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Abstract: The ceramic industry inevitably generates wastes, irrespective of the improvements introduced in manufacturing processes. In the ceramic industry, about 15%-30% production goes as waste. These wastes pose a problem in present-day society, requiring a suitable form of management in order to achieve sustainable development. In this research study the (OPC) cement has been replaced by ceramic waste powder accordingly in the range of 0%, 10%, 20%, 30% 40%, & 50% by weight for M-25 grade concrete. The wastes employed came from ceramic industry which had been deemed unfit for sale due to a variety of reasons, including dimensional or mechanical defects, or defects in the firing process. The results demonstrate that the use ceramic masonry rubble as active addition endows cement with positive characteristics as major mechanical strength and the economic advantages. Reuse of this kind of waste has advantages economic and environmental, reduction in the number of natural spaces employed as refuse dumps. Indirectly, all the above contributes to a better quality of life for citizens and to introduce the concept of sustainability in the construction sector.

Keywords: Ceramic Waste, Compressive Strength, Eco-Friendly, Industrial Waste, Low Cost, OPC Cement, Sustainable

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9. Hasnat Dewan, “Re-Defining Sustainable Human Development to Integrate Sustainability and Human Development Goals” Thompson Rivers University, Canada.

Authors: Himanshi, Shruti Vashist, M.K.Soni
Title: Study of Wireless Sensor Network Using LEACH Protocol
Abstract: Wireless sensor networks (WSNs) have been identified as one of the most important technologies for the 21st century. A wireless sensor network with a large number of sensor nodes can be used as an effective tool for gathering data in various situations. This paper focuses on study of WSN using a communication protocol called LEACH protocol. LEACH is very effective in enhancing lifetime of the nodes
Keywords: Energy efficiency, Wireless sensor network, LEACH, clustering
References:

Authors: Chandrasekaran, A, Mukesh, M.V, Anantharaman, P,Tamilselvi, M, Muthukumarasamy, R, Manivel, T, Rajmohan, R

Paper Title: Trace Metal Concentration in Sediments of Tamirabarani River in Relationships with Physico Chemical Characteristics - A Study Using GIS Application

Abstract: A study is carried out to investigate the concentrations and distribution of trace metals to the sediments of Tamirabarani River, south east coast of India. Nearly sixteen soil samples collected from river mouth and tributaries and analyzed for traces elements show high-rate concentration of Hg (3.52-24.69μg g⁻¹) Cu(2.2-17.82μg g⁻¹), Ni(7.83-15.2μg g⁻¹), Cr(58.3-145.μg g⁻¹), Pb(3.48-12.93μg g⁻¹), Zn(9.3-74μg g⁻¹) and Cd(1.41-4.92μg g⁻¹). The pH, EC, and TDS values reported as (8.1-9.5) (384-16250) (303-33050). The abundances of such metals caused by the river contribution of sediments from areas with unplanned agricultural development and from the industrial, marine activity carried out on the riverbanks. It is concluded that in and around Mukkani area, the concentration of heavy metals is higher due to anthropogenic and industrial effluent in Tamirabarani River.

Keywords: Sediments, Trace elements, Tributaries, spatial distribution, Tamirabarani River

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**Design and Simulation of a Circuit to Predict and Compensate Performance Variability in Submicron Circuit**

**Abstract:** This paper presents a technique for compensating process, voltage and temperature variations due to manufacturing and environmental variability in submicron circuits using canary flip-flop. This canary flip flop predicts the timing error before it actually occurs and compensate the performance so that the system performance does not get affected. I am going to design a 16-bit Brent-Kung adder in 45-nm CMOS technology , whose performance will be controlled by supply voltage scaling. We will show that this technique can compensate process, supply voltage, and temperature variations and improve the energy efficiency of submicron circuits. We also compare Power dissipation for Worst case design and performance compensate design and show performance design has less power dissipation when compared to worst case design.

**Keywords:** Manufacturing variability, Timing error prediction, Brent-Kung adder, Speed control unit, Canary flip-flop.

**References:**

**Design and Implementation of Switchable Key AES Cryptoprocessor**

**Abstract:** This paper presents the ASIC implementation of switchable key Advanced Encryption standard algorithm Encryption and decryption with power gating. The implementation supports 128 bits, 192 bits and 256 bits key. The design is described using verilog HDL , simulated in VCS synopsys. The RTL is Synthesised in Design Compiler (DC) using Nangate 45nm open cell library and Physical Design is performed in ICC of Synopsys. The Design was clocked at 125M with a throughput of  1.14Gbps  and the power consumption of 1.07mw.

**References:**

**Haar Wavelet Approach of Iris Texture Extraction for Personal Recognition**

**Abstract:** Iris recognition is one of the fast, accurate, reliable and secure biometric techniques for human identification. As the iris texture pattern is very unique and has no links with the genetic structure of an individual it is used as feature in iris recognition system. Poor quality images, high failure to accept rates (FTE) and high false reject rates (FRR) undermines the performance of iris recognition systems. The selection of subset of feature, its extraction and classification is a crucial step in this system. In this paper a method for iris recognition based on Haar wavelet approach of Iris texture extraction is proposed. Iris recognition system consists of iris localization, normalization, features extraction and matching modules. The feature extraction algorithm extracts haar wavelet packet energies of the normalized iris image (local features) to generate a unique code by quantizing these energies into one bit according to an adapted threshold. Hamming distance measure is used in order to find similarity between
the iris images. Results are presented that demonstrate significant improvements in iris recognition accuracy when feature extracted using higher wavelet decomposition through the use of the public iris database CASIA.V4

Keywords: Biometrics, Iris recognition, feature extraction, Wavelet Transform.

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Authors: Piyus Saxena, Amapal Singh, Sangeeta Lalwani

Paper Title: Use of DNA for Computation, Storage and Cryptography of Information

Abstract: DNA computing was proposed [1] as a method of solving a group of inflexible computational tribulations in which the computing time can grow up exponentially with respect to the problem size. A DNA can also be used as a next generation Digital Information Storage Medium that has tremendous storage capacity and low maintenance cost. This process of artificial manufacturing and decoding of DNA’s can also be used to encode data by use of an extremely advanced and naturally existing cipher mechanism.

Keywords: DNA Computing, DNA Cryptography, Logic gates, DNA chip, DNA Microprocessor.

References:
12. Towards practical, high-capacity, low-maintenance information storage in synthesized DNA Nick Goldman1, Paul Bertone1, Siyuan Chen2, Christophe Dessimo1, Emily M. LeProust2, Botond Sipos1 & Ewan Birney1 doi:10.1038/nature11875, Jan 2013 Macmillan Publishers Limited.

Authors: Prathvi Kumari, Ravishankar K

Paper Title: Measuring Semantic Similarity between Words using Page-Count and Pattern Clustering Methods

Abstract: Web mining involves activities such as document clustering, community mining etc. to be performed on web. Such tasks need measuring semantic similarity between words. This helps in performing web mining activities easily in many applications. Despite the usefulness of semantic similarity measures in these applications, accurately measuring semantic similarity between two words remains a challenging task. In this paper to find the semantic similarity between two words it makes use of information available on the web and uses methods that make use of page counts and snippets to measure semantic similarity between two words. Various word co-occurrence measures are defined using page counts and then integrate those with lexical patterns extracted from text snippets. To identify the numerous semantic relations that exist between two given words, a pattern extraction and clustering methods are used. The optimal combination of page counts-based co-occurrence measures and lexical pattern clusters is learned using support vector machine used to find semantic similarity between two words. Finally semantic similarity measure what is got is in the range [0, 1], is used to determine semantic similarity between two given words. If two given words are highly similar it is expected to be closer to 1, if two given words are not semantically similar then it
is expected to be closer to 0.

**Keywords:** Natural Language Processing, Semantic Similarity, Support Vector Machine, Text Snippets, Web Mining

**References:**
9. V. Hemalatha and Mrs .K. Sarojini, “semantic similarity approach using rsvm based on personalized search in web search engine”, vol.1 November 2012

**Authors:** Kiran Chhabra, Manali Kshirsagar, A. S. Zadgaonkar

**Paper Title:** Effective Congestion Indication for Performance Improvement of Random Early Detection

**Abstract:** A congestion avoidance scheme allows a network to operate in the region of low delay and high throughput. Such scheme prevent a network from entering in to congested state. RED(Random Early Detection), is one such congestion avoidance mechanism used for effectively control of congestion. In RED, router uses only the average queue size, as a congestion indicator and the average queue length is insensitive to input traffic load variation. Due to this effective incipient congestion becomes difficult to detect and there is no matching between current queue size and average queue size as in [4]. The present paper deals with these two problems and proposed a way in which packet dropping is not only based on average queue size but also on the rate of change of input. The work which is carried out is to find out significant changes in input rate and use this climbing rate as indication of impending congestion for sources to react quickly. Here we have analyzed the performance of our proposed algorithm using network simulator ns2.

**Keywords:** Average queue size, Congestion Avoidance, Network Simulator (ns), Random Early Detection (RED).

**References:**
4. Seunwan Ryu, Cythoher Rump, and Chunning Qiao “Advances in Internet Congestion Control” third quarter 2003, Volume 5, No.1 http://www.comsoc.org/pubs/surveys,
<table>
<thead>
<tr>
<th>Authors:</th>
<th>Lavina Jean Crasta, H. Harshavardhan</th>
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<tbody>
<tr>
<td>Paper Title:</td>
<td>Technical Challenges in Mixed Service Systems</td>
</tr>
<tr>
<td>Abstract:</td>
<td>A coming together of the technological networks that connect computers on the internet and the social networks that link humans for millennia has been observed in the past few decades. Even as this has led to the changes in the styles of communication, the media has also remained governed by long standing principles of human social interaction. Web-based collaborations have become vital in today’s business environments. They have paved the way for new type of collaborative system. As collaborative Web-based platforms develop into service oriented architectures (SOA), they promote mixed user enriched services. Due to the availability of various SOA frameworks, Web services emerged as the de facto technology to realize flexible compositions of services. Knowledge-intensive environments clearly demand for provisioning of human expertise along with sharing of computing resources or business data through software-based services. To address the challenges, an adaptive approach allowing humans to provide their expertise through services using SOA standards, such as Web Services Description Language (WSDL) and Simple Object Access Protocol (SOAP) is introduced. The seamless integration of humans in the SOA loop triggers numerous social implications, such as evolving expertise and drifting interests of human service providers.</td>
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<tr>
<td>Keywords:</td>
<td>Human Provided Services, Service Avatar, Service Oriented Architecture.</td>
</tr>
<tr>
<td>Authors:</td>
<td>Pande A. M., Kharde Y. R.</td>
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<tr>
<td>Paper Title:</td>
<td>Effect of Pressure Angle on Transmission Efficiency of Helical Gears</td>
</tr>
<tr>
<td>Abstract:</td>
<td>In this study, a test methodology for measuring load-dependent (mechanical) power losses of helical gear pairs is developed. A high-speed four-square type test machine is adapted for this purpose. Several sets of helical gears having 3 different pressure angles are manufactured, and their power losses under dip lubricated conditions are measured at various speed and torque levels. A general trend found in the experimental testing was that the higher the pressure angle, the lower the temperature-increase of the lubricant across the gearbox while being tested at identical conditions. This is an indication of the improved efficiency. Finally it was concluded that high-pressure angle helical gears (25°) pressure angle running at high speed provide improved performance over more traditional gear pressure angles (20°).</td>
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<tr>
<td>Keywords:</td>
<td>load-dependent power losses, helical gear, pressure angle, efficiency.</td>
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<td>Paper Title:</td>
<td>Design and Modeling of Modulo Multipliers Using RNS</td>
</tr>
<tr>
<td>Abstract:</td>
<td>The special moduli set,Residue Number System is intended to implement the long and repeated multiplications of cryptographic and signal processing algorithms. In this paper, area and power trade-off of modulo 2n – 1 and modulo 2n + 1 multipliers based on RNS are proposed. The proposed modulo multipliers are based on the radix-8 Booth encoding technique. In the proposed modulo 2n – 1 multipliers, the number of partial products is lowered to (L = (n/2)^3 + 1) for (n = 32) to 64, which is around 33% reduction over radix-4 Booth encoded multiplier for (n = 32) to 64. For modulo 2n + 1 multiplier, the aggregate bias is composed of multiplier dependent dynamic bias and multiplier independent static bias due to hard multiple and modulo-reduced partial products generation. The total</td>
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39-41

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number of partial products is reduced to \( \lceil n/3 \rceil + 6 \) for modulo \( 2^n + 1 \) multiplier. From synthesis results for modulo \( 2^n - 1 \) and modulo \( 2^n + 1 \) based RNS multipliers constructed from different modulo \( 2^n - 1 \) and modulo \( 2^n + 1 \) multipliers.

Keywords: Booth algorithm, computer arithmetic, multiplic-ation, residue number system(RNS).

References:

Authors: Padmini A.K., Abdul Malik K.V., Leena Samuel Panackel

Paper Title: Forecasting Trip Production Based on Residential Land Use Characteristics

Abstract: Travel demand forecasting models are the key elements for the development of a long-range transportation plan. This paper focuses its study on the formulation of a trip production model using multiple regression technique for the residential land use in medium sized towns of Kerala. The trip production model estimated the number of trips that will be produced from the residential land use of these medium sized towns. The Perinthalmanna, Tirur, and Ponnnani towns of Kerala were selected as the study area based on certain criteria. Household interviews were conducted through the administration of questionnaires for data collection on demographic and socio-economic characteristics these areas. The results were then analyzed quantitatively and qualitatively using the correlation and multiple regression analysis. The study showed that the regression model with the independent variables such as the percentage of automobile availability, percentage of persons employed, percentage of students and percentage of pucca type of dwelling with R2 and Adjusted R2 value of 0.878 and 0.859 respectively gives a better estimate of the trips produced. Since most of the work related to traffic and transportation planning requires an effective framework for the analysis of the present and future travel demand pattern, a model forecasting the trip produced based on the above mentioned characteristics shall be advantageous for a speedy travel demand forecast.
In this paper, the performance of the IEEE 802.11 MAC protocol is analysed in terms of efficiency and reliability in wireless networks. In the IEEE 802.11, an exponential backoff has been adopted, which means whenever a collision occurs, the contention window (CW) of the station is doubled until it reaches the maximum value. The purpose of increasing CW is to reduce the collision probability by distributing the traffic into a larger time
space. In this paper, fixed contention window scheme is used and then correlate the CW size and network size. The interaction of TCP with the MAC protocol is also analysed. For static multi hop network that uses IEEE 802.11 protocol for access, TCP performance is mainly determined by hidden terminal effects (and not by drop probabilities at buffers) which limits the number of packets that can be transmitted simultaneously in the network. TCP throughput is improved by decreasing the ACKs flows, using delayed ACK, with d=2. Simulation results shows when choosing large maximum window, the delayed ACK considerably outperform standard TCP

Keywords: contention window size, MAC protocols, maximum window size, spatial reuse, TCP

References:

Authors: R.Kayalvizhi, G.Meenakshi
Paper Title: Growth and Characterization of Pure and Neem Leaves Extract Doped Potassium Dihydrogen Phosphate (KDP) Crystal
Abstract: KDP-Potassium Dihydrogen Phosphate, slow evaporation technique, organic impurity, NLO
Keywords: Skin detection, Pixel classification, FPGA, YIQ

References:

Authors: Heenavarshney, Pradeep Kumar
Paper Title: Secure Communication Architecture Based On “BBCMS” Clustering Algorithm for Mobile Adhoc Network (MANET)
Abstract: Mobile ad hoc networks are self created and self organized without the support of network infrastructure, consists of mobile devices, such as laptops, cell phones, etc. Security is one of the prime Issues in ad hoc network due to their rapidly change in topology and mobility of nodes. However, the infrastructure less and dynamic natures render them more vulnerable to various types of security attacks, like the wired networks. We propose a Secure Communication architecture based on “BBCMS” clustering algorithm. In this algorithm elect cluster head (CH) according to its weight computed by combining a set of system parameters (Stability, Battery, connectivity … etc). It also overcomes some limits in Existed algorithms by defining new mechanisms as cluster dissection, assimilation. In the proposed architecture, the overall network is divided into clusters where the cluster-heads (CH) are connected by virtual networks. For secure data transmission, credential authority (CA) issues a certificate (X.509) to the requested node for authentication. The certificate of a node is renewed or rejected by CH, based on its trust counter value.

Keywords: BBCMS, CertificateX.509, CA, Mobile Ad-Hoc Networks.

References:
Among the alternative fuels, biodiesel and its blends are considered suitable and the most promising fuel for diesel engine. The properties of biodiesel are found similar to that of diesel. Many researchers have experimentally evaluated the performance characteristics of conventional diesel engines fuelled by biodiesel and its blends. However, experiments require enormous effort, money and time. Hence, a cycle simulation model incorporating a thermodynamic based single zone combustion model is developed to predict the performance of diesel engine. A comprehensive computer code using “C” language was developed for compression ignition (CI) engine. Combustion characteristics such as cylinder pressure, heat release, heat transfer and performance characteristics such as work done, brake power and brake thermal efficiency (BTE) were analyzed. On the basis of first law of thermodynamics the properties at each degree crank angle was calculated. The simulated combustion and performance characteristics are found satisfactory with the experimental results.

Keywords: Biodiesel, Numerical modeling, simulation.

References:


Authors: Zhaorui Wang, Christopher Fortson

Paper Title: The Design and Test of a Private Cloud Storage System, Part II

Abstract: Currently, cloud computing is a popular techniques. Many large-scale problems in practice require cloud computing and cloud storage. Even if public cloud is available, many private companies plan to build their private cloud for security reasons. This paper presents testing results of the proposed private cloud architecture in part I of this paper.

Keywords: Cloud computing, private cloud and YCSB.

References:
Keywords: negative fuzzy numbers, $\alpha$-cut, parallel processing, fully fuzzy systems.

References:
Abstract: Wireless sensor networks (WSNs) are highly vulnerable to attacks for the limitation of constrained resource and communicating via wireless links, especially running in a hostile environment such as battlefields. In such situation, an adversary may capture any node compromising critical security data including keys used for confidentiality and authentication. Consequently, it is necessary to provide security services to these networks to ensure their survival. In this paper, we propose a new key management technique based on differentiated key predistribution, to provide end-to-end secure communication. The core idea is to distribute different number of keys to different sensors to enhance the resilience of certain links. This feature is leveraged during routing, where nodes route through those links with higher resilience. The analysis also shows that the technique can substantially improve the security as well as the performance of existing key pre-distribution techniques.

Keywords: Sensor Networks, security, Key Management, Key Pre-distribution

References:

Authors: Shalini.M.G, Punitikkumar.M.B, M.B.Anandaraju

Paper Title: FPGA-Based Implementation of Intelligent Predictor using ANN for Global Solar Irradiation

Abstract: Global solar irradiation is considered as one of the most important parameter in the design of renewable and solar energy systems. Global solar irradiation is usually represented as time series. Frequently, the measured data are not always available, especially in the remote areas because of the absence of the meteorological stations or measuring instruments. Numerous studies in the literature have shown the possibility to find a correlation between solar irradiation and other meteorological parameters such as air temperature, humidity, sunshine duration etc. The models that are existing so far are based on the probability estimation, which do not always give good generation of data.in order to overcome this problem AI techniques have been applied. In this paper suitable intelligent predictor is developed and implemented using a Belgama region database as the input using ANN for solar irradiation,, to develop a hardware board which can be used for real time predictors of solar irradiation in areas where there no stations.

Keywords: Global solar irradiation, ANN

References:
Abstract: With the development of parallel computing, distributed computing, grid computing a new computing model has appeared that is 'cloud computing'. The concept of computing comes from grid, public computing and SaaS. It is a new method that shares basic framework. The basic principles of cloud computing is to make the computing be assigned in a great number of distributed computer, rather than local computer or remote computer. This paper introduces the application of the merit of cloud computing, such as it does not need the user’s high level equipment resulting in cost reduction. This paper proposes an application of cloud computing to store medical records in cloud minimizing the resources needed. It provides dependable data storage for the user to store the patient’s data in the cloud. The uses of the cloud computing can be implemented in health care and can be effectively used to maintain the patient’s records on the cloud.

Keywords: Cloud computing, Electronic medical report, IaaS, PaaS, SaaS.

References:

Authors: Zhaorui Wang

Paper Title: The Design and Test of a Private Cloud Storage System, Part I

Abstract: Currently, cloud computing in the development stage, and technology is not mature. The core technology tends to be open source software. For security reasons or for mistrust of public cloud, some companies or organizations prefer to build their own private cloud, while reluctant to use public cloud services. In this context, this paper presents a general architecture, which well meets the needs of enterprises or institutions. This private cloud storage system has a highly scalable, high stability and high concurrent processing capability and low cost advantages. The key part of this architecture chooses ParaStor and MongoDB, and performance was tested when they work together and benchmarking tool YCSB was used to do the test. The test results indirectly illustrate the feasibility of the program.

Keywords: cloud computing, private cloud and YCSB.

References:


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We design a novel waveguide structure of sub-wavelength core diameter called photonic nanowire (PN) and study the different optical properties, namely, dispersion, birefringence and nonlinearity. We design a PN with an elliptical core that exhibits a very high birefringence of about $\approx 0.037049$, $0.068$ and $\approx 606,467$, $294$ W$^{-1}$-m$^{-1}$ at $0.850, 1.06$ and $1.55$ $\mu$m wavelengths respectively and with circular air-holes located in the cladding. This property would highly useful for switching, sensing, etc.

Keywords: Photonic Crystal Fiber, Photonic Nanowire, Birefringence, Finite Element Method.

References:
Abstract: Face recognition in video has gained wide attention as a covert method for surveillance to enhance security in variety of application domains (e.g., airports, traffic, Terrorist attack). A video contains temporal information as well as multiple instances of a face, so it is expected to lead to better face recognition performance compared to still face images. However, faces appearing in a video have substantial variations in pose and lighting. We propose a face recognition system that identifies faces in video. The system utilizes the rich information in video. The description of the proposed method and preliminary results are provided.

Keywords: Face detection, Image Enhancement, Skin Color detection, Feature Extraction, Pattern Recognition, Luminance, Color transforms

References:
The active control law developed is based on the use of aggregation techniques for error dynamics stability study and the arrow form matrix for systems description. Afterwards, by the design of an adequate nonlinear state observer, a new synchronization scheme is formulated for two identical chaotic systems. Numerical simulations are carried out to assess the performance and the efficiency of the proposed contributions.

Keywords: Aggregation techniques, Arrow form matrix, Chaotic systems, State observer, Synchronization.

References:

Authors: Islabudeen M, Sathiya M
Paper Title: An Efficient Secure Communication in WLAN Using DH Method

Abstract: Wireless Local Area Network (WLAN) is one kind of wireless networks and which is a wireless network in limited area where laptop and mobile devices can connect through it freely. WLAN is popular due to its flexibility, mobility and portability and are widely deployed in schools, commercial organizations or in home uses. However, a WLAN suffers from all the constraints of wireless networks including low transmit speed and bandwidth, memory and processing power which limits the implementation of security approaches as can be implemented in wired LANs which includes public-key ciphers. Moreover, due to the feature that signals are transmitted in the air, an adversary can easily monitor and intercept all signals. Thus, robust, efficient and effective security measurements are essential for all WLANs. In this Project, I proposed an efficient encryption technique named Diffie-Hellman Triple key method to guard the management frames that are disseminated from the Access points. It is used to authenticate as well as protect our messages from tampering.

Keywords: Architecture Model, Key Generation, Key Establishment, Performance.

References:

Authors: Payal, Sudesh Kumar Jakhar
Paper Title: TCP Traffic Based Performance Investigations of DSDV, DSR and AODV Routing Protocols for MANET Using NS2

Abstract: An Ad-hoc network is a dynamically changing network of mobile devices that communicate without the support of a fixed structure. TCP is a connection oriented transport protocol that provides reliable, in-order delivery of data to the TCP receiver. Hence, its use over Mobile Ad-Hoc networks is a certainty. This paper does the comprehensive investigations on routing protocols Dynamic Source Routing (DSR), Ad-hoc On demand distance vector (AODV) and Destination-sequenced Distance-Vector (DSDV) using ns2 simulator considering TCP as transport protocol and FTP as traffic generator. Simulation results indicate that the performance of proactive routing protocol DSDV is far better than reactive routing protocols. DSR which uses source routing is the best among reactive routing protocols. It is observed that TCP is not appropriate transport protocol for highly mobile multihop wireless networks because TCP protocol is unable to manage efficiently the effects of mobility.
Keywords: Ad-hoc Networks, AODV, DSDV, DSR, NS-2, TCP.

References:
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Authors: Madhura C, Dheeraj D

Paper Title: Feature Extraction for Image Retrieval Using Color Spaces and GLCM

Abstract: Due to the enormous increase in the size of image databases as well as its vast deployment in various applications, the need for Content Based Image Retrieval (CBIR) development arose. This paper describes a hybrid feature extraction approach of our research and solution to the problem of designing a CBIR system manually. Two features are used for retrieving the images such as color and texture. Color feature is extracted by using different color space such as RGB, HSV and YCbCr. Texture feature is extracted by applying Gray Level Co-occurrence Matrix(GLCM). The image is retrieved by combining color texture feature and the color space which gives the best result as analyzed using precision and recall graph.

Keywords: Color Spaces, Euclidean Distance, Image Retrieval, Precision, Recall.

References:
Abstract: We live in an era of computers. From the smallest embedded system to the complex servers that take care of the world economy, we need microprocessors to run them. As time passed by, applications needed more processing power and this lead to an explosive era of research on the architecture of microprocessors. As part of our project we are going to present a technical & comparative study of these smart microprocessors. It will include the different software & hardware technical aspects of such devices for instance OS, applications used, hardware study etc. In this report, we study and compare two microprocessor families that have been at the core of the world’s most popular microprocessors of today – 64 bit microprocessor & Apple microprocessor.

Keywords: CPU, ALU, AMD, RISC, SIMD etc.

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11. Samsung Galaxy Tab vs. the iPad Compare for yourself
12. HTC Android Tablet appearing in CES 2010
13. HTC rumored to be readying an Android Tablet for Q1 2011
Abstract: XCP is a serious candidate to replace TCP congestion control in the internet. TCP, despite performing end-to-end congestion remarkably well degrades network performance due to unstable throughput, limited fairness and limited fairness. In XCP the routers provides the explicit feedback about the link capacity to the source. In time varying capacity media such as IEEE 802.11 knowing this value is difficult as it depends on many variables. We explore three algorithms for time varying capacity media which maintain efficiency under such conditions. Finally we compare our proposal with TCP new Reno and how such algorithm outperforms in terms of efficiency.

Keywords: Congestion, Wireless Communication, XCP, Blind, ErrorS, MAC.

References:
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Authors: S. Venkateswaran, S. Vediappan

Paper Title: Assessment of Groundwater Quality for Irrigation Use and Evaluate the Feasibility Zones through Geospatial Technology in Lower Bhavani Sub Basin, Cauvery River, Tamil Nadu, India

Abstract: The present work is employed in Lower Bhavani sub-basin (study area 2424.19 sq.km), major portion of the study area fall in Erode District and small portion in Coimbatore District, Tamil Nadu and India. The 50 groundwater samples were collected from during pre monsoon (May) 2011 and were analysed for major cations and anions EC, pH and TDS. The irrigational parameters like; EC, Kelley’s ratio, SAR values, Mg, Na, Ca and RSC have been worked out to know the suitability of the groundwater for irrigational purpose. Wilcox diagram indicates that out of 50 samples, 33 samples belong to good to permissible category and Doneen diagram revealed that 100% of the groundwater samples fall in Class I. The plotting of SAR values in USSL diagram indicates that out of 50 samples, 33 samples belong to good to permissible category and Doneen diagram revealed that 100% of the groundwater samples belong to good to permissible category and Doneen diagram revealed that 100% of the groundwater samples belong to good to permissible category. Finally abov

Keywords: Irrigation; Sodium Absorption Ratio (SAR); Sodium Percentage; Doneen’s diagram; Geographic Information System (GIS); Spatial Distribution Map; Cauvery River

References:
Natural Energy Water Pump: Revisit the Water Sling Pump

Abstract: Most people who live in rural areas come from the low income families. One reason for this is that the revenue generation is limited to certain domestic economic activities due to poor access to electricity. As a result, it limits the productivit of the people in these particular areas. By using this new pump where sling pump concept is adopted, it is believed that the people in rural areas could have more access to electricity and simultaneously grow the income related activities. This new pump is capable of providing water supply to the domestic agriculture areas. The revenue generation is limited in these particular areas. By using this new pump where sling pump concept is adopted, it is believed that the people in rural areas could have more access to electricity and simultaneously grow the income related activities. This new pump is capable of providing water supply to the domestic agriculture areas.

Keywords: Head low, low flow, natural energy, pico hydro, water sling pump.

References:


Sling Water Pump

Resonant Boost Dc-Dc Converter for a High Frequency Operation

Abstract: With different versions of inverters available, a control of VHF resonant boost dc-dc converter is described in detailed in this paper. Though, a classical Class-Φ inverter is well documented in the literature, this is a new version and coupled to resonant rectifier. The twin aspect of any design of resonant boost topology is to mainly feature low device voltage stress and to have high efficiency over wide range of loads. Increased switching frequency allows smaller size of the passive components, allowing one to use air-core magnetic, and thereby reducing core loss. The output is regulated by MPPT controller. The performance analysis was carried out on MATLAB/Simulink platform and performance characteristics are presented along with the values of components.

Keywords: Class-Φ inverter, resonant rectifier, MPPT controller, Zero-Voltage-Switching (ZVS).
Paper Title: Geoelectrical Schlumberger Investigation for Characterizing the Hydrogeological Conditions Using GIS in Kadavanar Sub-basin, Cauvery River, Tamil Nadu, India

Abstract: The increasing demand for fresh water has necessitated the exploration for new sources of groundwater, particularly in hard rock terrain, where groundwater is a vital source of fresh water. A fast, cost effective and economical way of exploration is to study and analyze geophysical resistivity survey data. The present study area Kadavanar sub-basin, Cauvery River, Tamil Nadu, India, is overlain by Archean crystalline metamorphic complex. The study area is a characteristic region of unconfined aquifer system. The potential for occurrence of groundwater in the study areas was classified as very good, good, moderate and poor by interpreting the sub-surface geophysical investigations, namely vertical electrical soundings, were carried out to delineate potential water bearing zones. The studies reveal that the groundwater potential of shallow aquifers is due to weathered zone very low resistivity and very high thickness and the potential of deeper aquifers is determined by fracture zone very low resistivity and very high thickness area. By using conventional GIS method, the spatial distribution maps for different layer (Top soil, weathered zone, first fracture zone and second fracture zone) thicknesses were prepared. The geoelectrical approach was successfully applied in the study area and can be therefore easily adopted for similar environments.

Keywords: Aquifer; Vertical Electrical Sounding (VES); spatial distribution map; hard rock terrain.

References:
Most of the small hydro power plants are based on Run of River scheme, implying that they do not have any water storage capability. The power is generated only when enough water is available from the river. When the stream flow reduces below the design flow value, the generation will reduce as the water does not flow through the intake structure into the turbine. Small hydro plants may be stand alone system in isolated areas but could also be grid connected. The connection to the grid has the advantage of the easier control of the electrical system frequency of the electricity.

In this research paper i discussed about the run off river plant, comparison of run off river plant and small hydro power plants. And what type of turbine is suitable for small hydro power plant and run off river plant.
Keywords: hydropower, runoff river power plant, water power.

References:


Authors: K Raja Sekhar, V Srinivasa Kalyan, B Phanindra Kumar

Paper Title: Training Of Artificial Neural Networks in Data Mining

Abstract: Companies have been collecting data for decades, building massive data warehouses in which to store it. Even though this data is available, very few companies have been able to realize the actual value stored in it. The question these companies are asking is how to extract this value. The answer is Data mining. There are many technologies available to data mining practitioners, including Artificial Neural Networks, Regression, and Decision Trees. Many practitioners are wary of Neural Networks due to their black box nature, even though they have proven themselves in many situations. This paper is an overview of artificial neural networks and questions their position as a preferred tool by data mining practitioners.

Keywords: Artificial Neural Network (ANN), neural network topology, Data mining, back propagation algorithm, Advantages.

References:

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