Overview

#### K INDUMATHI

#### Abstract:--

Deep learning has gained its attractions towards the researchers, academicians and several other organizations in the research areas of big data, genomics, natural language processing, healthcare and brings several challenges and opportunities for various domains such as cosmology, pharmacy and astrophysics. With the increased growth of the data produced by our digital world, deep learning becomes inevitable in providing solutions to the complex and real world problems. It is not far for the researchers to find the solutions for the complex problems to be solved till date such as birth of stars, genetic mutations, cosmological and even the birth and extended life of living organisms. Deep learning will definitely be the active component in finding solutions to such problems. This paper makes an attempt to present the research studies in deep learning with various perspectives.

#### Keywords:--

Deep learning, big data, machine learning, applications, artificial intelligence.

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Kurnool, Andhra Pradesh, 11th & 12th January, 2019

### Survey on MIH

#### **K INDUMATHI**

#### Abstract:--

As we are moving towards a subsequent era of wireless networks, we're going through the combination of heterogeneous access networks. the primary challenge is to offer mobile users moving freely throughout distinctive radio access technologies along with excellent high-quality of services for the distinctive applications. Therefore, the seamless roaming over heterogeneous networks is a crucial situation. To optimize the disruption of the ongoing session while a mobile user roams from one access network to other for that we endorse a framework that integrates IEEE 802.11 (WLANs), IEEE 802.16 (WMANs) based at the IEEE 802.21, homogeneous and heterogeneous handoff is assisted by Media independent Handoff (MIH).

#### Keywords : -

MIH, Wi-Fi, UMTS, WMANS

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# Real Time Monitoring of Integrated Coalmine Mashup Middleware System Using WSN

#### VASAVI S

#### Abstract:--

Now a day's safety of mine workers is a critical challenge. The health of mine workers is way to some issues which should be effect after of their work. Mining areas and surrounding places contain high temperature low humidity harmful gases and fire pulls the workers into danger of their life. This pulls a more pressure on the mining world. To protect miner workers and decrease the cost of mining along with safety of mine workers, an modern technique is developed. This system proposes a better solution with light weight, remote monitoring and alarming of underground mine workers. The hardware of the system contains sensor mote fitted in helmet of mine workers. It measures the parameters like temperature,humidity of area, fire accident and hazardous gases. The entire equipment organized by Arduino micro controller and these parameters to remote area with the help of Zigbee technology. In the receiver section all these status monitor on PC and send the safety indications to mine workers for alert when change the abnormal conditions. For the change of different parameters the different alerts send from main center. Then the mine worker alert and we can save his life. This system gives early admonitions which will be useful to workers present inside the coal mine to spare their life before any loss happens.

#### Keywords:--

Arduino, Zigbee, gas sensor, fire sensor, DHT sensor, alarm and LCD display.

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### Low Cost and PI Based Smart Home Garden Watering System Using IoT VASAVIS

#### Abstract:--

Now a day's every system operated with IOT and acts smartness. The smartness can acts as an important role. The smartness of devices can choose decisions automatically and give fast response. It not only provides comfort but also reduce manual efforts, time and economical. The modern home garden framework has a critical job in controlling the utilization of water to guarantee the nature of grain and to increase crop efficiency. This paper proposes a brilliant home garden framework which screens and keeps up the desired soil moisture content through programmed watering. A smart home garden system commonly incorporates a reservoir or water channels and a pumping system. The micro controller Raspberry pi cans acts as major role and acts as a IOT gateway to user and hardware. The hardware of the system contains light dependent resistor, level indicator and passive infrared sensors. The entire system observed and controlled Raspberry pi. Depends up on that received information the system waits for response from user and process. If any sensor condition changes with respect to the pre defined conditions the Raspberry pi module sends web page notifications to user and alerts the buzzer. Finally the water content present in garden, operation of the motor directly monitor in web page and user get Email notifications when sensor conditions change. IOT provides better solutions to different problems and remote operations comfort with low cost.

#### Keywords:--

Raspberry Pi, LCD, Soil moisture, LDR, Passive Infrared sensor, DC Pump, Ultrasonic sensor, Buzzer.

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# A Secure Service Key sharing approach for Authorized Service Access in Wireless Network Services

#### J SANTHOSH KUMAR

#### Abstract:--

The growth of Wireless Network Services (WNS) makes it simple for users to share information and computing capabilities with their hosts. User identification is an essential access control mechanism for client-server networking architectures. Recognition of single sign-on allows legitimate users to access other service providers on WNS using a single session key. Recently, several user identification technologies have been proposed for accessing WNS. Unfortunately, existing proposals cannot maintain user anonymity when the majority of expected attacks occur. In addition, more time synchronization mechanisms they use can result in widespread overhead costs. To overcome these shortcomings, we propose a Secure Service Key (SSK) shared approach for authenticated service access in wireless network services. This approach initially implements a method for generating a secure encryption key to validate user login authentication and a mechanism for generating the SSK for service access at a later time. Generate a New Secure Service Key (N-SSK) for all service conversions to maintain reliability. Measure the execution time and overhead of various processes to assess on-the-fly and effects. The result is instant access to security service access.

#### Keywords:--

Wireless Network, Service key, Sharing, Authorized Service Access.

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# Analysis and performance of human activity recognition system using Gabor filter bank with Hidden Markov Model

#### J SANTHOSH KUMAR

#### Abstract:--

Human action recognition is one of the most important emerging trend/ technology. It has wide application such as surveillance (behavior analysis), security (pedestrian detection), control (human-computer interfaces), content based video retrieval, etc.

Human Activity Recognition system is a mechanism of identifying various Human Activities against some stored pattern Human Activity. This project is a Human Activity Recognition system for identification of person. It takes input an image of a person and searches for a match in the stored images. If there is match, the user can see the result as the Human Activity matched or not matched. User Can not make any kind of change in the stored image files, i.e. a user is not authorized to add or delete images from the storage data. The administrator of the system has authentication to make updates in the storage data. I present a biometrics system performing identification, of automatic Human Activity recognition. This system is based on Gabor features extraction using Gabor filter. For feature extraction the input image is convolve with Gabor filter and extra personal sample generation algorithm is used to select a set of informative and nonredundant Gabor features. I used HMM (Hidden Markov Models) for matching the input Human Activity mage to the stored images.

#### Index terms:--

HMM, Gabor, KTH

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# Adaptive Block Memory Management for Spatial and Temporal Locality in Flash Based Storage Systems

#### K SHASHANK.

#### Abstract:--

The shifting of cold clean pages and hot dirty pages along with the inner sets of the cold dirty and the hot clean pages is emphasized in the adaptive predictive clean least recently used technique, but it fails in exploring more on the spatial contents rather than sticking more in the temporal locality maintenance. In that, the concepts of hot page, clean, cold and dirty page management is presented with an efficient kind whose benefits are utilized in the global adaptive algorithm also in both spatial locality and temporal locality management. The role of the three issues in erase, read, write and their interlinks with page transaction from the data buffer cache to the flash translation layer, which is shown in virtual presentation but proves its essence in more nearest way in address mapping, and with the flash storage is implemented using a flash sim simulator version from the very first block padding lru clean first lru or may it be the cold clean first technique. The clear point of growth in each of the sequenced algorithms is simulated at suitable memory sizes showing the prior to latter enhanced may it be in the cluster management or may it be the creation of necessary list like hot list or cold list or key data list. The suggestive solutions have been proved with acceptable solutions and also laid away some more improvable steps to still reduce the speed gaps in the symmetry of the two major issues. The techniques are near to precise in lowering and minimizing the number of times of addressing during the cache handling to efficiency with respect to reducing the erases.

#### Key Words:

APCLRU, WBLRU, GASST Clock selection, FTL, TLB, NAND Flash Memory, Control Block, Advanced Processors.

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# Effective use of ICT Tools in Open and Distance Learning

#### **K SHASHANK**

#### Abstract:--

Information and Communication Technology (ICT) promotes quality education which plays a vital role in transforming the society and an individual. In this paper we will discuss the benefits of ICT to acquire quality education, various tools and techniques that can be used for ICT in open and distance learning. It is true that education is considered as the major source for transforming an individual for development of Nation. A developed nation possesses citizens who had quality education. Quality education includes healthy learners who are nourished well and are ready to participate and learn in addition to the supportive learning acquired from their families and other related communities.

#### Index Term:--

ICT, quality education, moodle, OER, Flipped class room.

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# Advanced Rail Clamping PWM Techniques Based Three Level VSI fed DTC Induction Motor Drive for THD and Common Mode Voltage Reduction

#### **V SWATHI**

#### Abstract:--

A space vector approach to advanced rail clamping pulse width modulation methods (ARCPWM) is developed to integrate direct torque control (DTC) scheme for the speed control of a three level inverter fed induction motor. In this method the behavior of different ARCPWM methods is analyzed with respect to zero state variation. It is observed that ARCPWM-3 shows reduction in both current harmonics as well as the common mode voltage (CMV) during near rated speed operation of the drive. To validate the proposed method a generalized ARCPWM (GARCPWM) program is developed to generate various ARCPWM methods using a constant variable \_k' that facilitates the instant of variation of zero state. Simulations results for various ARCPWM controlled three level inverter fed DTC induction motor drive are presented for comparing the performance in terms of total harmonic distortion of motor currents ( $I_{THD}$ ) and CMV.

#### Key words: --

ARCPWM, CMV, DTC, GARCPWM, I<sub>THD</sub>

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# Optimal Placement of PMU in a Transmission Network using Genetic Algorithm

#### V SWATHI

#### Abstract:--

In this paper the best placement of PMUs problem is solved by Genetic Algorithm (GA) and compared with Linear Programming Integer method. In order to evaluate the performance of proposed method, IEEE-7 bus and IEEE-14 bus systems are considered and from the simulation results it is observed that the suggested method overcomes the problem of held in local minima and takes lees time which saves the CPU computation time greatly.

#### Index Terms:--

Observbility, optimal placement, phasormeasurement units, stateestimation, genetic algorithm.

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# Analysis of Multi-Frequency Multi -GNSS Real -Time Signal Observations Acquired by Septentrio PolaRx5 Receiver Station

#### LAXMAN.E

#### Abstract:--

Global Navigation Satellite System (GNSS) constellations such as Global Positioning System (USA), GLONASS (Russia), Galileo (European Union), BeiDou (China) transmit radio signals continuously on multiple frequencies for PNT applications on or above the globe. On the other side IRNSS(India) and QZSS (Japan) are the regional navigation systems with limited service area. The combination of multiple constellations with quality signals improves robustness and stability of position,navigation and time measurements. Hence, this research work investigates signal quality to identify strong/ important signals and geometry of the satellites for the combined use of global and regional constellations over the Indian region. Real-time signal observations of multiple GNSS were collected by \_Septentrio PolaRx5' receiver stations installed at GPCET, Kurnool (150.47'N, 780.04'E). From the results, it is found that the user over this region can receive signals from a minimum of 60 satellites with Position Dilution of Precision (PDOP) value less than unity.

#### Keywords:--

Multi-GNSS, DOP, Carrier to noise ratio

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# Performance Comparison for Ripple Carry Adder Using Various Logic Design

#### LAXMAN.E

#### Abstract:--

CMOS transistors are extensively used in designing digital circuits. Transistor level design is an important aspect in any digital circuit designs particularly in full adders. Full adder is the basic part in any of the arithmetic circuits. FinFET is another technology that has a longer channel gate. Carbon Nanotube field effect transistor (CNTFET) is the most optimistic technology which is three terminal device similar to MOSFET. The semiconducting channel between the two contacts called drain and source consists of the nano tube. This paper presents Ripple carry adder (RCA) using static and dynamic logic styles with CMOS, FinFET and CNTFET technologies in 20nm technology with supply voltage of 0.9v and simulation is done by using Synopsys HSPICE Tool.

#### Index Terms -

Ripple Carry Adder, Static and Dynamic Logic Styles, CNTFET, FinFET and HSPICE Tool.

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# IOT based smart Energy meter billing monitoring and controlling the loads

#### K SOUMYA

#### Abstract:--

The plan and improvement of a keen observing and controlling framework for energy meters continuously has been discussed in this paper. With the end goal to screen the energy consequently, diminish creation cost, the Remote Meter Reading System is produced. Remote energy meters were structured with prepaid appropriation framework. Structure of which utilizes virtual instrument programming design that should be possible on web server that will works with internet of things. The framework basically screens the vitality necessities and status of utilization of intensity. The framework can screen the status and send data to webserver and additionally a ready SMS through GSM will sent naturally, if the conditions get strange, to a concerned experts cell phone and also amount to be paid by customer at the end of month automatically for the next month with current usage statistics. The concerned expert can control the high power expended gadgets on or off to make the framework better through web portal. The web page which we will utilize is secret phrase ensured by adding username and password along with secured API keys. This framework finds a wide application in regions where physical nearness isn't conceivable all an opportunity to control the devices. The framework will be work with ARM processor utilized in the usage of sensor module and other correspondence condition. The framework offers a total, minimal effort, ground-breaking and easy to use method for ongoing observing and remote control of Appliances.

#### Keywords:

Smart Energy Meters, IOT, Electricity.

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# Theoretical Analysis of CMOS circuits in 90 nm Technology

#### K SOUMYA

#### Abstract:--

In this paper a novel design of 1-bit CMOS full adder cell using XNOR gate and Multiplexer, This paper CMOS not gate and full adder calculate the theoretical value of dynamic power, leakage power, load capacitance, percentage error and switching activity., The results show that the proposed technique in terms of power consumption, delay are used in 90nm technology

#### Keywords:--

Dynamic power, load capacitance, switching activity, leakage power.

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# A Cloud-Based Event Processing Technique for Measuring Metrological Parameters of Rain Streams using SaaSand Analytics

#### Y DHANUNJAY

#### Abstract:--

Modern Cloud applications and Big Dataanalytics techniques provides most sophisticated environment to ingest, storage, process massive information generated by large scale IOT applications. Ground water is most natural aquifer resource for any nation, directly impacts the human life, agriculture, climate, etc. Study of rainfall helps to estimate Ground water resources is an important and interesting research topic. Many of the researchers proposed various ways of processing and analysing techniques for rain fall, which are scalable for modern IOT applications. In this paper we are presenting a new paradigm, cloud based big data techniques to ingest, process and analyse the massive rainfall data for largescale weather forecasting applications. We configured large number of events rule to detect or track various rainfall metrics during the monsoon season. The simulation results, response time for processing are satisfactory and detected large number of rainfall events robust and more scalable. The rest of the paper organized into multiple sections. Section I discusses about the introduction of many technology advancements and rain fall study importance. Section II described the related techniques / mechanism for legacy rain fall study applications along with merits and de-merits. Section III illustrated proposed cloudbased event processing paradigm for large scale bigdata, IOT applications. Section IV presents the testbed results and application performance followed by conclusion and future directions of the research in Section V.

#### Keywords:

IOT, SaaS, Big Data, Complex Event Processing, Data Analytics

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# Detection of Glaucoma using Adaptive Neuro Fuzzy in DWT Domain

#### Y DHANUNJAY

#### Abstract:--

Glaucoma is that the second leading reason for loss of vision within the world.Examining the pinnacle of cup-to-disc ratio is extremely vital for diagnosis eye disease. The purpose of this research work is to provide segmentation technique to calculate the optic disc and optic cup geometrical parameters mechanically and accurately. These techniques facilitate professionals with designation and observation eye disease by providing them with clear and correct information concerning the optic nerve headstructure. The individuality of this paper is in demonstrating the segmentation methodology by using adaptive neuro fuzzy algorithms for optic disc and optic cup segmentation.

#### Keywords:-

Glaucoma,Optic Cup, Optic Disc, Optic Nerve Head , Cup to Disc Ratio and Adaptive Neuro fuzzy.

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# IoT based Real Time Health Care Monitoring System using LabVIEW

## M SANTHOSH KUMAR

#### Abstract:--

In the most recent decade the human services checking frameworks have drawn significant considerations of the analysts. The essential objective was to build up a dependable patient observing framework with the goal that the social insurance experts can screen their patients, who are either hospitalized or executing their ordinary day by day life exercises. This work introduces, an IoT based remote medicinal services checking framework that can give ongoing information on the web data about physiological states of a patient. The proposed framework is intended to gauge and screen imperative physiological information of a patient keeping in mind the end goal to precisely portray the status of her/his wellbeing and wellness. Likewise the proposed framework can give the patient wellbeing status on the web. By utilizing that data the social insurance expert can give vital restorative exhorting. The framework primarily comprises of sensors, the information securing unit, microcontroller (i. e., My DAQ), and programming (i. e., LabVIEW). The patient's temperature, heart beat rate, circulatory strain and ECG information are checked, shown, and put away by the framework. The put away information can be utilized to anticipate the likelihood of patient getting heart assault. To guarantee dependability and precision the proposed framework has been field tried. The test outcomes demonstrate that the proposed framework can gauge the patient's physiological information with a high exactness.

#### Keywords:

Health Care, Internet of Things, patient monitoring, LabVIEW.

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# Severity Analysis of Mitral Regurgitation Using Multi-Objective Firefly Optimization Method

## MUNNOR ANJANEYULU

#### Abstract:--

Normally the blood flows from left atrium to left ventricle. Mitral valve regurgitation is the spilling of blood in reverse direction from left ventricles to left atrium through mitral valve. Mitral valve regurgitation does not produce any symptoms in its initial state. In this paper, we concentrate on the severity analysis of mitral regurgitation using multi objective firefly optimization method. Severity analysis is done using various steps this includes preprocessing method. Preprocessing techniques reduces the noise, which is present in the image dataset using aquarium-power filter. Subsequently the filtered image performs the multi-objective firefly optimization algorithm performs the function of feature extraction, classification and the quantification. From the outcomes, our proposed technique achieves better accuracy in the segmented and optimization method in contrast with the existing technique.

### Keywords: -

Mitral Regurgitation, Mitral valve, SVM segmentation, Echo cardiogram, Segmentation, Quantification, Firefly optimization

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# Hybrid loop controlled dual axis solar tracking system for Residential communities

## **M SANTHOSH KUMAR**

#### Abstract:--

The theme of this paper emphasizes the important role of Dual axis solar tracker system (DASTS) with Hybrid loop control which controls the relative motion of solar tracking system (STS) during the day as per the position of sun. Hybrid loop control (HLC) is effective rather than open and closed loop systems due its mode of control using sun position algorithm and sensors based as per the requirement and environmental conditions .Most commonly used sensor based trackers feedback to adjust the orientation of the panel to track the sun, but the problem with this system is when the sky is cloudy or the sun is obscured. The accuracy of estimation is as close as  $\pm 0.0003^{\circ}$  but it depends on the irradiation coming from sun with sensor less equipment. So, Sun tracking system by using solar position algorithm with accuracy is required. In order improve the efficiency of whole solar tracking system incorporating both open and closed loops i.e., hybrid loop control is necessary. It is facilitated by using Programmable logic controller (PLC) to access more input (LDR)/output (dc geared motor, stepper motor) controls and simulation has been done in codesys software using ladder logic programming. The present useful where space and efficiency & quality are important in particular residential communities in emerging smart cities.

#### Keywords:-

DASTS, HLC, PLC, CODESYS software, LDR, DC geared motor, STEPPER motor

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# Estimation of Power Spectral Density in SVPWM based Induction motor drives

## MUNNOR ANJANEYULU

#### Abstract:--

This paper describes the application of the SVPWM and hybrid PWM based DTC of induction motor drive for estimating the power spectral density (PSD) and the total harmonic distortion (THD) of the line currents. The PWM algorithm employs three different PWM methods like conventional SVPWM, AZPWM3 and hybrid PWM for the analysis of the power spectra and harmonic spectra. In power spectra analysis the magnitudes of the power accumulated at different frequencies and in the harmonic spectra the side band magnitudes at different switching frequencies are considered for the analysis. To validate the proposed algorithm, numerical simulation is carried out using MATLAB/ simulink and results are presented and compared.

### Keywords:--

HPWM, Power Spectral Density, Total Harmonic Distortion.

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# Speed Control of Induction Motor Using Lab View Simulation

### M SANTHOSH KUMAR

#### Abstract:--

Now-a-days induction motor is one of the important and useful drives for many industrial applications. VSI fed asynchronous machines are extensively used in adjustable speed control applications. The effective wave of controlling of the speed of the asynchronous machines is Pulse width modulation (PWM) technique. In this paper, design and implementation of scalar control of IM is done using Lab VIEW. The scalar control of the induction motor means that to maintain the ratio of voltage at stator terminal to frequency should be constant, which is also called as v/f control of IM drive. Lab VIEW is the practical software that can be used for enamining and managing the systems in present day industries. It is a human machine interface (HMI) design software which is user friendly and can easily interface hardware. In this project Simulation is done using Lab VIEW software.

#### Keywords:

SVPWM, V/f control, Lab VIEW, DAQ card.

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Kurnool, Andhra Pradesh, 11th & 12th January, 2019

## Riverbed Modeler Simulation Based Performance Analysis of Routing Protocols in Mobile Ad Hoc Networks P SRIVANI RENUKA

#### Abstract:--

Mobile Ad-Hoc network (MANET) is a highly dynamic network of wireless mobile nodes that transmitted data from one node to other without systemized control or physical infrastructure. In wireless communication, MANETs are gained more significance and nodes are able to move and associated with the neighbors. At any time nodes can be added and removed because of mobility and dynamically change the wireless link connections in the network. In the success of communications, routing is a high priority and it plays an important role. This paper focus on routing protocols and their functionality in MANETs with the analysis to be observed on four different routing protocols Optimized Link State Routing Protocol (OLSR), Dynamic Source Routing (DSR), Ad Hoc On-Demand Distance Vector (AODV), and Gathering based Routing Protocol (GRP) which are used for efficient routing. The performance analysis of above-mentioned routing protocols are determined with respect to routing overhead, end-to-end delay, routing traffic sent, routing traffic received, network load, data dropped, throughput, retransmission attempts, and media access delay using Riverbed modeler simulator.

#### Key words:-

AODV, DSR, GRP, MANETs, OLSR, Riverbed simulator modeler.

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# Design and Analysis of Sierpinski Carpet Fractal Antenna for UHF Spaced Antenna Wind Profiler Radar

## M SANTHOSH KUMAR

#### Abstract:--

This paper emphasizes the design of Sierpinski carpet fractal antenna to miniaturize the antenna array of UHF Spaced antenna Wind profiler radar that operates at 445 MHz. The proposed antenna is designed using High Frequency Structure Simulator (HFSS) where aluminium is used as a patch and ground with air as dielectric substrate due to it's zero loss tangent .patch is separated from ground with help of hinges and fed with 50 ohm coaxial probe. The Sierpinski fractal antenna is designed till third iteration so as to reduce its size and weight by 33 percent.

#### Keywords: -

Sierpinski carpet, fractal antenna, wind profiler Radar, HFSS, UHF.

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# A Comparative Analysis of Subjective and Objective Quality Measures for Noisy Speech Enhancement

## **P SRIVANI RENUKA**

### Abstract:--

Many speech processing algorithms have been introduced to improve the quality and intelligibility of speech corrupted by the additive background noise. Enrichment in the quality and intelligibility are of utmost importance in all speech enhancement algorithms for ease and accuracy of information exchange. The speech quality and intelligibility can be computed using subjective and objective measures. The subjective quality ratings were obtained using the ITU-T P.835 methodology designed to evaluate the quality of enhanced speech along three dimensions: signal distortion, background intrusiveness and overall quality. Subjective speech quality measures involve human participation to rate the quality of speech. Objective quality measures predict perceived speech quality based on computational algorithms. In this paper, the performance evaluation is carried out by comparing the subjective and objective evaluation of speech enhancement signal using sub band adaptive filtering technique.

### Key words:-

Noisy Speech, Objective Evaluation, speech Enhancement, Subjective Evaluation.

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# Advanced Mechanisims for Detection of Malware Family Attacks in Computer Networks

### **BOPPANNI SWETHA**

#### Abstract:--

Computer Networks are one of the fastest growing areas of research in this era.Security is an indispensable need for all the type of networks i.e wired and wireless network communications. There are a wide variety of malware and attacks that target the weakness of network. In this paper we have focused on malware which is most vulnerable and is prone to attacks.we tried to address some malware detection methods.

#### Keywords:

Ransomeware, spyware, adware, virus Trojan, Botnet, Zbot, Ghost Mirai, Redyms,

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# Multi loop Controller design for multivariable processes Employing SISO PI Tuning Rules

## GUDIKANDU LA SATYANARAYANA

#### Abstract:--

The proportional integral (PI) and proportional integral derivative (PID) controllers are having ability to compensate many practical industrial processes has led to their wide acceptance in industrial applications. The controller parameters can be done using suitable tuning rules. Design PI controller for multivariable processes is always challenging task because of presence interaction effect between the loops. This problem highly mitigated by employing simple single input single output internal model controller (IMC). This IMC PI controller values are applied for Wardle and Wood (WW) distillation Column, Wood and Berry (WB) distillation column and Vinate-Luyben (V-L) distillation column. Obtained simulation results and performance indices values compare to other control tuning strategies.

#### Keywords:-

PI Controller; tuning ; mulivariable process ;IMC ; SIMC ; BLT

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# Robust Bit Error Rate Optimization for MASSIVE MIMOCEM System using Channel Coding Method

#### **BOPPANNI SWETHA**

#### Abstract:--

MASSIVE MIMO constant envelope modulation (MASSIVE MIMOCEM) is offered as promising opportunity contender for the usually worn MIMO-OFDM system owing to its terrific functionality in together of power and intricacy. This enhancement in an overall recital is won because of the usage of the proficient nonlinear power amplifier at transmitter facet and one-bit ADC sampled at the intermediate frequency in the receiver facet. On the other hand, regardless of devices design offers stumpy power intake and occasional layout intricacy; a tremendous diminution in BER recital is brought. This was an outcome of the use of one-bit Analog-Digital-Converter sampled inside intermediate frequency which induced extreme quantization-noise. Consequently, the appropriate channel coding approach turns out to be anticipated to conquer this BER presentation dilapidation.

In this article, a discriminatory channel-coding technique is calculated for MASSIVE MIMOCEM machine is carried out to advance high bit error-rate dilemma of the MASSIVE MIMOCEM system. The assessment of this has a look at becomes accomplished over a multipath Rayleigh fading channel with each MSK modulation and GAUSSIAN-MSK modulation. The simulation effects display a tremendous development in the bit error rate performance at low values of SNR while low weight parity check channel-coding is used, whilst the Convolutional Code along with Viterbi Decoder achieve pleasant BER recital at large Signal to Noise Ratio values and for low and high SNR's the Successive BCH algorithm is used.

#### Keywords:--

LWPC Code; MASSIVE MIMOCEM; one-bit Analog to Digital Converter (ADC); Viterbi Decoder code (VDC).

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# A Single Core Double Inductor Buck-Boost Converter with Positive Output Voltage

## GUDIKANDU LA SATYANARAYANA

#### Abstract:--

The conventional Buck-Boost converter is used to step up or step down the voltage levels but with a negative output. Later on a transformer less buck boost converter is analyzed and designed to obtain a positive output voltage. This converter uses two separate cores for two inductors which increase the size of the converter and also the EMI is increased. So a new single core double inductor buck boost converter is analyzed and simulated to obtain the square times the conventional converter output and also with reduced EMI.

#### Keywords:--

Single core, Buck-Boost Converter, Transformer less

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# An effective audio watermarking approach with high data embedding

## GANAPURAM UMA RANI

#### Abstract:--

The watermarking has gained a large popularity among the research work that various authors are working in this direction to improve its performance and to enhance the security of the data. After having review to the traditional work done on audio watermarking, certain limitations related to the hidden image file were found in it. Thus, in this work, the author presents a novel audio watermarking technique. In this work the cover file is an audio file and the image are used to hide behind the signals of the audio. To enhance the security level of the image, the Run-length encoding (RLE) compression mechanism is applied to the image and signals before hiding the image. The RLE is preferred because it is a lossless data compression and encryption mechanism. It ensures the data security and considers the storage management as another major aspect. After applying RLE, the Least Significant Bit (LSB) mechanism is applied to hide the encrypted image behind the digital signals. After implementation, the performance of proposed work is evaluated in the terms of PSNR, BER, and MSE. The obtained results prove that the proposed work outperforms the traditional work.

#### Keywords:--

Pseudo Noise, Least Significant Bit (LSB), Watermarking, Run-length encoding (RLE).

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# Detection of Malicious URLs using Machine Learning Techniques

## **B PAVANI**

### Abstract:--

The primitive usage of URL (Uniform Resource Locator) is to use as a Web Address. However, some URLs can also be used to host unsolicited content that can potentially result in cyber attacks. These URLs are called malicious URLs. The inability of the end user system to detect and remove the malicious URLs can put the legitimate user in vulnerable condition. Furthermore, usage of malicious URLs may lead to illegitimate access to the user data by adversary. The main motive for malicious URL detection is that they provide an attack surface to the adversary. It is vital to counter these activities via some new methodology. In literature, there have been many filtering mechanisms to detect the malicious URLs. Some of them are Black-Listing, Heuristic Classification etc. These traditional mechanisms rely on keyword matching and URL syntax matching. Therefore, these conventional mechanisms cannot effectively deal with the ever evolving technologies and web-access techniques. Furthermore, these approaches also fall short in detecting the modern URLs such as short URLs, dark web URLs. In this paper, we propose a novel classification method to address the challenges faced by the traditional mechanisms in malicious URL detection. The proposed classification model is built on sophisticated machine learning methods that not only takes care about the syntactical nature of the URL, but also the semantic and lexical meaning of these dynamically changing URLs. The proposed approach is expected to outperform the existing techniques.

## Key words:

NLO; single crystal; solution growth; doping; XRD, FTIR, UV, TG/DTA, PL.

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# Feebly-Administered Deep Learning for Client Appraisal Soppiness Classification

## J GANAPURAM UMA RANI

#### Abstract:--

Sentiment evaluation is among the key challenges for mining on-line character generated content material fabric. On this work, we core of attention on patron experiences which will also be a most important form of opinionated content material. The intent is to determine each and every sentence's semantic orientation (e.g. Constructive or bad) of an evaluation. Common sentiment classification approaches certainly incorporate colossal human efforts, e.g. Lexicon development, feature engineering. In contemporary years, deep finding out has emerged as a robust method for fixing sentiment classification problems. A neural group intrinsically learns a useful representation robotically without human efforts. However, the success of deep discovering out especially relies on the provider of giant-scale coaching information. On this paper, we endorse a novel deep learning framework for evaluation sentiment classification which employs prevalently to be had rankings as weak supervision signals. The framework consists of two steps: (1) gain knowledge of an excessive measure illustration (embedding discipline) which captures the final sentiment distribution of sentences via score understanding; (2) add a classification layer on high of the embedding layer and use labeled sentences for supervised best-tuning. Experiments on assessment know-how bought from Amazon show the efficacy of our technique and its superiority over baseline methods.

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# A Survey on Traffic Flow Prediction with Deep Learning Algorithms on Big Data

## **B PAVANI**

#### Abstract:--

Correct and very much planned activity stream data is vital for the fruitful arrangement of astute transportation frameworks. In the course of the most recent couple of years, activity information have been report, and we have truly entered the period of huge information for transportation. Existing movement stream expectation strategies for the most part utilize shallow activity forecast models and square measure as yet frustrating for a few genuine world applications. The objective of the smart transportation framework (ITS) is utilizing the correspondence framework to entirely consolidate the vehicle arrangement of individuals, vehicles and street. Propelled movement control framework and dynamic activity the executives framework are required to give real time activity stream data. The conventional movement stream show is named the activity stream state variables(velocity, thickness and stream) with the correction of your time and area. Traffic stream examination is essential research idea in the transportation framework. Deep Learning is a type of machine learning used to anticipate movement flow. This circumstance moves us to take the activity stream expectation issue dependent on profound design models with enormous activity information.

#### Keywords:--

Traffic flow prediction, Deep learning, Learning algorithms, Intelligent transportaion system, Artificial neural network.

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# Handwritten Numeral Recognition using Deep Learning for Telugu

## GANAPURAM UMA RANI

## Abstract:--

Handwritten character recognition (HCR) mainly entails optical character recognition. However, HCR involves in formatting and segmentation of the input. HCR is still an active area of research due to the fact that numerous verification in writing style, shapes, size to individuals. The challenging part of Indian handwritten character recognition comes from the distinction between the similar shaped characters. These small distinguishing parts increase the recognition complexity. Given the writing styles of different individuals, the same characters may take different shapes, and two or more different character recognition. This paper proposes new approach to identify handwritten characters for Telugu language using Deep Learning (DL). The proposed work can be enhance the recognition rate of individual characters. The proposed approach recognizes with overall accuracy is 94%.

#### Keywords:--

Deep learning, Handwritten recognition, pattern recognition, Image segmentation

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# A Comprehensive Study of Load Balancing Techniques in Cloud Computing

## G RAM NARSAIAH

#### Abstract:--

Cloud Computing (CC) is a very big field in the computer industry. It has systems that are connected through communication networks such as Internet. The LBA is an important cloud computing area to prevent overloaded workload and provide the same and valuable service. The various algorithms are used to solve the load balancing complexity. In this paper, we explain various standard load balancing techniques in different algorithms and challenges in assigning tasks to Cloud Computing. The load balancing algorithm can be used to better utilize and better understand user needs.

#### Keywords:--

Load Balancing in Cloud Computing, Load Balancing Algorithms and techniques, Challenges.

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## Feature selection for Machine Learning in Big data

### VANGA ANUSHA

#### Abstract:--

We are in the information age there by collecting very huge volume of data from diverse sources in structured and unstructured and semi structured form ranging to petabytes to exabytes of data. Data is an asset, as valuable knowledge and information is hidden in such massive volumes of data. Data analytics is required to have a deeper insights and identify fine grained patterns so as to make accurate predictions enabling the improvement of decision making. Extracting knowledge from data is done by data analytics, Machine learning forms the core of it. The increase in the dimensionality of data both in terms of number of tuples and also in terms of number of features poses several challenges to the machine learning algorithms . Preprocessing of data is done as a prior step to machine learning, so feature selection is done as a preprocessing step to have the dimensionality reduction of the data and thereby removing the irrelevant features and improving the efficiency and accuracy of a machine learning algorithm. In this paper we study various feature selection mechanisms and study them whether they can be adopted to sentiment analysis of big data.

#### Keywords:--

Big data, Machine learning, Dimensionality reduction, Feature selection.

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## QoS Guaranteed metrics for Dynamic Scheduling through Void filling and Burst Segmenting in OBS Networks

#### **G RAM NARSAIAH**

#### Abstract:--

Optical burst switching (OBS) is an optical networking technology which consolidates the advantages of optical packet switching and optical circuit switching, while at the same time keeping away their limitations. Since OBS utilizes one –way reservation scheme, hence, due to contention bursts might be dropped at the intermediate nodes before they reach the destination. Hence, the burst dropping ratio is the critical performance estimation in OBS networks. The majority of the scheduling models in contemporary literature aimed to attain scheduling optimality are based on optimal utilization of their idle time. Not very many contributions endeavored to choose channels through any of the quality metric, and remarkably less contributions offer on wavelength allocation to lessen the burst drop ratio. In this regard, this manuscript endeavored to attain optimal wavelength allocation under divergent metrics that denoted as QoS metrics for dynamic scheduling through Void Filling and Burst Segmenting (QDS-VF). The proposed model is compared to the other contemporary model depicted in recent literature and found that burst loss ratio is lower in the proposed scheme.

#### Keywords:--

Optical Burst Switching, OBS Networks, Burst drop ratio, Void filling, Burst Scheduling.

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# Performance Evaluation of MCHSEP and SEP Protocol for Wireless Sensor Networks

### VANGA ANUSHA

#### Abstract:--

The major challenging issues in wireless sensor-1 networks are energy and latency. In this paper to designing routing new protocol based on energy and delay the MCHSEP (Mini Cluster Hierarchical Stable Election Protocol) protocol is proposed which is modification of the SEP protocol to enhance the stable period of the WSN by efficient clustering approach. MCHSEP protocol deals with the network based on density of the nodes number of mini clusters created while introducing an efficient mechanism for communications among nodes. MCHSEP protocol increases the stable period of the wireless sensor network by creating no of mini clusters with in a cluster assigning MCHs. The MCHs send message to CH and CHs send aggregated data to sink Node. Cluster formation like SEP protocol only. In this paper performance of SEP and MCHSEP routing protocols in wireless sensor\_1 networks is evaluated and compared. Simulation results has been carried out by varying no of number of nodes..

#### Keywords:--

MCHSEP, SEP, Wireless Sensor Networks, Energy, Routing

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# Dynamic load sharing among DC-DC converter for maintenance of constant voltage

## PAKA MALLESH

#### Abstract:--

Micro-grids are good technologies togainreliable and efficient power system. In this paper the input given to the two converters are 800V, 800V. These voltages are step down to 364V, for the purpose of step down we use DC-DC buck converters. The constant maintain voltage at DC bus PID controller is used at the load side. The voltage is shared by two loads in the ratio of -1/50 and -1/100. Finally conversion of DC voltage at bus to Ac voltage is done by the inverter. This inverted voltage is given to induction motor. This paper describes the controlling of voltage droop as a efficient solution for load sharing control problem for multiple no of DC sources and also observes converter powers and simulation and designis also done. The DC bus voltage is inverted to AC type to feed induction motor. Induction motor characteristics are also shown in Simulink.

#### Keywords

Micro-grid Topography, DC-DC converter, Dynamic load sharing, Inverter, Induction motor.

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# Adaptive Compressive Sensing of Images Using VSBCD Algorithm and Improvement

## PAKA MALLESH

#### Abstract:--

Compressive sensing of image results in blocking artifacts and blurs when reconstructing images. To solve this problem, we propose an adaptive block compressive sensing framework using error between blocks. First, we divide an image into several non-overlapped blocks and compute the errors between each block and its adjacent blocks. Then, the error between blocks is used to measure the structural complexity of each block, and the measurement rate of each block is adaptively determined based on the distribution of these errors To overcome negative effects, we propose a versatile square based compressive detecting (VSBCD) system based on spatial entropy. Spatial entropy measures the amount of information, which is used to allocate measuring resources to various regions The reconstructed image should be better in both PSNR and bandwidth. Medical field especially in MRI scanning, compressive sensing can be utilized for less scanning time.

### Keywords:--

Compressive sensing, Adaptive Block Compressive Sensing (ABCS), PSNR.

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## Digital Implementation of Space Vector Based Coupled PWM Technique for Dual Inverter Configuration

## K NAVEEN KUMAR

#### Abstract:--

Pulse Width Modulation techniques are the key concepts for converters. In this paper a PWM techniques and implementation methods for voltage source multilevel inverters were discussed. These PWM techniques can be broadly implemented based on carrier comparison approach and digital space vector approach. In this paper implementation of PWM techniques for dual inverter fed open end winding induction motor drives were presented based on digital space vector approach. This digital space vector approach provides freedom in selecting various switching combination to improve the different measurable parameters (output voltage, common mode voltage, current ripple, etc.) of the drive. Moreover these PWM techniques can be easily extended to any N-level inverter fed motor drives.

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# Effect of K-Fold Cross Validation on MRI Brain Images Using SVM Algorithm

## K NAVEEN KUMAR

#### Abstract:--

Recently, exact detection of the cancerous tumor in brain images is a critical task, especially at the early stage of the diseases. Various investigators have used machine-learning methods for the computer-aided diagnosis (CAD) to detect the tumor. In this paper an accurate and an automatic CAD system frame work has been done for verifying, the effect of K-fold cross validation for different values of k. K-means the segmentation technique is in the initial phase of the framework and the image is pre-processed for feature extraction and feature reduction using 2D-DWT and PCA respectively. The reduced features are given to the machine learning algorithm called the kernel support vector machine to classify magnetic resonance images. The K-fold stratified cross validation scheme is utilized to simplify the ability of the suggested strategy. The proposed method uses the different fold cross validation schemes, it is found that the RBF type kernel achieves the maximum classification with k=5 for the given data set. This method of classification of MR brain images, can help radiologists to analyze whether the patient's stage is normal.

#### Key words:

Brain tumor, principal component analysis, feature extraction, classification, segmentation, image de-noising, principal component analysis (PCA), two-dimensional discrete wavelet transform (2D-DWT), kernel support vector machine (KSVM).

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# Blockchain for IoT application: challenges and Issues

### M HARI PRASAD

#### Abstract:--

From the last decade, Blockchain technology has developed a new crypto-economy and has been converting the financial industry. Reliability, persistence, scalability, the power of enduring is factors of an IoT solution. On the other hand, Blockchain is an experimental and investigational type of technology, and not proven. Blockchain burns up and then face the problems while IoT solutions, once deployed, are handled for years. The main motivational ideas i.e. decentralised trust and distributed record are capable of distributed and the large-scale Internet of Things (IoT) applications. Moreover, in this domain, the uses of Blockchain beyond crypto-currencies are very less and far due to the lack of acceptance and integral framework challenges. In this paper, we illustrate the opportunities for uses of Blockchain of IoT and study the concern challenges and issues in Blockchain based IoT applications.

#### Keywords:

Blockchain Technology, Internet of Things (IoT), crypto-economy.

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# Analysis of harmonics and ripple content in vector control schemes for induction motor

## M HARI PRASAD

### Abstract:--

In this paper three different sector based vector control schemes are employed for the analysis of the harmonics and ripple content in the motor currents and steady state torque waveforms. The novelty in these vector control schemes is, the reference currents are generated is as per conventional vector control and selection of the voltage vectors is as per direct torque control. So these vector control schemes integrate the principles of both conventional vector control and direct torque control. These schemes are validated in the MATLAB/Simulinksituation and the results are compared among them.

## Keywords:--

FOC, DTC, Induction motor, switching table, vector control.

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# EPLQ: Efficient Privacy-Preserving Location-based Query over Outsourced Encrypted Data

## ARCHANA

### Abstract:--

With the inescapability of PDAs, location-based administrations (LBS) have gotten extensive consideration and turn out to be progressively prevalent and indispensable as of late. Be that as it may, the utilization of LBS like-wise represents a potential danger to client's area security. In this paper, going for spatial range inquiry, a mainstream LBS giving data about POIs (Points Of Interest) inside a given separation, we present a productive and protection safeguarding area based inquiry arrangement, called EPLQ. Area based administration (LBS) is blasting up lately with the quick development of cell phones furthermore, the rising of distributed computing worldview. Alongside the difficulties to build up LBS and the client protection issue turns into the most vital concern. So fruitful protection saving LBS must be secure and give precise inquiry results. In particular, to accomplish privacy-preserving spatial range inquiry, we propose the first predicate only encryption plot for internal item extend, which can be used to recognize whether a position is inside a given round zone in a security safeguarding way. To lessen question inactivity, we further plan a security safeguarding tree file structure in EPLQ. Point by point security examination affirms the security properties of EPLQ. Likewise, broad tests are led, and the outcomes exhibit that EPLQ is exceptionally productive in privacy-preserving spatial range inquiry over re-appropriated encoded information. Specifically, for a portable LBS client utilizing an Android telephone, around 0.9 second is expected to create an inquiry; and it likewise as it were requires a product workstation, which assumes the job of the cloud in our tests, a couple of moments to look POIs.

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# A Study on Different Phases and Various Techniques in Recommendation Systems

## N.PRAVEEN BABU

#### Abstract:--

Now-a-days, recommender systems are playing an important role in human activities. In today's websites, a Recommender system (RS) is a popular tool. The online websites like movies, restaurants, education and much more, uses the recommender systems to suggest the customers for E-commerce. Recommender systems make money by attracting users with recommendations. Each system may use different datasets from various sources to analyze the user behavior and to find interesting patterns that predict the user's future purchase or taste. Most of the times lack of data results to the inappropriate recommendations (means bad recommendations). This paper reviews different phases involved while developing a recommender system and various recommender methods including the study of various methods that are used in various papers based on recommender systems in data mining and at the end of this paper; it provides the advantages and disadvantages of each method. Finally, this paper also gives analyses of various challenges and issues (problems) faced in the development of recommender algorithms.

#### Index terms-

phases, collaborative filtering, content-based filtering, hybrid filtering, problems.

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# A Study on Different Phases and Various Recommendation System Techniques

## ARCHANA

#### Abstract:--

Now-a-days, recommender systems(RS)are playing a crucial role in human tasks. The online websites like movies, restaurants, education and much more, uses the recommender systems to suggest the customers for E-commerce. Recommender systems make money by attracting users with recommendations. Each system may use different datasets from various sources to analyze the user behavior and to find interesting patterns that predict the user's future purchase or taste. Most of the times lack of data results to the inappropriate recommendations (means bad recommendations). This paper reviews different phases involved in implementing RS and various recommender methods including the study of thosemethods that are used in several papers of various authors. We also included the advantages and disadvantages of each method. Finally, this paper also gives analyses of various challenges and issues (problems) faced in the implementation of RS algorithms.

#### Keywords:--

phases, collaborative filtering, content-based filtering, hybrid filtering, problems.

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# Text Spotting in Video: Recent Progress and Future Trends

## K KRISHNA KUMARI

#### Abstract:--

The wide popularity of videos, images, documents available in the internet have led to the demand for automatic annotations, indexing, construction of videos and many other applications. In order to implement these demands, text is a major cause of information which requires detection, localization, tracking and recognition process. Nevertheless, text variation owing to font-size, font-style, direction, occlusion, poor resolution makes automatic text extraction more challenging. Thus, video pre-processing plays a vital role before detecting and recognizing the text. This paper emphasizes on survey for different detection and recognition methods, feature descriptors, datasets, and performance and evaluation process from diverse publications. Traditional methods like connected components, region based, texture based, Neural Networks, OCR have been reviewed. Among which Scale Invariant Feature Transform (SIFT), Maximally Stable Extremal Regions (MSER), Convolution Neural Networks (CNN) are effective and efficient feature descriptors in spotting the text. However, this paper shows comparative study of ubiquitous features descriptors along with their dependant parameters which declines the performance of recognizing the video text. Conversely, hybrid methods and CNN techniques have done magnificent work to achieve text spotting in scene images on different datasets like ICDAR, ImageNet, and CIFAR10 etc. However, ICDAR 2013/15 is specially prepared to challenge the detection of text in videos. Finally, related performance metrics and future trends for video text spotting are comprehensively analysed.

#### Keywords:--

Recognition, text detection, caption text, tracking, natural scene text, Convolution NN, video preprocessing, feature descriptors

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# An Integrated Boost Parallel Flyback Converter for Multi Load Applications

### **BOLLARAM DIVYA**

#### Abstract:--

In this paper, Integrated Boost Parallel Fly-back Converter (IBPFC) with continuous mode is presented. The bulk capacitor will supply the voltage to two transformers. The two transformers turns ratio 1:1 The main advantage of this converter is high reliability, high power transfer efficiency and step up gain. Using this topology current stress on switches is reduced due to parallel operation. The parallel fly-back convertor and boost convertor dividing a common switch Q1; the input voltage VCB will be the parallel fly-back converter (PFC) is from the output of the boost convertor. The operating modes of IBPFC has been presented. A 24V input, 50Vand 50V outputs and 100W DC-DC isolated converter with 100 KHz of switching frequency is modeled using MAT-LAB Software and Simulation results have been presented.

#### Keywords:--

Integrated Boost Parallel Fly-back Converter (IBPFC), open loop control, continuous conduction mode (CCM).

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# Embedded Secured Authentication and speed limiting in various zones with alert system

### K KRISHNA KUMARI

#### Abstract:--

This framework primarily used to decrease the speed of the vehicles and increase the life of individuals from mishaps. Anyway it is minimal effort, adaptable, and strong framework to persistently screen and control dependent on buyer prerequisites, since it has low-control qualities, which empower it to be generally utilized in various zones. The goal of this is to reduce the speed of vehicles in different zones by utilizing a processor. And also a change is utilized to perceive the mischances. The speed of the vehicle can be diminished by utilizing ARM7 controller, ZIGBEE, IR sensors, GPS and GSM. Here we likewise utilizing Pulse rate observing, temperature and alcohol sensors are utilized to recognize the individual wellbeing pulse rate condition, temperature of vehicle and detects a person alcoholic or not, which make the environment as pollution free and also could able get the safety of the driver. Any issue with respect to the pulse rate condition or Vehicle condition sends the data to approved people through SMS. At the point when a vehicle goes into a busy zones, the IR sensors will recognize the vehicle and reduce the speed of the vehicle, Entry and exit status at the zones will show on the LCD. By sending a SMS through the cell phone to GSM which is put in vehicle we could capable of find the area of vehicle utilizing GPS. It will be extremely valuable when vehicle was theft;we could likewise stop the vehicle by sending SMS.

#### Keywords:

VANET, IR Sensor's, ZIGBEE, GSM and GPS.

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# International Conference on Advances in Signal Processing, Power,

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# An Inception towards better Big Data Clustering Technique

### **BOLLARAM DIVYA**

#### Abstract:--

The speedy emanating technology during past few year in the area of information technology is —Big Datal. Clustering is one of the crucial task in broad range of domains handling enormous data. This survey presents the various clustering approaches adopted for the effective big data clustering. Thus, this review article provides the review of 15 research papers suggesting various methods adopted for the effective big data clustering, like K-means clustering, Variant of K-means clustering, Fuzzy C-means clustering, Possibilistic C-means clustering, Collaborative filtering and Optimization based clustering. Moreover, an elaborative analysis is done by concerning the implementation tools used, datasets utilized and the adopted framework for clustering of big data. Subsequently an effective scheme must be developed to surpass present techniques for exceptional management of big data. Eventually the research issues and gaps of various big data clustering techniques are presented for benefiting the researchers for inception towards better big data clustering.

#### Keywords:

Big data, MapReduce, clustering, K-mean, C-mean.

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# A Survey of Medical Image Enhancement Techniques

## N.PRAVEEN BABU

#### Abstract:--

Medical image Enhancement is very crucial part to improve quality of medical images and to detect the diseases in the image. In this paper, a few image enhancement techniques used in literature are discussed. We also discussed different image quality parameters used to measure the quality of images. We also compared all the methods discussed in literature.

#### Keywords:--

Computed tomography images, denoising, image enhancement, and Image fusion.

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# Voltage Compensation Using Pv-Dvr with Sepic Converter

## T.KANAKIAH.

#### Abstract:--

This paper offers a Dynamic Voltage Restorer (DVR) is hooked up to Photo Voltaic (PV) cell array via SEPIC (Single Ended Primary Inductive Converter) converter for voltage (VL) compensation in distribution load method. Apart from the voltage compensation, the present DVR also lower the burden on utility grid. The control manner used on this paper is the minimal lower or injection of the voltage. The Perturb & realize (P&O) highest power factor monitoring (MPPT) algorithm useful to monitor the highest energy during the PV array. PV cluster is connects to SEPIC converter to expand the voltage score of the picture Voltaic (PV) cell array and elevated voltage given to DVR. Based on the case DVR compensate the voltage. The validate simulated results were awarded on this paper beneath one-of-a-kind load stipulations are simulated with aid of MATLAB/Simulink application.

#### Keywords:--

Dynamic Voltage Restorer, photo voltaic array, Perturb & observe MPPT algorithm, SEPIC converter.

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## Improvement of SAG under Different Fault Conditions N.PRAVEEN BABU

#### Abstract:--

The improvement of power flow in a distributed system can be achieved by the FACTS compensator that is D-STATCOM (DISTRIBUTION STATIC COMPENSATOR) also known as which is shunt connected, is explained in this paper. To reduced the Sag-in-voltageissues (power quality issue), a Distribution-STATCOM is used which is connected at PCC (Point of Common Coupling). The advantage of quick operation of Distribution-STATCOM makes the it more efficient and hence power flow is improved. Varied controllers are utilzed to operate the Distribution-STATCOM. To enhance the power flow, we are simulating and designing it with PI Controller. In distribution networks with linear balanced loads, thierpower flow can be increases atvaried fault conditions such as L-L Faults (Line to Line),L-G Faults (Line to Ground), L-L-G Faults, L-L-L-G Faults. These faults are studied and simulated output presented also calculating THD (Total Harmonic Distortion) with waveforms are and withoutDistribution-STATCOM Compensator. The harmonics and Sag-in-voltages due to LG, LLG & LLLG faults in this proposed system are reduced and we can achieve enhanced power flow. The reduction of faults and trhe value of THD (Total-Harmonic-Distortion) can be simulated and studied in MATLAB.

#### Keywords:--

DSTATCOM, PI, FAULTS, PWM.

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## Performance Analysis of CMOS and FinFET Based Adiabatic SRAM Cell at 32nm Technology

#### T.KANAKIAH

#### Abstract:--

In VLSI system design, Power consumption and energy dissipation of a circuit have become very crucial factors. There are different techniques to reduce the power and energy consumption of the circuit in which adiabatic technique is one amongthem. The power and energy recovery capability of the circuits can be optimized using adiabatic technique andpower consumed in VLSI circuits can be reused. SRAM (Static random-access memory) has good speed to access the data but it has more power dissipation. Hence SRAM cell with adiabatic logic has been proposed in both CMOS (180nm and 32nm) and FinFET (32nm) to reduce the power and energy consumption. This adiabatic SRAM cell operatessame as typical 6-T SRAM cell. SCRL (Split level charge recovery logic) is used to design SRAM cell's latch. The Monte Carlosimulation is also performed forboth CMOS and FINFET technologies using HSPICE and results shows FinFET based SRAM cell has 2.37 times less power consumption as compared to the CMOS based SRAM cell.

#### Keywords:--

Adiabatic logic, SCRL, FinFET, Monte Carlo simulation, HSPICE.

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### International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems *Kurnool, Andhra Pradesh, 11th & 12th January. 2019*

## Performance evaluation of multiple carrier scalar PWM Algorithms for Cascaded Multilevel Inverter fed Induction Motor Drive

#### T.KANAKIAH

#### Abstract:--

This paper investigates and compares various multiple carrier Pulse width modulation algorithms for three-level three-phase voltage source Inverter. Several algorithms for CMV reduction have been proposed in the literature. This paper analysis four various control strategies namely Common Carrier (CC), Inverted Carrier (IC), Phase Shifted (PS) and Inverted Phase Shift (IPS) for cascaded multilevel inverter fed induction motor drive. In SPWM, variable AC output voltage of inverter is produced by comparing a sinusoidal reference signal with triangular signal, where as Conventional SVPWM uses complex voltage vector for PWM control. It is observed that SVPWM algorithm makes it possible to the fundamental output voltage to increase 15.5% as compared with SPWM. More over Conventional SVPWM requires angle and sector information for calculating gating sequence of the inverter, a simplified SVPWM algorithm is also described, which does not require angle and sector calculation. The procedure for the generation of pulse patterns of these PWM algorithms via the simplified scalar approach with easy implementation is illustrated. With the proposed approach it easy to program for the generation of pulse patterns of various multi carrier based PWM algorithms. To validate the proposed work experimental tests has been carried out using dSPACE controller. Experimental study proves that using proposed algorithms reduction in common-mode voltage with fewer harmonics for a motor drive has been achieved.

#### Index Terms—

Cascaded inverters, multicarrier PWM, SVPWM, common mode voltage (CMV), Total Harmonics Distortion.

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## Software Engineering for Smart Healthcare Applications

#### NAVEEN KUMAR

#### Abstract:--

Software engineering has been used by software vendors and consultants in the development of quality health care applications ranging from electronic medical systems, patient record management applications to medical middleware devices. As a discipline, it has evolved over the last decade in the production of high-quality software across many industries. Healthcare applications demand unique expertise tailored to best project methodologies and software development models. Many health care providers argue that best software practices and user-centered design principles are vital to producing quality applications across all domains. Lack of focus on systematic software development process increases flaws in the implementation causing a loss regarding quality, cost, and trust. The survey paper seeks to analyze existing models in the area of Software Engineering and to propose best SDLC model for Smart Healthcare applications which focuses on quality improvement. This survey also includes identifying the research challenges of software engineering for smart applications.

#### Keywords

Software Engineering, SDLC, Software Applications, Smart Healthcare, Medical Services

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### International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication and Control Systems *Kurnool, Andhra Pradesh, 11th & 12th January, 2019*

## Energy Efficient Co-Operative Spectrum Sensing Using Genetic Algorithm and Partical Swarm Optimization: A Review

#### PAKA MALLESH

#### Abstract:--

Wireless technologies have grown rapidly and needs more spectrum resources to support numerous emerging wireless services. Spectrum Sensing in cognitive radio (CR) protects the Unauthorised user from the effect of pathetic interference that is caused by either cognitive users or other environmental parameters. In spectrum sensing there are two different challenges; first the CR has to detect channel under lower SNRs which increases the sensing time, and second is that among all CR nodes some nodes have experience the effect of deep fading and shadowing. So to solve this challenges Cooperative spectrum sensing is supposed to be used. But for CSS CRs needs extra energy to send the sensing result to the fusion center and receive the final decision from the fusion center. So this procedure increases the energy consumption. Therefore, CSS process may consume considerable energy from the battery of the CR node. Second-hand users (SU) of a cognitive radio station (CRN) are from healthy devices supplied by batteries, the sources of energy are relatively precious and it is desired that minimum power should be consumed from battery so it should be clear that one should use energy in a effective manner . In this paper different energy efficient algorithms are discussed like genetic algorithm and particle swarm optimization. Using this optimization techniques the overall energy consumption is reduced, and energy efficient cooperative spectrum sensing is done to maximize throughput.

#### Keywords:--

Cognitive Radio Network, Co-operative spectrum sensing, Genetic Algorithm, Particle Swarm Optimization

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## Survey on Classification Techniques in Data Mining K NAVEEN KUMAR

#### Abstract:--

Data Mining means a procedure to extracting the information out of large data. Data mining provides ways to discover hidden patterns in infinite amounts of data. These hidden patterns potentially are used to predict future extrapolation. Data mining approaches includes classification, association rule, clustering, etc. Data mining is applied in four stages such as data sources, data extrapolation / gathering, modeling and deploying modules. Classification is a method in data mining to predict the group membership of data instances. It's an method useful in data mining with vast applications for classifying the different types of data used in almost every fields. Classification is giving a class label to in determined set of cases. Supervised Classification is the group of possible classes which are well-known in advance. Unsupervised Classification; rules based classification, Decision trees &neural network.

#### Key words:--

Data Mining, Classification, Bayesian, Decision Trees, Neural Network.

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## International Conference on Advances in Signal Processing, Power,

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## Design of Step-up Inexact MAC (IMAC) Unit for DSP Applications

#### G SATYANARAYANA

#### Abstract:--

Digital Signal Processing is the processing of the analog signal into digital signal. Present epoch of Digital Signal Processor's need a rapid and very compacted processor's. The Digital Signal Processing enables the analog audio and video signals to process, transmit, store, reproduce and manipulate the information from one form to another form. But size of the system increases if the all the processing is to be done and as the size increases the delay also increases. Area of the system is very important parameter to be considered than the accuracy in the present constraint. Hence we concentrate on reducing the area and increasing the speed of the processor. Hence in this paper we state the concept of inexactness and we apply the same to some DSP processor application. This paper was designed using MIPS Verilog HDL. The design was synthesized and simulated in Xilinx 14.2 ISE. The power Calculations were calculated using Isim, a tool of Xilinx Xpower Analyzer.

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## Latest Power Management Technologies for Mobile Computing Devices PAKA MALLESH

#### Abstract:--

Windows Modern Standby (MS) is the modern Power Management model that enables the Smart phone like power management and responsiveness on laptops, personal computers. Modern standby provides enriched user experience similar to the modern smart phones. The new power management model (Connected standby) allows system to be connected while in standby there by saving the power. With Modern Standby, the system responds quickly, even while in standby, whenever there is a valid wake events. In this paper, we would also like to present the differences between legacy Standby and Modern standby, the advantages of Modern standby for the PCs, effective Validation and Debug Methodologies to validate these features.

#### Index Terms-

Connected Standby, Intel Platform, Personal Computers, Runtime Power Management

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## Combined Fuzzy Local Binary Pattern and Wavelet Transform Features for Defect Detection of11/33 kV Overhead Power Line Insulators

#### PUDARI BALARAJU

#### Abstract:--

The power line insulators are an important component of the power distribution system as consistent power delivery depends mainly on it. As the defected or damaged insulators on the electric poles leads to significant losses, there must be a regular monitoring system to check the insulator's condition. This requires taking pictures of the poles, sending them for processing, and applying pattern recognition for classifying the status of insulator into healthy or defective, and replacing the damaged insulator. The breakage condition of the insulators can be determined by the features extracted from the insulator images. The insulator images can be obtained from the pole image captured using a video camera. The features of corresponding insulator images are extracted from using Fuzzy Local Binary Pattern (FLBP), a variant of the Local Binary Pattern as well as the wavelet transform. The obtained features are given to SVM (Support Vector Machines) classifier which determines the status condition of the insulator and the efficacy of the proposed experimental results are validated. The hybrid model proposed in this paper, by combining both the feature vectors has resulted in better performance compared to when individual feature vectors are used for analysis. The automatic status determination of powerline insulators would reduce the human efforts to a larger extent and so the proposed insulator health condition monitoring system can be considered as a reliable method for insulator defect detection and the necessary follow-up mechanism.

#### Keywords:--

Feature extraction, classification, SVM, FLBP, Wavelet transform, pattern recognition.

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## Low Power and High Speed Synchronous Carry Generate Adder using Modified Gate Diffusion Input Technique

#### PAKA MALLESH

#### Abstract:--

Low power and high performance designs drew major focus in digital VLSI. In low-voltage and low-power applications, optimization of power dissipation and propagation delay of logic circuits is an important issue. Now a days, most of the high performance processors are built with arithmetic logic units in which the adders and multipliers are key components. The efficiency of these processors will be measured in terms of power dissipation, speed of operation. So, in order to develop low power and high performance processors, it is necessary to design the multipliers and adder circuits with required speed and power dissipation. This paper concentrates on design of a synchronous carry generate adder, generally called carry Look-ahead adder with low power dissipation and less propagation delay. The proposed design is implemented using a Modified Gate Diffusion Input technique in mentor graphics tools at 90nm technology.

#### Keywords:--

Power dissipation, Propagation delay, GDI technique, Carry Look-ahead adder.

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## A Survey on various methods and approaches for Sentiment Analysis

#### PUDARI BALARAJU

#### Abstract:--

Today people are depending on reviews or opinions of previous customers in doing online shopping, viewing movies and in social media. Also they are enthusiastic to give their opinions(views, feedbacks or ratings) on web. Some reviews are truthful and genuine. But some customers do not give genuine opinions. Some reviewers generate negative reviews to hike their products value and services for their profit in business. This way of creating fake reviews is known as Review Spam. It is important to develop techniques for detecting review spam. To perform review spam detection it is important for a researcher to know about Sentiment classification techniques, feature selection methods and machine learning techniques. In this paper, we present a systematic review of methods for preprocessing data ,feature selection methods, various machine learning techniques used in various papers are surveyed.

#### Index Terms

Sentiment Analysis, Opinion mining, Review Spam, Machine Learning.

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## Selection Criteria of Measurement Matrix for Compressive Sensing Based Medical Image Reconstruction

#### PAKA MALLESH

#### Abstract:--

The purpose of this article is to design a measurement matrix for a medical image based on compressive sensing in order to achieve a low-cost medical image. In Compressive Sensing reconstruction of an image can be done with a smaller number of samples than conventional Nyquist theorem suggests. Designing the measurement matrix should satisfy the following conditions: RIP(restricted Isometry Property) and incoherence. In this paper firstly, we apply DWT/DCT transformations on medical image, and then it uses Gaussian matrices, Bernoulli random matrices, Orthogonal random matrices, Hadamard matrices, Toeplitz matrices, and QC\_LDPC matrices to measure medical images, respectively. The compressed medical images are reconstructed by using different matching pursuit algorithms: OMP (Orthogonal Matching Pursuit), L1 algorithm and GBP (Greedy Basis Pursuit). Using the same amount of measurement, we select the matrix with the best reconstruction as a measurement matrix for medical images. The reconstruction PSNR values, SSIM values, CR values and reconstruction time were used to compare simulation results. The visual quality of reconstructed images is of prime importance for medical images. According to the experiment results, the visual quality of reconstructed images with OMP matching pursuit and DWT transform is better than other algorithms so that this paper selects Partial Hadamard matrices with DWT transformation and OMP matching pursuit as medical image measurement matrix.

#### Index Terms

Compressive sensing, medical imaging, measurement matrices, recovery algorithm

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## A Survey on Mobile Cloud Computing in Lightweight Secure Data Sharing

#### **MUDDAGONI GOUTHAMI**

#### Abstract:--

With the obvious nature of distributed computing, Smart telephones could store/recuperate particular information from anyplace at any of point. Therefore, those information security issue on adaptable cloud swings out to an opportunity to be continuously totally serious and hinders support the difference in the versant cloud. There need help liberal examinations that bring been provoked enhance those cloud security. Make that concerning delineation it might, those more fantastic and just them are not appropriate for helpful cloud since Mobile telephones simply have bound figuring property Furthermore control. Plans for low computational overhead are in the incredible essential to versant cloud arrangements.

In this paper, we suggest a lightweight information offering mastermind (LDSS) for versant scattered enlisting. It grasps CP-ABE, an entryway control progression utilized Similarly as An and just customary cloud condition yet changes those structure about right control tree to make it sensible to flexible cloud conditions. LDSS moves a liberal part of computational raised gets the chance to control the tree change for CP-ABE from mobile phones ought to outside go between servers. Furthermore, should reducing the client disavowal cost, it familiarizes trademark depiction fields for completing lethality forswearing, which is a thorny issue done extend constructed CP-ABE structures. The test goes something like the display that LDSS could viably diminish the overhead on the remote side at clients would give lion's share of the information in versant cloud conditions.

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## Joint Deblurring and Denoising of Hyperspectral Images with Pca and Total Variation K.ANANDA KUMARI

#### Abstract:--

Human vision is a great imaging framework that can catch and decipher light vitality originating from various sources in spite of the fact that it is restricted to noticeable light. There are various applications such as face recognition, medical imaging, agriculture, geology, surveillance, etc. that benefits by imaging several bands of the electromagnetic spectrum outside the visible range. The hyperspectral imaging techniques are capable of capturing hundreds of bands of the electromagnetic spectrum and thus, can be considered as the generalization of color imaging. In this paper, we propose a novel algorithm for hyper-spectral (HS) image deblurring with principal component analysis (PCA) and total variation (TV). We first decorrelate the HS images and separate the information content from the noise by means of PCA. Then, we employ the TV method to jointly denoise and deblur the first principal components (PCs). Subsequently, noise in the last principal components is suppressed using a simple soft-thresholding scheme, for computational efficiency. Trial results on recreated and genuine HS pictures are exceptionally promising.

#### Keywords:--

Hyper-spectral images, deblurring, principal component analysis, total variation

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## Estimating Degradation Factor by Performance Ratio of Rooftop Solar PV Plant

#### K.ANANDA KUMARI

#### Abstract:--

This paper analytically estimates the degradation factor of the grid tied rooftop Solar Photovoltaic plant. The effect of degradation and plant performance are evaluated and analyzed for 20kWp SPV plant commissioned on rooftop of EEE Block in CVR College of Engineering. The degradation analysis is done manually from the plant data extracted from web-interface for the year 2015 and 2016. As a first step in this analysis, the performance ratio of the plant is calculated for the two successive years. In the later step the percentage change in the plant Performance Ratio's are calculated. This analysis reveals that degradation of the plant performance is high in summer season because of increased ambient temperature. The degradation is observed to be high in May and less in February. The reasons for this sort of performance are analyzed. After analyzing the results, it is recommended that plant should be maintained and examined at periodic intervals for improved performance.

#### Keywords:--

Degradation factor, Grid-tied Solar PV Plant, Panel degradation, Performance Metrics, Performance Ratio (PR), Solar insolation, System Performance.

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## Optimal Power flow for IEEE-9 Bus System Using etap MUDDAGONI GOUTHAMI

#### Abstract:--

Generally the loads connected to the power system are inductive in nature which consumes reactive power. Power flow analysis is used to find bus voltage, real and reactive power flow across each bus. Optimal power flow analysis is used to reduce a system real and reactive power loss which in turn minimizes the fuel cost of the system. This paper compares load flow analysis and optimal powe flow analysis for IEEE-13 bus system using etap software.

#### Keywords:--

Real power, reactive power, optimal power flow, etap.

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## Design and Implementation of Traffic Density Controller using Wireless Communications

#### **MUDDAGONI GOUTHAMI**

#### Abstract:--

In large urban areas, vehicular traffic has been increasing day by day. As the number of road user's increase constantly and current resources & infrastructures being limited; a smart traffic control will become a very important issue in the future. This paper introduces a system which works with AVR Microcontroller interfaced with IR sensors and photodiodes which are used to detect density of traffic. In this model three LED's of different colors -RED, GREEN, YELLOW - have been used. For gauging the traffic density IR sensors have been used here and programming of the Microcontroller has been done on the basis of traffic density measurement. The microcontroller can be operated with the help of mobile app by connecting the controller with Bluetooth or Wi-Fi. This mobile app will on or off the traffic signals depending on the density of the traffic. This mobile app will allow the vehicles in high density traffic area to go first. So, this system solves problems like traffic jams, accidents etc and clear traffic for emergencies like ambulance vehicles and fire grade vehicles.

#### Keywords:--

AVR Microcontroller (ATMEGA 328), Bluetooth Module or Wi-Fi Module, IR Sensors

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## Design and Implementation of Smart Floor Cleaning Robot using Android App

#### PUDARI BALARAJU

#### Abstract:--

The advancements made in technology of robotics have made life of mankind very much easier and comfortable. This paper describes a smart floor cleaning robot that allows cleaning the floor by giving instructions to the robot. This robot makes floor cleaning process easy and fast utilizing a wireless robotic cleaning system. This wireless system consists of a transmitter application that runs on an android mobile app which allows the robot to follow commands given by the user through the transmitter app. The proposed robot consists of Arduino UNO controller which has fourteen digital input/output pins, robotic arm with cleaning pad with a water sprayer for efficient cleaning. The Arduino UNO, on receiving the commands from android device through Bluetooth receiver, decodes the given commands and controls the motors to achieve the desired path and direction.

#### Keywords

Arduino UNO; Android Phone; Bluetooth Module, IR Sensor, Motor Drivers

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## Study on various Sentiment Analysis Models

#### PAKA MALLESH

#### Abstract:--

Sentiment analysis, is the field of study that analyzes people's opinions, sentiments, attitudes as well as emotions towards entities such as products, services, organizations, individuals, issues, etc,. Sentiments and opinions can be analyzed not only at different levels of granularity, but also for different types of data, e.g., user-generated review data and social media data. Generally, the reviews are part of decision making process of consumers on product purchases. As a result, online reviews are constantly growing varying largely quality. in quantity, while in content Moreover, traditional methodstypicallyconsider overall sentiment analysis & aspect-based sentiment analysis in isolation, moreover then initiate a various methods to analyze either overall sentiments or aspect-level sentiments, but not both. From the traditional methods we observed that there exists naturally interdependency among the aspect-based & overall sentiment analysis problems. In this paper we studied various ways of performing sentiment analysis mainly aspect based, overall sentiment analysis and semantic based sentiment analysis

#### Keywords:

Sentiment Analysis, Opinion Mining, Sentiment, Semantic Aspects

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## A Scalar Based SVPWM and Dpwm Techniques for 3-Level Inverter Fed DTC of Open End Winding Induction Motor Drive

#### **B YELLAIAH YADAV**

#### Abstract:--

A scalar based pulse width modulated 3-level dual inverter fed Direct Torque Control of Open End Winding Induction Motor (OEWIM) drive is presented in this paper. In this scheme, only one inverter is operating at a time and the other clamped to dc bus. In scalar approach, modulating signal is generated by adding zero sequence signal to the sinusoidal reference signal. A simplified Space Vector Pulse Width Modulation (SVPWM) and various Discontinuous Pulse Width Modulation (DPWM) algorithms are obtained accordingly. Though SVPWM algorithm offers reduced harmonic content, switching losses were high, because inverter switches were operates continuously over the entire fundamental cycle. In DPWM algorithms, the switching losses are low compared to SVPWM. However, harmonic distortion in case of DPWM is slightly more than those in SVPWM case for higher modulation indices and the difference is more pronounced at lower modulation indices. The Total Harmonic Distortion in stator current of induction motor is determined and tabulated. The effectiveness of the present work is validated by the MATLAB simulation results.

#### Keywords:--

DTC, DPWM, SVPWM, THD.

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# Application of bird swarm algorithm for optimal allocation of renewable energy driven distributed generation

#### EGGADI KALPANA

#### Abstract:--

With the rapid increase in electrical energy demand and consumption of fossil fuels, electric utilities are looking towards the new green power technologies which utilize non-conventional energy sources like solar, wind and biomass for power generation. Distributed generation (DG) is the most popular and efficient technology that utilizes non-conventional sources. In this article, renewable energy driven DG technologies are proposed to meet the increased load demand and diminish the power loss in the distribution network. Identification of appropriate buses to place DGs in distribution system plays a crucial role in improving the technical and economic benefits of a DG. A new sensitivity technique, index vector (IV) method is used to locate the most appropriate node to connect DG. A new meta-heuristic optimization technique, bird swarm algorithm (BSA) is used to determine the optimal size of DG. Two most popular test systems, IEEE 33 & 69 systems are considered to test and validate the proposed method.

#### Keywords:--

Bird swarm algorithm, distribution system, distributed generation, index vector method, power loss minimization

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## Realization of Butterworth Low Pass Filter Design in Microstrip

#### PUDARI BALARAJU

#### Abstract:--

A low pass butterworth  $\pi$  shaped filter design is realized in Microstrip patch using IE3D software. The filter design is arrived at the cut off frequency of 2650 MHz with attenuation of 20 dB by selecting the FR4 substrate material as dielectric, and loss tangent as 0.02. The maximum meshing frequency is taken as 5000 MHz. The Microstrip patch size is taken as 25X15 mm<sup>2</sup> board. The 4<sup>th</sup> order low pass filter is designed and simulated. The results are nearly matching close to the designed values. At -3dB, the cut off occurs on 2660 MHz and at -19.48 dB, the attenuation falls for the 4990 MHz. The filter design is made on the patch for 24.3x11.2 mm<sup>2</sup> area. This compact design is useful in the communication field of microwave band of frequencies.

#### Keywords:

LPF, filter design, butterworth, microstrip, pass band

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## Dust-Reddening Studies near the Taurus Molecular Cloud

#### K KRISHNA KUMARI

#### Abstract:--

We have studied the dust-reddening in the Taurus molecular cloud with Schlegel et al. 1998, Planck Collaboration et al. 2014 and Green et al. 2015 all-sky dust maps. We find that both Schlegel et al. 1998 and Green et al. 2015 maps overestimate the reddening in the region and the Planck Collaboration et al. 2014 data is the better candidate to model dust-distribution and thereby studying star-formation processes in the region.

#### Keywords.

Dust-reddening-molecular clouds.

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## Cloud Storage Auditing Protocol for Security Key Updates

#### K KRISHNA KUMARI

#### Abstract:--

As Today's reality relies upon progressively refreshed data, the most ideal approach to store and refresh data is cloud storage benefit. The basic issue for putting away data in cloud storage is its security however every individual customer holds his/her own mystery key the key administration must be steady and is compelling to the client in various circumstances, so key upgrade of outsourcing is essential. The key redesigns can be dealt with by some approved controller known as TPA (Third Party Auditor) to diminish key overhaul trouble from client. It is the dependable of TPA presently, to spare key overhauls and makes key updates straightforward for customer. In existing arrangements, customer needs to refresh key without anyone else's input at occasional occasions which prompts issue for the individuals who need to focus on their principle part in the market or with the general population who have restricted assets. This paper encases a study on the key presentation issue in cloud storage is planned where the primary objective is that distributed storage settings and key updates are securely outsourced to some outsider where TPA can just hold scrambled adaptation of customer mystery key formalizing security display. Security verification can be examined and ensure that plan is secure and effective.

#### Keywords-

Outsourcing computation, cloud storage auditing

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## Varible Blocksize Motion Estimation for H.264

#### EGGADI KALPANA

#### Abstract:--

Digital video coding plays a vital role in Transmission of videos. A still image will not contain any temporal content but possesses only spatial information but video does. Main key point for video compression is Motion Estimation. The clarity of the reconstructed video depends on how best we estimated the motion between two successive frames. Motion Estimation is done by Block matching algorithms. In this paper six algorithms are explained & applied on different styles of videos like slow motion, medium motion, fast motion. The comparison results will give the summary and the best algorithm suitable for different category of input videos.

#### Keywords

ME, EBMA, ARPS, DS, SAD, PSNR

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## A Novel Technique for Buffer Based Advanced Video Coding

#### **B YELLAIAH YADAV**

#### Abstract:--

Day by Day demand for video coding is enormously increasing. One of the major areas of the video communication application is video streaming i.e video on demand. Streaming meant for simultaneous transmission as well as playing. The frames that are stored in the buffer are playing meanwhile the rest of the frames are filling the buffer. For the continuous playing of the video with out any interruption the rate of filling the buffer must be greater than the rate of playing the frames. If not it leads to buffering. How fast the buffer is filling depends upon the available bandwidth. In this paper a new algorithm introduced which will work on adaptive video coding depends on the percentage of the buffer capacity.

#### Index Terms

PSNR, SP, Buffer, ARPS, ES, NTSS, DS

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## Non-Subsampled Contourlet Transform based Multimodal Medical Image Fusion and its Performance Evaluation

#### M HARI PRASAD

#### Abstract:--

Integration of medical images from different sensors can produce information that cannot be obtained by viewing the images separately. In this paper, the image fusion is performed using non-subsampled Contourlet transform (NSCT) which is a multi-resolution, shift-invariant, and multi-direction image decomposition transform. First, the decomposition of input medical images into low frequency and high-frequency sub-bands by NSCT is implemented. Then, by considering the significance of the low and high-frequency coefficients, a new selection method is implemented in different ways. This scheme selects the transform coefficients of the low-frequency band with local energy based rule and the coefficients of high-frequency bands are selected with a weighted sum-modified Laplacian rule. Finally, the image is recovered by inverse NSCT implementing on merged coefficients from all low-frequency and high-frequency bands. The proposed fusion scheme is compared with other traditional image fusion methods in the transform domain. The results can show the effectiveness of the proposed fusion framework through visual and quantitative measurements analysis.

#### Keywords

Nonsubsampled contourlet transform, Computed Tomography image, Magnetic resonance Imaging, Local energy, Modified Laplacian.

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## A Novel Discrete Wavelet Based Protective Relaying Scheme for 3-Phaseinduction Motor K.ANANDA KUMARI

#### Abstract:--

This paper has proposed a wavelet approachwhich diagnoses the stator inter-turn faults and L-G faults of a three induction motor. This technique is based on the analysis of stator current under both healthy and faulty condition. Here High frequency universal model of three phase induction motor simulated by using SIMULINK/MATLAB. By using the wavelet Multi Resolution Analysis, the approximation coefficients and detail coefficients of the faulty voltage and current waveforms of the machine are generated under different fault conditions. From the generated approximation coefficients the severity of the fault has been determined. Depending on the energies of the signal the fault diagnosis can be done. The proposed protection scheme is reliable and fast for various fault inception angles.

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## l-Semi -supervised clustering for Network Intrusion Detection

#### M HARI PRASAD

#### Abstract:--

To identify and detect network intrusion attack is a challenging problem in the network communication. The major problem with these attacks is that they can exploit the network vulnerabilities and steal the sensitive information from the organizations. These intruders use polymorphic approaches to masquerade their identity to detect. In recent times, many supervised and unsupervised Machine Learning algorithms have been proposed to detect network attacks. Supervised learning requires labeled information to build a classifier. Indeed it requires do-main experts to label each attack. These issues are addressed by semi-supervised learning (SSL) approach where it builds a classifier from few labeled datasets. This paper proposes a novel leader based SSL approach by using labeled and unlabeled patterns to improve the performance of Intrusion Detection Systems (IDS). It has two step approaches- the first step it derives a set of prototypes by using a fast-clustering method along with constraints called the single link method in the presence of a few labeled data with respective constraints. The experimental results are obtained from the standard dataset NSL-KDD which is an extension of KDDCUP-99 datasets where the proposed constrained leader-based SSL method achieved better accuracy even with few labeled training patterns.

#### Keyword:--

Semi-supervised, Intrusion detection, Single link clustering, Machine Learning, Intrusion Prevention system

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## Use of Clustering Sentiments for Opinion Mining: An experimental analysis

#### K KRISHNA KUMARI.

#### Abstract:--

In E-commerce the social media network analytics are in a key position for the extraction of a service or product information. Opinion mining is now the key ingredient for social network analytics. In current study we study opinion mining process in networks while different kind of documents are dealt with that are opinionated & a formal discussion on the challenges for sentimentanalysis via social networks is being updated. The social network twitter has now become a huge online platform which has millions of people with their opinions shared as a social activity. One major concern is how to get reviews for products on the basis of its features. The application of the K-Means algorithm on a dataset sample from twitter and twitter dataset which will be clustered by different opinions in context of various product features and has been evaluated along with explanation by the hand of a machine learning tool.

#### Keyword:--

Sentiment Analytics, K-Means algorithm, twitter, opinions.

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## Semi-Automation of Libraries

#### G SAI KUMAR

#### Abstract:--

In this paper we deal with the library management system. From the ancient times there are numerous updating's in the system but with the current trends in technology a semi-automated system is what we propose to minimize the time usage and lessen the cost burden for the institutions or the government to maintain the libraries in a most efficient manner. Like railways we will also make a selfissue counter for the library books. This will lessen the time for searching and issuing of the book from the libraries.

#### Keyword:--

Technology, Library, Automation, Efficient.

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## Advancing knowledge on Regulating and saving of the Animals Health with Sensor and Networks through IoT

#### EGGADI KALPANA

#### Abstract:--

This paper introduces the outline, organization and experimental investigation of a web of things (IOT) framework, which is utilized to screen and ensure the living condition of the natural life. With a specific end goal to make the framework address the issues of useful applications and adjust to the nearby different landform trademark, the correspondence module of the framework is made out of the correspondence arrange. Particularly, the sub network built by the low power hubs is just fueled by released batteries. The Health and the execution of vitality sparing plan for this kind of system is vital on the grounds that it will affect the lifetime of the entire framework. Accordingly we present a power administration plot which can decrease the vitality consumption of the framework successfully.

#### Keyword:--

IoT, CoAP protocol, RFID, Network, ZIGBEE, chips.

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## A Review of Bigdata Privacy Preservation Methods

#### YEDLA RAMADEVI

Abstract:--

Big data is a collection of large and complex data sets that cannot be stored and processed using traditional data processing systems. Hence big data requires high computational power and storage and big data uses distributed system. Big data Analytics means analyzing hidden data patterns from the large data sets. The data sets are collected from various sources i.e. social media, Business sector, healthcare, data governance, various institutions, etc. So, privacy and security is main concern in big data. This paper mainly focuses on I anonymity techniques for preserving the privacy of micro data. This research aims to highlight three of the prominent Anonymization techniques used in medical field, namely k-anonymity, l-diversity, and t-closeness.

#### Keyword:--

Big data, Privacy, security, Data Anonymization-anonymity, 1-diversity, t-closeness.

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## Detection Techniques for Selective Forwarding Attack in Wireless Sensor Networks

#### **MUDDAGONI GOUTHAMI**

#### Abstract:--

A Wireless Sensor Network (WSN) consist of sensing area, base station, internet and user which can measure and predict temperature, sound, wave, vibration, pressure etc. As the transmission of data is involved in WSN and Transmission Control Protocol/Internet Protocol (TCP/IP) is used for sending the data to the base station. The security of transmitting the data is crucial as the data contain precious information. The attacker can attack any layer of TCP/IP protocol. The network layer may prone to selective packet dropping attack, Sybil attack, Wormhole attack, Black-hole attack and Denial of Service (DOS) attack. These kinds of attacks can be overcome by using key management process. The communications between the nodes are only possible through these keys. The security of data transmission can be increased by using key environment in wireless sensor network. The number of detection techniques based on Key management process is discussed in this paper. These techniques are Public Key Encryption (PKE), Rivest Shamir Adelmen (RSA), ELGAMAL and Chinese Reminder Theorem (CRT) based RSA. In this paper, detailed study for these techniques on the basis of storage space required, energy consumption and time consumption for key exchange parameters has been discussed

#### Keyword:--

Attacker node, Sensor node, Wireless sensor network.

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## An Improved Stream Processing Approach

#### YEDLA RAMADEVI

#### Abstract:--

Migration of Legacy applications into modern Cloud, IOT architecture are challenging tasks and many researchers are showing interest to build modern Real time cloud and IOT based applications like smart cities, Video mining, Health care, Industrial event monitoring and many more for modern human life. Such applications should require efficient online data streaming techniques to process large amount of unstructured online data streams instead of offline. Modern customer centric applications with different verticals are looking for distributed and horizontal data streaming approaches. Many real time streaming approaches are emerging to utilize or process large real-time data by replacing legacy centralized scenarios which are causing more memory utilization, delay and fault tolerance. In this paper we present common models and architectures for real time utilization of cloud and IoT based application stream processing. Utilization of the real-time data of IoT/Cloud applications are possible with collective streaming techniques of network, data processing. In this paper we are focusing on improving stream processing techniques, limitations and future research directions for real-time stream processing.

#### Index Terms

Big Data, Big Data Processing, Stream Processing, IoT.

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## Full Reference-Image Quality Assessment with Global and Local Image Regions for Visual Quality Perception and Optimization

#### **BOPPANNI SWETHA**

#### Abstract:--

Image Quality Assessment (IQA) by using mathematical methods is offering favorable results in calculating visual quality of distorted images. These methods are developed by examining effective features that are compatible with characteristics of Human Visual System (HVS). But many of those methods are difficult to apply for optimization problems. This paper presents DCT based metric with easy implementation and having mathematical properties like differentiability, convexity and valid distance metricability to overcome the optimization problems. By using this method we are able to calculate the quality of image as a whole as well as the quality of local image regions.

#### Keywords:

Human Visual System, Image Quality Assessment, Image quality optimization problem.

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### Accident Detection and Alert System

### **MUDDAGONI GOUTHAMI**

#### Abstract:--

As the usage of vehicles is increasing drastically, the hazards due to vehicles is also increased. The main cause for accidents is high speed, drunk and drive, diverting minds, over stress and due to electronic gadgets. This paper deals with accident detection system that occurs due to carelessness of the person who is driving the vehicle. This introduces accident alerting system which alerts the person who is driving the vehicle. If the person is not in a position to control the vehicle then the accident occurs. Once the accident occurs to the vehicle this system will send information to registered mobile number.

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### Comparison Study of Active Noise Cancellation

### **B YELLAIAH YADAV**

#### Abstract:--

In this paper, the performance study of —Active Noise Cancellation (ANC) system in the presence of AWGN has been performed using several algorithms such as Least Mean Square (LMS), Normalized Least Mean Square (NLMS) and Filtered x Least means square algorithms (FxLMS). For speech data, ANC system performance is verified by calculating MSE against distinct variable parameters like number of iterations, filter order (M), step size (mu), and Signal to Noise Ratio (SNR). It is noticed that to achieve minimum MSE, FxLMS algorithm outperforms in comparison with other algorithms. A comparison table is prepared based on simulation results for three algorithms using MATLAB tool.

#### Keyword:--

ANC, LMS, NLMS, FxLMS, Adaptive filter.

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# Techniques for Detection and Classification of Brain Tumor from MRI Images

### **BOPPANNI SWETHA**

#### Abstract:--

Brain tumor is one the major cause to death among the people in the world. It can effect at any age of the people. Early detection and diagnosis of the brain tumor reduces the mortality. MRI is the majority preferred screening modality of detection of tumor in brain. Manual detection of tumor from brain MRI images causes misidentification and misclassification which leading to increase the false rate and reduces the accuracy of tumor detection. An automatic brain tumor detection technique can reduce the false finding rate and increases the accuracy of tumor detection from MRI images. In this paper, we proposed different techniques of tumor detection and classification from brain MRI images.

#### Index Terms

Brain Tumor Detection, FCM, K-Means Clustering, Otsu's thresholding

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# Microstrip Antenna Design for Low Power Cognitive Radio Applications

### YEDLA RAMADEVI

#### Abstract:--

Wireless Communication Antenna proposed for cognitive radio applications is presented in this paper by furnishing the design, simulation, and its radiation characteristics. This antenna is simulated under the numerical analysis of IE3D electromagnetic simulator. It shows -12dB return loss, gain of 6 dBi and maximum efficiency of above 60% at 2.40 GHz and 3.40 GHz. This antenna suits in the place of small area and produces radiation in S-band of microwave frequencies.

#### Keyword:--

Cognitive Radio, Wideband, UWB, Reconfigurable, Narrow band Ante

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