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1.

Authors: Aditya Bakshi, A.K.Sharma, Atul Mishra

Paper Title: Significance of Mobile AD-HOC Networks (MANETS)

Abstract: Wireless networks use radio frequencies in air to transmit and receive data instead of using some physical cables. Wireless networks are formed of routers and hosts. In a wireless network, the routers are responsible for forwarding packets in the network and hosts may be sources or sinks of data flows .The fundamental difference between wired and wireless networks is the that the networks components communicate. A wired network relies on physical cables to transfer data. In a wireless network, the communication between different network components can be either wired or wireless. Since wireless communication does not have the constraint of physical cables, it allows a certain freedom for the host and/or router in the wireless network to move. This is one of the advantages of a wireless network.

Keywords: 1.Communication 2.Wireless 3.Network 4. Mobile 5. MANET

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Authors: Kanika Gupta, S.K Gupta

Paper Title: Image Denoising Techniques- A Review paper

Abstract: Removal of noise from the original signal is still a bottleneck for researchers. There are several methods and techniques published and each method has its own advantages, disadvantages and assumptions. This paper presents a review of some significant work in the field of Image Denoising.The brief introduction of some popular approaches is provided and discussed. Insights and potential future trends are also discussed.

Keywords: Denoising, Spatial Filters, Threshold, Orthogonal Transforms.

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3.

Authors: **Arunkumar Dwivedi, Dhiraj Kumar S. Lal**

Paper Title: **Influence of Addition of Pond Ash as Partial Replacement with Sand and Cement on the Properties of Mortar**

Abstract: This paper presents an experimental investigation on the effect of addition of pond ash partially replaced with cement and sand in the mortar. Effect of pond ash on compressive strength, flexural strength and bulk density were observed under standard curing conditions. Pond ash of 0% to 40% (with increase of 5%) by weight to cement and sand replacement respectively were used. The specimens were casted and cured under standard curing conditions for 3, 7, 28 and 90 days. At the end of each curing period, compressive strength and flexural strength values were determined. Dry bulk densities for each replacement were recorded after 28 days curing period. The result shows that in case of cement replacement in compression as well as flexure strength gives higher values for 15% to 20% replacement of pond ash. The result of dry bulk density test also indicates that the values of density for cement replacement as well as sand replacement decreases with increase in percentage of pond ash.

Keywords: bulk dry density, cement replacement, compressive strength, pond ash, sand replacement.

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16. ASTM C348 - 08 Standard Test Method for Flexural Strength of Hydraulic-Cement Mortars.

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4.

Authors: **Shabnam S.Mahat, P.P.Jamsandekar, K.M. Nalawade**

Paper Title: **Major Problems Associated With the Use of ICT in Institution**

Abstract: In many countries, information and communication technology (ICT) has a clear impact on the development of educational curricula. The absence of a formal and established ICT curriculum leads to an ambiguous situation, because there is nevertheless an observable policy towards the adoption of ICT in education. This policy fosters the integration of ICT in teaching and learning processes, but builds on the professional attitude

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and willingness of the individuals. However, it has never been examined whether teachers are using ICT in accordance with the competencies proposed by the UGC and AICTE. In order to answer this question, a survey was conducted among the colleges in sangli city. Results show that teachers mainly focus on the development of technical ICT skills, whereas the ICT curriculum centres on the integrated use of ICT within the learning and teaching process. This indicates the existence of a gap between the proposed and the implemented curriculum for ICT. The present study investigates how and to what extent colleges implement the new expectations arising from the national authorities. In particular, it examines which ICT competencies teachers actually adopt (actual use) and which competencies they intend to adopt in the future (preferred use).

Keywords: ICT, Security concerns.

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5.

Authors: **Hemraj R. Kumavat, Yogesh N. Sonawane**

Paper Title: **Feasibility Study of Partial Replacement of Cement and Sand in Mortar by Brick Waste Material**

Abstract: Brick waste is investigated for its use as a replacement of cement and sand in cement mortar as it behaves as a pozzoloana. It may make an important contribution towards decreasing the adverse effect of the production, disposal and the dumping of brick waste on the environment. The results show that richer mixes gives lower value of bulk density and higher values of compressive strength for sand replacement with brick waste up to 40%. The paper presents useful data for the brick manufacturing industry, builders and mortar manufacturing companies in terms of minimizing the impact of brick waste and using eco-efficient materials.

Keywords: Bulk dry density of fresh and hardened mortar, cement replacement, compressive strength, sand replacement.

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Authors: **Kanika Gupta, Apurva, Priya Jindal, Vishakha Snehi**

Paper Title: **Implementing Kalman Filter in GPS Navigation**

Abstract: This paper describes about the increase in efficiency of the GPS Navigation System when conventional tracking loops are replaced by the Kalman Filter. The Kalman Filter is a recursive algorithm that helps in reducing the square root of the error in the non-linear and noisy dynamic systems. The approach is also called Digital Filtering, more precisely - Adaptive Filtering. The paper highlights various errors in the GPS Systems and describes how Kalman Filter can effectively reduce them. The various kinds of errors are ionospheric error, tropospheric error, onboard clock error, that is, error in the satellite's clock, receiver clock error, ephemeris data errors, that is, small error in the position of the satellite. We aim at reducing such errors by using the Extended Kalman Filter. The Kalman Gain coefficient is the most important component of the entire algorithm. It will we multiplied with the error residuals iteratively, which will reduce the error value in the final readings eventually. Also, by replacing conventional looping, which provides accurate readings after 3rd or 4th iteration, with the Kalman Filter will provide the accurate readings before so many iterations which will reduce the delay. As a result, the new GPS Navigation system will provide much accurate and faster readings to the user.

Keywords: Ephemeris Errors, GPS Navigation, Kalman Filter, Tracking Loops.

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7.

Authors:	**Dhrubajyoti Gogoi, Rupam Kumar Sharma**
Paper Title:	**Android Based Emergency Alert Button**

Abstract: Android is a java based operating system which runs on the Linux 2.6 kernel. It’s lightweight and full featured. Android applications are developed using Java and can be ported to new platform easily thereby fostering huge number of useful mobile applications. This paper describes about a SOS application being developed and its successful implementation with tested results. The application has target users those sections of the people who surprisingly falls into a situation where instant communication of their whereabouts becomes indispensable to be informed to certain authorized persons at remote end.

Keywords: Gprs, SOS, security, android

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7. https://play.google.com/store/apps/details?id=com.capefield.olalashe

8.

Authors:	**Chandni Vaghasia, Kirti Bathwar**
Paper Title:	**Public Key Encryption Algorithms for Wireless Sensor Networks In tinyOS**

Abstract: Generally, when people consider wireless devices they think of items such as cell phones, personal digital assistants, or laptops. These items are costly, target specialized applications, and rely on the pre-deployment of extensive infrastructure support. In contrast, wireless sensor networks use small, low-cost embedded devices for a wide range of applications and do not rely on any pre-existing infrastructure. The emerging field of wireless sensor networks (WSN) combines sensing, computation, and communication into a single tiny device called sensor nodes or motes. Through advanced mesh networking protocols, these devices form a sea of connectivity that extends the reach of cyberspace out into the physical world. here some algorithms are implemented and result is analyzed on different platforms like PC MICA,Mica 2, Mica2dot and analyze which algorithm is best for which platform.

Keywords: Cryptography, Public Key Encryption, Sensor nodes, Wireless Sensor Networks.

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	’02), pp. 471-483, 2002.		
9.	**Authors:**	**Pallavi S. Bangare, Pooja More, Sunil L. Bangare, Ashish Upadhye, Pooja Zambad**	
	Paper Title:	**Re-Evaluation of Visual Studio 2010 Add-ins For Coding Guidance**	
	Abstract: The add-in tool offers developers new means to check code quality and view suggestions based on standards used in coding domain today, thus adding flexibility to the current Visual Studio IDE. Code review is an important phase in implementation which we plan/propose to automate. Visual Studio 2010 add-in is assurance for coding guidelines and to run the review tool so as to find out the guideline violations at the time of coding itself **Keywords:** Regular expressions, Visual Studio 2010 IDE, Add-in, Coding Guidelines. **References:** 1. www.microsoft.com/visualstudio. 2. Static Analysis Tools For .NET. 3. Framework Design Guidelines: Conventions, Idioms, and Patterns For Reusable .Net Libraries - Krzysztof Cwalina, Brad Abrams. 4. Effective C#: 50 Specific Ways To Improve Your C# by Bill Wagner. 5. www.submain.com. 6. http://visualstudiogallery.msdn.microsoft.com/d0d33361-18e2-46c0-8ff2-4adea1e34fef		**35-38**
10.	**Authors:**	**P.Blessy, R.Jegan, X.Anitha Mary**	
	Paper Title:	**Seat Occupancy Detection Based on Impedance Measurement**	
	Abstract: Improved automotive safety depends on the sensing of the occupancy of the seat. Capacitive sensors are one of the most attractive sensor technologies that are used in seat occupancy detection. With the help of capacitive sensing methods the presence of an object or a person can be detected. This information can be used in vehicles for triggering safety devices, like airbag, only in the case when the seat is occupied by a human. A method for identifying human proximity in a seat by sensing the electric field and by measuring the impedance is introduced in this paper. **Keywords:** capacitive sensing principle, electrodes, electric field sensing, impedance measurement, integrated circuit. **References:** 1. Armin Satz, Dirk Hammerschmidt, David Tumpold “Capacitive passenger detection utilizing dielectric dispersion in human tissues”, journal on sensors and actuators, Vol: 152 march 2009. 2. Boby George, Hubert Zangl, Georg Brasseur “A Combined Inductive-capacitive Proximity Sensor for Seat Occupancy Detection”, IEEE transactions on instrumentation and measurement, vol.59, issue no.5, pp: 1463-1469, may 2010. 3. Boby George, Hubert Zangal, Thomas Bretterklieber, George Brasseur “A Novel Seat Occupancy Detection System Based On Capacitive Sensing”, IEEE International Instrumentation and Measurement Technology Conference, vol: 54, pp: 1515-1519, may 2008. 4. Fernando Seoane, Javier Ferreira, Juan Jose Sanchez “An analog front end enables electrical impedance spectroscopy system on-chip for biomedical applications” Journal on physiological measurement, Vol: 29, Number 6, pp: S267-S278, 2008. 5. Georg Brasseur” Capacitive Sensing “, sensor and test conference, pp: 275-280, 2009. 6. J.Ferreira, F.seoane, A.Ansede and R.Bragos “AD5933 based spectrometer for electrical bioimpedance applications” International conference on electrical bio impedance, Vol: 224, 2010. 7. Jerzy Hoja 1, Grzegorz Lentka ” Portable analyzer for impedance spectroscopy ”, XIX IMEKO World Congress Fundamental and Applied Metrology, pp:497-502,2009. 8. Joan Albesa and Manel Gasulla “Seat occupancy and belt detection in removable seats via inductive coupling”, IEEE Vehicular technology conference, page 1-5, Sep 2011. 9. Jerzy Hoja ,Grzegorz Lentka” Interface circuit for impedance sensors using two specialized single-chip microsystems”, journal on Sensors and Actuators, Vol:163, Issue1,pp:191–197,2010.		**39-41**
11.	**Authors:**	**Monika Kalra, Dinesh Verma**	
	Paper Title:	**Effect of Constant Suction on Transient Free Convective Gelatinous Incompressible Flow past a Perpendicular Plate with Cyclic Temperature Variation in Slip Flow Regime**	
	Abstract: The wavering free convective gelatinous incompressible flow past a perpendicular permeable flat plate with cyclic temperature in slip flow system has been discussed. Presumptuous constant suction velocity at the porous plate, methodical expressions for flow characteristic are obtained. The possessions of various parameters on the transient velocity, transient temperature, the skin friction and rate of heat transfer are discussed with the help of graphs. **Keywords:** The possessions of various parameters on the transient velocity, **References:** 1. P.K.Sharma and R.C.Chaudhary, Effect of variable suction on transient free convective viscous incompressible flow past a vertical plate with periodic Temperature variation in slip flow regime Emirates Journal for Engineering Research, 8 (2), 33-38 (2003) 2. S. Ostrach, New aspects of natural convection heat transfer, Trans. Am. Soc. Mec. Engrs., 75, (1953), 1287-1290. 3. S. Ostrach, Combined natural and forced convection laminar flow and heat transfer of fluids with and without heat sources in channels with linearly varying wall temperature, NACA TN, (1954), 3141. 4. R. Siegel, Transient free convection from a vertical flat plate, Transactions of the ASME, 30, (1958), 347-359. 5. A. A. Berezovsky; O. G. Martynenko and Yu. A. Sokovishin, Free convective heat transfer on a vertical semi infinite plate, J. Engng. Phys., 33, (1977), 32-39. 6. O. G. Martynenko; A. A. Berezovsky and Yu. A. Sokovishin, Laminar free convection from a vertical plate, Int. J. Heat Mass Transfer, 27, (1984), 869-881. 7. G. Ramanaiah and G. Malarvizhi, Free convection on a horizontal plate in a saturated porous medium with prescribed heat transfer coefficient, Acta Mech., 87, (1991), 73-80. 8. K. Anwar, MHD unsteady free convection flow past a vertical porous plate, ZAMM, 78, (1998), 255-270. 9. U. N. Das ; R. K. Deka and V. M. Soundalgekar, Transient free convection flow past an infinite vertical plate with periodic temperature		**42-44**

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Authors: **Pijus Kanti Khatua, Suraj Chakraborty, Sibaprasad Maity, Gora Das, Arunabha Ghosh**

Paper Title: **Eco-Composite Flush Door Shutter Using Bamboo-Jute Fiber**

Abstract: This paper present the development of composite flush door shutter for ecological purpose (eco-composite) using natural fibre like bamboo, jute and their basic mechanical properties. Here, 100 percent indigenous technologies were applied to make flush door shutter of solid core type. Different thermosetting resin adhesives were used as matrix at different stage. The experimental results [as per IS: 2202 (Part I)] of the physico-mechanical properties like surface finishing, tensile strength, internal bond strength, density, screw withdrawal and glue shear strength etc. of the flush door had a sufficient specific strength (influenced by the dilution of resin matrix) which is equivalent to that of the conventional wooden flush door. This technique for the production of flush door using fast growing natural fibre is cost effective and could be an ideal solution with ever depleting forest reserves.

Keywords: Fiber; Resin; Composite; Flush door

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13.

Authors: **Surinder Chauhan, Vikram Chopra, Shakti Singh**

Paper Title: **Transient Stability Improvement of Two Machine System using Fuzzy Controlled STATCOM**

Abstract: A static synchronous compensator is one of the FACTS devices used to improve the transient stability of the power system. In this paper a mamdani based fuzzy logic controller is designed. The inputs to the fuzzy logic are the alternator speed i.e. ω and its derivative i.e. dω/dt and the output is the firing angle α of the voltage source converter. The proposed controller is tested on two machine system using Matlab Simulink Environment. The Results are compared with conventional PI STATCOM Controller.

Keywords: Transient Stability, FACTS, STATCOM, fuzzy logic controller.

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14.

Authors:	**Heena, Jagpreet Kaur**
Paper Title:	**A Secure Technique for hiding data under the Fingerprint Images using Modified Haar Wavelet Based Transformation**

Abstract: Steganography refers to the hiding of secret messages in communications over a public channel so that an eavesdropper (who listens to the communications) cannot even tell that a secret message is being sent. Early works has been done on single file media. Which is sometime easy to analyze and find out the secret message . In the current work we are going to propose the multiple fingerprint images to store the secret message. We are also going to choose the modified haar wavelet transformation technique to insert the data. Image sequence is connected as random manner and every image has a tag for another image In this work we are inserting the data in fingerprint image for security and reliability purpose. As in this method the message is embedded in the picture in a random manner depending on the free spaces in the picture and also the message is scrambled with image while embedding to make the retrieval of the message by an unknown user tough.

Keywords: Fingerprints, Eavesdropper, MFHWT, Embedding

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15.

Authors:	**Dibyendu Barman**
Paper Title:	**Dynamic Time Quantum in Round Robin Algorithm (DTQRR) Depending on Burst and Arrival Time of the Processes**

Abstract: In multitasking and time sharing operating system the performance of the CPU depends on waiting time, response time, turnaround time, context switches from the process mainly depends on the scheduling algorithm. Round Robin is most widely used scheduling algorithm but this algorithm has some disadvantages. Here Time Quantum play very impartment role. If the time quantum is too large then it works like FCFS (First cum First Serve) scheduling algorithm and if time quantum is too small then more context switches is occur which decrease the performance of the CPU. In this paper based on the experiments and calculations a new scheduling algorithm is introduced. In this algorithm the main idea is to adjust time quantum dynamically depending upon arrival time and burst time of the processes

Keywords: Round Robin, Context Switch, DTQRR, CPU Scheduling.

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16.

Authors: **N.R.Patel, S.S.Thakare, D.S.Chaudhari**

Paper Title: **A Review of Different Parameter Monitoring Systems for Increasing Agricultural Yield**

Abstract: In the past couple of decades, there is rapid growth in terms of technology in the field of irrigation. Different monitoring systems are installed in order to improve the yield. Monitoring unit monitors the various agricultural parameters like temperature, relative humidity, moisture, light detection, etc. and controlling unit controls the peripheral devices attached to the controller like valve, watering pump, etc. This paper reviews some of these monitoring systems and proposes an automatic monitoring system model using microcontroler, which may help the farmer to improve the yield.

Keywords: Agricultural, Microcontroller, Monitoring System, Wireless Sensor Network.

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17.

Authors: **Rahul. B. Lanjewar, D. S. Chaudhari**

Paper Title: **Speech Emotion Recognition: A Review**

Abstract: The man-machine relation has demanded the smart trends that machines have to react after considering the human emotional levels. The technology boost improved the machine intelligence that it gained the capability to identify human emotions at expected level. Harnessing the approaches of signal processing and pattern recognition algorithms a smart and emotions specific man-machine interaction can be achieved with the tremendous scope in the field of automated home as well as commercial applications. This paper reviews the aspects of speech prosody in the form of pitch, intensity, speaking rate at the same the contribution of Mel Frequency Cepstrum Coefficients based speech features in speech emotion recognition implementation. The impact of incorporating fusion techniques, wavelet domain analysis and the classifier models on the recognition rate in the identification of six emotional categories namely happy, angry, neutral, surprised, fearful and sad from the standard speech database is emphasized with intend to improve recognition fidelity.

Keywords: Features, Emotion, MFCC, HMM, Classifier, Database, Fusion.

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18.

Authors: **Rakhi Garg, P. K. Mishra**

Paper Title: **Data Decomposition Technique Proposed for Candidate Itemsets Generation of Association Rule Mining Algorithms on Heterogeneous Cluster**

Abstract: Among various data mining task, association rule mining (ARM) is the major technique which is widely used in retail marketing, bioinformatics, website navigation analysis etc. It finds correlations among items in a given data sets and establishes an association between two non overlapping sets of frequently occurring values in a database. Various sequential and parallel ARM algorithms have been developed that differs in data layout, search technique, data structure, the number of database scans used and the system on which it is developed i.e. homogeneous or heterogeneous systems. This paper mainly put emphasis in the need of a candidate based ARM algorithm for heterogeneous PC cluster that reduces the database scans and time complexity. It also describe the design and functioning of the heterogeneous PC cluster i.e. MPICH2 and the data decomposition technique applied for candidate itemsets generation that plays important role in balancing workload as well as enhancing the performance of the algorithm on MPICH2 heterogeneous PC cluster.

Keywords: Association rule mining, candidate 1-itemsets, data mining, heterogeneous cluster

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19.

Authors: **Swarup S. Mathurkar, D. S. Chaudhari**

Paper Title: **A Review on Smart Sensors Based Monitoring System for Agriculture**

Abstract: Monitoring of environmental factors is very important over the last few decades. In particular, monitoring agricultural environments for various factors such as temperature, moisture, humidity along with other factors can be of more significance. A traditional approach to measuring these factors in an agricultural environment meant individuals manually taking measurements and checking them at various times. In this paper remote monitoring systems using wireless protocols used by different researchers for betterment of agricultural yield with best possible technologies is discussed. This is followed by proposed introductory model for agricultural monitoring with wireless protocol implemented using field programmable gate array (FPGA).

Keywords: Bluetooth, Field Programmable Gate Array (FPGA), Global Positioning System (GPS), LCD display, Microcontroller, Universal Asynchronous Receiver Transmitter (UART), Wireless nodes, Wireless Sensor Network (WSN), ZigBee

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20.

Authors:	**R. W. Somkuwar, P. L. Paikrao, D. S. Chaudhari**
Paper Title:	**An Overview: iButton (1-Wire Technology) and ZigBee Wireless Protocol**

Abstract: Many wireless applications in the world require identification and authorisation of a device or a person for carrying information. Also there is a need of transmission schemes for transmitting such signals to the host computer over the network. In such applications different tools are used for authentication, that includes barcodes, magnetic stripes, chip cards, RF tags, iButton, etc. Similarly, different wireless technologies are available viz. Bluetooth, ZigBee, Wi-Fi, etc. A review of different applications based on ibutton and ZigBee used for accessing and data transmission schemes are discussed in this paper.

Keywords: Access control, anycast, authentication, data logging, fall monitoring, home automation, iButton®, interrogation, ZigBee, ZigBee power adapter (ZPA..

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21.

Authors:	**R.K.Ramesh, A.Kabeer Mohamed Refai**
Paper Title:	**A Hypothetical Approach on Artificial Intelligence System with Sensors and VRS**

Abstract: One of the most emerging research areas is Artificial Intelligence. Here we are doing some theoretical study and analysis of how AI can be used in our day to day activities. Some case studies by using Sensors and Voice Recognition System is explained here and Comparing Natural Intelligence and AI with some easy examples which generally occur in the world.

Keywords: Ant based Algorithms (ABA), Artificial Intelligence(AI),Natural Intelligence(NI),Robots, Sensors, Voice Recognition System(VRS).

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4 Natural Intelligence-.Body Mind Integration and human development by Susan Aposhyan.

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22.

Authors:	**Ramandeep Kaur, Tejinder Thind**
Paper Title:	**Non Local Image Restoration Using Orientation Optimization By Means Of Genetic Algorithm**

Abstract: As we know image de noising is a main part of almost every image processing devices so it's better to

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have good algorithm to get good quality of image even after de noising that using some algorithm. Many researchers are doing work in this field to recover pixel lost in given RGB image. We are going to present a noble approach for restoration of pixels in image using optimizing its pixel orientation by means of GA (genetic algorithm). We implement orientation analysis for whole image using genetic algorithm and make unmatched orientation to its best optimized orientation to enhance image PSNR and MSE. This paper presents GA as an efficient algorithm comparable to the original non local means algorithm used for denoising.

Keywords: GA, MSE, PSNR, SAIST

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Authors: **G. B. Saboo, D. S. Chaudhari**

Paper Title: **Wireless Assistive Technology for Severely Disabled Persons: An Overview**

Abstract: Assistive technology plays very important role in the life of the people who are severely disabled due to quadriplegia, spinal cord injuries, central nervous system disorders or traumatic brain. Assistive technologies help them to lead a self supportive independent life. This paper provides the brief description about the various assistive technologies which has been developed until now for the severely disabled persons and its limitation. Further Tongue Drive System incorporating wireless assistive technology, which can overcome the limitation of previous related technologies, is discussed. Tongue Drive System is a tongue operated non-invasive or minimal invasive, unobtrusive and effective technology to control many devices in their environment. It helps users with the ability to drive power wheelchairs and access computers using their unconstrained tongue motion.

Keywords: Assistive technologies (ATs), magnetic sensors, spinal cord injuries, wheelchair movement control.

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Authors: **Salas K Jose, X. Anitha Mary, Namitha Mathew**

Paper Title: **ARM 7 Based Accident Alert and Vehicle Tracking System**

Abstract: Traffic accidents are one of the leading causes of fatalities. An important indicator of survival rates after an accident is the time between the accident and when emergency medical personnel are dispatched to the accident location. By eliminating the time between when an accident occurs and when the first responders are dispatched to the scene decreases mortality rates, we can save lives. One approach to eliminating the delay between accident occurrence and first responder dispatch is to use in-vehicle automatic accident detection and notification systems, which sense when a traffic accident is likely to occur and immediately notify emergency occurred. These in-vehicle systems, however, are not available in all cars and are unaffordable to retrofit in older vehicles. In this paper, such a system is described the main application of which is early accident detection. It can automatically detect traffic accidents using accelerometers and immediately notify a central emergency dispatch server after an accident, using GPS coordinates. Along with the data it will send the number of the vehicle too. This paper provides the following contributions to detecting traffic accidents via ARM7 controller. Here it is seen how arm controller, accelerometer, GSM connections, and GPS can be used to provide situational awareness responders. The codes are written and compiled in Keil ARMIDE.

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Keywords: Accident alert, accelerometer, GSM, GPS, i2c protocol, keil, UART, vehicle tracking.

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Authors:	**Pooja Rani**
Paper Title:	**Middleware and Toolkits in Grid Computing**

Abstract: The increasing demand for more computing power and data storage capacity in many fields of business, research, engineering, medical and science has raised the emergence of Grid Computing. Grid computing facilitates the environment where computers are interconnected with each other in such a manner that for making the execution faster of their tasks they can utilize the unused processing power of other idle systems. The applications of grid demand the secure access to the computational resources in the distributed environment. The secure and uniform access to resources is provided by Grid Middleware. In this paper, I have presented some of the middleware and Toolkits having some advantages and disadvantages.

Keywords: Grid Computing, Middleware, Toolkits, Grid Applications.

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26.

Authors:	**Namitha Mathew, Prabhakar.S. K.Gerard Joe Nigel**
Paper Title:	**Certain Approaches of Real Time Object Tracking in Video Sequences on Embedded Linux Platform**

Abstract: Video tracking in real time is one of the most important topic in the field of computer Vision. Detection and tracking of moving objects in the video scenes is the first relevant step in the information extraction in many computer vision applications.This idea can be used for the surveillance purpose, video annotation, traffic monitoring and also in the field of medical In this paper, we are discussing about the different methods for the video trackingusing Python Opencv software and the implementation of the tracking system on the Beagleboard XM. Background Subtraction method, and color based contour tracking are the different methods using for the tracking.And finally, we concluded that the background subtraction method is most efficient method for tracking all the moving objects in the frames.

Keywords: Surveillance, python opencv, background Subtraction method, Contour tracking.

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27.

Authors:	**J. Sandeep Soni, H. P. Agrawal, R. Gupta and H.O. Bansal**
Paper Title:	**Potentials and Capabilities of FACTS Controllers for Quality and Performance Enhancement of Power System**

Abstract: At present the demand of electrical power is growing day by day with a very fast rate, so we require much capable transmission and distribution system with the most excellent quality of supply. That's why power quality is a major issue in the distribution system and this is the area which attracts all electrical engineers. The major impact of poor quality of supply is on the highly loaded distribution system, on which the maximum load is connected. In this paper authors focus on the FACTS technology, classification schemes, applications, potentials and control attributes in terms of the performance and quality issues of power supply. Power quality means the non-standard supply voltage, supply current and supply frequency, that results malfunctioning or failure of operation of various equipments and accessories.

Keywords: FACTS devices, Transmission and distribution system, power quality and Power flow control.

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Authors: **Rushabh A. Shah, Jayeshkumar Pitroda**

Paper Title: **Fly Ash Class F: Opportunities for Development of Low Cost Mortar**

Abstract: Fly ash (Class F) investigated for its use as a partial replacement for cement in cement mortar (1:3). The utilization of Fly Ashas cement replacement material in mortar or as additive in cement introduces many benefits from economical, technical and environmental points of view. This paper presents the results of the cement mortar of mix proportion 1:3 in which cement is partially replaced with Fly Ash(Class F)as 0%, 10%, 30%and 50% by weight of cement. Two set of mixture proportions were made. First were control mix (without Fly Ash(Class F)with regional fine aggregate (sand)) and the other mixing contained Fly Ash(Class F)obtained from Thermal industrythe compressive strength has been obtained with partial replacement of Fly Ash(Class F)withcement.Test results indicate the decreases in the strength properties of mortar with Fly Ash(Class F)for strength at 7 & 28 days as partial replacement with the cement in the cement mortar 1:3. So it can be used in non-structural elements with the low range compressive strength where strength is not required and low cost temporary structure is prepared.

Keywords: Fly ash(Class F),Partial replacement, Compressive strength, Cement, Fine aggregate, Cost

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29.

Authors: **Dushyant R. Bhimani, Jayesh Kumar Pitroda, Jaydev J. Bhavsar**

Paper Title: **Effect of Used Foundry Sandand Pozzocrete Partial Replacement with Fine Aggregate and Cement in Concrete**

Abstract: To produce low cost concrete by blending various ratios of fine aggregate and cement with used foundry sand and Pozzocrete to reduce disposal and pollution problems due to used foundry sand and Pozzocrete.Pozzocrete P60 is a processed quality assured fly ash, investigated for its use as a partial replacement for cement in concrete (1:1.48:3.21). The utilization of Pozzocrete P60 as cement replacement material in concrete or as additive in cement introduces many benefits from economical, technical and environmental points of view. The innovative use of used foundry sand in concrete formulations as a fine aggregate replacement material was tested as an alternative to traditional concrete. This paper presents the results of the concrete of mix proportion 1:1.48:3.21 in which cement is partially replaced with Pozzocrete P60 as 10% by weight of cement, and fine aggregate is partially replaced with used foundry sand as 10%, 30% and 50% by weight of fine aggregate. Five set of mixture proportions were made. First (A0) were standard mix (without Pozzocrete and used foundry) sand with regional fine aggregate (sand)and coarse aggregate and the second (B0) mix contained 10% Pozzocrete P60obtained from DIRK India Private Limited, Nasik, Maharashtra state. Other mixes (B1, B2, and B3) contained Pozzocrete P60 (10%)plus foundry sand (10%, 30%and 50%)respectively obtained fromferrous and non-ferrous metal casting industries.The compressive strength and water absorption has been obtained with partial replacement of Pozzocrete P60 with cement and foundry sand with fine aggregate. Test results indicate the increase in the strength properties of concrete and decreasing water absorption of concrete up to 10% replacement of cement with pozzocrete plus 30% replacement of fine aggregate with used foundry sand for strength at 7, 14and 28 days. Also it can be used in non-structural elements with the low range compressive strength wherestrength is not required and low cost temporary structure is prepared.

Keywords: Pozzocrete P60,used Foundry Sand, Partial replacement,Concrete, Compressive strength, Fine aggregate, Cost.

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Authors: **Musa Mutah, Kikuchi Akira, Abdul Majid Zaiton, Jaafar Jafariah, Salim Mohd Razman, Ismail Nor Eman**

Paper Title: **Production of sugarcane bagasse based activated carbon for Cd2+ removal using factorial design**

Abstract: An evaluation of the effect of preparation conditions on the production of activated carbon from sugarcane bagasse for Cd2+ removal was carried out using a 2-level full factorial design. Sugarcane bagasse based activated carbon was prepared in a single step steam pyrolysis using a horizontal tube furnace. The investigated parameters were temperature (700 - 800oC), time (60 - 120 minutes) and steam flow rate (10 - 50 mL/min), within 11 experimental runs. Two responses were considered, the activated carbon yield and the removal % of Cd2+ from aqueous solution. The predicted results from the full factorial model were compared with the experimental values, with regression coefficients of R2 = 0.986 for yield and R2 = 0.989 for removal. Optimization was applied using desirability function with the selected optimum desirability of 0.592 for the set goals.

Keywords: full factorial, activated carbon, cadmium, adsorption

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31.

Authors:	**Stuti Singh, Roshan Srivastava**
Paper Title:	**Intrusion Detection Using Data Mining Technique**

Abstract: In reality it is not possible to prevent security breaches completely using the existing security technologies. The intrusion detection plays an important role in network security and information system. However, many current intrusion detection systems (IDSs) are signature based systems. The signature based IDS also known as misuse detection looks for a specific signature to match, and identify an intrusion. When the signatures or patterns are provided, they can detect all known attack patterns, but there are some problems for unknown attacks. The rate of false positives is very low but these types of systems are poor at detecting new attacks, variation of known attacks or attacks that act as normal behavior. Statistical Based Intrusion detection System (SBIDS) can overcome many of the aforementioned limitations of signature based intrusion detection systems. Statistical based intrusion detection systems performs better than signature based intrusion detection system for novelty detection i.e. detection of new attack is very important for intrusion detection system. Researchers have implemented various classification algorithms for intrusion detection.
This dissertation evaluates a decision tree classifier over a benchmark dataset. It will help intrusion detection system in novelty detection i.e. detection of new attacks. KDD99 dataset is used as the training data set.

Keywords: Data Mining, Decision Tree, Intrusion Detection System, KDD99 Dataset.

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32.

Authors:	**A. Duraisamy, M.Sathiyamoorthy, S.Chandrasekar**
Paper Title:	**A Server Side Solution for Protection of Web Applications from Cross-Site Scripting Attacks**

Abstract: Cross-Site scripting attacks occur when accessing information in intermediate trusted sites. Cross-Site Scripting (XSS) is one of the major problems of any Web application. Web browsers are used in the execution of

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commands in web pages to enable dynamic Web pages attackers to make use of this feature and to enforce the execution of malicious code in a user's Web browser. This paper describes the possibilities to filter JavaScript in Web applications in server side protection. Server side solution effectively protects against information leakage from the user's environment. Cross-Site scripting attacks are easy to execute, but difficult to detect and prevent. The flexibility of HTML encoding techniques, offers the attacker many possibilities for circumventing server-side input filters that should prevent malicious scripts from being injected into trusted sites. Cross site scripting (XSS) attacks are currently the most exploited security problems in modern web applications. These attacks make use of vulnerabilities in the code of web-applications, resulting in serious consequences, such as theft of cookies, passwords and other personal credentials. It is caused by scripts, which do not sanitize user input.

Keywords: Web Application; Cross Site Scripting; Server Side Solution; Detection of XSS Attacks, XSS Filter, HTML Input Filter.

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33.

Authors: **Gayathri S,K Gerard Joe Nigel,S Prabakar**

Paper Title: **Low Cost Hand Vein Authentication System on Embedded Linux Platform**

Abstract: Biometrics is one of the highly accurate technologies in the field of user identification. This paper presents a low costcontactless biometric identification system on Embedded Linux platform which is used to authenticate a person using the vein pattern in hand. As the system uses the vein pattern which is unique to each individual and is contained within human body, it is highly secure and accurate. Moreover, its contact less feature gives it a hygienic advantage over other personal authentication technologies. The system works by capturing a person's vein pattern image by radiating it with near -infrared rays. The deoxygenated blood in the vein absorbs the near infrared radiation and thus the vein pattern appearsas black areas in the image. This captured pattern is stored as a template for the user verification. The experimental results of the proposed system shows that the dorsal hand vein pattern is highly unique and is a better alternative for other personal authentication systems. Also, the use of low cost ccd camera and open source Embedded Linux made the system cheaper than the conventional systems without risking accuracy.

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Keywords: Embedded Linux, Hand vein authentication, pattern extraction, pattern matching, verification.

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34.

Authors:	**P. Divakara Varma, R.Ramana Reddy**
Paper Title:	**A Novel 1-Bit Full Adder Design Using DCVSL XOR/XNOR Gate and Pass Transistor Multiplexers**

Abstract: Adders are the basic building blocks in digital computer systems. Arithmetic operations are widely used in most digital computer systems. Addition is a fundamental arithmetic operation and is the base for arithmetic operations such as multiplication and the basic adder cell can be modified to function as subtractor by adding another xor gate and can be used for division. Therefore, 1-bit Full Adder cell is the most important and basic block of an arithmetic unit of a system. Hence in order to improve the performance of the digital computer system one must improve the basic 1-bit full adder cell. There is always a trade-off between speed and power dissipation in VLSI Design. To achieve high speeds, high drivability hybrid-DCVSL design methodologies are used to build adder cell in this work. Static CMOS, DCVSL adders are compared with hybrid XOR and XNOR based hybrid adder cell for delay, power dissipation and number of transistors utilized. The hybrid adder is designed using DCVSL gates because these can produce both complementary and true outputs using single gate architecture. The multiplexers in the design are based on the pass transistor logic (PTL) because these are simple to construct and occupies less chip area per component.

Keywords: DCVSL, Multiplexer, PTL, XOR/XNOR

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35.

Authors: Pankaj Garg, Ruby Verma

Paper Title: Effect of Using Different Encoders in Bluetooth

Abstract: IEEE 802.11 and Bluetooth are the two different wireless systems that share the same frequency band in 2.4 GHz and are likely to interfere with each other if operating in the same environment and thus experience a severe decrease in throughput. The devices equipped with IEEE 802.11 and Bluetooth are mobiles, laptops, watches and many more and in future with WiMAX. Result is the number of co-located devices may cause interference issues in the 2.4 GHz radio frequency spectrum. Like other communication devices Bluetooth also consists of transmitter, channel and receiver. In transmitter and receiver encoders and decoders are used. In Bluetooth transmitter different types of encoders are used like RS encoder, Hamming encoder, CVSD encoder etc. these encoders have its own advantages and disadvantages. In this paper, by using of two different encoders like hamming encoder and CVSD encoder we analyse the communication of Bluetooth device and compare the BER.

Keywords: CVSD, ISM, LMP, L2CAP, HCL, PCM and RFCOMM

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36.

Authors: Smita Upendra Gumaste, Jyoti Rao

Paper Title: Investigation and Review of Efficient Method for Multiple Protein Network's Pairwise Alignment

Abstract: Since from last decade, there is rapid growth in the availability of data over the protein-protein interaction (PPI) networks considering the various species like human, fly, bacteria, yeast and worm. As we know that, one of the highly impacted approach for protein networks is that their comparative analysis which has already gain many researchers attention specially for the predicting the network structure, protein function as well as interaction. The major challenge for execution of this approach is to present robust algorithm for multiple network alignment. In this review paper, we are first presenting the literature review over the network alignment problems and querying problems. In the literature we are also discussing different PPI networks and their alignment problems. Further our main aim is to investigate the algorithm which is presented for efficient, fast with more accuracy pairwise alignment of multiple protein networks. Here we considering the proposed approach is work with novel representation of multiple protein networks those are having linear size. From the experiment and results observations, we found that this approach is more efficient and fast as compared to previous studies for multiple protein networks.

Keywords: Protein-protein interactions, pairwise alignment, yeast two-hybrid, data representation, search methods.

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Authors:	**Kailas I Patil, Jaiprakash Shimpi**
Paper Title:	**A Graphical Password using Token, Biometric, Knowledge Based Authentication System for Mobile Devices**

Abstract: Passwords provide security mechanism for authentication and protection services against unwanted access to resources. A graphical based password is one promising alternatives of textual passwords. According to human psychology, humans are able to remember pictures easily. In this paper, we have proposed a new hybrid graphical password based system, which is a combination of recognition and recall based techniques that offers many advantages over the existing systems and may be more convenient for the user. Our scheme is resistant to shoulder surfing attack and many other attacks on graphical passwords. This scheme is proposed for smart mobile devices (like smart phones i.e. ipod, iphone, PDAs etc) which are more handy and convenient to use than traditional desktop computer systems.

Keywords: Authentication, Graphical Passwords, Network Security.

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38.

Authors:	**Manish kumar Rajput, Divyanshu Prabhav, Chitransh Karade**
Paper Title:	**Design of a Wide Slot Antenna for Bandwidth Enhancement for Wireless Communication Application**

Abstract: In this paper we are proposing a brief description about Microstrip printed wide slot antenna with a fork like tuning stub for bandwidth enhancement. By applying fork like tuning stub to the microstrip wide slot antenna instead of line feed, it is experimentally found that operating bandwidth can be enhanced. Experimental results indicate that the impedance bandwidth, defined by -10Db return loss, of the proposed wide slot antenna can reach operating bandwidth of 3.1 GHz at operating frequency about 2GHz which is 6 times greater than conventional wide slot antenna. A comprehensive parametric study has been carried out to understand the effects of various dimensional parameters and to optimize the performance of the designed antenna.

Keywords: Fork like tuning stub, Bandwidth enhancement, wide-slot antenna

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39.

Authors:	**S. P. Singh, Vikash Sharma**
Paper Title:	**Features Enhancement and Efficiency Optimization of HSNP by HSVP System of Vehicle Number Plates**

Abstract: High security number plate (HSNP) deals with metal plate mounted on the motor vehicles having a unique number allotted to that vehicle. The plate is the only identification of the vehicle in the first sight. This plate helps in the searching and tracking of the vehicle whenever required. These important features of plate make it an important part of the vehicle and increase the chances of its misuse, like its tempering, its replacement with wrong plate etc.

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The paper proposes a system HSVP (High Security Vehicle Plate), which makes the vehicle secure and restrict the cases of vehicle stolen completely or in parts. The system enhances the features of the existing HSNP system and improving the efficiency of the vehicle tracking system by providing an effective automated system. HSVP may also be utilized to optimize the functioning of the traffic police.

Keywords: HSNP, HSRP, HSVP, SVM, SIM, UID, RTO.

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40.

Authors: **S. P. Pingat, Shubham Rakhecha, Rishabh Agrawal, Sarika Mhetre, Pranay Raushan**

Paper Title: **Real Time Smart Car Security System by Using Biometrics**

Abstract: In this proposed paper, two tier security for car is achieved using Biometrics such as FDS (Face Detection System) and Finger Print Detection System. FDS is used to detect the face of the person driving the car and compare it with the training set. For example, during night when the owner of car is sleeping and someone tries to rob the car then initially the finger print of that person will be detected and matched with predefined image through handle of the car where the Finger print scanner can be placed. Also in case if that person surpass the Finger print security then FDS image obtained by one tiny camera which can be hidden easily somewhere in the car. Image obtained through the camera is then compared with stored (training set) image using FDS. If the image does not get match, then the information is sent to the owner through MMS. The image of the thief can be obtained by owner in his mobile through MMS as well as he can get the location of the vehicle through GPS. The owner can get the location of vehicle through SMS. So by using this system, owner can get the image of thief as well as the Car's Location.

Keywords: FDS (Face Detection System), MMS (Multi Media System), PCA (Principle Component Analysis), GPS (Global positioning System), GSM (Global System for Mobile Communication), Finger Print Scanner.

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41.

Authors: **Yash Dave, Gordhan Jethava**

Paper Title: **An Approach to Improve Security on Clone of Mobile Device during Augmented Execution**

Abstract: The goal of cloud computing is usage of cloud resource form anywhere i.e. mobility. Mobile cloud computing, new technology in the field of cloud computing enables cloud users to access cloud from their mobile devices (e.g. Laptops, PDA, Smartphone's). Computation power and battery life is one of the major issues of these mobile devices. Now a day's resource starved applications like online HD graphics games, multimedia, etc. needs more bandwidth and computation power that mobile device might not have. So to overcome this problem clones of mobile devices are created on cloud servers. This clone uses resources of the cloud servers. Using augmented execution all complex applications run in this clone and response is sent back to mobile device. This can save battery life for low configured mobile devices. This paper shows how to improve the synchronization between mobile device and clone to communicate more reliably in terms of improving security.

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Keywords: Augmented execution, clone, cloud computing, mobile cloud computing.

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42.

Authors: **Madhuri Gawali, Mrunal Bewoor, Suhas Patil**

Paper Title: **Review: Evaluating and Analyzer to Developing Optimized Text Summary Algorithm**

Abstract: Information available on internet is in unstructured manner, retrieving relevant documents containing the required information is difficult. Due to huge amount of data, query-specific document summarization has become an important problem. It is difficult task for the user to go through all these documents, as the number of documents available on particular topic will be more. It will be helpful for the user if query specific document summery is generated. Comparing different clustering algorithms those provide better result for summarization. Based on this we provide input as one query and get all the documents related to that and on these document different clustering algorithm are used to get results of each Algorithm. Then these algorithms comparing results with each other in terms of speed, memory, and quality of summary. After comparison we can decide which algorithm is better for summarization. So it will help to find the better query dependent clustering algorithm for text document summarization.

Keywords: clustering, summarization.

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43.

Authors: **S.Priya, S.Pushpa**

Paper Title: **Measurouting Approach for Flow Utility in Routing Assisted Traffic Monitoring**

Abstract: The network operators are interested in monitoring passing traffic in a network for reasons of traffic accounting, debugging or troubleshooting, forensics, and traffic engineering. Previous research has focused on monitor placement across the network for maximizing the monitoring utility. But, traffic characteristics and measurement objectives can change dynamically, rendering a placement of monitors suboptimal. It will not be the feasible solution to dynamically reconfigure measurement infrastructure. The problem is addressed by strategically routing traffic subpopulations over fixed monitors. This approach is referred as MeasuRouting. The challenge of MeasuRouting to work within the intradomain TE operations that are geared for utilizing bandwidth resources and meeting quality-of-service (QoS). A feature of intradomain routing, is specified for aggregate flows which is feasible for measurouting. MeasuRouting can route the components of an total flow while ensuring that the placement of monitor is compliant to original TE objectives. In this paper, a theoretical framework for MeasuRouting and flow utility function for packet is presented.

Keywords: Aggregate flow, intradomain routing, network management, traffic engineering, traffic measurements.

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44.

Authors: **Haval Sardar Kamil , S. U. Kulkarni**

Paper Title: **Overview of Wind Turbine Driven Self-Excited Induction Generator**

Abstract: This paper presents an overview of the analysis, modeling as well as controlling of self Excited Induction Generator (SEIG) which is connected by Wind Turbine. The AC capacitors are used to build up the process of an isolated induction generator starts from charge in the capacitors or from a remnant magnetic field in the core. Same process is done at the time of isolated induction generator is excited by inverter/rectifier system. . A closed loop voltage control scheme using a PWM Voltage Source Converter (VSC), dc link capacitor and a P-I voltage controller is proposed. This scheme generates constant voltage and variable frequency using the converter which also acts as a reactive power compensator. In the growing applications and environmental conditions, various types of technologies are introduced to delivering the power to the grid. The main objective of the project is to track and extract maximum power to the grid connected wind energy conversion system. This paper presents only a proposed approach of self-excited induction generator in wind energy conversion system.

Keywords: Self Excitation Induction Generator, PWM Inverter, Capacitor, Series Induction Filter, voltage source, grid

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Authors: **Mustafa Jawad Kadhim, D.S.Chavan**

Paper Title: **Stability Analysis of DFIG-based Wind Farms Using Different Bus Systems**

Abstract: This paper shows an overview of the power system stability of DFIG based wind farms and conventional synchronous generator. For the optimized computation, the reduced order DFIG model was used in order to restrict calculation to the fundamental frequency component. It depends on accurate model of DFIG wind generator, modal analysis, PV curves, as well as time domain simulations could be used to study the effect on system stability of replacing conventional generation by DFIG-based wind generation on the IEEE 14-bus, IEEE 30-bus, IEEE 18-bus benchmark system, for fixed power factor and voltage control operation. This paper presents the block diagram of IEEE 14 bus system by using Wind Turbine. This paper indicates that the oscillatory behavior associated with the dominant mode of the synchronous generator, is improved when the DFIG-based wind turbine is connected to the system; this improvement in the damping ratios is more evident when the wind turbines are operated with terminal voltage control.

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Keywords: Power System, IEEE 14 bus system, IEEE 18 bus system, stability, wind power generation, time domain, power flow analysis, PSAT.

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46.

Authors:	**Roopali Goel, Ritesh Jain**
Paper Title:	**Speech Signal Noise Reduction by Wavelets**

Abstract: Speech plays an important role in multimedia system. Speech enhancement is to remove noise from speech for multimedia systems. Noise act as a disturbance in any form of communication which degrades the quality of the information signal. Generally transmission and receiving signals are often corrupted by noise which can cause severe problems for downstream processing and user perception. Therefore an automated removal of noise would be an invaluable first stage for many signal processing tasks. Denoising has long been a focus of research and yet there always remains room for improvement. There are so many ways to improve the signal quality or to regenerate the signal. In this paper we have present a method for speech signal denoising using different wavelets. In this we will demonstrate the usefulness of wavelets to reduce noise in a model system where Gaussian noise is inserted into an audio signal.

Keywords: About four key words or phrases in alphabetical order, separated by commas.

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47.

Authors: **Rajeshwar Singh,Gurpreet Singh Saini**

Paper Title: **Multistage Enhancement of Channel Quality using Channel Estimation Techniques for effective BER/SNR using 16 QAM for Mobile Communication**

Abstract: In this paper we present an improved and robustchannel estimation algorithm for OFDM mobile communication systems based on the use of pilot subcarriers.Specifically we present an iterative channel estimation technique to improve the performance of channel estimators.In iterative receiver structures,soft information becomes available after the decoding stage.This information is used to enhance the quality of the channel estimates for the nextiteration.The low complexity proposed receiver including LMS algorithm, has a higher efficiency than conventional methods(without channel estimation,LS& LMMSE) and it can work in lower amount of SNRs.We derive a generalized estimator based on the linear minimum mean square error (LMMSE) principle for deterministic pilot information combined with soft information. The performance is presented in terms of Bit-error rate (BER) for a system using 16-quadrature amplitude modulation (QAM).Simulation results validate that the proposed channel estimation scheme can achieve tremendous performance as the existing channel estimation methods.

Keywords: Estimation(CE),OFDM(Orthogonal Frequency Division Multiplexing).

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48.

Authors: **Er. Ankita, Anand Nayyar**

Paper Title: **Review of various PTS (Partial Transmit Sequence) techniques of PAPR (Peak to Average Power Ratio) reduction in MIMO-OFDM**

Abstract: MIMO-OFDM is the most important candidate for wireless communication. The main drawback of this MIMO-OFDM is high PAPR which results in signal distortion and power inefficiency in RF section of transmitter. In this paper we will discuss and compare all the Partial Transmit Sequence (PTS) techniques and conclude that why cooperative PTS is much better than PTS technique.

Keywords: PTS (Partial Transmit Sequence), Cooperative PTS, MIMO-OFDM, PAPR, Interleaved partitioning.

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Authors: **Ankusha.Biradar, Nagabhushan.Patil**

Paper Title: **Implementation of a Hybrid High Power Factor Three-Phase Unidirectional Rectifier**

Abstract: This paper presents a new hybrid three phase rectifier composed by the parallel association of a single switch three phase boost rectifier with a pwm three phase unidirectional rectifier. According to this proposal each rectifier processes about half of the output rated power. The diode rectifier operates at a low frequency and has a higher output power rating Therefore ,the pwm unidirectional rectifier is designed to operate with a small power rating and a high switching frequency. In the proposed scheme, dsPIC30F2010 controller is used to produce signals. A resistive load(Two incandescent lamps with different watts) are used as load for testing the developed hardware. Textronics TDS2024B storage oscilloscope is used to store the gate pulses and waveforms. The perfectly sinusoidal input currents with improved power factor can be obtained by this hybrid rectifier.

Keywords: Active rectifier, Bridge, IGBT, MOSFETs, passive rectifier, Sensors.

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Authors: **J.Baskaran, P.Pugazhendiran, M.Sujith**

Paper Title: **A Novel Digitally Controlled Converter for Renewable Energy Resources**

Abstract: A digital PWM controller for Buck-boost converter is designed using MATLAB-Simulink. The mathematical model of PWM controller is derived to design in MATLAB simulation model. In this Proposed model, the digital PWM controller is used to obtain the positive ouput voltage from the buck boost converter in the range of 101V from the variable input voltage of 50-200V. The proposed model is highly efficient and flexible for all kind of renewable energy conversion methods. In this paper, the basic principles of the proposed digitally controlled Positive buck boost converters are illustrated in detail and also we discussed about the proposed model ouput voltage is employed for DC Motor applications.

Keywords: Pulse Width Modulation (PWM) Positive Buck-Boost Converter (PBB), DC motor.

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51.	**Authors:**	**S. Kumaravel, T. Ramkumar, B.Gurunanam, M. Suresh, K. Dharanirajan**
	Paper Title:	**An Application of Remote Sensing and GIS Based Shoreline Change Studies – A Case Study in the Cuddalore District, East Coast of Tamilnadu, South India**

Abstract: The shoreline is one of the rapidly changing coastal landforms. Shorelines are the key element in coastal GIS and provide the most information on coastal landform dynamics. Therefore, accurate detection and frequent monitoring of shorelines are very essential to understand the coastal processes and dynamics of various coastal features. The present study is to investigate the spatial as well as quantify the shoreline changes along the coast in the parts of Cuddalore district, east coast of Tamil Nadu by using geospatial techniques. The Survey of India topographic map, multi-temporal Indian Remote Sensing satellite data were used to extract the shorelines. The data is processed and analyzed by software like ERDAS image processing, ArcGIS respectively. The rates of shoreline changes are estimated by overlay analysis by using GIS environment. Due to length of the shoreline, the study area has divided into five segments namely A, B, C, D and E. The study reveals that most of the study area has been undergoing erosion around 3.21km2 for the past four decades except Segment D. Both natural and anthropogenic processes along the coast modify the shoreline configuration and control the erosion, accretion activities of the coastal zones.

Keywords: coastal land forms, dynamics, shoreline, erosion, accretion, coastal zones

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52.	**Authors:**	**A. P. Edlabadkar, Anup P. Ingle**
	Paper Title:	**Work-Study and Design of Material Handling System in Soot Girni**

Abstract: Aim of this research paper is to minimize the processes and cost of the production in soot girni (spinning mill). Work-study is done for the purpose of possible use of man, machine and materials etc. In this soot girni, I have done work-study in carding section for effective use of labor and reduce fatigue of labor .for eliminating the one labor in carding section I need to offsetting the time of carding machine and use of the material handling system. I offset time of the entire carding machine and maintain the smooth flow of drums to the drawing machine. I have given the suggestion of concept of the material handling system to reduce the number of labor. So that, labor cost will reduce and unit cost of the production is reduce.

Keywords: material flow, work-study, man-machine char, new material handling process.

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53.

Authors:	**R. Venkatachalapathy, G. Nandhakumar, P. Karthikeyan**
Paper Title:	**Diatoms Community Structure In Relation To Physico-Chemical Factors in Yercaud Lake, Salem District, Tamil Nadu, India**

Abstract: Diatoms are likely to natural conditions in lake and their distribution is mainly governed by the physicochemical composition of the water. Monitoring of water quality with regards to physicochemical parameter is insufficient. Organic indicators of water quality monitoring urbanized during the recent years have served as excellent tools in the area of water pollution studies. Among all the algae, fresh water diatoms are the most commonly used indicators of the conditions of water. Several diatom indices are tested for rivers in other countries, but have not been used for lake water systems. Diatom monitoring studies in India have suffered given that their recognition is difficult and extensive reporting is not accessible mostly. . Diatoms and water samples were collected in 10 locations during summer season (May 2012). As a result the study aims at applying some of the diatom indices to monitor fresh water lakes of Yercaud city. Three water quality indices and sixteen water chemistry variables were analyzed. 21 diatom species are identified. They are as follows: Amphora ovalis, Bacillaria paxillife, Cyclotella atomus, Cyclotella stelligera, Cymbella tumida, Eunotia curvate, Eunotia pectinalis, Fragilaria rumpens, Frustulia megaliesmontana, Gomphonema lanceolatum, Gomphonema Parvulum, Gomphonema undulatum, Navicula ryhnchocephala, Navicula virudila. Navicula sigmatifera, Nitzschia microcephala, Nitzschia obtuse, Nitzschia palea, Pinnularia boreanis, syndera ulna, Tabularia tabulate. Fresh water diatoms indices can be applied in water quality monitoring of lakes. Changes in the Diatom of large temperate freshwater lakes have long been recognised as providing a good indicator of the trophic status and environmental quality of the system. To assess the relative importance of environmental influences on diatom assemblages good lake. In this paper we deals with the current status of the diatom of a Yercaud lake make comparisons with diatoms community structure in relation to physico-chemical factors. Among the physical and chemical variables measured, water pollution, particularly organic contamination and eutrophication, measured from pH, electrical conductivity and total ionic concentration, respectively, appeared to be one of the most important environmental factors determining the composition and structure of species associations in the area studied.

Keywords: Freshwater lakes, Environmental quality, Physico-chemical factors.

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54.

Authors:	**Sanjeetha Sara John, P. Anatha Christhu Raj**
Paper Title:	**Pulse Oximeter using PSoC**

Abstract: A pulse oximeter to measure the oxygen saturation in blood as well as heart rate was developed using PSoC. The method proposed here is to transmit light of two different wavelength through the finger and tissues and to measure the change in absorption intensities. The signals are obtained as photoplethysmograph (PPG) waveforms. The pulse oximeter finds the variations in both the waveforms and calculates the SpO2 and heart rate of an individual. The system developed has a wide clinical application and can be used for patient monitoring and for doing vascular assessment. It also helps us to explore the use of SOC in medical care devices. An adult SpO2 finger probe nellcor DS100A sensor was used for this project.

Keywords: SpO2, oxygen saturation, pulse rate, PPG, PSoC development kit.

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55.

Authors: **Prajakta D. Phalke, Snehal G. Pote, Sakshi Dhar, Kshitija S. Urane**

Paper Title: **Auto Backup with Network Information System**

Abstract: In information technology, Backups have two distinct purposes. The primary purpose is to recover data after its loss, be it by data deletion of corruption. Data loss can be a common experience of computer users. The secondary purpose of backups is to recover data from an earlier time, according to a user-defined data recovery policy, typically configured within a backup application for how long copies of data are required. Though backups popularly represent a simple form disaster recovery, and should be part of a disaster recovery plan, by themselves, backups should not alone be considered disaster recovery. Not all backup systems or backup applications are able to reconstitute a computer system, or in turn other complex configurations such as a computer cluster, active directory servers, or a database server, by restoring only data from a backup. Auto Backup Software is an easy-to-use program designed to automatically backup your critical data to a local disk, the Network neighbourhood or remote FTP servers. Restoring is very easy, you can select files to restore to the original or a new location. Auto Backup Software can do integrated encryption, compression, and can use password protection. You can create self-restoring archives. Flexible backup date and time are specified to backup automatically. You can start backup and restore manually at any convenient time. It is a simple yet powerful backup solution for your business or for your personal needs in a networking environment or on a single machine. Auto Backup Software can work as a Windows NT/2000/XP/2003 service(Only Site License). Multi-threaded backup, restore and transfer engine allows you can start multi-backup and -restoring processes at the same time. You can edit multi-backup tasks at the same time, too. The system tray pop up menu provides for easy access to main functions. NIS is useful for network administrative to manage different clients from one space. NIS support get the screenshot of current screen for a any client on network. Power off the selected client PC. Shut down the PC from Administration PC. Admin can get the processes currently running on client pc and can also kill the unnecessary process running on client pc. It can send a message to particular client or all clients on network.

Keywords: Networks Information System(NIS).

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Authors: **Radhika P. Fuke, M. V. Sarode**

Paper Title: **A Novel Approach to Capture Salient Part from JPEG Image**

Abstract: Salient region detection in images is very useful for image processing applications like image segmentation, object detection and recognition. In this paper, an improved approach to detect salient region is presented Using saliency detection technique. Existing saliency detection models are built in the uncompressed domain. Since most images over Internet are typically stored in the compressed domain such as joint photographic experts group (JPEG), we propose a novel saliency detection model in the compressed domain in this paper. The intensity, color, and texture features of the image are extracted in the JPEG bit-stream. Detection of irregular visual patterns in images and in video sequences is useful for a variety of tasks. Detecting suspicious behaviors or unusual objects is important for surveillance and monitoring. Identifying spatial saliency in images is useful for quality control and automatic inspection.

Keywords: Compressed domain, image retargeting, joint photographic experts group (JPEG), saliency detection, denoising.

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Authors: **Sarisha Satheesan, A. Ilayarajaa**

Paper Title: **Proactive Cued Click Points:A Sound Signature Integrated Graphical Password Authentication Mechanism**

Abstract: This system presents an innovative idea that integrates graphical passwords with sound signature. The system encourages the user to select click points from images as their passwords rather than textual words. According to human psychology, one can memorize the click points easily when compared to the textual passwords. The number of click points and the number of images included in the password creation depend upon the user's choice. Apart from the click points, the system provides sound files that can be integrated to the user's password. While logging in, the system verifies the click points as well as the sound file. Hence the system provides an efficient method to create more secured passwords which are easier to manage.

Keywords: Authentication, Graphical Password, Sound Signaure, Secure Password Creation.

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58.

Authors: **S. Kumaravel, B.Gurugnanam, M.Bagyaraj, S. Venkatesan, M.Suresh, K.Dharanirajan**

Paper Title: **Monitoring Land Cover Changes in the Parts of East Cost of Tamilnadu and Pondicherry Union Territory Using Geospatial Technology**

Abstract: Monitoring decade changes of land use / land cover using multi-temporal remotely sensed data provides an effective and accurate evaluation of human impact on the environment. Agriculture, tourism and industrial activities are the key elements of study area social structure and economy. The main objective of this study was to monitor land-cover changes in this area using multi-temporal Indian Remote Sensing Satellite data acquired in the year 2000 and 2011. Temporal changes were determined using supervised classification with limited field validation. The results showed that this area involves twelve land cover classes were built-up land, crop land, fallow land, plantation, land with/without scrub, sandy area, waste land and water bodies of canal, river; tank and water logged areas. During the study period, around 67% of land cover features were not changed. However, overlay analysis shows that land cover features of built-up land and crop land were increased their areal extent. Moreover, land use classes of fallow land and land without scrub was reduced their area of 11 from 14.61 and 2 from 2.86km2 respectively.

Keywords: Land use /land cover, Change detection, Satellite remote sensing, GIS, supervised classification.

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59.

Authors: **Sourav Roy, Amitava Choudhury, Joydeep Mukherjee**

Paper Title: **An Approach towards Detection of Indian Number Plate from Vehicle**

Abstract: Vehicle number plate recognition is the most interesting and challenging research topic from past few years. It is shown that the number plates are different shape and size and also have different color in different countries. In India the most common vehicle number plate used yellow or while as background and black used as foreground color. In this paper we proposed a system to localization of number plate mainly for the vehicles in West Bengal (India) and segmented the numbers as to identify each number separately. This paper presents an approach based on simple and efficient morphological operation and sobel edge detection method. We also presents a simple approach to segmented all the letters and numbers used in the number plate. After reducing noise from the input image we try to enhance the contrast of the binarized image using histogram equalization. We mainly concentrate on two steps; one is to locate the number plate and second is to segment all the number and letters to identify each number separately. The project develops by using MATLAB7.4.0.

Keywords: Number plate localization, Morphological operation, Character segmentation, Thresholding, Edge detection.

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60.

Authors: **Renganthan.B, Vinothini.K, Chinnadurai.S**

Paper Title: **A Smart Wireless Home Maneuver for Indoor Blind Pedestrians via Indoor Positioning System**

Abstract: In recent times lots of assisting and navigating device were introduced to help the physically challenged person to make their life to be comfortable. When it comes to the blind people, the main concern is about their guidance in both the indoor and outdoor environment to avoid object collision. Basically they were guided by either by the alarm or beep sound when the object is interrupted on their way. What is the name of the object they could face? Whether it is a safe or unsafe? The above two issues is the major problem in assisting a blind person. To overcome this safety problem voice based assistance is provided to blind person in order to identify the objects which interrupt their way. The current location of the indoor environment is preloaded by geo tagging method. And zigbee protocol and digital compass is used to identify the current location of the blind person and adapt to their movement.

Keywords: Inertial, Geo-tagging, Haptics, Maneuver, Zigbee.

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61.

Authors:	**Jishmi Jos Choondal, C. Sharavanabhavan**
Paper Title:	**Design and Implementation of a Natural User Interface Using Hand Gesture Recognition Method**

Abstract: This paper presents a system which is capable of communicating PC using natural gestures. This system integrates the physical surroundings of a person with real time computer generated information. It creates an enhanced perception of the surrounding environment. To achieve this, a Natural User Interface is designed and implemented by using vision Based hand gesture recognition method. It should be capable of tracking the hand gestures and provides a feedback according to the recognized gesture. The user will be able to use his/her hand movements in order to control the operations which are usually carried out with a mouse. According to different hand movements, the system will respond and carry out the respective operations that are available. Here the natural gestures are recognized through analyzing the image frames from the web camera which is focused to the computer monitor. And it relies on a user being able to carry out relatively natural motions, movements or gestures that they quickly discover and control the computer application or manipulate the on-screen content. This system provides an efficient way of communication with PC.

Keywords: Hue Saturation Value color space, Human computer interface, Natural user interface, Vision based hand gesture recognition

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Authors:	**D.Sushma Deevi, G.S.Ajay K Reddy, Narendra Babu**
Paper Title:	**Geostatistical and Fuzzy C-Mean Clustering For Extraction of White Matter**

Abstract: IMAGE technology allows medical researchers to observe details and to match morphological changes in the physical structure of the brain to changes in neurological and neuropsychiatric function such as cognitive performance over time. Following a vascular model, long-term changes in the vascular structure of the brain may appear as white matter lesions (WMLs) in cortical and sub cortical regions, which may directly or indirectly impact on brain functionality. White matter changes (lesions) are often seen in elderly people. Detection of white matter changes of the brain using magnetic resonance imaging (MRI) has increasingly been an active and challenging research area in computational neuroscience. There have rarely been any single image analysis methods that can effectively address the issue of automated quantification of neuroimages, which are subject to different interests of various medical hypotheses. Experimental results on MRI data have shown that the proposed image analysis methodology can be applied as a very useful computerized tool for the validation of our particular medical question, where white matter changes of the brain takes place in the people. This paper presents new clustering methods to separate the white matter from the brain image by using clustering techniques. First the MRI brain image is segmented, and the computational models of fuzzy c-means clustering, the effect geostatistics and the combined models of both the clustering techniques are obtained by fusion. There by, increasing the accuracy and time processing is decreased.

Keywords: Fuzzy clustering, geostatistics, image egmentation, information combination, magnetic resonance imaging (MRI), white matter changes.

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63.

Authors: **Bhushan K. Suryawanshi, Prajitsen G.Damle**

Paper Title: **Review of Design of Hybrid Aluminum/ Composite Drive Shaft for Automobile**

Abstract: This topic deals with the study of replacement of conventional two-piece steel drive shafts with one-piece automotive hybrid aluminum/composite drive shaft & was developed with a new manufacturing method, in which a carbon fiber epoxy composite layer was co-cured on the inner surface of an aluminum tube rather than wrapping on the outer surface to prevent the composite layer from being damaged by external impact and absorption of moisture. Replacing composite structures with conventional metallic structures has many advantages because of higher specific stiffness and higher specific strength of composite materials. By considering the thermal residual stresses of the interface between the aluminum tube and the composite layer, the optimum stacking sequence is calculated with the help of Finite element analysis. Press fitting method for the joining of the aluminum/composite tube and steel yokes was devised to improve reliability and to reduce manufacturing cost, compared to other joining methods such as adhesively bonded, bolted or riveted and welded joints. The joining of the aluminum - composite tube and steel yoke with improved reliability and optimum manufacturing cost is done by press fitting. In order to increase the torque transmission capacity protrusion shape is provided on the inner surface of steel yoke which will fit on Universal joints.

Keywords: Drive shaft, composite material, Aluminum / composite drive shaft design. Press fitted Joints, Static Torque.

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Authors: **Gaurav Kumar, Kunwar Pal, Dilbahar Singh**

Paper Title: **Change in the Key Expansion Function of AES**

Abstract: This paper contains the new changes in key expansion function in Advanced Encryption Standard (AES). AES is vulnerable of various attacks theoretically. All the functions for substitution permutation and confusion-diffusion are applied only in the main part of the algorithm but there is no prefect security for the key expansion function. The related key attack, related sub keys attack and long biclique with meet in the middle attacks are applied on AES because of the weak key expansion function. Authors of AES accepted that the key expansion function of AES is comparatively weak. Here we are trying to remove the weaknesses of AES by changing some basic functions of AES key expansion function. For the security of related key attack and related sub keys attack, we are adding some new function for security of the key expansion. We are changing the Rcon matrix into an Rvar matrix by using given key. This will increase security of AES.

Keywords: AES, Key Expansion Function, Rcon Matrix, Rvar Matrix, SSL, Encryption/Decryption, Security.

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Authors:	**Dilbahar Singh, Sumit Kumar Yadav, Gaurav Kumar**
Paper Title:	**Data Migration between Crossbreed Platform Using Ant Colony Optimization**

Abstract: In this fast moving world of digitization, cloud computing is becoming an essential part of the daily life if you are somewhat related to the business. Keeping the data secure on the server has become one of the major issues. With the increase in the time factor cloud services has become one the most challenging environment in this world. To overcome this problem cloud computing has emerged into the world but it is quite expensive. Now the problem is if you want to transfer the data along with its architecture from one server to another, it is important to keep the data secure and safe until and unless it reaches to the server end. Cross platform data transfer has been an issue from the last few decades. It has been seen that each and every platform uses different types of protocol for the architecture. In this paper we are proposing a technique for migration of the platform architecture along with the data with perfect accuracy to another cloud platform using Simple Object Access Protocol (SOAP) and Ant Colony Optimization (ACO) concept in Role-Based Access Control System (RBAC) will take a lot of effort due to the sophisticated architecture of a system protocol. This may lead to a new era in the cloud computing.

Keywords: Ant Colony Optimization, Cloud Computing, Migration of Platform Architecture with data, Role-Based Control System, Simple Object Access Protocol

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Authors:	**Naga Lakshmi, Raja Sekhara Rao, Sai Satyanarayana Reddy**
Paper Title:	**An Overview of Preprocessing on Web Log Data for Web Usage Analysis**

Abstract: Web has been growing as a dominant platform for retrieving information and discovering knowledge from web data. Web data is stored in web server log files. Web usage analysis or web usage mining or web log mining or click stream analysis is the process of extracting useful knowledge from web server logs, database logs, user queries, client side cookies and user profiles in order to analyze web users' behavior. Web usage analysis requires data abstraction for pattern discovery. This data abstraction can be achieved through data preprocessing. This paper presents different formats of web server log files and how web server log data is preprocesses for web usage analysis.

Keywords: Web server logs, Web usage analysis, preprocessing, data cleaning, user identification, session identification, path completion, pattern discovery, pattern analysis.

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67.	**Authors:**	**I.D.Soubache, P.Ajay-D-Vimal Raj**
	Paper Title:	**Unified Particle Swarm Optimization to Solving Economic Dispatch**

Abstract: This paper proposes the solution for economic dispatch (ED) problem of thermal plants using unified particle swarm optimization (UPSO) method. The proposed optimization technique can take care of economic dispatch problems involving constraints such as transmission losses, power balance and generation capacity. The feasibility of the proposed method is demonstrated for three units and six units system, and is compared with Particle Swarm Optimization (PSO) and Genetic Algorithm (GA) methods in terms of the solution quality and computation efficiency. Compared with the other existing techniques, the proposed algorithm has been found to perform better in a number of cases. The experimental results show that the proposed UPSO method was indeed capable of obtaining higher quality solutions efficiently in ED problems.

Keywords: Unified Particle Swarm Optimization (UPSO), Economic Dispatch (ED), Particle Swarm Optimization (PSO), Genetic Algorithm (GA).

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68.	**Authors:**	**T.D. Khadtare, P.R. Thakare, S.A.J. Patel**
	Paper Title:	**An Efficient Personalized Web Search Mechanism using BinRank Algorithm**

Abstract: Dynamic authority-based online keyword search algorithms, such as Object rank and personalized page rank leverage semantic link information to provide high quality, high recall search in databases and the web. Conceptually, these algorithms require a querytime page rank style iterative computation over the full graph. This computation is too expensive for large graphs and not feasible at query time. Alternatively, building an index of precomputed results for some or all keywords involves very expensive processing. We introduce BinRank, a system that approximates ObjectRank results by utilizing a hybrid approach inspired by materialized views in traditional query processing. We materialized relatively small subsets of the data graph so that any keyword query can be answered by running ObjectRank on only one of the subgraphs. BinRank generates the subgraph by partitioning all the terms in corpus based on their cooccurence, executing ObjectRank for each partition using the terms to generate a set of random walk starting points, and keeping only those objects that receive negligible score. We demonstrate that

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Binrank can achieve subsecond query execution time on the English Wikipedia data set, while producing high-quality search results that closely approximate the results of ObjectRank on the original graph. Our experimental evaluation investigates the trade-off between query execution time, quality of results, and storage requirements of BinRank.

Keywords: BinRank, ObjectRank, Online keyword search, Page Rank.

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69.

Authors: **G. N. Raut, P. L. Paikrao, D. S. Chaudhari**

Paper Title: **A Study of Quality Assessment Techniques For Fused Images**

Abstract: Critical image processing tasks can be efficiently executed by fusion of images taken from range of distributed sensors. Advancements in digital image processing and communication technology with invent of new sensors experiencing the excessive need of effective image quality assessment of image fusion techniques. Various metrics have been discussed for quality measurement of fused image based on subjective or objective assessment. Objective quality assessment techniques are preferred over subjective since they do not involve the complexity in their practical implementation and validation. Based on availability of an ideally fused (reference) image, the metrics are classified into referential and non referential metrics. This paper presents an overview of different objective techniques for fused image quality assessment.

Keywords: Image quality assessment, image fusion, performance metric

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Authors: **Nikhil A. Chaudhari, Vivek S. Deshpande, J. B. Helonde, V. M. Wadhai**

Paper Title: **Behavioral Analysis of Energy In Wireless Sensor Networks**

Abstract: Wireless sensor networking (WSN) is the greatest solution to many problems. It can be easily used in many applications prospectively. Sensor in the WSN is very important and a crucial part. The basic operation of a node in the network is to gather and transmit the information to base station for processing. The most critical question in WSN is to schedule the nodes properly according to time quantum. In this paper, it has been discussed how the nodes are scheduled to execute the data and how the cluster heads are formed in each cluster depending upon the calculated weight based on the energy of node and distance from its adjoining node. Different schemes of energy reduction have also been discussed.

Keywords: Wireless Sensor Networking, Energy consumption, TDMA, Scheduling, Clustering.

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Authors: **Praful P. Maktedar, Vivek S. Deshpande, J. B. Helonde, V.M. Wadhai**

Paper Title: **Performance Analysis of Reliability in Wireless Sensor Network**

Abstract: Nowadays Wireless Sensor Network (WSN) is top rising field .It is broadly used in lots of application areas since previous few years. Sensor is the mainly significant and fundamental part in WSN. Reliability is one of the key aspects of WSN. Reliability is nothing but the consistency in measuring the results. It is necessary for efficient and reliable data transmission process. Congestion control is required for increasing reliability of network. In this paper, we are discussing the effects of node density and reporting rate on the network performance.

Keywords: Wireless Sensor Network, Reliability, Congestion, Data Transmission, Node density and Reporting Rate.

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Authors: **Shefaly Sharma, Jagpreet Kaur**

Paper Title: **An Efficient Method of Watermarking Using Multi Wavelet Technique with Modified Fast Haar Wavelet Transform (MFHWT)**

Abstract: Now a day we share huge amount of data through internet. Data can be of the form of text, image audio or video. We also share critical information with others. Major issue now a days is to secure our data from third person so that it can be protected from harm. In that case third person can make misuse of our data. So, to solve this problem we will make use of a new technique called Watermarking using Modified Fast Haar Wavelet Transform (MFHWT). Watermarking is a technique used for hiding the data. We need to hide the information

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such that any change in the data should be imperceptible. It also helps us in know whether the data is having copyright or not.

Keywords: HAAR, Multi Wavelet, MFHWT, Watermarking,Image Processing.

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Authors:	**S.H.Mortazavi, P.S.Avadhani**
Paper Title:	**RSA Cryptography Algorithm: An Impressive Tool in Decreasing Intrusion Detection System Vulnerabilities in Network Security**

Abstract: This paper is discussed the security of computer networks is a concern for businesses and individuals who are aware of its advantages due to its flexibility. With the increase security of IDS for companies and homes, where information property are shared continually, security is of the nature.. Cryptography is seen as a major instrumentation in the line of defense of network security. This paper discusses the various RSA cryptography algorithm used in network security especially IDS and how effective they are in keeping IDS secure. The risks of using this algorithm are Specified and recommendations for securing IDS are reviewed.

Keywords: IDS, NIDS, HIDS, Encryption, Cryptography, RSA, DoS.

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Authors:	**E.N. Ganesh**
Paper Title:	**Single Walled and Multi Walled Carbon Nanotube Structure, Synthesis and Applications**

Abstract: Carbon Nanotubes have exceptional mechanical and electrical properties. Various methods have been thoroughly investigated for the growth of CNTs. The best and the most commonly used method is Chemical Vapour Deposition (CVD). The various techniques include Reaction Chamber heating, Plasma Enhanced CVD, Hot filament CVD, Microwave CVD. The structural uniformity of carbon nanotubes produced by plasma enhanced Chemical Vapour Deposition gives uniform height and diameter. This paper discusses about all the methods listed above and detail comparisons are listed. We have simulated the single layer and multi layer Carbon nano tube using nano explorer tool and enumerated its properties for various applications like power storage and medical applications. The simulated properties of CNT would be used for energy storage purpose as well for transmission of electrical energy. Though it is known that CNT's have high aspect ratio, Young's modulus over one terra pascal, Tensile strength of 200 Gigapascal, these properties never remain the same for all the CNT'S. It depends upon the method of preparation, catalyst used etc. So the properties of CNT are studied for specific conditions. Here it is proposed CNT can be modeled for particularly electrical storage purpose.

Keywords: Carbon nanotube, chemical vapour depaosition, Plasma enhanced CVD, Multiwall nano tubes.

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Authors:	**Erfaneh Noroozi, Salwani Mohd Daud, Ali Sabouhi**
Paper Title:	**Secure Digital Signature Schemes Based on Hash Functions**

Abstract: This paper provides a literature review and analysis of the security systems and the emphasis is on digital signature, hashed message algorithm. The proposed algorithm introduces a novel technique for producing small-sized output of digital signature as a result; the new scheme is potentially practical: signing and verifying signatures are reasonably fast, and both speed and time are improved.

Keywords: Digital signature, Hashed message algorithm, Public key.

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Authors:	**B. Madhuravani, D. S. R Murthy**
Paper Title:	**Cryptographic Hash Functions: SHA Family**

Abstract: This paper gives the Study of Cryptographic Hash functions, which plays a vital role in the Security of many applications such as Digital Signatures, Tamper Detection, Password Protection and so on. We start with reviewing basic fundamentals of hashing. Hash functions are being used as building blocks of many complex Cryptographic mechanisms and protocols. Most of the widespread and popular hash functions, such as MD5, SHA-1 and SHA-2 share a common design philosophy. Recent Cryptanalytic advances have raised serious concerns regarding the long–term security of these hash functions. Security flaws have been detected in some of the most commonly used hash functions like MD5 and SHA-1. Even though the SHA-2 family is not really threatened by any attack, it receives little confidence because it is based on the same design principles. The dedicated hash functions from SHA family – SHA0, SHA-1, SHA-2, SHA-3 are compared in this paper.

Keywords: Hash Function, MD5, SHA-0, SHA-1, SHA-2, SHA-3.

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Authors:	**Ousmane Sow, Dianguina Diarisso, Nzonzolo ZénobeAmadou MBodji, Mamadou Saliou Diallo, Amadou Diao, Idrissa Gaye,Fabé Idrissa Barro, Grégoire Sissoko**
Paper Title:	**Experimental Device for Acquisition of Propertiesi-V and V (T) of the Solar By Automatic Change Operating Point**

Abstract: Design and implementation of a device for automation of variations of the resistive load powered by solar cell. It is provided by a PIC16F877 running a computer program that we have developed on the basis of an algorithm according to the operation that we have set.

Keywords: Solar cell, PWM, PIC16F877

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