**International Conference on Recent Trends in Computing**

**ICRTC - 2017**

14th & 15th December, 2017

Organized by
**Department of Computer Science Engineering**
**SRM Institute of Science and Technology**
**Delhi - NCR Campus, Ghaziabad, Uttar Pradesh, India.**
In Association with
**Melange Publications**
**Puducherry, India.**

# Souvenir of

# INTERNATIONAL CONFERENCE

# ICRTC-2017

## INTERNATIONAL CONFERENCE ON
## RECENT TRENDS IN COMPUTING

14th & 15th December, 2017

**Organized by**



**DEPARTMENT OF COMPUTER SCIENCE ENGINEERING**

**SRM INSTITUTE OF SCIENCE AND TECHNOLOGY**

**DELHI - NCR CAMPUS, GHAZIABAD**

**UTTAR PRADESH, INDIA**

**In Association with**



**MELANGE PUBLICATIONS**

**PUDUCHERRY**

# MESSAGE FROM CHIEF GUEST & KEYNOTE SPEAKER



## Md. Shahid, Scientist

## Aeronautical Development Establishment

## DRDO,  Bangalore

I am pleased to note that the International Conference on Recent Trends in Computing (ICRTC-2017) is being organized by SRM Institute of Science and technology, NCR Campus, Ghaziabad, UP. The International Conference is a multidisciplinary event that covers the entire stream of Engineering.

This conference brings together Academicians, Research Scholars, and Engineering Students from different parts of India and gives them a wonderful opportunity to get and share new ideas. I firmly believe that the conference would give a great chance to showcase the participant's talents.

I congratulate the ICRTC 2017 organizers for their passion with which they have gone about organizing this conference.

I wish the conference a great success!

**Scientist**
**DRDO, Bangalore.**

# MESSAGE FROM CHANCELLOR



## Dr. T.R. PAARI VENDHAR

I am extremely happy to know that the Department of Computer Science and Engineering, SRM Institute of Science and Technology, Delhi-NCR Campus , Modinagar, Ghaziabad is organizing a two days programme of "International Conference on Recent Trends in Computing" (ICRTC-2017) , in association with Melange Publications, on 14$^{th}$ and 15$^{th}$ Dec 2017.

This conference is a forum for researchers and industrialists to present and discuss recent developments in Science and Technology in general and Computer Engineering in particular. The theme "Recent Trends in Computing" is much appreciated, since it brings tremendous amount of innovative trends and new applications in this area. Computing are all pervading - Architecture, Algorithms, Wireless sensor networks, Software Engineering, Bio-medical systems, Vision systems, Mobile systems and to name a few.

I wish the organizers all success in their endeavor and believe that the conference not only fulfills its primary purpose of imparting knowledge to the attendees but also helps in inculcating a basic respect for this branch of Science and Technology among students, teachers, and researchers.

**Chancellor**
**SRM Institute of Science and Technology.**

# MESSAGE FROM DEPUTY REGISTER



## Dr. S.VISWANATHAN

*"Reading makes a full man; conference a ready man; and writing an exact man"*
*- Francis Bacon*

I am deeply enlightened to welcome all the participants to the "International Conference On Recent Trends In Computing" (ICRTC-2017) an 2 days programme on 14th & 15th of Dec-2017 organized by Department of Computer Science & Engineering, Delhi NCR Campus Modinagar Ghaziabad UP.

Organizing the conference is mainly to build a common platform for the cross exchange of ideas and innovation for the betterment of society. Today, the world is emerging into new technologies which enhances the human culture, social status and empowers the knowledge in to various dimensions. Particularly the "Mobile Technology" transforms the people's behavior and makes them to conceptualize the new trends, which is happening around the globe with finger touch.

I congratulate one and all in the organizing team members and wish them all success for the Endeavour.

**Deputy Registrar**
**SRM Institute of Science and Technology.**

# MESSAGE FROM DIRECTOR



## Dr.(Prof.) MANOJ KUMAR PANDEY

It is a matter of immense pleasure that the Department of Computer Science and Engineering , SRM Institute of Science and Technology , Delhi-NCR Campus , Modinagar  is organizing a two days "International Conference on Recent Trends in Computing" (ICRTC-2017)  in association with Melange Publications  on 14<sup>th</sup> and 15<sup>th</sup> Dec-2017.

The convergence of recent scientific and technological activities provides unique opportunities and an infrastructure for both theoretical and applied sciences. However, specific environments for constructing knowledge are needed. In such environments, knowledge media should bring together the technology and learning theories to form meaningful settings for learners with different academic, administrative and support needs.

This conference aims to bring together various dignitaries in the field of Computing and allow them to share their views, ideas and exchange their thoughts. It helps with each other in making a greater contribution to this Science and Technology innovation.

 I extend my heartfelt greetings to the delegates coming from different places across the globe and my best wishes to the organizing team.

**Director**
**SRM Institute of Science and Technology.**

# MESSAGE FROM HEAD OF THE DEPARTMENT



## Dr. Prof. R.P.MAHAPATRA

It is my great pleasure to welcome you all to the "International Conference on Recent Trends in Computing" (ICRTC- 2017) in association with Melange Publications , on  14$^{th}$ and 15$^{th}$ Dec 2017 at SRM Institute of Science and Technology, Delhi-NCR Campus, Modinagar.

Over the past seven years, ICRTC has provided a cross-disciplinary venue for researchers and practitioners to address the rich space of recent trends in engineering and Technology. The two days of Conference will provide ample opportunities for discussions, debate, and exchange of ideas and information among conference participants.

The conference has been organized by CSE Department and it would not have been possible without the enthusiastic, encouragement and hard work of team members of  ICRTC-2017 and participants who have made their presence in this conference with full innovative ideas.

I am thank full for all the delegates, researchers, authors and others for having taken their precious time with us during two days conference.

**Head of the Department**
**Computer Science and Engineering**
**SRM Institute of Science and Technology.**

# MESSAGE FROM CONVENER



## Mr.M.MOHAN

It gives me immense pleasure to welcome you all attendees to "International Conference on Recent Trends in Computing" (ICRTC-2017) in association with Melange Publications, on the 14th and 15th Dec 2017.

The field of Science and Technology has immense scope for contribution to the Research and Development. The discussions made in the conference would have a great impact on the entire society for the development of a country.

It has been very heartening to observe all the committees working in ICRTC-2017 towards making this convention a great success. We aim to take the next step towards that goal through this convention.

.       I sincerely hope and believe that the conference will be a platform to exchange great ideas and experiences and would create a positive synergy among the participants.

I am so honored to be the convener for ICRTC-2017 and once again welcome you all to the grand event and hope you all will have awareness.

**Convener**
**SRM Institute of Science and Technology.**

# MESSAGE FROM PUBLICATION CHAIR

## S.V.MANIKANTHAN
**DIRECTOR**
**Mélange Publications**

Dear Authors, Reviewers and Readers,

It gives me great pleasure to welcome you to International Conference on Recent Trends in Computing  (ICRTC-2017) which I have acted as Publication Chair.

Editorials and commentaries play a key role in exploring more contentious issues in a balanced way, allowing the reader to make an informed decision on how or whether their clinical practice should be altered. It is important we have a good balance of different article type within the publication. These papers underwent a rigorous two-round review process and were recommended for acceptance to be published by the editorial board of the ICRTC. It helps to improve the overall quality and visibility of conference publications through a rigorous review. This objective clearly has been achieved reading through this special issue. ICRTC should lead to a timelier exchange of new ideas, foster rapid dissemination of recent works via an integrated forum for both publications and presentations, and further expand and grow our community. Many individuals have committed their time and effort and I would like to thank them for their excellent work.

Lastly, I should thank all our submitting authors, Dignitaries who have toiled in the production of their work, and have chosen International Conference on Recent Trends in Computing in support with Melange Publications they would like to publish in. The success and reputation of ICRTC reflects the outstanding work by our reviewers and authors who are dedicated to publication of only the best quality papers.

**Publication Chair**
**Melange Publications.**

# ORGANIZING COMMITTEE

# PROGRAMME SCHEDULE
## 14th December 2017

| | |
|---|---|
| REGISTRATION | 08.00 AM - 09.30 AM |
| INAUGURAL FUNCTION | 09.30 AM - 10.00 AM |
| KEYNOTE SPEAKER SESSION | 10.00 AM - 11.00 AM |
| TECHNICAL  SESSIONS -I | 11.00 AM - 01.00 PM |
| LUNCH | 01.00 PM - 02.00 PM |
| TECHNICAL  SESSIONS -II | 02.00 PM - 04.00 PM |
| VALEDICTORY FUNCTION | 04.15 PM - 05.00 PM |

# International Conference on Recent Trends in Computing

## (ICRTC-2017)

## CONTENT

# International Conference on Recent Trends in Computing

## (ICRTC-2017)

| SI.NO | PAPER ID | TITLE | AUTHOR NAME | PAGE NO |
|---|---|---|---|---|
| 49 | EC-24 | To Study High Performance Analysis of Surround Gate SOI MOSFET | ArjimandAshaf | 42 |
| 50 | EC-26 | A Study on Electrical Characterization of Surface Potential and Threshold Voltage for Nano Scale FDSOI MOSFET | Chandra Shakher Tyagi | 43 |
| 51 | EC-10 | Continuous Telugu speech recognition by Joint Feature extraction of MFCC, MODGDF and DWPD techniques by PNN classifier | Vinod Kumar Sharma | 44 |
| 52 | MATH-02 | A Study On Graph With DESMOS Through ICT In Diploma In Elementary Education of Tamil Nadu State Board | Mr.P.Charles Paul | 45 |
| 53 | IT-01 | Planning and Estimation Techniques in Agile Methodologies | Arnika | 46 |
| 54 | IT-02 | Railway Control If Any Obstacle Limiting The Visibility of Signal Using RF | Sumit Bhardwaj | 47 |
| 55 | EE-01 | Neural Network BasedMonitoring, Protection & Fault Detection of Induction Motor Using PLC | Devendra Somwanshi | 48 |
| 56 | EE-02 | Closed Loop Controlled Boost Converter using a PID Controller for Solar Wind Power System Installation | Prakhar Sharma | 48 |
| 57 | EE-03 | A Hybrid Krill Herd-Genetic Algorithm Based Transient Stability Enhancement of Coordinated PSS and SSSC Controller in Multi-Machine Power System | A. Kathiravan | 49 |
| 58 | CS-50 | Comparative Study of Image Enhancement Techniques Using Histogram Equalization on Degraded Images | Shalika Arora | 50 |

| SI.NO | PAPER ID | TITLE | AUTHOR NAME | PAGE NO |
|---|---|---|---|---|
| 59 | CS-24 | A Comparative Study of Checkpointing Algorithms for Distributed Systems | Bal Krishna Saraswat | 51 |
| 60 | CS-62 | Validating the performance of the HVAC system for Commercial Buildings | Swati Goel | 52 |
| 61 | EC-27 | Transmission of Data,audio signal and text using Li-Fi | A. Vinnarasi | 52 |
| 62 | EC-28 | Current Generation For An Electric Truck Using Speed Breaker And T-Box | S.T.Aarthy | 53 |
| 63 | EC-29 | Linearity Concerns of OFDM | Kolangiammal.S | 53 |
| 64 | CS-46 | Efficiency of Unstructured Data: A Defiance Perspective | Tejeshwari Singh | 60 |
| 65 | CS-63 | Identity and Access Management using Boto and JSON | S. Adhirai | 61 |
| 66 | MATH-04 | Analysis of Green Supply Chain Inventory Management For Warehouse With Environmental Collaboration and Sustainability Performance Using Genetic Algorithm | Ajay Singh Yadav | 62 |
| 67 | CS-65 | An Advanced Dynamic Benchmarking: An Effective and Scalable Method for Performance Comparison of Various Cloud Service Providers | S. Adhirai | 63 |

# Semantic Web: Golden Era of Information

**[1]Prakhar Agarwal, [2]Shivani Jain**
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**Paper ID: CS-07**

Semantic Web is the extension of existing web that allows well defined expressions for the meaning of information which can be understood by computers and people both. In this paper we are doing study on semantic and is our review paper. Semantic web is a recommended development project by W3C (World Wide Web Consortium) which focuses on the enhancing of information search by keeping the facts in structured form using eXtensible Mark-up Language (XML) and marked in such a way that it can be understand by the system. To make the development of semantic web promising, new international standard is developed for exchanging of ontologies called OWL Web Ontology language. In XML we just provide tag of the model and store data in the hierarchy without its meaning, that's why the computer cannot be able to process the data but in Semantic Web user can provide with a definition so that the computer can better recognize its meaning and provide with the better displaying of information. A crux of semantic web is that it works on the definition of the ontologies. Ontologies are responsible for re-usability and sharing of information. Semantic Web provides with a shared language which has stored data in the non-ending linking of distinct databases which provides data related to the real world objects. RDF is a common language for semantic web and is responsible for the collection of data on web and assembles different database from diverse sources and SPARQL is there for linking of databases for unifying documents. Thus, semantic web is the well-structured data web that relates all the data that present on the web and understands them to provide the exact display requested by the end user.

# Automation and Detailed Analysis of Subnetting Problems Using Mathematical Modeling

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**Paper ID: CS-08**

The existing subnetting techniques require us to list all network ranges one by one by setting one of the bits to on or off. It is always a cumbersome task to represent the network ranges in binary and later converting it to decimal. The objective is to develop an application to automate the process of by displaying all the information of the network (pertaining to subnetting) that one needs to know. The applications of subnetting are ubiquitous in the realm of networking. The mentioned approach presents much easier way of designing networks by outlining subnets through the network. This approach, however, insures to bring solutions to more than 95% of the subnetting problems. There are a number of ways in which this particular approach can be molded but the beauty is that all we have to care about is one unique outcome because that is what captures the essence of the network. Therefore, solution to any subnetting problem can be crosschecked through online resources. Network traffic control, congestion avoidance, preservation of address space and enhanced network security are amongst the most remarkable advantages of segregating the network.

# Cost Aware Genetic Optimization for Task Allocation in Cloud Infrastructure

[1]**Manisha Gupta,**[2]**Anurag Jain**

[1,2]Department of Computer Science Engineering,
Radharaman Institute of Technology, Bhopal

**Paper ID: CS-09**

Cloud computing is a reliable computing platform for large computational intensive or data intensive tasks. This has been accepted by many industrial giants of software industry for their software solutions, companies like Microsoft, Accenture, Ericson etc has adopted cloud computing as their first choice for cheap and reliable computing. But which increase in number of clients adopting this there is requirement of much more cost efficient and high performance computing for more trust and reliability among the client and the service provide to guarantee cheap and more efficient solutions. So the tasks in cloud need to be allocated in an efficient manner to provide high resource utilization and least execution time for high performance, at the same time provide least computational cost. Many resource algorithms are been proposed to improve the performance, but are not cost efficient at same time. Algorithms like genetic, particle swarm and ant colony algorithm are efficient solutions but not cost efficient. So to overcome these issues, we have proposed an learning based cost efficient algorithm for cloud Infrastructure. Proposed algorithm uses genetic algorithm for cost efficient task allocation to minimize cost and high utilization to provide better QoS (Quality of Service) to the client. Proposed strategy experimental results shows better performance in term of execution cost, execution time, scheduling time as compared to existing proposed task allocation algorithm.

# Novel Additive Increase and Multiplicative Decrease Algorithm For Congestion Control in TCP

**[1]KM. Avni Yadav,[2] Sachin Kumar**

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**Paper ID: CS-16**

TCP (Transmission Control Protocol) uses this approach for calculating the sending rate is AIMD. This process contains the following such as increasing the transmission rate (window size), probing for usable bandwidth and this process continues, until the loss occurs. With the rule of additive increase the size of congestion window is being increased in a fixed amount.After the detecting of the congestion every, the transmitter decreases the transmission rate by a multiplicative factor. Keep following the same pattern of increasing and decreasing until equilibrium is reached. The problem of fairness is the most common in AIMD ,which should be solved. On the other hand, TCP Vegas avoids the occurrence of congestion by detecting the bandwidth of network. The biggest advantage of TCP Vegas is the congestion mechanism which relies on RTT.RTT is good in providing more accurate It provides a more accurate ways to predict available bandwidth and all this helps in making TCP Vegas to be a fair and efficient protocol. In this work we proposed a new Tax based AIMD method for TCP congestion Control.

# Framework For Improving Test Case Selection And Randomized Prioritization

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**Paper ID: CS-19**

Software once developed is subject to continuous changes. Software Regression Testing thus can be used to reduce the efforts of testing the software by selecting only the required number of test cases and ordering them to test the software after changes have been made to it. In order to improve the fault detection rate, the order of execution of these tests is important. Here is when the test case prioritization comes into picture where in, the fault detection rate during the working of any software has to be improved. The test case prioritization sorts the test cases based on certain criteria in order to ensure efficiency in fault detection. An improved rate of fault detection during testing can provide faster feedback on the system under test and let software engineers begin correcting faults as early as possible. In this paper, an approach for test case selection is proposed which takes into consideration the effect of three parameters History, Coverage and Requirement all together in order to improve the selection process. This will also ensure that the rejection of some efficient test cases is reduced when compared to the selection process in conventional methods, most of them making use of a single parameter for test case selection. Efficiency in Test case tie handling during prioritization of test cases is another aim behind this work. Results indicate that the proposed technique is much more efficient in terms of selecting and prioritizing the test cases when compared to conventional techniques, thereby improving fault detection rate.

# Framework for Optimizing Test Cases in Regression Testing

**[1]R.P Mahapatra, [2]Aparna Ranjith, [3]A. Kulothungan**

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**Paper ID: CS-20**

Software once developed is subject to continuous changes. Software Regression Testing thus can be used to reduce the efforts of testing the software by selecting only the required number of test cases and ordering them to test the software after changes have been made to it. In order to improve the fault detection rate, the selection of efficient test cases and order of execution of these tests is important. Here is when the test case selection comes into picture where in, the fault detection rate during the working of any software has to be improved. The test case selection process will find the most efficient test cases which can fully functionally test the software that has been modified. This indeed will contribute to an improved fault detection rate which can provide faster feedback on the system under test and let software engineers begin correcting faults as early as possible. In this paper, an approach for test case selection is proposed which takes into consideration the effect of three parameters History, Coverage and Requirement all together in order to improve the selection process. This will also ensure that the rejection of some efficient test cases is reduced when compared to the selection process in conventional methods, most of them making use of a single parameter for test case selection. These Test cases are further optimized using Genetic Algorithm. Results indicate that the proposed technique is much more efficient in terms of selecting the test cases when compared to conventional techniques, thereby improving fault detection rate.

# Advance Version of DSR for Partially Connected Adhoc Network

[1]**Mayank Gupta,**[2]**Sachin Kumar**

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**Paper ID: CS-25**

Ad-hoc network is constructed by a group of mobile nodes upon a wireless network interface. As routing is the major concern in today's scenario, different routing protocols are proposed e.g., DSR, AODV, TORA, .etc. These protocols works only with the assumption that when source and sink nodes are present in same network. In this paper a new approach is proposed in which the source and sink node are present in two separate different networks. This approach has been evaluated on three different parameters and compare with the existing DSR and these parameters are throughput, packet drop-count, and packet receive.

# Understanding Security for VoIP and VOLTE Services in Unified Communication

[1]**Siddarth Kaul,** [2]**Anuj Jain**
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**Paper ID: CS-26**

This paper proposes a framework for security services for Voice over IP (VoIP) and Voice over LTE (VoLTE) in commercial networks using Unified Communication. The VoIP/VoLTE services are exposed to several security threats such as Denial- of-Service (DoS) attack, network sniffing, unauthorized services access, and VoIP spam. The conventional security services for VoIP/VoLTE suffer from the lack of flexible security rule installation and dynamic security rule update. The security service framework for VoIP/VoLTE .This paper suggests an advanced way to deal with different security threats, the framework can flexibly install new rules and dynamically update these rules.

# Formalizing UML Sequence Diagram through Identification of participating Virtual Object State Transitions

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**Paper ID: CS-28**

UML Sequence diagram and state transition diagram depicts different behavioral characteristics of a UML model. However there is a great deal of overlapping between these two diagrams. By considering the benefits of this overlapping, the current research work generates the semantics for formalizing sequence diagram by the use of transition among from one state to another state of participating objects in a virtual manner. Considering together these features, verification and correctness of software design can be improved at early stage of software development model. This research work proposed a mathematical expression known as regular expression, which would be suitable for the verification of transition diagram and hence object state sequence diagram. The verification can be done through Derived Regular Expressions (DREs) which is an extension of regular expression. The result has represented by mathematical expression and suitable for verification and consistency with other diagrams.

# Learner Characteristics based Learning Style Models Classification and its Implications on Teaching

**[1]Amit Kumar,[2]Neelu Jyothi Ahuja,[3]Ninni Singh**
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**Paper ID: CS-32**

Learning style refers to learners favored approaches to learn. It assumes a vital part in adaptive educational frameworks. With the information on various styles, the framework can offer significant guidance and guidelines to learners and educators to contribute to learner's learning process. There exist more than seventy learning style models based on different in view of the different characteristics of learning and cognitive behavior/styles of learner.The present study is organized into two principal parts, First, the study, with an aim to critically examine five learning style models, conclude instruments chosen for identification of learning style, grading influence of learning style on adaptive tutoring, on a scale ranging from least influential to most. Second, in this part it addresses, three fundamental questions, first, the key aspect and implementation of the most influential models for adaptability in a personalized learning environment/ tutoring system, second, the implication of these models on teaching and third, the future prospects, envisioned there of.

# Secured Blended approach for Cryptographic Algorithm in Cloud Computing

**[1]Sumit Chaudhary,[2]N. K. Joshi**

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**Paper ID: CS-33**

The Network and data security plays a vital role on the network. Security of data is the main concern when data transmission takes place in the network. This paper describes the cloud security algorithm to secure the data at the data center. Blend technique is the advance techniques to secure the data. In this paper combination of AES, RSA and digital signature has been shown. Here private key generation is done using the two different algorithm AES and RSA where AES is symmetric and RSA is asymmetric cryptographic algorithm. After private key generation, that key will apply to digital signature which provide data authentication in the system. For verification we are using the 1024 bits public key of RSA algorithm. Also we have analyzed the performance of the same algorithm in basis of time because it takes the less time as compare to the existing hybrid algorithm.

# Modification in Designing of Substitution Technique using 4X32 S-Box in Data Encryption Standard

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**Paper ID: CS-34**

This Paper presents 4X32 S-Box techniques for Data Encryption Standard (DES). The proposed design helps in providing more security. Previous work has only 6X4 S-Box or 8X32 S-Box, which do not provide large number of options. The proposed design employs combinational logic based on DES S-Box using additive modulo and X-OR.A 48-bit text converted into 4-bit 12 S-Box where X-OR operation applied on both sides, later that output again combined with other left S-Box where additive modulo applied. The output of the algorithm give more secured output and gives more Avalanche effect.

# An Approach towards preventing IoT based Sybil attack based on Contiki framework through Cooja Simulator

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**Paper ID: CS-35**

In this paper we propagate the Sybil attack in WSN (Wireless sensor network), by the researchers many attacks have been recognized in WSN till now and there are many attacks which can attack over through internet, Internet of thing means all devices is interconnected to each other M2M over internet and can be attacked by any of the attacker on any devices. Sybil attack is the detrimental attack against sensor network where several counterfeit identities and legitimate identities are used to get prohibited pass in a network. This is major attack which results an information loss and misinterpretation in the network, and it also minimizes the routing disturbance, trustworthiness and dropping sensitivity packets into a network. In this instance node can trust the imaginary node and sharing of information starts, owed to this security of node is get affected and information is lost. In this paper, a survey of CONTIKI OS-2.7, stimulation tool COOJA and the Sybil attack and proposed the defense mechanisms and CAM (Compare and Match) approach to verify the Sybil attack position and prevent it. This Sybil attack can be stimulated on the stimulation tool COOJA which helps to identify the attacker position node, whereas these attacks outcome in uni-casting as well as multicasting and in this paper specifically given the secure security for Wireless sensor network.

# Novice methodology for detecting the presence of Bio-Field

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**Paper ID: CS-36**

Every living and non-living object emits electromagnetic, ultraviolet and visible radiations from the body. Human Aura/Biofield is an energy field that exists around the human body, which helps to connect not only with another human being but also with the surrounding environment. There are various proposed hardware equipment's that claims to capture bio-field. But using hardware devices for this is not economically, affordability and usability effective. Thus, novice methodology is proposed which is software dependent (automated). That inherently reduced all the above-mentioned drawbacks. Proposed methodology is designed by utilizing image processing techniques, in which a separate color space was designed that detects the frequencies that are above or less than visible range, perform pixel manipulation operation on them and bring that frequency in the visible range. Thus make it visible by naked eye.

# Study & Analysis of Cryptography Algorithms: RSA, AES, DES, T-DES, Blowfish

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**Paper ID: CS-38**

Cryptography is about protecting the data from third parties or from public to read confidential data. Cryptography mainly focuses on encryption and decryption of the actual data by different methods.These encryption and decryption methods are based on mathematical theories and are implemented by computer science practices. But as cryptography progressed ways were found to break the encryption done on the actual data and view actual data. This was also done by the use of mathematical theories and computer science practices.Popular algorithms which are used in today's world are, AES (Advance Encryption Standard), Blowfish, DES (Data Encryption Standard), Triple-DES (Triple Data Encryption Standard), etc. Some of the previously known algorithms were RSA (Rivest–Shamir–Adleman), ECC (Elliptic Curve Cryptography), etc. These algorithms have their own advantages and drawbacks. But as people were progressing more in breaking them down, these algorithms were supported by digital signatures or hash done by different algorithms like MD5, SHA, etc. By these means data integrity, data confidentiality, and authentication of data are maintained.But as the things are progressing it seems that new advancements are always needed in the field of cryptography to keep the data secure.

# An Efficient and Optimistic Data Transmission Technique for WSNs using Security Method

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**Paper ID: CS-45**

Recent advancement in micro-electronics technology facilitates sensor designer to develop low power, small size and low price sensors for data transmission. Scalable and energy-aware routing protocol is very essential for Wireless Sensor Networks (WSNs) in order to increase the network lifetime. Nodes of WSNs have limited power resources and it is observed that execution of clustering schemes in terms of energy utilizes such resources effectively. Clustering schemes are also facing some challenges like, limited scalability of the network, un-reliable distributed algorithm for selection of Cluster-Heads (CHs) and randomized deployment policy of nodes. The sensor nodes are organized into clusters, within a cluster; nodes transmit data to (CH) without using compressive sensing (CS). CHs use CS to transmit data to sink. In this paper, propose an encryption algorithm with hybrid compressive sensing, which studies the relationship between the size of clusters and number of transmissions in the hybrid CS method, aiming at finding the optimal size of clusters that can lead to minimum number of transmissions. Finally, a comparison is drawn between proposed model and existing techniques. Results describe that proposed method can reduce the number of transmissions significantly, and end 2 end delays.

# Emerging Trends in Visual Secret Sharing

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**Paper ID: CS-11**

Visual Secret Sharing (VSS) is an increased applicability of traditional secret sharing. In VSS, the secret information is recovered by human visual system or lightweight computational device. There are two models available in VSS, one is Visual Cryptography (VC) which is introduced by Naor's in 1994 and other is a Random Grid (RG) based VSS which is proposed by Keren and Kafri. This state of the art covers both the models of VSS along with its application. The various application areas of VSS are visual authentication and identification, image encryption, access control, data hiding etc. The chapter has also covered various future enhancements in VC based on cryptanalysis, optimal pixel expansion, multiple secret encoding, progressive VC etc. Random Grid based VSS have some advantages over VC, which eliminates the need of Pixel expansion and codebook. But still, there is scope for the improvements in the contrast and the complexity of exiting algorithms. So there are various challenges and opportunities which make it an exciting research area to work upon.

# Proposed Approach to Detect Distributed Denial of Service Attacks in Software Defined Network using Machine Learning Algorithms

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**Paper ID: CS-49**

SDN (Software Defined Network) is rapidly gaining importance of 'programmable network' infrastructure. The SDN architecture separates the Data plane (forwarding devices) and Control plane (controller of the SDN). This makes it easy to deploy new versions to the infrastructure and provides straightforward network virtualization. Distributed Denial-of-Service attack is a major cyber security threat to the SDN. It is equally vulnerable to both data plane and control plane. In this paper, machine learning algorithms such as Naïve Bayesian, KNN, K Means, K-Medoids, Linear Regression, use to classify the incoming traffic as usual or unusual. Above mentioned algorithms are measured using the two metrics: accuracy and detection rate. The best fit algorithm is applied to implement the signature IDS which forms the module 1 of the proposed IDS. Second Module uses open connections to state the exact node which is an attacker and to block that particular IP address by placing it in Access Control List (ACL), thus increasing the processing speed of SDN as a whole.

# Virtual Information Kiosk Using Augmented Reality for Easy Shopping

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**Paper ID: CS-10**

The interactive information kiosk in shopping malls provides various types of information to the mall visitors. The design of an information kiosk for shopping malls is different from a normal kiosk design as it is necessary to catch the attention of visitors to the shopping mall. The interactive information kiosk is needed in a shopping mall to attract, engage and provide information to the shoppers, visitors and users .This will lead to improve the business, higher product sales, customer satisfaction and the best self service. This paper focus on advanced display system called Virtual Information Kiosk (VIK) follows the novel procedure to obtain the data for the users. The information is generally reached by the authorized person only. Moreover, the approved users only can see the content of the Virtual Kiosk. The user can communicate with Board by free hand using Augmented Reality. The AR Interface is an integrated interface system that links a network of smart devices together, and allows users to communicate with the physical objects using hand gestures. The user wears a smart glass which shows the user interface in an augmented reality view. The hand signals are identified by the smart glass and after recognize the correct hand gesture input, VIK will communicate with the associated smart devices to carry out the designated operations. The Virtual kiosk provides common inter-device operations such as file transfer, printing, zooming and touch screen based operations.

# Feature Extraction for Enhanced Malware Detection Using Genetic Algotrithm

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**Paper ID: CS-58**

The use of internet has affected almost every field today. With the increase in use of internet, the number of malwares affecting the systems has also increased to a great deal. A number of techniques have been developed by the researchers in order to detect these malwares. The Malware Detection consists of two parts, the analysis part and the detection part. Malwares analysis can be categorized into Static analysis, Dynamic analysis and Hybrid Analysis. The Detection techniques can broadly be classified into Signature based techniques and Behaviour based techniques. A brief introduction of Malware Detection techniques is addressed here. The process of Feature Extraction plays a very important role in determining the efficiency and accuracy of the Malware Detection process. It aims at determining the subset of features that helps better differentiate between the malicious and benign files. We aim to provide a Feature Extraction process based on Genetic process that can be used for Malware Detection.

# A Review on Mitigatation of the DDoS Attack in Cloud in Regulated Environment

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**Paper ID: CS-57**

Distributed Denial of Service (DDoS) attacks are aimed at exhausting various resources of victim hosts, thereby preventing legitimate usage of their computational capabilities. In this paper, a proper and systematic mitigation technique presented to mitigate the DDoS attack in cloud environment. A robust mechanism is presented which consists of software based puzzle generation method to validate the real customer of cloud services provider from non-reals' ones to provide better DDoS attack mitigation solution.

# A Proficient Redundancy Exclusion Approach to Remove Network Redundancy in WSN

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**Paper ID: CS-52**

Energy is the sparse source of mobile WSN nodes to determine the network lifetime. One of the most sufficient methods of the energy reduction in WSN is to reduce the amount of data traffic between the member nodes, Cluster Heads (CH) and sink. Thus the most applicable redundancy elimination algorithm is implemented which improves networks lifetime and reduces the energy wastage. This approach focuses on sensing range of a cluster to remove redundancy. If the distance between member nodes is less than sensing range, then set the redundancy flag such as only one member node is in wake mode and other member nodes will be in sleep mode. After first cycle reverse the redundancy flag. Now allocate time slot for Second Cycle. This approach will remove the redundancy from sink, CH and improved the lifetime of sensor nodes. By this way the routing path in the network will be more useful and reduce energy consumption.

# Cloud Security Using Self-Acting Spontaneous Honeypot

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**Paper ID: CS-54**

Cloud Computing is growing in terms users, infrastructure, services, also security issues like : Cyber attacks are increasing day by day security community need some better mechanism to learn about attacks and which can provide an improved response against these security issues in cloud effectively. Current defences , security solutions , security equipments doesn't cover two or all three security concepts which are prevention, detection and response. Honeypot security resource can be used to add value to the cloud security community it can cover all three security concepts if implemented intelligently.In this project a high-interaction based self-acting spontaneous honey pot, abbreviated as SAS HP, which can dynamically change its behavior after learning from an attacker, is proposed and its architecture is given which can be deployed in the cloud environment for the analysis of attack patterns and to secure cloud systems. Also, the concept that how the instances of this honey pot can be made available as a service to the customer and how this SAS HP can be deployed with in cloud is given in this report. The aim is to develop the working prototype of the proposed system in cloud environment.

# Implementation of TBAQM algorithm to alleviate flooding attacks

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**Paper ID: CS-37**

Servers and cloud services today have an ever-growing load and demand, due to digitization of all sectors. Though the vulnerabilities have remained similar, the threat levels and impact have grown. The CIA triad of security is of utmost importance and is continuously monitored. Denial of Service attacks, distributed or otherwise, are the most destructive attacks. These attacks do not necessarily need a vulnerability to succeed. It works on the mathematics and economics of scale. Limited memory, limited processing power and limited bandwidth are a few factors that are usually attacked. A new algorithm Threshold Based Active Queue Management (TBAQM) was recently published, which is tested under various conditions and restriction to check its efficiency. The algorithm was tested on simulation to verify and quantify the results., Memory, Latency and network configuration were changed to see the impact on the functioning of the algorithm. Conclusively, this algorithm is able to work efficiently and effectively even under duress.

# A Survey on Hierarchical Cluster Based Energy Efficient Routing Protocol for Wireless Sensor Networks

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**Paper ID: CS-56**

Wireless Sensor Network is an emerging field which comprises of tiny sensor nodes. These sensor nodes are spatially distributed in the environment. They are capable of sensing the environment, gathering the information and processing it. Each sensor node collaborate with other sensor nodes for processing the information. Sensor nodes have limited resources available for their operation. For this purpose several routing algorithms are employed. Here the focus is on hierarchical cluster based routing techniques. In this paper we provide an introduction to wireless sensor network, need for reduction in energy consumption of sensor nodes and some of the already existing energy efficient routing protocols for wireless sensor network.

# Sentiment Analysis using Logistic Regression and Effective Word Score Heuristic

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**Paper ID: CS-59**

Sentiment Analysis is a method for judging somebody's sentiment or feeling with respect to a specific thing. It is utilized to recognize and arrange the sentiments communicated in writings. The web-based social networking sites like twitter draws in a huge number of clients that are online for imparting their insights in the form of tweets or comments. The tweets can be then classified into positive, negative, or neutral. In the proposed work, logistic regression classification is used as a classifier and unigram as a feature vector. For accuracy, k fold cross validation data mining technique is used. For choosing precise training sample, tweet subjectivity is utilized. The idea of Effective Word Score heuristic is likewise presented to find the polarity score of words that are frequently used. This additional heuristic can speed up the classification process of sentiments with standard machine learning approaches.

# A Review of Different Techniques Utilized for-casting Crop Yield

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**Paper ID: CS-60**

The farming structures the establishment of Indian economy. The harvest creation mainly depends on atmospheric conditions such as climate change, rain, soil etc., that impacts on yield improvement. The most of existing algorithms for crop yield prediction utilizes the existing data mining (DM) techniques for forecasting. This paper exhibits an overview on some of the existing techniques mostly used for crop yield prediction.

# Multi - layered Approach for Cluster based Regression Testing

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**Paper ID: CS-47**

Software testing use to check whether all prerequisites meets or not. In regression testing event performance retest all system which consumes time and assets since test suites are vast. To avail above cause, the tester use retests approach to utilize regression test prioritization. The tests cases are design to higher needs are executed sooner than lower. The proposed hybrid method that ensures selections and prioritizations at different stages. In effect arrangement of prioritizations and selections prepare easy to bring down the test cases numbers. Which improve performance of code by minimum use of resources thus reduces test time and efforts. The paper proposed number of optimized test instances prioritization method using Particle Swarm Optimization (PSO) and Ant Colony Optimization (ACO) to reduce performance time for regression testing.

# Maximization of Lifetime of Wireless Sensor Network with Sensitive Power Dynamic Protocol

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**Paper ID: CS-51**

A vitality effective protocol configuration is a key testing issue in a network of Wireless Sensor. A portion of the few existing vitality effective protocols plots dependably forward the bundles through the base vitality based ideal course to the sink to limit vitality utilization. It causes a disturbed dispersion of remaining vitality between sensor nodes, which prompts partitioning of the network. The prime objective of this method is to pass the data packets to destination node through the vitality denser range within Sensor Networks Lifetime. The current procedure Energy Balanced Routing Protocol (EBRP) neglects to accomplish Throughput, Delay part, keeping in mind the end goal to enhance the Network Lifetime and Performance so the proficient steering convention is required with the abilities of both the Power Efficient and Power Balancing. To resolve this problem, this manuscript proposed Impediment Sensitive Power Unbiased Dynamic Routing Protocol (ISPUDRP). The proposed steering system accomplishes as far as End-to-End Delay, Throughput and Lifetime of network. This manuscript shows that proposed calculation accomplishes better execution performance than the current strategies.

# DeDuSERP: De-Duplication in Search Engine Result Page

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**Paper ID: CS-61**

Web offers a new way of service provision by arranging different resources over the web. The most critical and prominent is web searches. The purpose of this research is to identify a subtype of De-Duplication. DeDuSERP is de-duplication in search engine result page. It restricts the showcasing of urls with duplicate or similar data and hence enhances the search result experience of any client. By duplicate results we mean different links containing the same content or information. To solve this problem, we have designed a filter between Search engine result page and indexed-ranked pages which we get from the search engine in response to the query of the searcher. This filter eliminates the duplicate links idiosyncratically and displays the unique results on the SERP for the searcher. We have performed the string to string comparison of web pages and if the content is 90% similar then we adjudge them as duplicates and then check their inventiveness of these duplicate links on the basis of timestamp. By this we mean then the web page crawled earlier is original. The process of comparison and timestamp matching is done using an open source apache API Commons IO 2.4.

# Survey on Test case Reduction Techniques

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**Paper ID: CS-53**

Software Testing is an important and time consuming process.Its main objective is to select test cases with the aim of discovering as many defects and faults as early as possible.

Regression Testing ensures that the changes made in the new code should not affect the existing codes. But it has many limitations associated with it according to which the test suites become large and complex,due to which time and and budget constraints also get affected in the test suite(combination of test cases).Hence to overcome this situation Reduction Techniques are being introduced to minimize or reduce the test cases with its associated constraints. In this paper the literature survey of reduction techniques like Multi-level Random walk and Genetic algorithm is being performed.

# Amalgamation of Estimation Techniques in Assessing Software Metrics and their utilization in Project Management

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**Paper ID: CS-55**

The main reason for software-intensive acquisition programs is the poor size estimation that is not more effective. The estimation of the significant software metrics, utilization of the metrics, recording the metrics are the challenges in software estimation. The software estimation becomes a tedious task due to these challenges, which needs to be rectified. In literature, a number of techniques were proposed to resolve these challenges by the researcher. In our paper, we present a survey on the existing software estimation techniques based on the existing issues.

# Efficient Keeper for Pseudo Domino Logic

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**Paper ID: EC-13**

The dynamic circuits are supposed to offer superior speed and low power dissipation over static CMOS circuits. The domino logic circuits are used for high system performance but suffer from the precharge pulse degradation. This article provides different keeper topologies on the domino circuits to overcome the charge sharing and charge leakage with reference to the power dissipation and delay. The performance improvement of the circuit's analysis have been done for logic gates and adders using HSPICE tool. The proposed keeper techniques reveal lower power dissipation and optimum delay over the standard keeper circuit with less transistor count for different process variation.

# Design of Energy Based Intelligent Traffic Management System

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**Paper ID: EC-14**

This project, self-reliable intelligent transportation system is used to avoid congestion at busy intersections and to have a system in such areas where it is not possible to alert the ongoing traffic in real time. There are many systems used now-a-days where traffic related sensors and other computing devices are used to have a smooth flow of traffic in busy roads but all have certain disadvantages also so we are hereby trying to minimize the disadvantages by using RF technology and sensors as inputs to the circuit so as to inform the oncoming vehicles in time.The advantages of this project over all other control system is the self-reliability of the system to manage the resources all over itself by using solar technology and also to boost the green technology for future generations.

# Design and Analysis of 8-bit Vedic multiplier in 90nm technology using  GDI technique

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**Paper ID: EC-18**

Vedic mathematics is an old mathematics which is more effective than other mathematic procedures. Vedic maths is utilized as a part of numerous applications, for example, hypothesis of numbers, compound duplications, squaring, cubing, square root and solid shape root and so on. Absolutely there are 16 sutras and 14 sub-sutras in Vedic maths. Among those sutras, just 3 sutras and 2 sub-sutras are utilized for augmentation. Multiplier is a very important part of a microprocessor as multiplication is performed continuously in all calculative procedures. This paper is in importance of a 8-bit multiplier designed in 90 nm technology. Urdhva-Tiryakbyham is the sutra that is used for multiplication in Vedic mathematics. Actualizing the different scientific operations utilizing Vedic Mathematics causes us  accomplish better speed, bring down unpredictability and higher execution.[2]

The technique used is Gate Diffusion Input (GDI) which is a more refined way to design a circuit which less complex than circuits designd by other techniques.

# Energy Efficient LEACH Routing in Wireless Sensor Network

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**Paper ID: EC-21**

The Wireless Sensor Networks involves of very low power devices which are disseminated in geographically areas. All sensors are organized in clusters. Every cluster works as a node which is also called as cluster head. Each cluster headaccumulates the data from its attached sensor nodes.Once the data is accumulated, then it is communicated to base station. Sensors have installed with batteries which cannot be exchanged. Energy consumption is keyfactors in wireless sensor network. We developed a method to diminutionenergy consumption and extend the network lifetime. The upgraded method is based on a cluster head selection method. The newly formed approach shows the improvement in reference of network lifetime and energy consumption compared to the existing LEACH algorithm. Simulation result shows that energy consumption of WSN has been decreased and the network life cycle increased up to the significant level than existing LEACH.

# Performance Metric Analysis of Modified LEACH Routing Protocolin Wireless Sensor Network

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**Paper ID: EC-22**

The lifetime of a network is reflected as one of the vitalconcerns in wireless sensor network because of a huge number of nodes and further its density and distribution. When the network size increases then routing protocol becomes one of the crucial issues that which routing protocol one should use so that network lifetime to be enhanced. Furthermore, sensor nodes must be alive to promise that network process must continue without any interruption or any loss of data in the network. In fact, there are a lot of clustering method is there to augment the network lifetime. But in this paper, presented routing protocol that is based on existing LEACH protocol called as K-mean clustering routing (KLEACH). Simulation results show that efficiency of the network has been improved and network lifetime has been also enhanced compared to existing LEACH protocol. Network lifetime of KLEACH protocol is almost increased by 40% and energy consumption is also decrease by almost 38% which reflects the good agreement of KLEACH algorithm compared to existing algorithm.

# A Hexagonal Network Division Approach for Reducing Energy Hole IssueIn WSN

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**Paper ID: EC-23**

Energy holeissue in wireless sensor network is a critical issue due to the energy discharging of the sensor nodes in a rapid manner which are very close to the sink. This is because of nearer sensor nodes sending their own information to the sink as well as information getting from other regions. After sometime these sensor nodes die and incapable to transfer data to sink despite the fact energy still remained for other region's nodes which further disturbs the network lifetime. In this article we propose Hexagonal Network Division Approach for solving energy hole issue.Initially network divided into concentric hexagon and each hexagon act as a different layer. Alsoeach hexagon divided into six equal portions. In the subsequentstagelarger layer will be selected among all other layers. Now to decrease additional energy discharging from this layer,numerous sensor nodes positioned. In the finalphase to prevent the energy holeissue, a suitable directing and ordering have been done which further improves network lifetime.

# Performance of Speaker recognition system using Shifted MFCC, Delta Spectral Cepstral Coefficient (DSCC) and Fuzzy Techniques

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**Paper ID: EC-01**

In case of biometric we ponder the variability of speech signal due to the presence of noise which greatly degrades the efficiency of ASR in real-world environmental circumstances. In this paper, we have used Delta Spectrum Cepstrum Coefficient (DSCC) and Shifted MFCC with fuzzy modeling techniques to rectify the deed of ASR even in a noisy surrounding with the help of upgraded speech information which is present at high frequency in the spectral domain. The combination of fuzzy modeling and DSCC creates a firm cumulative algorithm which has reasonably high robustness to noise. Experimental results show that accuracy has enhanced by 10-20% even at 5-8dB SNR in the presence of background noise or turbulent environmental condition or in the presence of white noise.

# Microstrip Line Antenna Fabrication Material

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**Paper ID: EC-03**

This paper presents an extensive survey of electromagnetic materials used for antenna fabrication, which find application in Civilian life as well as defense life. When a densely packed microwave integrated circuit is designed, it requires protection from higher power transient because of specific polarization and frequency response. To meet specification of such kind of microwave circuits it is desired to exploit properties of fabricating materials, which are not found in nature but can be prepared with specific proportion of chemical element combination. This study provides in-depth responses of materials toward electromagnetic wave's characteristics such as dielectric, flexible electronics, electrical and thermal properties, which have vast potential in communication engineering.

# Performance Analysis of PAPR for OFDM Signal in SLM & PTS techniques

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**Paper ID: EC-11**

In the wireless broadband communication systems these days, Orthogonal Frequency Division Multiplexing (OFDM) is a very promising technique. The properties of the OFDM are Capability to handle very s strong echoes and less nonlinear distortion [1]. It is a kind of Multi carrier modulation technique which is having a high channel fading robustness, also having a high spectral density. One of the major disadvantage of OFDM signal is high peak to average power ratio (PAPR) . When the OFDM signal is passed through the non linear amplifier, the signal results in out of band radiation and band distortion. This paper generates and idea about comparison of PAPR reduction techniques [2] . Selective mapping (SLM ) and partial transmit scheme (PTS) are studied here for the comparison in the general terms of Complementary Cumulative Distribution Function (CCDF) **.**

# Future of Internet of Things (IoT) in 5G Wireless Networks

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**Paper ID: EC-20**

Internet of Things or IoT has evolved and will play a major role in our lives in the near future. Though in the nascent stage, it conceptually means an interconnected network consisting of physical objects, wearables, machines, buildings, automobiles and a variety of other types of devices that contain embedded technology to communicate and sense or interact with their internal states or external environment. With the advent of next generation 5G wireless technology around 2020, a wave of globally connected digital society will come into existence. In this paper we will discuss about the benefits which will be provided to IoT with the onset of 5G wireless technology and the challenges which IoT will offer to 5G.

# Investigation of Temperature Effect in Ultra Thin SOI

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**Paper ID: EC-25**

In this paper we carried out review of temperature effect in ultra thin SOI MOSFET. We discussed the effect of temperature on $V_{th}$ , $g_m$, $I_D$. We also present 2D poison equations solution using Variable Separable Method and then observed surface potential and $V_{th}$ of device.

# A Probabilistic Feature Based SVM Model for Hindi/English Speech Recognition

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**Paper ID: EC-02**

Real time speech recognition has various challenges including noise, turbulence, language and crosstalk problem. In this paper, multi-phase hybridization is applied to cover these challenges and to provide effective speech recognition. The model is explicitly divided into three main stages where each stage is implicitly divided into several sub-stages to provide specific problem solution. The proposed hybrid model resolved the problem of acoustic turbulence, background noise and instrumentation noise problem at the earlier stage. The rectified speech signals are processed using ICA and Fuzzy-HMM approach to generate the structural and statistical features. In this stage, the signal is divided in smaller linear blocks to extract the features. Later on, fuzzy-weighted SVM is implied to recognize the speech signal. The experimentation is applied on Hindi and English characters and sentence datasets. The comparative results are derived against BPNN and PCA models for different sample sets. The comparative results obtained from model signifies that the model has improved the recognition rate effectively.

# Design of Indispensable Safety Gadgetfor Harmful Gaseous Detection

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**Paper ID: EC-06**

This paper elucidates the functioning of an Indispensable Safety Gadget.Indispensable Safety Gadget is harmful gas concentration monitoring and alert system whose working principle resembles human nose. Human nose has olfactory sensory neurons present which helps us to detect different types of odor, in a similar fashion our project uses MQ2 sensor which helps in detection of gas leakage, alarming levels of CO and smoke. Further we are using ARDUINO UNO as microcontroller which process the analog data from MQ2 (in the form of gas) and converts it into a digital value and displays on the 16*2 LCD screen. We have also used a GSM module (SIM900A) which will establish a direct communication link with user by transmitting a message and notifying user about the gas leakage.This project finds its application in gas mines, household kitchen and garbage dumping areas.

# Da Based Systematic Approach Using Speculative Addition For High Speed Dsp Applications

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**Paper ID: EC-07**

In recent years Parallel-prefix topologies has been emerged to offer a high speed solutions for many DSP applications. Here in this paper carrier approximation is introduced to incorporate speculation in Han Carlson prefix method. And overall latency is considerably reduced using single Brent-Kung addition as a pre and post processing unit. In order to improve the reliability error detection network is combined with the approximated adder and it is assert the error correction unit whenever speculation fails during carries propagation from LSB segment to MSB unit. The proposed speculative adder based on Han-Carlson parallel-prefix topology attains better latency reduction than variable latency Kogge-Stone topology. Finally multiplier-accumulation unit (MAC) is designed using serial shift based accumulation where the proposed speculative adder is used for partial product addition iteratively. The performance merits and latency reduction of proposed adder unit is proved through FPGA hardware synthesis. Obtained results show that proposed MAC unit outperforms both previously proposed speculative architectures and all other high speed multiplication methods.

# Wavelets performance for Features Extraction and Classification of Brain MR Images

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**Paper ID: EC-08**

Feature extraction is the main step in the image texture analysis, texture is the spatial variations present in the pixel intensities (gray values).It is useful for various applications and has been a latest topic of research. Image processing and pattern recognition is one of the application areas of texture analysis. Generally, first of all, the extraction of features from image is done then classification of these features is done to differentiate the abnormal and normal tissue or images. There are various features and it is very difficult to extract all the features from an image, so identification of the most informative features is also an important issue. In this paper Mean and standard deviation based features are calculated with the help of 4-level DWT from MR Images. Three different wavelets (db4, bior5.5and sym4) are used for extraction purpose. These extracted features are used to train the SVM classifier and calculate the classification accuracy with different kernel function.

# A Small Square Monopole Ultra-wideband Antenna with Band Stop Behavior

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**Paper ID: EC-15**

A monopole antenna with a simple structure, planar geometry, and a small square size is proposed, in this paper. The proposed antenna structure consists of the slot with I-shaped geometry in the radiating patch surrounded by a C-geometry slot. Further, the structure contains a parasitic I-shaped element in the square radiating patch. The embedded slot with C-shaped geometry and parasitic I-shaped element accounts for the dual-band notch nature in the proposed antenna structure. The simulated and measured results are compared for the proposed antenna structure, which is in good agreement and also, band rejection capabilities of the proposed antenna are investigated.

# To Study High Performance Analysis of Surround Gate SOI MOSFET

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**Paper ID: EC-24**

In this paper, we are presenting a rigorous study about SOI MOSFET devices development. The development of SOI devices based on gate structure from single gate to surround gate is presented in this paper. We compared the various electrical characteristics between Single gate, double gate, and bulk and also discussed the device modeling based on surround gate structure.

# A Study on Electrical Characterization of Surface Potential and Threshold Voltage for Nano Scale FDSOI MOSFET

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**Paper ID: EC-26**

In this paper the study of electrical characterization of Surface potential & Vth threshold-voltage model is developed for FD SOI MOSFET. The threshold voltage is important parameter in device design. Scaling of device has positive impact on device performance. The various parameters like thickness of silicon film, oxide layer, drain to source voltage plays a key role in improvement of device performance. Surface potential explain the distribution of applied potential throughout the channel. We also analyzed the effect of threshold voltage with various electrical parameters.

# Continuous Telugu speech recognition by Joint Feature extraction of MFCC, MODGDF and DWPD techniques by PNN classifier

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**Paper ID: EC-10**

A speech recognition system plays a major role in human machine interaction. This is also called as automatic speech recognition system ASR. ASR systems for Telugu language are designed but very low recognition accuracy with high noise features were implemented previously. This paper goal is to show an efficiently designed Telugu speech recognition system by selecting advanced algorithms and techniques. Any recognition system deals with creation of advanced database by recording speech, applicable pre-processing techniques, joint feature extraction algorithms, efficient feature selection techniques and appropriate feature classification techniques for classifying the selected features. This research implements its own database by using Audacity software. DWT, ZCR, framing, smoothing, windowing etc. is done at pre- processing. MFCC, MODGDF and DWPD techniques are used for extraction of features and joint parameters are extracted. LDA technique is used for feature selection. PNN classifier is used to recognize the data. Challengeable results are simulated by the combination of all the techniques stated. This Telugu speech recognition system is designed for continuous Telugu words

# A study on graph with DESMOS through ICT in Diploma in Elementary Education of Tamil Nadu State Board

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**Paper ID: MATH-02**

This paper aims at bringing out the skill based learning outcomes in teaching learning process specific to psychomotor domain through ICT's based on New Educational Technology 2013. The present study intends to apply the Desmos software to teach the Linear Graph chapter in Diploma in Elementary Education (D.El.Ed.) of Second year in Tamil Nadu State. It explains the teaching strategies, i.e. visualization of graphical structure with the above module. Desmos gives hands-on experience to understand the mathematical, Graphical concepts. It also aims for an extended study on Algebra, Statistics and Geometry in the second year source book prescribed for the (D.El.Ed.) Course of Tamil Nadu State Board.

# Planning and Estimation Techniques in Agile Methodologies

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**Paper ID: IT-01**

Planning is always a vital and most crucial phase during the execution of a project. As undoubtedly the core success of our project deliverables and efforts depend on it, Projects implementing Agile methodology need to touch based on planning iteratively through make it happen in many critical milestones of the project; whether it is multiple release planning, release planning, sprint planning or even our daily scrum. Through this paper we are shedding the light on multiple core planning ways and methodology which can be used to overcome the Agile project planning challenges and maintaining the accuracy throughout the deliverables / sprints. The complex and big volume Software projects have always been evolved through a number of development models and efforts, so throughout cost estimation is a very essential and much needful job in successful software project execution. Making right judgment through exploring all prospects, agile estimation techniques, an art to come with an accurate measurement of all the effort involved and evaluating cost for such software projects is always very tedious task of software development process. As expected and much required that the estimate should always be accurate and provided leading to a successful software project delivery within the promised budget boundaries yet with optimum quality. So an accurate prediction of effort and cost of such projects is a crucial task to be done as the complexity of overall development structure is increased with time. This paper is also highlighting the various estimation techniques. It also provides the future scope to explore some more techniques to better estimate the miscellaneous parameters that contribute to the development cost of the product.

# Railway Control if any Obstacle Limiting the Visibility of Signal Using RF

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**Paper ID: IT-02**

Rail arrange being the second biggest in our country, India thus prepare crash and mischance is one of the significant concerns. Prepare mischances happen because of human blunders or mechanical blames in trains, in tracks, or in the flagging framework. Major and expensive prepare mischances happen because of head-on crash of trains running on a similar track towards each other. More than 85 prepare mischances occurred from 1980 to 2011 in India. In most recent two years itself more than 27 prepare mishaps occurred in India. A few plans have been proposed by analysts in the past to distinguish the danger of conceivable impact and to take preventive measures. To dodge this, we requrfe solid prepare impact evasion framework which is sparing. This paper introduces the advancement of a framework to stay away from prepare impact and wrecking by diminishment of speed to plan microcontroller based framework utilizing Radio Recurrence, RF SENSOR. Track checking instrument utilizes microcontroller and gives the expected highlights to the framework.

# Neural Network BasedMonitoring, Protection & Fault Detection of Induction Motor Using PLC

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**Paper ID: EE-01**

Induction motors are most widely used motors in industrial, commercial applications & are seldom denominated power horse of industry. The requirement of soft starter is increasing day by day to reduce the motor starting current & to maintain the torque linearly with the load requirement. Now intelligent soft starters evolved to improve the motor starting. This work is comprised of development of an Artificial Neural Network control regime for closed loop of induction motor. The same has been achieved using a standard 0.75 KWthree phase induction motor using Matlab, PLC, SCADA & DRIVE. The Artificial Neural Network scheme is compared with traditional Proportional control regime.

We have observed that the performance of ANN Induction Motor control Algorithm has been 14-21 % better than only Proportional Motor Control algorithm.

# Closed Loop Controlled Boost Converter using a PID Controller for Solar Wind Power System Installation

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**Paper ID: EE-02**

Deployment of renewable energy resources on distributed energy system has reduced the reliance and transmission losses from the utility grid. It also helps to improve the system stability near the load center. Solar and wind are the two highly utilized green energy resources in present scenario. However, the fluctuations of solar irradiation, temperature, wind velocity are the preeminent issue for this type of systems which affects the efficiency of the solar and wind energy system. It requires the interfacing unit to stabilize the output voltage. The proposed work deals with the close loop boost converter with PID controller, which is used to attain a stabilized voltage despite of parameter changes and load disturbances. Designed system will help to analyze the better stable output voltage with efficient system having minimum fluctuation.

# A Hybrid Krill Herd-Genetic Algorithm Based Transient Stability Enhancement of Coordinated PSS and SSSC Controller in Multi-Machine Power System

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**Paper ID: EE-03**

Power system oscillations are the major crisesina large interconnected network. It certainly affects the power systemstability and remains a challenge forscheduling and planning of the power demand in a deregulated market. This paper represents the Hybrid Krill Herd-Genetic Algorithm (KH-GA) optimization method based on global optimization for analyzing the stability of multi-machine power system. The two algorithms are inspired by biological and environmental characterization. A typical three generator nine bus benchmark power system is considered for small signal stability analysis using MATLAB/Simulink.The angular frequency in a power system isaffected by deviation in power generation, variation in load, and faults. The angular frequency deviation causes fluctuation in generator speed and rotor angle leading to electromechanical oscillations ina power system. So,the deviation in angular frequency is considered asa reliable parameter for the stability studyof thesystem.Several optimization techniques such as Firefly, Cuckoo and Krill Herd (KH)algorithms are employed for the coordinated tuning of power system stabilizer (PSS) and Static Synchronous Series Compensator (SSSC) along with proposed Hybrid KH-GA algorithm to improve transientstability of the power system. The capability of the suggestedHybrid KH-GA algorithm is validated with the other optimization techniques taken into consideration. The simulated results show higher convergence rate and better low frequency oscillation (LFO) damping capability.

# Comparative Study of Image Enhancement Techniques Using Histogram Equalization on Degraded Images

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**Paper ID: CS-50**

Image Enhancement technique plays a vital role in digital image processing for making an image to be useful for various applications. This technique is used to improve the quality of degraded images.Usually, the degradation is not evenly spread throughout the image, but most of the time it varies from region to region. Our aim is to first identify the region where enhancement is required and improve that region without disturbing its neighbourhood which does not require any improvement.

# A Comparative Study of Checkpointing Algorithms for Distributed Systems

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**Paper ID: CS-24**

Distributed system is a gathering of networked computers, which seems as a one large computer. There is no shared memory in the distributed system so they communicate and coordinate their actions with the help of message passing. As distributed system is scalable in nature, so as the size of a distributed system and the running time of a distributed computation increase, so does the probability that a failure will occur during the computation. The aim of the techniques for providing transparent rollback-recovery to processes in distributed systems is to hide fault-tolerance issues from applications while imposing acceptably low overhead.

Rollback recovery techniques can be classified in two types: Checkpointing is a method which enables the distributed systems to tolerate failures. If these failures are not properly handled then it may cause long-running computation to restart from the beginning. Checkpointing is an easy way for rollback recovery. The state of an executing program is regularly saved to a disk from which it can be recovered after a failure.

Checkpointing algorithms is divided into three types. Uncoordinated, Coordinated and communication induced algorithms. In this paper we have investigated severalaspects related to the rollback recovery and checkpointing for distributed systems.

## Validating the performance of the HVAC system for Commercial Buildings

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**Paper ID: CS-62**

Commercial Buildings consumes a large amount of world's energy. Energy components comprises of Lighting, Heating, Cooling, Ventilation, water heating etc. To make the building energy efficient, we need to maintain, monitor and apply thermal optimization .Many scientists across the world are working on energy modelling and control in order to develop strategies which will result in overall reduction of energy consumption. This paper presents the workflow of the energy modelling HVAC (heating, ventilation and cooling) system which proved to be the complete solution for low energy buildings. Also the estimation of the thermal load which helps in validation of architectural design for energy efficient buildings.

## Transmission of Data, Audio Signal and Text using Li-Fi

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**Paper ID: EC-27**

With the onset of modern communication, and the increase in the bandwidth usage that led to its congestion, it is paramount that we find an alternative or a faster means of communication. Light Fidelity – more commonly referred to as Li-Fi- is one such concept that is gaining momentum to become the possible alternative. In Li-Fi, the data is transmitted in several bit-streams through high-speed flickering of the LED bulb and decoded on the receiver side which consists of a photo-detector. This happens in the form of a binary transmission of data, where '0' is the LED in its 'off-state' and '1' is the LED in its 'on-state'. In this paper, we use this concept to transmit data to demonstrate the use-cases and the possible impact it can have in the ever-growing field of communication. In this paper, we transmit two types of data using Li-Fi: Audio and Text. We study the various topologies to understand the characteristics a Li-Fi based system can have.

# Current Generation For An Electric Truck Using Speed Breaker and T-Box

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**Paper ID: EC-28**

To overcome the problem of pollution by fuel consuming trucks and yielding of clean electricity [1] by speed breakers. Electricity is the secondary source of energy i.e. converted from other sources. Conserving the kinetic energy wasted, while vehicles move is also taken into consideration. For this a speed breaker with an arrangement called power bump is used and this will have piezo sensor mounted on it, which converts pressure into electricity. The electric truck with pantograph [3] on its top receives the current from overhead transmission line which are powered by current produced through speed breaker and t-box wind generator. The theme is, first to generate clean electricity and second is application of clean energy to that sector which causes at most pollution on roads.

# Linearity Concerns of OFDM

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**Paper ID: EC-29**

Orthogonal Frequency Division Multiplexing (OFDM) is one of those modulation techniques which is widely used for transmitting digital data. But this modulation phenomenon faces few practical drawbacks such as multipath interference, image rejection and linearity concerns. Whenthe input signals containing twoor more different frequencies are passed through a non-linear system using OFDM,additional signals are formed at harmonic frequencies and as well as at other various frequencies. These unwanted signals are termed as inter modulated products.In this paper, these noise terms have been mathematically approximated using Taylor series and also they have been eliminated by using hamming window technique. The basic differences between inter modulated distortion and harmonic distortion are also discussed.

# Efficiency of Unstructured Data: A Defiance Perspective

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**Paper ID: CS-46**

Security is the biggest problem with unstructured data. The large volume, distributed nature, consistency and complexity of unstructured data create exciting opportunities for the research in coming years. This paper presents a comprehensive study on the various aspects of general issues, open challenges, vulnerabilities and security concerns of unstructured data. Further various tools and techniques for handling unstructured data and future forecasts are discussed to minimize the associated issues. This paper critically investigates the major security flaws and challenges present in the unstructured data.

# Identity and Access Management using Boto and JSON

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**Paper ID: CS-63**

The cloud is growing rapidly and new services are emerging each day. This, in turn, makes security something of a moving target. As per National Institute of Standards and Technology (NIST), Identity and Access Management is one of the key security issues in cloud computing. The Top Threats Working Group of Cloud Security Alliance (CSA) ranks "identity and access management" as the second top most threat among twelve biggest threats in cloud computing. The Identity and Access Management (IAM) is a web service that enables customers to manage users and user permissions (user policies). With IAM, one can centrally manage users, security credentials such as access keys, and permissions that control which resources users can access. This paper focuses on Managing IAM Users, and Working with IAM Policies using Java Script Object Notation (JSON), and Boto. The paper concludes utmost care should be given to IAM user management and IAM user policies. It is the IAM Policies which play the sole role of ensuring security. If you don't set up IAM policies properly, you will create security holes leading to security lapses.

# Analysis of Green Supply Chain Inventory Management For Warehouse With Environmental Collaboration and Sustainability Performance Using Genetic Algorithm

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**Paper ID: MATH-04**

We propose given to the topic of Green Supply Chain inventory management for warehouse with environmental concerns a technique based on genetic algorithm to optimize inventory in the whole Green supply chain. We focus on to specifically determine the dynamic nature of the excess stock level and shortage level required for inventory optimization in the Green supply chain such that the total Green Supply Chain inventory management for warehouse with environmental concerns cost is minimized. The complexity of the problem increases when more products and multiple agents are involved in Green Supply Chain inventory management for warehouse with environmental concerns process that has been resolved in this work. Here, we are proposing an optimization methodology that utilizes the Genetic Algorithm, one of the best optimization algorithms, to overcome the impasse in maintaining the optimal stock levels at each member of the Green Supply Chain inventory management for warehouse with environmental concerns. We apply our method on four member of Green Supply Chain inventory management for warehouse studied model for optimization.

# An Advanced Dynamic Benchmarking: An Effective and Scalable Method for Performance Comparison of Various Cloud Service Providers

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Nowadays Cloud Computing is used in various fields of Information technology (IT). Maximum of organizations are moving to cloud due to faster access and security in cloud computing. Migrating data to the cloud storage remains a tempting trend from a computerized perspective but there are many other factors that must be taken into account before it is decided to do so. One of the most important factors is security. Security is the important factor of any system computing, there are different risk levels in different organizations. Cloud service security refers to a broad set of technologies, conditions and control methods to protect cloud data, applications, and the associated various infrastructure of cloud computing. This paper proposesan Advanced Dynamic Benchmarking (ADBC) which is proved to be an effective and scalable method for performance comparison of various cloud service providers (CSPs) like Google, Amazon Web Services (AWS) and Microsoft Azure (MSA).This proposed method ADBC requires, security professionals to know about users and third party concerns, and identifies relevant counter to strengthen security and privacy in the cloud context. Services are tested with virtual context with different micro instances. Advanced Dynamic Benchmarking uses WAPT (a Web Application Performance Tool) load test tool for analysis and performance of the chosen CSPs.  The comparison results are shown with simulation.