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Authors: V. Siva Rama Prasad, P. Anantha Reddy, M. Ganeshwar Rao

Paper Title: On a r - GCD-Sum Function Over r-Regular Integers Modulo nr

Abstract: Introducing an r-gcd-sum function over r-regular integers modulo nr (studied by the authors [10] earlier), we obtain an asymptotic formula for its summatory function. The case of our result gives the formula established by László Tóth [8].

Keywords: regular integers modulo nr, gcd of two positive integers, -residue system, reduced residue system, unitary divisor of an integer, Dirichlet divisor problem, Riemann Hypothesis. 2010 Mathematics Subject Classification: Primary: 11A25, Secondary: 11N37

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1. . Bordellés, A note on the average order of the gcd-sum function, J. Integer Sequences, 10 (2007), Art. 07.3.3
8. László Tóth, A gcd-sum function over regular integers modulo nr, J. Integer Sequences, Vol.12 (2009), Article 09.2.5
Authors: Anindya Sundar Das, Banibrata Bag, Akinchan Das, Ardhendu Sekhar Patra

Paper Title: A Novel Radio over Fiber System for Long Haul Single-Mode-Fiber Transmission

Abstract: We have proposed and demonstrated a novel architecture of a radio over fiber (RoF) system in this paper. In this downlink system, the base band data signals are carried by the optical millimeter-wave generated at the central station and converted to the electrical RF signal by a converter at the base station before we distribute them through antenna. Here we generate and transmit the optical millimeter-wave by using external modulation technique and carrier suppression method. The performance is investigated by the good eye diagram and the significantly low BER at different lengths of the single mode fiber (SMF).

Keywords: RoF system, Optical carrier suppression, Long haul transmission, Bit error rate, Q-factor.

References:

Authors: N V Uma Reddy, M V Chaitanya Kumar

Paper Title: InGaAs/GaAs HEMT for High Frequency Applications

Abstract: In the modern VLSI especially for high speed devices, where the conventional MOSFET technology is reaching its limitations due to various short channel effects and velocity saturation effects etc, hetero-junction FETs have shown great promise for high speed devices. Novel HEMT device using heterojunctions made of InGaAs and InAlAs on a GaAs substrate is designed and modeled using TCAD software. Highly doped deep source-drain implants are proposed for the design. The device simulations have demonstrated its utility towards high frequency applications in GHz range.

Keywords: HEMT, InGaAs, InAlAs

References:

Authors: K. Chakraborty, R. R. Mukherjee, S. Mukherjee

Paper Title: Tuning Of PID Controller Of Inverted Pendulum Using Genetic Algorithm

Abstract: This paper presents different types of mathematical modelling of Inverted Pendulum and also a Proportional-Integral-Derivative (PID) controller is designed for its stabilization. After designing of PID controller some reference stable system has been selected and then different types of error has been optimized (minimized) by using Genetic algorithms. The proposed system extends classical inverted pendulum by incorporating two moving masses. Also a tuning mechanism is done by genetic algorithm for optimizing different gains of controller parameter. Also here different performance indices are calculated in MATLAB environment. This paper addresses to demonstrate the capability of genetic algorithm’s to solve complex and constraint optimization problems via utilizing GA’s as a general purpose optimizing tool to solve different control system design problems.

Keywords: Inverted pendulum, Mathematical modelling, swing up control, PID controller, Tuning, Genetic Algorithm, Performance Indeces, Error minimization.

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1. Elmer P. Dadias, Patrick S. Fererandez, and David J.,“Generic Algorithm on Line Controller For The Flexible Inverted Pendulum Problem”, Journal Of Advanced Computational Intelligence and Intelligent Informatics.
Authors: S. Manikanandan

Paper Title: High Performance Optimization of Low Power Multi-Threshold Voltage Using Level Converters

Abstract: Applying multiple supply voltages (multi-VDD) is an effective technique for reducing the power consumption without reducing speed in an integrated circuit (IC). In order to transfer signals among the circuits operating at different supply voltages specialized voltage level converters are required. Two new multi threshold voltage (multi-VTH) level converters are proposed in this paper. The proposed level converters are compared with the level converters in [7], for operation at different supply voltages. When the level converters are individually optimized for minimum power consumption and propagation delay, the proposed level converters offers significant power saving and speed is enhanced as compared to the level converter in [7] of same technology.

Keywords: High-performance, multiple supply voltages, multiple threshold voltages, power efficiency, voltage level converters

References:

Authors: Er. Farhad Aslam, Er. Birendra Kumar Yadav, Ram Sharan Choudhary, Gopal Kumar Choudhary

Paper Title: A Comparative Analysis of Controllers Controlling Uncertainty in the Form of 2nd Order Load, Affecting the Robust Position Control of DC Motor

Abstract: All the industrial process applications require robust position control of DC motor. The aim of this paper is to design a robust position control of DC motor by selecting different controllers like P, PI, PID and their tuning methods. The model of a DC motor is considered as a third order system with incorporating uncertainty. This paper compares the different kinds of tuning methods of parameter for PID controller. One is the controller design by Zeigler and Nichols method, second is the auto tuning of the controller in basic design mode and third is in the extended design mode. It was found that the proposed PID parameters adjustment in the basic and extended design mode is far better than the P, PI and Zeigler and Nichols method. The proposed method could be applied to the higher order system also.

Keywords: Basic mode, DC motor, PID tuning, robust position control.

References:

Authors: Medhat H. A. Awadalla, Kareem Ezz El-Deen

Paper Title: Real-Time Software Profiler for Embedded Systems
Abstract: Embedded systems are a mixture of software running on a microprocessor and application-specific hardware. There are many co-design methodologies that are used to design embedded systems. One of them is Hardware/Software co-design methodology which requires an appropriate profiler to detect the software portions that contribute to a large percentage of program execution and cause performance bottleneck. Detecting these software portions improves the system efficiency where these portions are either reprogrammed to eliminate the performance bottleneck or moved to the hardware domain gaining the advantages of this domain. There are profiling tools used to profile software programs such as GNU Gprof profiler. GNU Gprof integrates an extra code with the software program to be profiled causing inaccurate results and a significant execution time overhead. To address these issues, this paper proposes a software profiler called AddressTracer that is accurately able to evaluate performance matrices of any specific software portion. A set of benchmarks, Dijkstra, Secure Hash Algorithm, and Bitcount are profiled using AddressTracer, Airwolf and GNU software profiling tool (Gprof), for a quantitative comparison. The achieved results show that AddressTracer gives accurate profiling results compared to Gprof and Airwolf profilers. AddressTracer provides up to 50.15% improvement in accuracy of profiling software compared to Gprof and 6.89% compared to Airwolf. Furthermore, AddressTracer is a non-intrusive profiler which does not cause any performance overhead.

Keywords: Embedded Systems, FPGA, profiling tools, Hardware/Software co-design.

References:

Authors: A.S.Syed Fiaz, N.Devi, S.Aarthi

Paper Title: Bug Tracking and Reporting System

Abstract: This is the world of information. The ever-growing field Information Technology has its many advanced notable features which made it what it was now today. In this world, the information has to be processed, clearly distributed and must be efficiently re
die by arise. The administrator maintains the master details regarding to the bugs id , bugs type, bugs description,
bugs severity, bugs status, user details. The administrator too has the authority to update the master details of
severity level , status level, etc, modules of the paper. The administrator adds the users and assign them
responsibility of completing the paper. Finally on analyzing the paper assigned to the particular user, the
administrator can track the bugs, and it is automatically added to the tables containing the bugs , by order of
severity and status.The administrator can know the information in tact the various paper’s assigned to various users,
their bug tracking status, their description etc in the form of reports from time to time. The paper wholly uses the
secure way of tracking the system by implementing and incorporating the Server side scripting. The administrator
can now add the project modules, project descriptions etc. He too adds the severity level, its status etc.The whole
beauty of the paper is its high-level and user-friendly interface which mean that is the well based Bug Tracker
which helps in tracking the whole system by providing the efficient reporting system. The Bug Tracker can be
further by analyzed and further relevant and quick decisions can be taken.
Keywords: Bug Tracker, Scripting, Severity.

References:
1. Bill Evjen, Thru Thangarathinam, Bill Hatfield, 'Professional ASP.NET 1.1

Authors: Sunita, O.S Khanna, Amandeep Kaur

Paper Title: Improvement in End-to-End delay and Energy Consumption using Routing Algorithms in Wireless Sensor Network

Abstract: The popularity of Wireless Sensor Networks has increased tremendously due to the vast potential of the sensor networks to connect the physical world with the virtual world. In wireless sensor network one of the main problems is related to energy issue because every node is operated by battery. In wireless sensor networks, sensors consume energy both in sensing data and in transmitting the sensed data to a base station. The power consumption for transmitting data is an exponential function of the distance from the sensor to the base station, while the power consumption for sensing data is determined by the type of sensor as well as the routing protocol. The problem in this paper is to increase the life time of the sensor networks. To have large network life time all nodes need to minimize their energy consumption. Node is composed of small battery so that the energy associated with this node is very less. So replacing and refilling of battery is not possible which is very costly. Hence some techniques are applied through which the energy associated with each node can be conserved. This paper proposes two algorithms, to minimize the energy consumption and end-to-end delay. Using both algorithm, there is improvement in energy consumption and end-to-end delay

Keywords: Wireless Sensor Networks, Energy Consumption, Multi-path Routing, Lifetime of wireless sensor network, end-to-end delay.

References:

Authors: R.Subramanian, K.Thanushkodi

Paper Title: An Efficient Firefly Algorithm to Solve Economic Dispatch Problems

Abstract: The Economic Dispatch (ED) problems are the major consideration in electric power generation systems in order to reduce the fuel cost their by reducing the total cost for the generation of electric power. This paper presents an Efficient and Reliable Firefly Algorithm (FA), for solving ED Problem. The main objective is to minimize the total fuel cost of the generating units having quadratic cost characteristics subjected to limits on generator true power output & transmission losses. The FA is a stochastic Meta heuristic approach based on the idealized behaviour of the flashing characteristics of fireflies. This paper presents an application of the FA to ED for different Test Case system. ED is applied and compared its solution quality and computation efficiency to Simulated Annealing (SA), Genetic algorithm (GA), Differential Evolution (DE), Particle swarm optimization (PSO), Artificial Bee Colony optimization (ABC), and Biogeography-Based Optimization (BBO) optimization techniques. The simulation results show that the proposed algorithm outperforms previous optimization methods.

Keywords: Artificial Bee Colony optimization, Biogeography-Based Optimization, Economic dispatch, Firefly Algorithm, Genetic algorithm, and Particle swarm optimization.

References:

10. References: 46-51

11. References: 52-55


Authors: Amera Ismail Melhem, Lamya abd allaeef Omar, Sozan Abdulla Mahmod

Paper Title: Short Term Load Forecasting using Artificial Neural Network

Abstract: Load forecasting helps an electric utility to make important decisions including decisions on purchasing and generating electric power, load switching, and infrastructure development. Load forecasts are extremely important for developing country like Iraq, financial institutions, and other participants in electric energy generation, transmission, distribution must be studied and took a good attention. This work analyzes and discusses the forecasting performance measure such as the absolute mean error AME has been presented for each model. Load forecasting, artificial neural network, back propagation

References:
10. H. I. Abdel-Gawad, Mohamed Osman, Nasser S. Elazab

Paper Title: Exact Solutions of Time Dependent Korteweg-de Vries Equation by The Extended Unified Method

Abstract: Recently the unified method for finding traveling wave solutions of nonlinear evolution equations was proposed by the first author. It was shown that, this method unifies all the methods being used to find these solutions. In this paper, we extend this method to find a class of formal exact solutions to Korteweg-de Vries equation with time dependent coefficients. A new class of multiple-soliton or wave trains is obtained.

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Keywords: Exact solution, Extended unified method, Korteweg-de Vries equation, Variable coefficients

References:

Authors: G. Satheesh, T. Bramhananda Reddy, CH. Sai Babu

Paper Title: SVPWM Based DTC of OEWIM Drive Fed With Four Level Inverter with Asymmetrical DC Link Voltages

Abstract: A new approach for a fixed switching frequency direct torque control (DTC) of an open end winding induction motor configuration using four level inverter is proposed. The four level SVPWM voltages are generated by using two conventional two level inverters which are fed with the unequal dc link voltages at a ratio of 2:1. A decoupled algorithm for the two inverters feeding the open end winding induction motor is proposed. However, the proposed DTC scheme does not require the sector information of the estimated fundamental stator voltage vector and its relative position with respect to the stator flux vector. With the proposed method simulation clearly demonstrate simple numerical calculations and results in a better dynamic manner.

Keywords: Decoupled SVPWM Algorithm, Dual inverters, DTC, Four level SVPWM, Multi level Inverters, OEWIM, Unequal DC links, Zero sequence voltages.

References:

Authors: S.Rajkumar, V.Narayani

Paper Title: Clustered Evaluation of Implementing Fuzziness and Uncertainty in Defection Detection with the Randomness Bridge for the Teenager Communication System

Abstract: In the recent era of computer electronic communication we are currently facing the critical impact of Deception which plays its vital role in the mode of affecting efficient information sharing system. Identifying Deception in any mode of communication is a tedious process without using the proper tool for detecting those
vulnerabilities. This paper deals with the efficient tools of Deception detection in which combined application implementation is our main focus rather than with its individuality. We propose a research model which comprises Fuzzy logic, Uncertainty and Randomization. This paper deals with an experiment which implements the scenario of mixture application with its revealed results. We also discuss the combined approach rather than with its individual performance.

Keywords: Deception, Detection, Uncertainty, Fuzzy logic, Randomness

References:

Authors: Kiran Kumar Kommneni, Adimulam Yesu Babu

Paper Title: An Approach for the Assessment of the Information Security and Its Measures

Abstract: The information security management standard requires enterprises to undertake regular reviews of the effectiveness of their information security management system. According to ISO, the effectiveness of the implemented information security controls to verify that the security requirements, according to the business objectives, have been met. This paper focuses on the identification of a set of assessment measures that could be used in reading information security readiness according to the recommended security controls of the information security management standard. This paper presents the suitable security measures that could be used as an input to an analytical model for numerically assessing enterprise information security.

Keywords: Information Security; Risk management; Assessment; Measures; ISO.

References:
10. Chung-Hung Tsai., Cheng-Wu Chen “An earthquake disaster management mechanism based on risk assessment information for the tourism industry—a case study from the island of Taiwan” Tourism Management, Volume 31, Issue 4, August 2010, pp 470–481

Authors: Deepak B. Nagare, Kishor L. More, Nitin S. Tanwar, S.S.Kulkarni

Paper Title: Multi-Agent Secure Dynamic Carpooling

Abstract: Carpooling (also known as car-sharing, ride-sharing and lift sharing), is the sharing of car journeys so that more than one person travels in a single car [5]. Carpooling consists of sharing one’s personal vehicles with one or several passengers in which the related passengers shares the related costs but also help to reduce the traffic
as well as pollution. One major issue in carpooling is the prior agreement between the car owner and the ride seekers. Dynamic carpooling uses an IT system to remove this limitation and provide ways to react to events such as a traffic jam as well as improving the quality of life benefits of participating people. But it requires accessing potentially sensitive information such as the real time users’ position or their identity. So there must be an efficient security mechanism should be implemented to protect data exchanged to provide the service but also to increase the users’ confidence in the tool. This paper mostly focuses on the security services allowing both the mutual authentication of the users and of the application components with the system. Traffic congestion and the associated pressure in car parking, that results from increased number of cars on the road, require the study of innovative measures to reduce the number of cars traveling every day to the main areas in the city, specifically single occupant vehicles.

Keywords: Car Owner, Ride Seeker, Mobile Authentication, Multi-Agent System, Dynamic Carpooling.

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1. Cédric Bonhomme, Ger ald Arnould and Djamel Khaled, “Dynamic Carpooling Mobility Services based on Secure Multi-Agent Platform”.
2. Blerim Cicic, Athina Markopoulou, Enrique Frías-Martínez, Nikolaos Laoutaris, UC Irvine, “Telefonica Research(Span)? ”

Authors: Muzhir Shaban Al-Ani, Abdulrahman Dira Khalaf

Paper Title: Image Information Retrieval Using Wavelet and Curvelet Transform

Abstract: The rapid growth of multimedia data applications via Internet becomes a big challenge over the world. This research is concentrated on the implementation of an accurate and fast algorithm that retrieves image information based on vector space model. The big challenge of information retrieval system is a semantic gap, which is the difference between the human perception of a concept and how it can be represented using a machine-level language. This paper aims to design an information retrieval system based on hybrid algorithm through two stages; first one is training and the second one is testing. This algorithm based on extracted features using Wavelet and Curvelet decomposition and the statistic parameters such as mean, standard deviation and energy of signals. The system is tested over 1000 images which are divided into 10 categories, each category has 100 images. The tested results of system are compared between system based on Wavelet and system based on Histogram. Performance measures are implemented applying two metrics called precision and recall. The results of training phase show that the elapsed time of system based on hybrid Algorithm is greater than the elapsed time based on DWT or Histogram. The Average Retrieving Time (ART) for system based on hybrid algorithm is less than ART based on Wavelet and Histogram.

18. Keywords: Information Retrieval, Multimedia Information Retrieval, Discrete Wavelet Transform, Curvelet Transform, Vector Space Model, Feature Extraction.

References:
Exhaust Emissions and Combustion Characteristics of Jatropha Oil in Crude Form and Biodiesel of Low Heat Rejection Diesel Engine

Abstract:
Investigations were carried out to study the exhaust emissions of a low heat rejection (LHR) diesel engine consisting of air gap insulated piston with 3-mm air gap, with superni (an alloy of nickel) crown, air gap insulated liner with superni insert and ceramic coated cylinder head with different operating conditions of crude jatropha oil (CJO) and biodiesel with varied injection timing and injection pressure. Performance parameters and exhaust emissions were determined at various values of brake mean effective pressure (BMEP) with different versions of the engine with varied injection timing and injection pressure with different operating conditions of jatropha oil in crude form and biodiesel. Combustion characteristics of the engine were measured with TDC (top dead centre) encoder, pressure transducer, console and special pressure-crank angle software package at peak load operation of the engine. Conventional engine (CE) showed deteriorated performance, while LHR engine showed improved performance with crude vegetable operation at recommended injection timing and pressure and the performance of both version of the engine improved with advanced injection timing and higher injection pressure when compared with CE with pure diesel operation. Relatively, smoke levels decreased by 27% and NOx levels increased by 49% with crude vegetable oil operation on LHR engine at its optimum injection timing, when compared with pure diesel operation on CE at manufacturer’s recommended injection timing. Biodiesel operation further decreased smoke levels and increased NOx emissions.

Keywords: Alternate Fuel, CE, LHR engine, Vegetable oil

References:
### 20. **Design & Implementation of PID Controller Based On FPGA with PWM Modulator**

**Authors:** Rajesh Nema, Rajeev Thakur, Ruchi Gupta  
**Paper Title:** Design & Implementation of PID Controller Based On FPGA with PWM Modulator  
**Abstract:** Proportional-Integral-Derivative (PID) controllers are universal control structure and have widely used in Automation systems, they are usually implemented either in hardware using analog components or in software using Computer-based systems. In this paper, we focused our works designing on building a multi-channel PID controller by Field Programmable Gate Arrays (FPGAs). To overcome the hardware complexity by the use of more processors for multi channel, we are using single PID controller for multi channel. Multi channel can be implemented by the use of FPGA. when the error is more it can differentiate and produce the constant output, when signal is low when compared to reference signal it can integrate it. FPGA can offer parallel processing, more speed.

**Keywords:** (PID), FPGA, (FPGAs).

**References:**
2. High-Speed and Low-Power PID Structures for Embedded ApplicationsPATMOS’11, Madrid : Spain (2011)”  
3. ISSN 0974-2190 Volume 2, Number 1 (2010), pp. 71–82 Analysis and Implementation of Discrete Time PID Controllers using FPGA  
4. FPGA technology for multi-axis control systems Armando Astarloa *, Jesús Lázaro, Unai Bidarte, Jaime Jiménez, Aitzol Zuloaga Accepted 1 September 2008  
6. Xilinx Corp. Multipliers.  

### 21. **Web Browsing Behaviors Based Age Detection**

**Authors:** Misha Kakkar, Divya Upadhyay  
**Paper Title:** Web Browsing Behaviors Based Age Detection  
**Abstract:** Users basic attributes like age, gender location etc... plays an essential role in today’s web applications. Previous research shows that there is relationship between users’ browsing behavior and their basic characteristics. In this paper we made an approach to detect a user’s age depending on his web browsing history. The user’s web browsing behaviors is treated as a variable to propagate age information between different users. Artificial neural network tool is used for this purpose. Uses are divided into two different categories of adult and youngsters. The result is 93.7% accurate.

**Keywords:** Age prediction, Browsing behavior, Artificial.

**References:**

### 22. **Transient Thermal Analysis of Pulsed Silicon SDR IMPATT at 35 GHz**

**Authors:** L. P. Mishra, A. Acharyya and M. Mitra  
**Paper Title:** Transient Thermal Analysis of Pulsed Silicon SDR IMPATT at 35 GHz  
**Abstract:** In this paper the transient thermal analysis of 35 GHz pulsed silicon Single-Drift Region (SDR) Impact Avalanche Transit Time (IMPATT) device is presented. A double-iterative field maximum computer method based on drift-diffusion model is used to obtain the DC and high frequency properties of the device. A transient thermal model has been developed by the authors’ to study the temperature transients in pulsed Si SDR IMPATT at 35 GHz. Results show that the device is capable of delivering a peak pulsed power output of 7.40 W with 8.46% DC to RF conversion efficiency. The maximum junction temperature rise is 352.5 K for peak pulsed bias current of 1.08 Ampere with 200 ns pulsewidth and 1.0% duty cycle.
Keywords: Millimeter-wave, pulsed Si SDR IMPATTs, temperature transients, thermal analysis.

References:

Authors: Okoronkwo M. C. Monica N. Agu

Paper Title: Providing E-Governance Services To Technologically Challenged Grassroots Environments

Abstract: Today a number of government services in developing countries are online. In majority they are merely showcasing more of their assigned responsibilities and in a few cases the endpoint reports of achievements, and providing a feedback link that is rarely attended to. Even in cases where citizens could be involved and benefit from government wide information services, the infrastructure is either not available or is prohibitively costly, thereby inhibiting their engagement and transactions. But technologies abound that could be harnessed to cheaply bring governance services nearer to citizens so that the self-serving government activities may be transformed to e-governance service platform. This paper proposes a framework for harnessing the potentials of current developments in mobile and cloud computing technologies to provide e-governance services to technologically disadvantaged grassroots environments. Firstly, it proposes enablers that could help the citizens to participate in governance and democratic activities by accessing and contributing to it, using tools already available and familiar to them. Secondly, it seeks to galvanise researches into the potentials of emerging technologies to governance and democratic activities by accessing and contributing to it, using tools already available and familiar to them. Lastly, it calls for a governance service platform that bring governance services nearer to citizens so that the self-serving government activities may be transformed to e-governance service platform.

Keywords: E-governance, M-government, Cloud-computing, Success, Acceptance and Challenges

References:
13. Wikipedia: Secure Information Technology Center

Page 107-111
**Abstract:** Modular tracking methodologies have shown the promises of great versatility and robustness. In a similar way, the proposed paper, Enhanced Object Tracking Using Davinci Processors, will also possess major challenge for emerging computer vision technology. The Continuously Adaptive Mean Shift (CAMSHIFT) Algorithm used here is based on the Mean Shift Algorithm for object tracking for a perceptual user interface. The main aim of this proposal is to determine the effectiveness of the CAMSHIFT Algorithm as a general purpose object tracking approach in the case where a small portion of image is assumed as region of interest. Then the object within the corresponding region of interest is tracked using CAMSHIFT algorithm. The algorithm performs well mainly on moving objects in video sequences and it is robust to changes in shape of the moving object. The Digital Video Development Platform [DM6446 EVM] is used to obtain the video from the camera and will use the Ethernet media access control address and video processing back end drivers for the real time transmission of the video captured. The video is received and processed at DM6446, where the CAMSHIFT algorithm is implemented and the video object tracking takes place. The experimental results obtained from the proposal proves the consistency and efficiency of the proposed algorithm.

**Keywords:** CAMSHIFT, CCS, DM6437, DM6446, LINUX, Ubuntu.

**References:**

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**Authors:** Nikam Gitanjali Ganpatrao, Jayanta Kumar Ghosh

**Paper Title:** Soft Computation Based Topographic Map Legend Understanding Prototype System

**Abstract:** The goal of the study is to devise an intelligent system to understand topographic map automatically. This paper explains the design of a system to automatically interpret information from scanned Indian topographic map legends set. A method based on perception of shape provides a collective understanding of size, form and orientation as that of human psycho-visual approach, is required towards development of a topographic map legends understanding system. The fundamental of the system are map legend analysis algorithms- Edge detection algorithm and line thinning algorithm to extract patterns and shape features from images of scanned topographic map legends and describe it as primitives which is building entity of shape of legend. An approach is based on feature extraction model and back propagation neural network which allows efficient and coherent management of map legends, recognition processes, recognition results. The system incorporates shape feature and uses back propagation neural network for recognition. The experimental results show that developed system performs well in recognition and understanding of map legends.

**Keywords:** Back propagation neural network, Edge detection, Legend primitives, Map understanding, Syntactic pattern recognition, Thinning algorithm.

**References:**
Abstract: In Uttarakhand state, India subjected to frequent occurrence of natural disasters like Cloudburst. Flooding due to Cloudburst is the extreme form of Natural disaster. This leads flash floods/ landslides, house collapse, disappearance of traffic and human casualties on large scale (Sati and Maikhuri, 1992) The average rainfall for Uttarkashi district varies 1500-3000 mm a year. The purpose of this study is to Analyses the Natural Disaster events like Cloudburst using RiverTool and Geographic Information System. In the first stage, locations of Cloudburst were identified from field survey and Indian Atlas. In the second stage, the layers Slope, Drainage pattern and LandUse classification are generated from AsterDEM and Landsat ETM+ data. The influence of Drainage characteristics, slope angle and LandUse Classification were spatially integrated to analyse one of the Natural Disaster like Cloudburst in the Uttarkashi District, Uttarkhand State, Northern part of India where a large number of Cloudburst happened due to extreme weather event of Aug 3–6, 2012. The villages Ravada, Paniyara kala, Andhyara kala, Sangamchetty are totally effected and 34 persons died, 7 Bridges of vehicle and 6 Bridges of footpath were washed away resulting in no connectivity with Bhatwari area, 1700 families are affected from Gangori to Uttarkashi. Around a population of 80000 is affected from this disaster. A quantitative technique of multivariate analysis was performed to analyse thewared for different excess rainfalls. A natural disaster is the consequence of the combination of a natural hazard (a physical event e.g. volcanic eruption, earthquake, landslide, flooding, etc.) and human activities. Therefore, for better understanding of this event, Mapping and analysis of hydrological Parameters are carried out in Uttarkashi region. Uttarkashi and its surrounding regions of the trans-Himalaya experienced multiple cloudbursts and associated flash floods during August 3–6, 2012.

Keywords: Cloudburst, Geographic Information System, Flash floods, Landsat ETM+ and Aster DEM.

References:
Abstract: Numerous methodologies have been invented inspired by nature and based on real life behavior of species which perform task in a group. In this paper, a novel methodology based on intelligent chasing and hunting methods adopted by the animals in a group to chase & hunt their prey is presented. The dog is taken as prime model for developing the methodology. The method is named as “Dog Group Wild Chase & Hunt Drive (DGCHD)” [18]. The algorithm is implemented on Traveling Salesman benchmark problem available in literature. The problem has been solved by different researchers for testing their proposed novel intelligent algorithms in various nature inspired technologies such as Ant Colony System, Genetic Algorithms etc. The results obtained are very optimistic and encouraging.

Keywords: Dogs behavior, Chasing & hunting, Computational Intelligence, Dog Group Wild Chase & Hunt Drive (DGCHD), combinatorial optimization.

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Authors: Ramandeep Kaur, Pushpendra Kumar Pateriya

Paper Title: A Study on Security Requirements in Different Cloud Frameworks

Abstract: Cloud computing provides the capability to use computing and other storage resources which are required by various users on a metered basis and reduce the expenditure in an organization’s computing infrastructure. The virtual machines running on physical hardware and being controlled by hypervisors is a cost-efficient and flexible computing technique that is used as a key technology in cloud computing and provides various benefits to different cloud users as there is no actual physical allocation of the machine. As cloud computing provides various benefits nowadays, it also brings some of the concerns about the security and privacy of information. In this paper, we made a study about different security risks that pose a greatest threat to the cloud computing. This paper describes about the different security issues that are occurring in the various cloud computing frameworks and the areas where security lacks and measures can be taken to enhance the security mechanisms.

Keywords: Internet protocol, Infrastructure as a service, Platform as a service, Software as a service, Virtual machine

References:
Wireless Sensor Networks (WSNs) have become hot topic in field of research in recent days. In day to day life we come across many problems which left unresolved by humans, so at that time we think of collaborating human knowledge with technology to eradicate the problems. The efficient approaches of forest fire detection using multi-sensors describes one of the wireless sensor network applications for detecting a parameter that is fire and reporting it to the base station to save the humans and wildlife from destruction which is caused by the fire. The effort offered in this paper conveys the idea of implementing Fuzzy Logic on the information collected by multiple sensors. Thus multiple sensors are used for detecting probability of fire with variations during different time in a day. Each sensor node senses Temperature, Humidity, Light Intensity, CO Density and Time for calculating probability of fire. It will improve precision of the detection system, as well as false alarm rate will be reduced.

Keywords: Forest Fire Detection, Fuzzy Logic, Sensor Networks.

References:
Abstract: Data Mining: extracting useful insights from large and detailed collections of data. With the increased possibilities in modern society for companies and institutions to gather data cheaply and efficiently, this subject has become of increasing importance. This interest has inspired a rapidly maturing research field with developments both on a theoretical, as well as on a practical level with the availability of a range of commercial tools. In this research work titled a hybrid approach based on Association Rule mining and Rule Induction in Data Mining we using induction algorithms and Association Rule mining algorithms as a hybrid approach to maximize the accurate result in fast processing time. This approach can obtain better result than previous work. This can also improves the traditional algorithms with good result. In the above section we will discuss how this approach results in a positive as compares to other approaches.

Keywords: Association Rule mining, A priori algorithm, Rule Induction, Decision list induction, Data mining

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Authors: Kapil Sharma, Shevasti Vashisht, Heena Sharma, Richa Dhiman, Jasreena Kaur Bains

Paper Title: A Hybrid Approach Based On Association Rule Mining and Rule Induction in Data Mining

Abstract: Many biomedical applications require the detection of infected structures in images. In order to get the originality of the image, it needs to undergo several steps of processing. This will vary from image to image depending on the type of image format, initial condition of the image and the information of interest and the composition of the image scene. While several algorithms have been proposed for semiautomatic extraction of these structures, branching points usually need specific treatment. Medical image segmentation is essential for diagnosing various problems occurs in eye. Retinal image segment is one of the critical issues because these images contain very small nerves and some artifacts present in it. This paper proposes a MGH approach to identify branching points in images. This method is used to change the representation of an image into something that is more meaningful and easier to analyze the interested object. A vector field is calculated using a novel contrast-independent tensor representation based on local phase. Our method extracting image components that are useful in the representation and description of region shape, such as boundaries, infected objects, etc. Non-curvilinear structures, including junctions and end points, are detected using directional statistics of the principal orientation as defined by the tensor. Results on synthetic and real biomedical images show the robustness of the algorithm against changes in contrast, and its ability to detect junctions in highly complex images. This proposed method is based in a model of MGH function which applies the color image to a gray scale image. This method is used to segment the image and selecting the specific image objects, thinning the object to diagnose the region.

Keywords: Detection, MGH, Segmentation

References:

Authors: R.Harikumar, T.Vijayakumar, R.Kasthuri
Paper Title: Analysis of PSO and Hybrid PSO in Calculation of Epileptic Risk Level in EEG

Abstract: The main aim of this paper is to compare and analyze the performance of the PSO algorithm and the hybrid PSO output in determining the epileptic risk level for the given Electroencephalogram signal inputs. Various parameters like energy, variance, peaks, sharp and spike waves, duration, events and covariance are calculated from the EEG signals. The two optimization technique has been used for classifying the risk level of the given inputs and the efficacy of the above two methods have been analyzed and compared using mean square error and quality value. 20 patients input are taken for analysis in both methods in calculation of risk level. Comparing to PSO output hybrid PSO method is efficient based on performance index and quality value.

Keywords: Electroencephalogram signals, Epileptic risk level, Particle swarm optimization (PSO), Hybrid PSO optimization, mean square error, quality value..

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20. Michael Meissner, Michael Schmucker and Gisbert Schneider “optimized Particle Swarm Optimization (OPSO) and its application to
Abstract: Eukaryotes genomes contains large amount of mobile genetic elements. More than two million EST (expressed sequence tags) sequences have been sequenced from potato crop plant and this amount of ESTs allowed us to analyze the transcriptional activity of the potato transposable elements. We predicted the full length LTR from potato genomic database using LTR finder software. Maximum number of full length Gypsy typeLTRs were present on chromosome 03 (197) and Copia type retrotransposons on chromosome number 01 (172). We have also investigated the transcriptional activities of LTR type retrotransposons in different potato organs based on the systematic search of more than two million expressed sequence tags. At least 0.86% potato ESTs show sequence similarity with LTR type retrotransposons. According to these data, the patterns of expression of each LTRs (Gypsy & Copia) is variable among various tissue specific EST libraries. In general, transcriptional activity of the Gypsy-like retrotransposons is higher compared to Copia type. Transcriptional activity of several transposable elements is especially high in Flower, Callus and root tissues. The use of powerful high-throughput sequencing technologies allowed us to elucidate the transcriptional activation in various cells of potato. In this study, we observed that Gypsy and Copia like retrotransposons have a considerable transcriptional activity in some tissues which indicate that the transposition is more frequent in various tissues specific EST libraries.

Keywords: Retrotransposons, LTR, Solanum tuberosum, Gypsy, Copia

References:
the basic building blocks of QCA circuits is QCA inverter. The conventional QCA inverters require more normal cells and it has less polarization. In this paper, we have designed high polarized inverters using minimum number of rotated (45°) QCA cells. Till now, the conventional inverters which have large polarization, they require three to five normal cells. We have designed the novel inverter using three rotated cells whose polarization is more than the conventional three normal cells inverter. We increasing the polarization i.e. make the three rotated cells inverter more fault-free by adding extra rotated cells at the output section. In each case, the designed rotated cells inverters have more polarization (i.e. more fault free) than conventional inverters though it has same number of cells. Our finally designed high polarized rotated cells inverter has five cells and its polarization is greater than any type of conventional inverters designed till now. Also, here we calculate the kink energy of each rotated inverters.

**Keywords:** Kink energy, Majority gate, Polarization, QCA.

**References:**


**Authors:** Meenu Chinwan, Harshpreet Kaur

**Paper Title:** Feeding Techniques to Improve Bandwidth of MPA

**Abstract:** The comprehensive study of MPA shows its important role in the modern wireless communication devices. Detailed literature review of past few decades’ papers on MPA, the MPA has emerged into wide range of communication field. Inherently the patch antenna is narrowband; various techniques were developed to enhance bandwidth. Different parameter affect the efficiency of antenna .Specification of MPA has low communication field. Inherently the patch antenna is narrowband; various techniques were developed to enhance bandwidth. In each case, the designed rotated cells inverters have more polarization (i.e. more fault free) than conventional inverters though it has same number of cells. Our finally designed high polarized rotated cells inverter has five cells and its polarization is greater than any type of conventional inverters designed till now. Also, here we calculate the kink energy of each rotated inverters.

**Keywords:** Patch design, Electromagnetic wave, and radiation, Microstrip, Antenna

**References:**

Design of High Speed Ladner-Fischer Based Carry Select Adder

Abstract: In this paper, we propose a high speed Carry Select Adder by replacing Ripple Carry Adders with parallel prefix adders. Adders are the basic building blocks in digital integrated circuit based designs. Ripple Carry Adders (RCA) are usually preferred for addition of two multi-bit numbers as these RCAs offer fast design time among all types of adders. However RCAs are slowest adders as every full adder must wait till the carry is generated from previous full adder. On the other hand, Carry Look Ahead (CLA) adders are faster adders, but they required more area. The Carry Select Adder is a compromise on between the RCA and CLA in term of area and delay. CSLA is designed by using dual RCA: due to this arrangement the area and delay are still concerned factors. It is clear that there is a scope for reducing delay in such an arrangement. In this research, we have implemented CSLA with prefix adders. Prefix adders are tree structure based and are preferred to speed up the binary additions. This work estimates the performance of proposed design in terms of Logic and route delay. The experimental results show that the performance of CSLA with parallel prefix adder is faster and area efficient compared to conventional modified CSLA.

Keywords: prefix adder, CSLA, delay, Carry Operator, area-efficient.

References:

Design of Ladner-Fischer and Beaumont-Smith Adders Using Degenerate Pass Transistor Logic

Abstract: In this paper, we propose Kogge-Stock and Brent-Kung parallel prefix adders based on degenerate pass transistor logic (PTL). Threshold loss problem are the main drawback in most pass transistor logic family. This threshold loss problem can be minimized by using the complementary control signals. These complementary control signals are obtained by 5-Transistor XOR-XNOR module. By using these complementary outputs we designed parallel prefix adders based on 10-Transistor full adder. Parallel prefix adders are used to speed up the binary addition and these adders are more flexible to perform addition of higher order bits in complex circuits. The transistor level implementation of parallel prefix adders based on degenerate PTL gives better performance compared to CPL and DPL pass transistor logic.

Keywords: Power Dissipation, degenerate, complexity, Threshold loss.

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10. K. Taki, A survey for pass-transistor logic technologies — Recent researches and developments and future prospects, Proceedings of...
In recent years Cloud Computing has become one of the growing fields in computer science. In which the security problem of cloud computing has become a hot research topic. It must be verified in the trusted status of the platform which actually carries out the computing task in the cloud, and the remote mechanism in Trusted Computing is suited for the cloud user's verification need.

This paper briefly sketches out the method to build a Trusted Computing Environment for cloud computing system by integrating the Trusted Computing Platform (TCP) with Trusted Platform Module (TPM) into the security of cloud computing system. The RC4 stream cipher algorithm is most used algorithm to provide the confidentiality over the different networks. In this paper we propose the discussion of Simulation Results with its Analysis and the Performance Evaluation with the

Authors: Debasis Dwibedy, Laxman Sahoo, Sujoy Dutta

Paper Title: A New Approach to Object Based Fuzzy Database Modeling

Abstract: The requirements in diversified application domains like Engineering, Scientific technology, Multimedia, Knowledge management in expert systems etc shift the momentum of current trends in designing database models to an innovative concept of Object Based fuzzy Database Model. The ongoing research concentrates on representing the imprecise information by taking object modelling methodology and fuzzy techniques through different levels of class hierarchy and abstractions. Still, a formal definition of fuzzy class is not yet given by which we can represent all standards of fuzzy objects and attributes. In this paper, we redefine the fuzzy class in an efficient manner and propose the structure of the fuzzy class using more effective generalized techniques to develop a new object based fuzzy data model in order to manipulate imprecise information and exposed to wider range of applicability. Also, we define a formal framework for generalized fuzzy constraints which can be applied effectively to fuzzy specialized classes in fuzzy class hierarchy.

Keywords: Fuzzy, Class, Constraints, Generalization, Object Model, Specialization, Fuzzy object Model.

References:

Authors: Vijay, G.R, A.Rama Mohan Reddy

Paper Title: Data Security in Cloud based on Trusted Computing Environment

Abstract: In recent years Cloud Computing has become one of the growing fields in computer science. In which the security problem of cloud computing has become a hot research topic. It must be verified in the trusted status of the platform which actually carries out the computing task in the cloud, and the remote mechanism in Trusted Computing is suited for the cloud user's verification need.

This paper briefly sketches out the method to build a Trusted Computing Environment for cloud computing system by integrating the Trusted Computing Platform (TCP) with Trusted Platform Module (TPM) into the security of cloud computing system. The RC4 stream cipher algorithm is most used algorithm to provide the confidentiality over the different networks. In this paper we propose the discussion of Simulation Results with its Analysis and the Performance Evaluation with the
representation of data and time.

Keywords: Cloud Computing, TCP, TCM, Trusted Computing, RC-4.

References:

Authors: Shakti Bajaj, Ravinder Kumar Bhatia, J. Sandeep Soni

Paper Title: Speed Regulation of DC Drive Using Mobile Communication

Abstract: The importance of the speed control of DC motors in manufacturing industries like plastic, textile, chemical and pharmaceutical hardly needs any emphasis as it ensures efficient and consistent production. In this paper, the authors present implementation of a hardware circuit which is designed for remote speed control of a DC motor by using Dual Tone Multi Frequency (DTMF) tone of mobile phone. The hardware circuit includes the use of DTMF decoder IC MT8870 and Relay driver IC ULN2003. The mobile keypad keys have been mapped to the speeds of ‘High Speed’, ‘Medium Speed’, ‘Low Speed’ and ‘Stop’ to regulate the speed of DC motor.

Keywords: DC motor, DTMF, IC MT8870, IC ULN2003

References:

Authors: Akshat Agrawal, Sumit Kumar Yadav

Paper Title: Technique for Searching of Similar Code Segments

Abstract: In this paper, we will be studying various artifacts and constructs about many tools to help developer in their task of developing. These tools will try to fulfill the basic need of any developer which is to have similar code segments to help him to reduce his efforts. For this we have various tools available in market. After reading this paper the developer will be able to choose the best suitable code detection tool for his work.

Keywords: Artifacts, Code detection, Code segment, Constructs.

References:
Through this Paper we are introducing a new Design Idea Of Optimized PV-Solar And Wind Hybrid Energy System, Mobile Base Station Over Conventional Diesel Generator For A Particular Site In village imaliya (bhanpur). The aim of this paper to generate electricity and transferring it mobile tower with extra electricity begging transfer to village. For this particular hybrid system, we are taking the meteorological data of Solar Insolation and hourly wind speed, for village imaliya (bhanpur) (Longitude 77o.41’ and Latitude 23o.29’) and through the study of pattern of load consumption of mobile base station and we have designed a modeled for optimization of the hybrid energy system using HOMER software. The hybrid energy system is a combination of wind, solar, diesel generation and batteries. Hybrid Optimization Model for Electric Renewable (HOMER) software is used for the analysis of sizing and sensitivity, performed in order to obtain the most feasible configuration of a hybrid renewable energy system.

**Keywords:** Hybrid system, PV, Wind, DG, HOMER

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**Authors:** Mohammed Hammmed Yassen

**Paper Title:** Enhanced Control of Power System by Using Smart Grid and Possibility of Applying it in Iraq

**Abstract:** the best control of power system very important for High quality energy. And the smart grid technology so need for Solve more problem about stability in electrical power system. In This paper present one problem in Iraqi electrical system it is unstable problem in electrical power system. And this problem Effected to control of power system and this problem effect to Economic of Iraq because more time happened the total shut Down in Iraqi electrical system. So by using Smart grid will do Enable to control of power system. And check if can be Applicability the smart grid in Iraq.

**Keywords:** Power, Smart grid, systems, control, students conference on engineering and systems (SCES).

**References:**

**Paper Title:** Various Attacks in Wireless Sensor Network: Survey

**Abstract:** Today wireless communication technique has become an essential tool in any application that requires communication between one or more sender(s) and multiple receivers. Since multiple users can use this technique simultaneously over a single channel, security has become a huge concern. Even though there are numerous ways to secure a wireless network and protect the network from numerous attacks, providing 100% security and maintaining confidentiality is a huge challenge in recent trends. This journal will present you a survey about the various threats to wireless networks, the various advancements in securing a network and the various challenges in implementing the same.

**Keywords:** wireless sensor networks, denial of service attacks, Sybil attacks, node replication attack, traffic analysis attack, secure routing protocols, trust management, intrusion detection

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3. Fadi Farhat, University of Windsor “Eavesdropping attack over Wi-Fi”

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**Paper Title:** Study on Cloud Computing and Security Approaches

**Abstract:** This paper highlights the basic concept of cloud computing and some of the security measures which have been taken into consideration till now. This paper also includes various ways which can be implemented for the betterment of cloud computing. With the recent advancement of technologies cloud computing has become a hotcake on which multiple organizations are working (e.g. Dell, IBM, Sun, Microsoft, Amazon etc.). It is out of reach for most of the organizations and/or individuals to purchase all the required hardware/software resources. So, using the resources available on the cloud one can perform required task by paying the applicable amount. But, always with popularity security issues come into picture and in this case security involves privacy and consistency of user data, durability of systems, protection from hacking and specially protection of contents which are vulnerable to potential threats. So, cloud computing must be launched with a strong security system so, that both service provider and user can be benefited.

**Keywords:** Cloud Computing, Security, Vulnerable, Threats, Resources.

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**Paper Title:** Evolving a New Software Development Life Cycle Model SDLC-2013 with Client Satisfaction

**Abstract:** In the era of software development there exist a large number of Models to develop software. Each model has its own characteristics, limitations and working environment. According to the requirements, software
industry people use different models to develop different software. There are various models but none of them is capable to address the issues of client satisfaction. In this paper we develop a new model (SDLC-2013) for software development that lays special emphasis on client satisfaction and also tries to fulfill the objective of the Software Engineering of developing high quality product within schedule and budget. The new proposed model is designed in such a way that it allows client and developer to interact freely with each other in order to understand and implement requirements in a better way.

Keywords: SDLC, Software Development, SDLC Phases, SDLC-2013 Model, Client Satisfaction

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Comparing various SDLC models and the new proposed model on the basis of available methodology, International Journal of Advanced Research in Computer Science and Software Engineering (IARCSSE), volume 2, April 2012, Vishwas Massey, Prof. K. J Satao.


Authors: Abdur Rahaman Sardar, J. K. Sing, Subir Kumar Sarkar

Paper Title: Fuzzy Logic Based Alternate Routing Scheme for the Minimization of Connection Set up Time and Blocking Rate in WDM Optical Network

Abstract: An alternate routing can improve the blocking performance of an optical network by providing multiple possible paths between source and destination nodes. Wavelength conversion can also improve the blocking performance of an optical network by allowing a connection to use different wavelengths along its route. But wavelength conversion scheme is not an economical proposition. We perform simultaneous study of the relationship between traditional alternate routing scheme and fuzzy logic based alternate routing scheme for comparative studies of those two schemes. Connection set up time and blocking rate reduction are the two important parameters of any optical data communication networks. These two parameters are computed in the present work. It is observed that fuzzy logic based alternate routing scheme provides better performance by reducing the connection set up time and blocking rate in optical network. The effect of the variation of number of wavelengths is also studied to see their effects on connection set up time and blocking rate.

Keywords: Alternate routing, connection set up time, blocking rate, Fuzzy Logic, Wavelength Division Multiplexing.

References:

Authors: N. Ashokkumar, M. RathinaKumar, M. Yogesh

Abstract: The present paper deals with the study of a database system having Primary database and hot standby database unit which is provided by the system provider itself. There is an agreement with the system provider that on the failure of the hot standby unit, another similar unit is immediately provided by him. The primary unit is a production unit and synchronized with hot standby unit through online transfer of archive redo logs. Data being saved in the primary unit gets simultaneously stored in the hot standby unit. When the primary database unit fails, the hot standby database unit becomes the production database and primary database unit goes under repair.

The system is analyzed by making use of semi-Markov processes and regenerative point technique. Expression for Mean Time to System Failure, Mean Time to Failure of Primary Database Unit and Availability of Primary Unit are obtained. Graphical study has also been done.

Keywords: System Failure, Mean Time to Failure of Primary Database Unit and Availability of Primary Unit are obtained. Graphical study has also been done.

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Authors: Sukhvir Singh, Rahul Rishi, Gulshan Taneja, Amit Manocha

Paper Title: Reliability and Availability Analysis of Database System with Standby Unit Provided by the System Provider

Abstract: Optical Character Recognition (OCR) Systems aim to recognize text and bring it to editable form from the given document image, where the input text can be in machine printed, hand written or hand printed form. Many recognition systems have been developed for languages based on various scripts and digits all over the world, taking input in either of the online and offline modes, with considerable efficiencies. These systems have proved to be highly applicable in the fields of Banking, Education, IT systems and Postal Sector for digitization of processes and automated information retrieval. In this paper, we present a survey of techniques for recognition of handwritten and hand printed documents in off-line mode, with an emphasis on the Feature Extraction phase and the corresponding classification technique has also been mentioned with the recognition rates achieved.

Keywords: Optical Character Recognition, Feature Extraction, Classification .

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Abstract: A Mobile Ad hoc Network (MANET) is a group of mobile nodes that can be set up randomly and formed without the need of any existing network infrastructure or centralized administration. In this network the mobile devices are dependent on battery power, it is important to minimize their energy consumption. Also storage capacity and power are severely limited. In situations such as emergency rescue, military actions, and scientific field missions, energy conservation plays an even more important role which is critical to the success of the tasks performed by the network. Therefore, energy conservation should be considered carefully when designing or evaluating ad hoc routing protocols. In this paper we concentrated on the energy consumption issues of existing routing protocols in MANET under various mobility models and whose connections communicate in a particular traffic model (CBR, Exponential, and Pareto). This paper describes a performance comparison of the AODV, DSR and DSDV routing protocols in term of energy consumed due to packet type (routing/MAC) during transmission and reception of control packets. The mobility models used in this work are Random Waypoint, Manhattan Grid and Reference Point Group. Simulations have been carried out using NS-2 and offline Character Recognition System IEEE, Eighth ICDAR 2005.

Keywords: Energy Consumption, Mobile Ad-hoc Network, Mobility Models, Network Simulator (NS-2), Routing Protocols, Traffic Models.

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Ejoro. E.Igboko, Thaddeus Onyinwe Eze, and Mona Ghassempor, “Performance analysis of MANET routing protocols over different mobility models”, In proceedings of London Communications Symposium (LCS), University College London, September 2010.


Authors: Akansha Rao, Vijay Trivedi, Vineet Richaria

Paper Title: Mobile Positioning System Using a Mathematical Approach

Abstract: In this era of advanced communication, there are large number of location and positioning based applications which are introduced and implemented practically and theoretically. In this paper, a design and implementation of new location measurement technology is being proposed by which this parameter could easily be estimated. This proposed system is based on trigonometric theory, projectile path estimation and iterative error correction methodology. After implementation, a comparative study is being provided for justification of the results, with distance weighted method being taken as bench mark, based on previous location estimation technique. The results analysis of both these systems is being provided.

Keywords: AOA, TOA, Regression, Comparative Study, Mathematical Approach.

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Authors: D Mary, Shinosh Mathew, Sreejith K

Paper Title: Modelling and Simulation of Grid Connected Wind Energy System

Abstract: Modelling and simulation of a grid connected wind-driven electricity generation system has been done. The power conversion unit features a wind-turbine-driven PMSG, a diode rectifier, and a dc/ac inverter. The Permanent Magnet Synchronous Generator (PMSG) offers better performance than other generators because of its higher efficiency and of less maintenance since they don’t have rotor current and can be used without a gearbox, which also implies a reduction of the weight of the nacelle and a reduction of costs. Therefore, in this paper the modelling and control of a PMSG is presented. All the components of the wind turbine and the grid-side converter are developed and implemented in MATLAB/Simulink.

Keywords: Modeling, PMSG, Wind Turbine, Inverter, SVPWM, PLL.

References:

Authors: Debarshi Datta, Partha Mitra, Avisek Sen

Paper Title: Low Power Configuration Logic Block Design Using Asynchronous Static

Abstract: Low power Configuration Logic Block (CLB) for FPGA is highly desirable in VLSI circuit and system. The CLB is the main block of any FPGA architecture. Each CLB block consists of three static LUT’s for implementing NCL logic function. 27 fundamental NCL logic gates are implemented in each LUT. The proposed CLB has 10 inputs and 3 different outputs, each with resettable and inverting variations. There are two operating modes in each CLB, Configuration mode and Operation mode. The NCL FPGA logic element is simulated at the transistor level using 130nm TSMC CMOS process technology.

Keywords: Configuration Logic Block (CLB), Field Programmable Gate Array (FPGA), Look Up Table (LUT), NULL Conventional Logic (NCL).

References:
Abstract: Fast Fourier transform (FFT) has become ubiquitous in many engineering applications. Efficient algorithms are being designed to improve the architecture of FFT. Among the different proposed algorithms, split-radix FFT has shown considerable improvement in terms of reducing hardware complexity of the architecture compared to radix-2 and radix-4 FFT algorithms. New distributed arithmetic (NEDA) is one of the most used techniques in implementing multiplier-less architectures of many digital systems. This paper proposes efficient multiplier-less VLSI architectures of split-radix FFT algorithm using NEDA. As the architecture does not contain any multiplier block, reduction in terms of power, speed, and area can greatly be observed. One of the proposed architectures is designed by considering all the inputs at a time and the other is designed by considering 4 inputs at a time, the total number of inputs in both cases being 32. The proposed designs are designed using both FPGA as well as ASIC design flows. 180nm process technology is used for ASIC implementation. The results show the improvements of proposed designs compared to other architectures.

Keywords: Split-radix, FFT, VLSI, NEDA, multiplier-less, FPGA, ASIC.

References:
Abstract: In this paper we have discussed optimal ordering policy for inventory model with non-instantaneous deteriorating items and stock-dependent demand. Here shortage is not allowed. The necessary and sufficient conditions of the existence and uniqueness of the optimal solution have been shown. Sensitivity analysis of the optimal solution with respect to major parameters is carried out. A numerical example is presented to demonstrate the developed model and the solution procedure.

Keywords: Non-instantaneous deterioration, Inventory, purchasing cost, Sales revenue cost, Stock-dependent demand.

References:

Authors: Saurabh A. Bobde, S.D. Kshirsagar

Paper Title: Improving The Sink Roll Life In Galvalume Using Material AT101 & The various Thermal-Spray Coating on SS316L Roll Surface

Abstract: Galvalume is a Continuous Galvanizing Line. In Galvalume the Zn-Al coating is done on the CR sheets to improve their corrosion resistance and to improve their life. JSW Ispat Steel Ltd. Kalmeshwar has to frequently replace the sink roll assembly used in Zn-Al tank of the Galvalume. The mean time between replacements is very less as compared to expected mean time between failures (expected MTBF). This is due to deposition of zinc dross on the surface of roller. This result in uneven or improper Zn-Al coating on sheet surface. To avoid this sink roll has to be replaced. The frequent replacement of roller assembly results in Stoppage of production, material loss, start-up loss and increased cost of production. This paper proposes an alternative material to extend the life of sink roll and the thermal-spray coating of various materials on traditionally used sink roll of SS316L roll surface.

Keywords: CR sheets, Galvalume, MTBF, Sink roll, SS316L, start-up loss, Zinc dross.

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Authors: Meriem Amoura, Noureddine Zeraibi

Paper Title: Thermal Study of Viscoelastic Material between Two Rotating Concentric Annuli: Application at Drilling Process

Abstract: This article presents a numerical investigation of the thermal convection for a viscoelastic material in the annular space between two coaxial rotating cylinders. The problem is considered when the inner cylinder rotates about the common axis with constant angular velocity and the outer cylinder at the rest. The horizontal endplates are assumed adiabatic. The Carreau stress-strain constitutive equation was adopted to model the rheological material characteristics. The governing equations are numerically solved by a time-marching finite element algorithm. It is employed to compute numerical solution through a semi-implicit Taylor-Galerkin / pressure-correction step formulation. The effect of rheological parameters on the heat transfer and on the flow is analysed. The results of natural, forced and mixed convections are presented and discussed.

Keywords: Drilling process, Numerical simulation, Rotating concentric cyliniders, Thermal study, Viscoelastic material

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Paper Title: Power Optimization Technique for Pulsed Latches

Abstract: In this paper, we implement a design technique for registers used in pulsed latches in order to make leakage current low thus reducing standby power consumption. This is made by considering short or long timing path and launching or capturing register. In this work each register trades clock-to-Q delay maintaining the same timing constraints, setup time and hold time maintaining clock-to-Q delay constant for reducing the leakage current by developing three different dual threshold voltage registers. The overall reduction in the leakage current of a register can exceed 90% while maintaining the clock frequency and other design parameters such as area and dynamic power the same. This work presents an elegant methodology using pulsed latch instead of flip-flop without altering the existing design style. It reduces the dynamic power of the clock network, which can consume half of a chip's dynamic power. Real designs have shown approximately a 20 percent reduction in dynamic power using the below methodology. Three ISCAS 89 benchmark circuits are utilized to evaluate the methodology, demonstrating, on average, 23% reduction in the overall leakage current. The overall reduction in leakage current is compared for each case in different technologies. Predictive device models are used for each technology. The analysis is performed using H-SPICE.
Keywords: leakage current; low leakage register design; power consumption; static power.

References:

Authors: Supriya Dadabhau Tambe, Nikhil Gorksh Pawar, Mahadev Sudhakar Garad, Sagar Ravindra Patil

Paper Title: Unite Clinic: Connecting Clinics Online

Abstract: This system is designed to improve clinical workflow, and perform advanced appointment scheduling. This application shows how clinics and patient are connected online through web based application. In today’s life no one has time to visit clinic and wait for appointment. This application will help for getting online appointment. Patient can get appointment through SMS or Internet. Receptionist will manage all the appointment. Doctor can make his schedule according to patient’s appointment. Patient can see online how many people are waiting for appointment. Doctor will upload all the patient medical history on website. This information is visible to only that patient and to the visiting Doctors. Thus privacy is maintained. As patient and clinic are connected online if patient goes from one clinic to another clinic, visited clinics doctor can see medical history of that patient and personal information of patient. It is waiting room solution. All this services provided to users at free of cost.

Keywords: Alert Notification, Appointment scheduling, Database management, Online Appointment, Report Generation, Secure private information, Unique ID.

References:

Authors: Barun K. Pandhwal, Devendra S. Chaudhari

Paper Title: An Overview of Digital Watermarking Techniques

Abstract: One of the biggest technological events of the last two decades was the invasion of digital media in an entire range of everyday life aspects. Digital data can be stored efficiently with a very high quality and it can be manipulated very easily using computers. Furthermore, digital data can be transmitted in a fast and inexpensive way through data communication networks without losing quality. Digital media offer several distinct advantages over analog media. The quality of digital audio, images and video signals are better than that of their analog counterparts. Editing is easy because one can access the exact discrete locations that need to be changed. Copying is simple with no loss of information and a copy of a digital media is identical to the original. With digital multimedia distribution over World Wide Web, Intellectual Property Rights (IPRs) are more threatened than ever due to the possibility of unlimited copying. This problem can be handled by hiding some ownership data into the multimedia data, which can be extracted later to prove the ownership, a concept called watermarking. Continuous efforts are being made to device an efficient watermarking scheme and this paper conducts a literature survey of digital watermarking within an image. It describes the early work carried out on digital watermarks, including the brief analysis of various watermarking schemes and its potential applications.

Keywords: leakage current; low leakage register design; power consumption; static power.
Keywords: Digital watermarking, Least significant bit, Discrete Cosine Transform, Discrete Wavelet Transform

References:

Authors: Dattatray S. Waghole, Vivek S. Deshpande

Paper Title: Reducing Delay Data Dissemination Using Mobile Sink in Wireless Sensor Networks

Abstract: Wireless Sensor Networks (WSNs) is a collection of sensor nodes, which is spread in environmental area. These sensor nodes sense the data, information, Temperature and environmental changes from environmental area. Later it will be provide sensing information to the Sink node. In Wireless Sensor Networks hop by hop and Multi-hop communication is done. A data packet is send to the sink node via hop to hop or Multi-hop communication. Important Parameters like congestion, energy, Average End-to-End Delay drastically when mobile Sink node moves from left side to Right side Direction. Mobile Sink is also moving different direction so Mobile sinks collect the data moving through different direction. So, delay is reducing drastically for data packets collection from the networks. In this paper there solve energy consumption, congestion and Average End-to-End Delay problem for collection of data packets in the network.

Keywords: Average End-to-End Delay, Movable Mobile Sink. Energy Consumption, Wireless Sensor Networks (WSNs), Data Dissemination.

References:
**Authors:** Devika Joshi, Rutuja Kulkarni, Arundhati Rao, Pooja Wagh, Roma Kudale  
**Paper Title:** Amigos: Social Networking with Advertisement Management  
**Abstract:** With the vast growth of Internet use nowadays, business advertising has enjoyed a more advanced phase. There is a wider selection for media, advertising cost and market range. The challenge is to find which one to focus on. Among the many options, social networking site has turned out to be one of the most promising media today. Keeping this motto Amigos offers completely redesigned advertisement management algorithm which takes advantage of the profile data and hence targets advertisement directly to user according to his interests. Amigos covers most of the essential aspects of social network including editable profiles, messages, groups, events, status updates, uploading photos. Although that is true, the social network does have some unique features of its own like segregation of personal and professional information and displaying the UI accordingly. It would help people willing to join a single networking site and yet be able to control the two fronts of their lives separately. The advertising module looks over the space management of ads and displays them according to user preferences. Not only that, it also gives the advertiser different options to choose from fixed spaces for frequently accessed pages or real-time bidding for inner pages. Thus using Social networking the advertising industry can target masses and lead the advertisers to build long-term success in the performance advertising industry.  
**Keywords:** Not only that, it also gives the advertiser different options to choose from fixed spaces for frequently accessed pages or real-time bidding for inner pages  
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5. Java servlet programming : HeadFirst  
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**Authors:** Prasad P. Rande, Prashant L. Paikrao, Devendra S. Chaudhari  
**Paper Title:** Digital ANFIS Model Design  
**Abstract:** Neuro-Fuzzy systems are hybrid intelligent systems which combine features of both paradigms–fuzzy logic and artificial neural networks. Adaptive Neuro Fuzzy Inference System (ANFIS) is one of such architecture which is widely used as solution for various real-world problems. This paper describes development of an ANFIS model for FPGA implementation. Model can be realized with hardware descriptive language thus making it reusable, reconfigurable and independent of applications. This digital ANFIS firmware can be proven to be optimal solution in terms of cost, speed of operation and flexibility in design methodology.  
**Keywords:** ANFIS, Digital System, FPGA, HDL, Neuro-Fuzzy System  
**References:**  

**Authors:** Gayatri Bhatti, Upma Goyal, Prabheep Singh  
**Paper Title:** A Moratorium Defense Mechanism for Flooding Based Attacks  
**Abstract:** The Distributed Denial of service (DDoS) attacks, over a past few years are found to be a disaster to the Internet. A flooding-based attack attacks the victim machine by sending an excessive amount of illegitimate traffic to it. The defense mechanisms existing before are unable to prevent the systems from these attacks, since it is very difficult to trace the spoofed packets and distinguished between the legitimate and illegitimate attack traffic. Flooding-based DDoS attacks use agents to send the traffic and sometimes prefer Reflectors in order to forward the...
traffic to the target, thereby making it impossible to be detected. So, this paper will propose a defence mechanism pronounced as Hop-based DDoS defence procedure. This mechanism will comprise of three components: detection of illegitimate packets, IP traceback of the illegitimate packets and the traffic control. This framework shows high performance in defending against the flooding-based attacks.

Keywords: DDoS, Defence, Flooding, Hop, Traffic.

References:

Authors: Rashid Hussain, JL Sahgal, Anshulgangwar, Md.Riyaj

Paper Title: Control of Irrigation Automatically By Using Wireless Sensor Network

Abstract: In the field of agriculture the most important part is: firstly, to get the information about the fertility of soil and secondly moisture content of soil. After measuring these two factors a farmer can start sowing of seeds. In this paper we are giving th

Keywords: Fertility, Microprocessor, Drip irrigation.

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7. 8085 microprocessor.info

Authors: Madhuri V. Joseph

Paper Title: Significance of Data Warehousing and Data Mining in Business Applications

Abstract: Information technology is now required in every aspect of our lives which help business and enterprise to make use of applications like decision support system, query and reporting online analytical processing, predictive analysis and business performance management. In this aspect this paper focusses on the significance and role of Data Warehousing and Data Mining technology in business. A Data Warehouse is a central repository of relational database designed for query and analysis. If helps the business organization to consolidate data from different varying sources. These warehouses are analyzed by the latest technique known as Data Mining. In Data Mining data sets will be explored to yield hidden and unknown predictions which can be used in future for the efficient decision making. Now companies use techniques of Data Mining that involves pattern recognition,
mathematical and statistical techniques to search Data Warehouses and help the analyst in recognizing significant trends, facts relationships and anomalies.

**Keywords:** Data Warehousing, Data Mining, OLAP, OLTP, CART & CHAID.

**References:**


**Authors:** Kerkoub YouCEF, Kerboua Ziari Yasmina, Benzaoui Ahmed

**Paper Title:** Modeling Of Transport Phenomena in A PEM Fuel Cell

**Abstract:** In this paper, a three dimensional non-isothermal and steady state model is presented. This model takes into account the transport of reactants, heat, charge species and fluid flow in all parts of the cell in conjunction with the electrochemical reaction. The solid collectors are also included in this model in view to approach a realistic system representation. These processes have a significant impact on water management. Water management ensures that the membrane remains fully hydrated to maintain good ionic conductivity and performance. This work focuses on the effect of gradients of pressure between the anode and cathode, on the performance of the cell and also investigates the effect of these parameters on water management within the cell. Different cases of these gradients have been investigated and compared to the experimental results reported by Wang [2000].

**Keywords:** PEMFC fuel cell—energy—hydrogen —electrical performance.

**References:**


**Authors:** P.B.Buchade

**Paper Title:** Microcontroller Based Mobile Platform with Fiber Optic Sensors

**Abstract:** In the present work a mobile platform with optical fiber sensor was designed, built and tested. The IC 89C51RD2 was used as controller on the platform. The platform was designed with two powered wheels on the back and one free turning wheel on the front. Further the platform was outfitted with proximity, weight and touch plastic fiber sensors. Home position was sensed by touch sensor, the destination by proximity sensor and weight by the load cell sensor. A program was written to move the platform from home position to the destination where after loading the weights in the pan the platform moves back to the destination, unloading the weight the cycle repeats.

**Keywords:** Microcontroller Based Mobile Platform with Fiber Optic Sensors.
Recommender systems are being extensively used in the present generation. Today's consumer are facing with millions of goods and services when shopping online. Recommender systems help consumers by making product recommendations that are likely to be of interest to the user such as books, CDs, movies, restaurants, online news articles, and other services. Recommender systems are gradually increasingly harder to find the relevant contents of information in the vast abundant current age of information overload. Thus, recommender systems are needed to help individual users find the most relevant items or products or data sets from an abundant number of choices, collection. Through this gradually increase sales by exposing users to what they might like. E.g.
In real time or real world applications consider a product say laptop, the laptop present in numerous patterns with different applications in number depending upon different user’s requirements. Thus providing a user or the customer with relevant information about the product as per their requirements with the help of recommender systems would ease the work of an user. Hence we can conclude saying that the volume of information available in the current age is huge to individual users (for e.g., e-commerce sites applications such as Amazon, Netflix) and hence focusing in developing some recommendation techniques within both industry and academia. Most, research to date is focusing on improving the recommendation accuracy i.e. the accuracy with which the recommender system predicts users ratings for items that are yet to be rated. The diversity of recommendation also plays an important role to be considered, it is important to explore the relationship between the accuracy and diversity and also the recommendation quality. Empirical analysis consistently shows the diversity gains of different recommendation techniques which is being used in several real world rating applications or datasets and uses different rating prediction algorithms. Individual users and online content providers will also benefit from the proposed approaches, where in which each user can find more relevant and personalized items or products from accurate and diverse recommendations provided by these recommender systems. These approaches, ranking techniques and algorithms could potentially lead to increased loyalty and sales in e-commerce application sites, thus benefiting the providers as well. Thus, serving these needs can result in greater success regarding cross-selling of related products, up selling, product affinities, and one-to-one promotions, larger baskets and customer retention.

Keywords: Recommender systems, recommendation accuracy, diverse recommendation, empirical analysis, ranking techniques, collaborative filtering, performance evaluation metrics, aggregate diversity, RMSE, extensions of recommendation approaches.

References:


Authors: Shaweta Kumar, Sanjeev Bansal

Paper Title: Comparative Study of Test Driven Development with Traditional Techniques

Abstract: Test-Driven Development is the evolutionary approach in which unit test cases are incrementally written prior to code implementation. In our research, we will be doing comparative study of Test Driven development with traditional techniques through literature study as well as industrial survey. Through this research, we would like to find out the factors encouraging the use of Test Driven Development and also the obstacles that are limiting the adoption of Test Driven Development in the industry. The TDD method is radically different from the traditional way to create software. In traditional software development models, the tests are written after the code is implemented, in other words we could refer it as test-last. This does not drive the design of the code to be testable. Defining the tests with the requirements, rather than after, and using those tests to drive the development effort, gives us much more clearly picture and share focus on the goal. If tests are written after the implementation, there is a risk that tests are written to satisfy the implementation, not the requirements. An important rule in TDD is: “If you can’t write test for what you are about to code, then you shouldn’t even be thinking about coding.”
Keywords: extreme programming, refactoring, test driven development, test-first methodology, test-last methodology.

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Authors: Asha Thapliyal, M.M. Kimothi

Paper Title: Comparison and Monitoring of Glacier Retreat using Satellite and Ground Methods

Abstract: The study aimed to make the comprehensible thought about the actual recession over the Gangotri glacier using reiteration photographs of glacier. Here we summarizes the understanding and responding to glacier retreat during the period of 1866 to 2011, on the basis of scientific evidence for glacier retreat particularly at Goumukh snout. The ground photographs were taken from internet (http://www.cseindia.org/userfiles/repeat_photography). Change in snout position was carried out by Elevation transfer method, interpretation of expedition photographs and panchromatic rectified images. Contours at 30 m resolution generated from ASTER satellite data and overlay on Cartosat DEM to locate the shift in snout position. Retreat over the glacier region is compared with the previous studies carried out in the region. Shift in demarcation also observed with overlaying DEM of Quick Bird Satellite data of 2011 and panchromatic image of Gaomukh. Interpretation was carried out of camera photographs over the Gangotri glacier for year-1866 and 2011 and it is concluded that Goumukh has receded in between 3.25 to 3.5 km within 144 years, while on the basis of satellite data investigating the snout position shift is found to be 3.37 Km. This retreat may be due to direct or indirect effects of climate change and it is caused largely by human activity and may be other anthropogenic activities.

Keywords: Himalaya, Goumukh Snout, DEM, Snow Retreat

References:
In recent years, the increasing concerns to the environmental issues and the limited availability of conventional fossil fuels lead to rapid research and development for more sustainable and alternative electrical sources. Wind energy, as one of the most prominent renewable energy sources, is gaining increasing significance throughout the world. Distributed Generation (DG), based on renewable energy has become a development trend for electric power industry in 21st century. The currently worldwide installed capacity of grid connected wind generators grows rapidly. Therefore detailed analysis needs about the impact of wind power on system security and system operation. But DG is affected by natural conditions being not able to output power continuously and steadily. So when large scale wind turbine generators are incorporated into the grid, they will bring impact on electric power system stability. In order to ensure stable operation of electric power system, application of a super capacitor energy storage system (SCESS) superior to other energy storage technologies and Doubly Fed Induction wind Generator (DFIG) are presented in this paper. CESS is connected to the grid at the Point of Common Coupling (PCC). Matlab/Simulink software is used for modelling and simulation analysis. In this paper, transient stability problem if focussed. The simulation results obtained indicate that SCESS can improve transient stability of wind turbine generator system connected to the grid, and by using doubly fed induction generators, electric power system stability can be improved.

Keywords: Distributed Generation (DG); Super Capacitor Energy Storage System (SCESS); Transient Stability; Doubly Fed Induction Wind Generator (DFIG); Fuzzy Controller and PWM Technique.

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As software are being used in more and more critical areas, therefore quality of software becomes a very important factor for business and human safety. Estimation of software quality is the key for achieving a high quality product. Quality of software is associated with number of quality attributes and estimation of software quality involves broad views and various perspectives which might involve natural description, in linguistic terms. Linguistic terms are more convenient to use when human express the subjectivity and imprecision of their evolution but these linguistic variables involve ambiguity and vagueness. Since fuzzy logic deals with the ambiguity, imprecision and vagueness therefore this study proposes the applicability of fuzzy along with ISO 9126 quality model for developing quality estimation framework.

Keywords: Quality, Quality attributes, FIS, Rule base, linguistic variable.

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**Authors:** Rujul R Makwana, Nita D Mehta  
**Paper Title:** Single Image Super-Resolution VIA Iterative Back Projection Based Canny Edge Detection and a Gabor Filter Prior  
**Abstract:** The Iterative back-projection (IBP) is a classical super-resolution method with low computational complexity that can be applied in real-time applications. This paper presents an effective novel single image super-resolution approach to recover a high resolution image from a single low resolution input image. The approach is based on an Iterative back projection (IBP) method combined with the Canny Edge Detection and Gabor Filter to recover high frequency information. This method is applied on different natural gray images and compared with different existing image super-resolution approaches. Simulation results show that the proposed algorithms can more accurately enlarge the low resolution image than previous approaches. Proposed algorithm increases the MSSIM and the PSNR and decreases MSE compared to other existing algorithms and also improves visual quality of enlarged images.  
**Keywords:** Canny Edge Detection, Gabor Filter, IBP, Super Resolution.  
**References:**  
2. C. Papathanassiu and M. Petrou, “Super resolution: an overview,” 0-7803-9051-2/05/$20.00 (C) 2005 IEEE.  

**Authors:** Tejinder Sharma, Vijay Kumar Banga  
**Paper Title:** Efficient and Enhanced Algorithm in Cloud Computing  
**Abstract:** A class of systems and applications that procure distributed algorithms to execute the function in the decentralized manner is referred as cloud computing. It enables a wide range of users to access scalable, virtualized hardware, distributed and/or software infrastructure over the Internet. One of the challenging problems in Cloud datacenters is to take the allocation and migration of reconfigurable virtual machines into consideration as well as the integrated features of hosting physical machines. In order to select the virtual nodes for executing the task, Load balancing is a methodology to distribute workload across multiple computers, or other resources over the network links to achieve optimal resource utilization, minimum data processing time, minimum average response time, and avoid overload. The objective of this paper to propose efficient and enhanced scheduling algorithm that can maintain the load balancing and provides better improved strategies through efficient job scheduling and modified resource allocation techniques. Load balancing ensures that all the processors in the system as well as in the network does approximately the equal amount of work at any instant of time. The results discussed in this paper, based on existing Equally Spread Current Execution, Round Robin, Throttled and a new proposed enhanced and efficient scheduling algorithms.  
**Keywords:** Cloud Computing, Cloud Analyst, Equal Spread Current Execution, Round Robin, Throttled, VM.  
**References:**  


Authors: N. Jenefa, J. Jayalakshmi

Paper Title: A Cloud Storage System with Data Confidentiality and Data Forwarding

Abstract: Cloud storage is a model of networked online storage where data is stored in virtualized pools of storage which are generally hosted by third parties. Organizations cite data confidentiality as their serious concern for cloud computing, with unencrypted data stored on third party’s cloud system, The functionality of the storage system is limited when general encryption schemes are used for data confidentiality. With this consideration, we propose a new threshold proxy re-encryption scheme to form a secure distributed storage system. This distributed storage system also lets a user forward his data in the storage servers to another user without retrieving the data. The distributed storage system not only supports secure and robust data storage and retrieval, but also lets a user forward his data in the storage servers to another user without retrieving the data back. The main technical contribution is that the proxy re-encryption scheme supports encoding operations over encrypted messages as well as forwarding operations over encoded and encrypted messages.

Keywords: Distributed storage system, encoding, proxy re-encryption, unencrypted data.

References:


Authors: Munghat H. Alattar S.P. Medhan

Paper Title: Efficient Solution for SQL Injection Attack Detection and Prevention

Abstract: SQL injection is the most common attack for web applications and widely used exploit by hackers all over the world. A malicious hacker can do a lot of harm if he wishes to. SQL injection is a security vulnerability that occurs in the database layers of an application. SQL injection is a technique to pass SQL code into interactive web applications that employ in database services. The employment of SQL Injection Attacks, can lead to the leak of confidential information such as credit card numbers, commercial information & table structure. The attackers can get the entire schema of the original database and also corrupt it. In this paper, we have proposed the Detection Model of SQL Injection Vulnerabilities and SQL Injection Mitigation Framework. These approaches are based on SQL Injection grammar to identify the SQL Injection vulnerabilities during software development and SQL Injection Attack on web-based applications.

Keywords: SQL Injection; Security Assessment; vulnerabilities; Pattern Matching, SQL Query.

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