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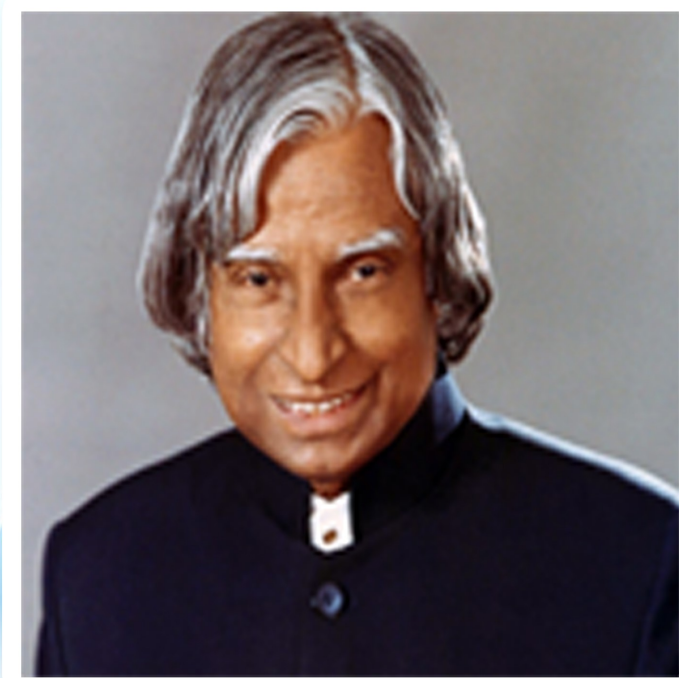## Dedicated to
DR A. P. J. Abdul Kalam

"Great dreams of great dreamers are always transcended"

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INDEX

ICLTCSEIE

International Conference
On Latest Trends In Civil, Structural,
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International Journal of Advanced Research in Civil, Structural,
Environmental and Infrastructure Engineering and Developing

BEHAVIOUR OF LINTELS USING EXPANDED METAL REINFORCEMENT

A. Chingale[1], M. Talele[2], A. Deshmukh[3]

ABSTRACT: The principle objective of this paper is to demonstrate the strength in lintels that can be achieved by using expanded metal reinforcement instead of the conventional steel reinforcement. Lintel is an important structural member provided over openings to transfer the load of masonry over opening. Normally structural design of lintel is ignored and bars of 8mm, 10 mm or even 12mm diameter are used with varying lintel depth of 100mm to 200mm. Considering load carrying capacities of such lintels it observed that materials are not fully utilized. This results in excessive use of materials and resources which in turn results in exploitation of economy. Considering huge materials involved in lintels in multistoried buildings, there is a need to achieve economy in this area. The use of unnecessary steel reinforcement can be avoided by using a innovative material called Expanded Metal Reinforcement (EMR) for economy in materials and fabrication cost. Therefore, an experimental program is undertaken to determine structural behavior lintels using EMR. The work includes comparison of flexural resistance, deflection, and cost of lintels using EMR with unreinforced and conventional lintel.

SHEAR STRENGTH PREDICTION OF NON FLEXURAL RC DEEP BEAMS USING VARIOUS APPROACHES

Sharan Basava1, C.D.Modhera2

ABSTRACT: In this study, shear behavior of RC non flexural deep beams which are predominant in shear were studied. According to ACI 318-08(1), deep beams are classified as shear span to depth (a/d) ratio less than 2.5, shear capacity of deep beam was worked out by ACI 318 equation 11.30 and 11.31 and results were compared with modified ACI equation by Tan et al(2). Strut and tie approach is also used which are suggested by many codes like ACI 318 (appendix A) and Euro code 2(3). Shear capacity found from STM analysis was compared with ACI 318 equation and modified ACI equation. Parameters considered for the study are a/d ratio ranging from 0.5 to 1 and compressive strength of concrete (25MPa, 50Mpa), shear reinforcement varied between 0 to 0.17%. It is seen from the analysis that both ACI 318-99 and modified ACI equation does not consider the effect of shear span to depth (a/d) ratio and STM approach was found much rational.

MIGRATION OF CONTAMINANT THROUGH A SOIL DUE TO AN INSTANTANEOUS SOURCE

A M Hulagabali[1] , G R Dodagoudar[2], C H Solanki[3]

ABSTRACT: Analytical and numerical simulation models help Civil and Geotechnical engineering to understand the physical and chemical processes that influence contaminant transport through a saturated soil layer, including advective and dispersive transport as well as sorption. The basic principles for simulation of contaminant migration through a saturated soil were introduced. Using the spreadsheet program MS Excel, based on existing analytical solution for two-dimensional transport of contaminants in a saturated soil layer, concentrations at several coordinates at several times were calculated. A MATLAB code was developed using finite difference approach for numerical solution. The programming steps followed for analytical and numerical solutions were explained. The analytical and numerical solution was compared. An example of the simulation models for the contaminant transport through a saturated soil layer is given. The study shows that the analytical solution and the numerical solution, for the given problem, match in an acceptable range.

COMPRESSIVE STRENGTH OF NANO-SILICA INCORPORATED RE-CYCLED AGGREGATE CONCRETE

Bibhuti Bhusan Mukharjee[1], Sudhirkumar V Barai[2]

ABSTRACT: The present work is based on analysis of the influence of incorporation of Nano-Silica on compressive strength of recycled aggregate concrete using two factorial designs. In this study, recycled coarse aggregate (%), Nano-silica (%) and Specimen Type are selected as factors and each having two levels. Four numbers of mixes with three replicates are designed and compressive strength at seven and 28 days are selected as responses. Analyses of Variance (ANOVA) of experimental results are carried out to study the influence of factors and various plots are used to demonstrate the results of the analysis. The outcome of the study depicts that the selected factors are significantly affecting the compressive strength of concrete. However, the analysis indicates that interaction of factors has no substantial influence on compressive strength of concrete.

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STRUCTURAL BIOMIMICRY – EVOLVING AN EFFICIENT COLUMN

Lucky Rebecca Joseph[#1], Satyanarayanan K. S.[#2],

ABSTRACT: Biomimicry is the discipline of science that studies models of nature and then imitates or inspiration of those designs, processes to solve human problems. Many engineering and architectural applications have learned from these natural processes to create buildings that are models of resource efficiency. Although present construction has included all requirements in seismic codes, there are still some design-construction principles that have to be optimized in order to improve building adaptation seismic events. Structures need to modify concurrently with ecological trends for reducing pollution associated with production. For this paper, such kind of resiliency standard is achieved focusing on structural design concept inspired by the performance and geometry efficiency of a static model bio-structure - human skeleton precisely femur, tibia and produce structural elements driven by the natural flow of force generated by an earthquake. Such kind of desired "force-driven form" found resemblance with bones. Human skeleton adapts according to function and loads that are normally encountered. This key idea of nature is mimicking to composite columns of framed structures, which should withstand both gravity and transverse loading of structural system. This paper is an initial part of ongoing research work and presents the results of analysis on tibia.

CORROSION ASSESSMENT OF REINFORCED CONCRETE USING DIFFERENT STEEL GRADES WITH OR WITHOUT EPOXY-COATING

P. Damle, N. Kapuria

Under the guidance of Ms **T Visalakshi**

ABSTRACT: Corrosion in reinforced concrete occurs either because of ingression of chloride ions onto the embedded steel or because of carbonation which leads to reduction in alkaline environment at the level of the embedded steel. Often, the two processes complement each other and initiate corrosion. The money spent on the repair of corroded reinforced structures amounts to hundreds of millions worldwide. This research aims at detection of corrosion in RC samples using electrochemical techniques employed in the past. The principle used is that the probability of corrosion is the function of the potential difference measured between the reinforcement and the surface of concrete. The samples are subjected to accelerated corrosion using impressed current technique to cause corrosion to an extent that would occur in several decades. Also in this research, it is intended to apply this technique for on-field detection of corrosion so as to plan the repairing procedure effectively.

GEOTECHNICAL CHARACTERIZATION OF DREDGED MUD FROM CHILIKA LAKE

D.P.Subudhi[1], S.Signum[1], A.T.Asutosh[1], A.Das[1], D.Yadav[1], M.R.Das[2]

ABSTRACT: The geotechnical parameters such as void ratio, porosity, particle size analysis, specific gravity, Atterberg's or consistency limits, differential free swell index, compaction characteristics were studied from three different places in Chilika in the year 2013 in Sourthern sector only. All the three soils were rated 'Excellent to Good' to be used as soil subgrade in road. Silts dredged from Chilika and used for useful purposes will retard siltation and simultaneously enhance other sectors.

BAMBOO ARCHITECTURE FOR ECOLOGICAL LIVING
Rajshekhar Rao[a]

ABSTRACT: Nowadays Bamboo has been gaining attraction all over the world. Bamboo is cost effective, practical, aesthetically pleasing and environmental friendly building alternative. Bamboo is extremely Strong, versatile, and flexible and light weight material & considered to be as sustainable and renewable alternative to hardwoods because it regenerates at very fast rate. Bamboo is **cost effective** especially in   areas where it is cultivated and is readily available. Bamboo is an ancient solution to new problem; it is an alternative solution as a building material being renewable resources absorbs greenhouse gases. Bamboo also has a long history of use in buildings, being common to the vernacular architecture of China, Considering the architectural design there are many ways to design using bamboo. This paper explores the possible use of bamboo as structural and sustainable material in construction industry & also explains how architects have used this material as a cost effective, structural and aesthetically appealing building material in various projects.

BIOMIMICRY IN ARCHITECTURE
Rajshekhar Rao[a]

ABSTRACT: In the search of sustainable building design and technology Biomimicry is an alternative solution. The inspiration from nature is driving force in architecture, resulting in majestic works of architecture. Biomimicry is about solution refined and developed by nature. For any sustainable building design, need to consider structural efficiency, water efficiency, zero-waste systems, thermal environment, and energy supply.Biomimicry is about solutions. Biological organisms refined and developed by natural selection over a billion year research and development period can be seen as embodying technologies, functions, and systems that are solutions to the problem of surviving in nature. These problems are often equivalent to those encountered by humans as we seek new ways to design and live sustainably, and in many cases have solved the same problems with a far greater economy of means.This paper aims at revealing how radical increase in resource efficiency can be achieved by looking to the nature for Inspiration. exploring the application of Biomimicry in current architectural design, resulting in a set of design approaches, levels and principles. The paper also discuss about the architects work inspired by nature.

AUTOMATIC MONITORING AND CONTROL OF THE ENVIRON-MENTAL PARAMETERS INSIDE A GREENHOUSE

Harishma.H

ABSTRACT: The paper proposes an embedded system to monitor and control the environmental parameters inside a greenhouse. The parameters include temperature, humidity, CO_2 concentration and light intensity. The control actions can be water spray, fog spray, LEDs etc. The sensor nodes form a Wireless Sensor Network. The primary node in the network will send the values to the user PC via GSM module. It accepts the command from PC and transfer in the network. Then the microcontrollers in each node will control the parameters using relays. Each node has to monitor the parameters in a specific area.

GROUND IMPROVEMENT TECHNIQUES:-LIME STABILIZATION

Syed Irfan Ali ， Subhradeep Bhattacharjee

ABSTRACT: Transportation place a vital role over the world. Among the main of transportation, road ways particularly highways being essential important the construction should be good enough to bear the load. Due to poor load bearing capacity the construction of road become difficult on poor soil.to overcome such difficulties some techniques have been introduced to improve the properties & strength of soil to satisfy the design parameters the difficulties faced in road construction especially during the construction of over high plastic clayey soil are of much importance.

FAULT TREE ANALYSIS IN CONSTRUCTION INDUSTRY FOR RISK MANAGEMENT

M. Angeline Swarna[1], R.Venkatakrishnaiah[2]

ABSTRACT: Construction is a risky industry and there is no other industry that requires proper application of business practices much as construction industry. Risks have a significant impact on a construction project's performance in terms of cost, time and quality. The main objective of this research is to gain understanding of risk factors that could be for the building projects in various firms. The study aims also to investigate the effectiveness of risk preventive. The findings of this work show a lack of an iterative approach to risk management, which is a weakness in current practices. By using Fault Tree method the risks has been analyzed and remedial measures are taken. The results of this study recommended that there is an essential need for more standardization which addresses issues of clarity, fairness, roles and responsibilities, allocation of risks, dispute resolution and payment. More effort should be made to properly apply risk management in the construction industry. Based on the findings, a number of recommendations facilitating more effective risk management have been developed for the industry practitioners.

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DECOLORIZATION OF SYNTHETIC DYE SOLUTION CONTAINING CONGO RED BY ADVANCED OXIDATION PROCESS (AOP)

Smita Venkatesh[1], N.D. Pandey[2], A.R.Quoff[3]

ABSTRACT: Decolorization of synthetic azo dye solution of Congo red dye, as an anionic dye was studied in a batch reactor using Advanced Oxidation Process (AOP). Congo red has been selected amongst azo dyes due to its high solubility in aquatic environment. AOP is effectively removing color in azo dye wastewater due to its strong oxidizing property by breaking down the functional group that impacting color on azo dye. AOP selected in this study was the ozonation. The effect of ozonation contact time on initial dye concentration, solution pH and the rate of decolorization were studied and the results were analyzed in terms of color removal efficiency. The color removal efficiency was found to increase with an increase the ozonation time and decrease with an increase in initial dye concentration of the synthetic dye solution. The result with Congo red synthetic dye solution showed that maximum decolorization around 90% was obtained at 25min of ozonation.

A DETAILED STUDY ON FACILITY MANAGEMENT AND ITS CONTRIBUTION TO THE CONSTRUCTION INDUSTRY

E.Jemimah [1] Dr.A.Leema rose [2]

ABSTRACT: In a changing real estate environment, intensity of competition has increased, new production and organization structures, new technologies and concepts of work result in new requirements for real estate which result in pressure on the cost forces of companies to exhaust all saving capacities. Hence professional facilities management will emerge as a pre-requisite to sustain profitable business prospects. Facility management has been employed because of the necessity to decrease overheads cost and unnecessary waste. In Real estate environment, developers will have to tie up with providers of such services to ensure a better selling price for their properties. On the other hand, corporates will continue to avail of the benefits of outsourcing facilities management services for their office spaces to enhance their overall image and brand value. Various organizations like MNCs, developers, banks, hospitals, etc., are employing the services of a professional service provider. In fact, developers tie up with an FMA prior to the completion of the project to facilitate marketing. This also helps prospective tenants to estimate their facilities management costs and thus arrive at gross rentals. This paper focuses on this new niche sector within real estate that is fast developing shape, the concepts and theory of facility management and the need and viability of the same are explained at a length. Also focuses on design, maintenance and operations phase of the services in the public buildings.

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PASSIVE SOLAR HEATING OR COOLING FOR RESIDENTIAL BUILDING USING PCM

R. Velraj[1] , G. Daniel[2]

ABSTRACT: Man has tried to improve comfort within buildings by improving the thermal inertia and minimize the equivalent thermal conductivity of the envelope of building from time immemorial. Attempt has been made by engineers by increasing the thickness, changing the geometry of the outer wall and also tried several building materials to reduce temperature fluctuations for indoor environment in both summer and winter. The installation of heating and air conditioning to seek comfort in homes, offices and public places has created high energy consumption and consequently, increased the environmental pollution. The use of passive solar architectural techniques can reduce not only the temperature fluctuations but also can solve the environmental pollution. The use of phase change materials (PCM) in the building along with passive solar techniques is one of the solutions. The integration of a PCM layer into an external building wall diminished the amplitude of the instantaneous heat flux through the wall. In this paper a three-dimensional transient heat transfer model has been developed and solved numerically using the commercial Thermal analysis package ANSYS.

CONCEPTS FOR CLIMATE PROOFING DESIGN - SUSTAINABLE ARCHITECTURE

Ummul khair Shabana MD

ABSTRACT: Sustainable development can be defined as a technology that mainly aims to balance two aspects i.e., the environment protection and human economic development. Man has the fundamental responsibility to safe guard the environment and should preserve the natural resources for the benefit of present as well as future generations. In the present scenario the traditional sustainable practices and technologies are being replaced by modern unsustainable technologies which caused adverse climatic changes. Global climate change is one of the major problems which are caused due to the implementation of unsustainable and hazardous practices.There has been an increasing trend in the annual mean temperature in India. In order to reduce the effect of climate change, we need to include climate-proofing concepts in national development initiatives. As living standards rise people want to install heating and/or cooling equipment to improve thermal comfort. For buildings not adapted to the climate, the amount of energy to run the equipment, and its cost, will be excessively high, and it will have a negative impact on the environment.A newly awakened interest for passive climatization should have a great deal to learn from the past, but purely traditional solutions assuming continuity of life styles and kinds of work seem rather unlikely. Combining traditional knowledge and advanced technology is therefore necessary.The objective of this paper is to discuss about the climatic design of buildings today, using passive techniques.

ENGINEERING TOWARDS A SUSTAINABLE FUTURE

Narahari Gautam[1], Rahul Panjiyar[2]

ABSTRACT: The population of the world is increasing at an alarming rate demanding the large volume of construction work resulting in various environmental impacts and threatening the availability of resources for future generation. The production of large volume of waste products, release of GHGs and energy consumption by construction activities is increasing day by day. There is an immediate necessity to act promptly for the better future by changing today's world i.e. switching to sustainable development. There is considerably a greater responsibility in the hand of civil engineers for the change through effective use of minimal available resources, various alternative uses, reduction and reuse principle and effective management of present resources. Steel and cement, being the chief building material, effective action must be taken for the minimum use of these construction materials either by reducing the use through effective design or by using the alternatives.

STRENGTH BEHAVIOR OF SELF-CURING FLY ASH CONCRETE USING STEEL FIBER

R. Aarthi[1], R. Venkatakrishnaiah[2]

ABSTRACT: Curing is the process of controlling the rate and extent of moisture loss from concrete during cement hydration. It may be either after it has been placed in position or during the manufacture of concrete products. Good curing is not practically possible in most of the cases. The self-curing concrete means that no external curing required for concrete. Self-curing provides an internal water reservoir throughout the concrete, so that it is more readily available to maintain saturation of the cement paste during hydration, avoiding self-desiccation (in the paste) and reducing autogenous shrinkage. The grade of concrete selected was M30. Self-curing is done by Super Absorbent Polymer (SAP). The effect of variation in strength properties were studied for different dosage of self-curing agent (0.1% – 0.5% weight of cement) steel fiber (1%, 1.5%, 2%) and compared with fly ash concrete. By compression test optimum percentage of SAP is found as 0.3 and steel fiber is 1.5.

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EVALUATION OF CRITICAL SUCCESS FACTORS IN CONSTRUCTION PROJECTS

Sugumaran B[1] , Lavanya M.R[2]

ABSTRACT: The construction industry is dynamic in nature due to the increasing uncertainties in technology, budgets, and development processes. Nowadays, building projects are becoming much more complex and difficult. The project team is facing unprecedented changes. A project is completed as a result of combination of many events and interactions, planned or unplanned, over the lifetime for a facility, with changing participants and processes in a constantly changing environment The study of project success and the critical success factors (CSFs) are considered to be a means to improve the effectiveness of project. However the concept of project success has remained ambiguously defined in the mind of the construction professionals. Consequently, this research is conducted in order to make an attempt to identify which variables influence the success of project implementation. Based on the results of the survey, we anticipate that patterns will emerge regarding the key performance indicators for measuring project success. These results could then be used in effecting successful projects. This study has chosen seventy seven factors categorized in seven groups that the questionnaire respondents were asked to rank and score. A SPSS software is used to identify the CSFs which, in descending order of importance, were found to be: Decision making effectiveness, Project Manager's experience, Contractor's cash flow, Contractor experience, Timely decision by owner/ owner's representative, Site management, Supervision, Planning effort, Prior project management experience, Client's ability to make decision.

STUDY ON STRENGTH CHARACTERISTICS OF STEEL FIBER AND FLY ASH BASED SCC

V.Angel mary[1], Dr.A.Leema rose[2]

ABSTRACT: Self-compacting concrete which has excellent deformability in the fresh state and high resistance to segregation it can flow under its own weight and does not need any vibration. In recent years, Self-Compacting Concrete (SCC) has gained a vital use for placement in congested reinforced concrete structures with difficult casting condition. For such application, the fresh concrete must possess more fluidity and high cohesiveness. The uses of fine materials in self-compacting concrete are needed such as flyash can ensure the required concrete properties. It had an excellent strength property not only that, it reduces the requirements of cement. And addition of fiber to self-compacting concrete (SCC) especially steel fibre improves its structural properties. Current study has been made on fly ash, with various percentage of mixes were prepared with fly ash ranging from 5% to 15% and steel fibre added for each percentage of fly ash as 1%, 1.5% and 2% in self-compacting concrete to improve the strength properties for M60 grade of concrete.

HIGH PERFORMANCE CONCRETE USING QUARRY DUST AS FINE AGGREGATE

V.Priyadharshini[1], A.Krishnamoorthi[2]

ABSTRACT: This paper describes the experimental study of High-Performance concrete with quarry dust as fine aggregate in addition of steel fibre. To over-come the difficulties due to excessive sand mining, quarry dust was used as fine aggregate. Quarry dust is the fine material, produced from gravel crushers. Super plasticizers were used to improve workability of concrete. Cement was replaced with 10% of silica fume. The M60 grade concrete used was designed by using a modified ACI method suggested by Aïtcin. Volume fraction of the fibres used in this study as 0%, 0.5%, 1%, 1.5%. Specimens were casted and compression, split tensile and flexure test were conducted for 7 and 28days. Durability tests such as rapid chloride penetration test, Acid attack, sulphate attack, alkaline attack was also conducted. From the result it was found that addition of silica fume will increase the compressive strength, steel fibre will increase the tensile strength. Addition of 1% steel fibre is found as optimum from the experimental results.

IDENTIFICATION OF FACTORS AFFECTING THE PERFORMANCE AMONG LABOURERS IN CURRENT CIVIL ENGINEERING PRACTICES

B.Vijay Antony Raj and Mrs.P.S.Kothai

ABSTRACT: Human Resource Management or HRM is the process of managing people in a company/firm as well as managing the existing inter-personal relationships. These two processes are key in the success and growth of a business. Human resource management is the management process of an organization's workforce, or human resources. It is responsible for the attraction, selection, training, assessment, and rewarding of employees, while also overseeing organizational leadership and culture and ensuring compliance with employment and labour laws. HR now focuses on strategic initiatives like mergers and acquisitions, talent management, succession planning, industrial and labour relations, and diversity and inclusion.

Successful implementation ensures that all employees know their role, career path and also feel part of an organization which is able to manage and reconcile their expectations as well as those of the organization and its objectives. This project is done in identification of factors irrespective to labours.

Based on those factors a questionnaire has been prepared in labours point of view. In this thesis , questionnaire survey have been conducted with various companies among 75 labours and using SPSS software their response have been extracted for studying the impact of human resource management practices on productivity and financial performance in construction industry and appropriate solution was given for all impacts.

IDENTIFICATION OF FACTORS AFFECTING THE PERFORMANCE STUDY ON APPLICATION OF LEAN CONSTRUCTION - QUALITY RATING MODEL TO CONSTRUCTION COMPANIES

T.Dhivyamenaga[1], P.S.Kothai [2] M.E.,

ABSTRACT: The data for this study will be gathered through a detailed questionnaire survey. The questionnaires consist of 30 major factors that influencing the implementation of lean construction. By knowing the risk factors gives better understanding in allocating them to parties/ stake holders involved. Waste in the construction industry has been the subject of several research projects around the world in recent years. It is commonly acknowledged that a very high level of waste exists in construction. Lean construction considers construction wastes as potential wastes that hinder flow of value to the client and should be eliminated. The creation of this waste can be prevented by applying lean construction principles. The aim of the study is to advance knowledge on construction site waste minimization through the application of lean principles. The objective of this study is to assess the application of lean construction of construction companies and give quality rating model to construction companies. The main tool for the collection of data is structured questionnaire. The target population for the data collection is project managers of building construction organizations. Statistical package for social scientists (SPSS V 16) was employed to analyze data obtained. As a result, the performance level of construction companies in relation to the use of Lean Construction was obtained, to check how it was understood and how its principles were applied. After this step, the results were evaluated and suggestions were made to the companies to help them implement Lean Thinking.

DEVELOPMENT OF RISK MANAGEMENT MODEL FOR THE UNDERGROUND CORRIDOR CONSTRUCTION FOR METRO RAIL

N.BanuChandar, M.M.Saravannan

ABSTRACT: This project deals with a method of measurement of project risk. Project risk management primarily comprises cost and schedule uncertainties and risks associated with each activity of the project network. We have identified the major risk sources and quantified the risks in terms of likelihood, impact and severity in a complex infrastructure project for the construction of an underground corridor for metro railways. A case study of the underground metro corridor in the capital city of an emerging economic nation of South Asia has been considered for this research work. The methodology for this work was famed based on the response extracted from the experts who were associated and involved in various metro railway projects. Managing risk and safety are critical activities in the increasingly complex railway environment. Demonstrating that risk and safety have been managed effectively is increasingly important in many rail regulatory regimes. Developing organization's competence in these areas will allow you to improve the way risk and safety is managed within your organization or projects, and also helps you to meet regulatory and contractual requirements in an efficient and effective way. Based on the various factors collected from the literatures, a preliminary questionnaire was framed and currently it was distributed to various Engineers who were employed in metro rail way projects. After collecting down the response the dates has to be analysised using SPSS (version 20) and Risk Priority Number (RPN) has to be extracted.

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STUDY ON ERGONOMICS AMONG CONSTRUCTION LABOURS

M.Gnanaprakash   Mrs.D.Ambika

ABSTRACT: Ergonomics is used to design an environment which is compatible with each individual physical and behavioral characteristics. Good ergonomic design makes the most efficient use of worker capabilities while ensuring that job demands do not exceed those capabilities. In various workstations the productivity and efficiency gets affected due to discomforts and several other human factors. A clear study of these parameters and optimizing them to yield better   productivity is called ergonomics. By using this technique we have planned the preliminary questionnaires which were supplied to construction labourers, who have under taken the works in Tiruppur and around. The district preliminary questionnaires were distributed and data responses were collected in a month. Based on the responses obtained fromlabourers the data's are analyzed using SPSS software. Which is an analytical software. From the analysis, a better suggestion and solution were given to the construction   labourers. Also recommendations are given for safety and comfort environment of construction labourers using this ergonomic techniques.

EXPERIMENTAL INVESTIGATION ON FLEXURAL BEHAVIOUR AND EMI SHIELDING EFFECT IN STAINLESS STEEL FIBER REIN-FORCED CONCRETE

S.Gowsalya[1], S.Venkatachalam[2]

ABSTRACT: Concrete is relatively brittle, and its tensile strength is typically only about one tenths of its compressive strength. Conventional concrete is therefore normally reinforced with steel reinforcing bars. Steel reinforced concrete normally suffer from corrosion of the steel by the salt, which results in the failure of those structures, and decrease the life of the structure. Electromagnetic interference is an undesirable and uncontrolled off-shoot of explosive growth of electronics and widespread use of transient power sources. EMI makes the environment increasingly be exposed to the electromagnetic pollution. People who have been exposed to a high electromagnetic environment for a long duration become more susceptible to leukemia and brain tumors. Carbon, Mu-metal, metal filling materials. In order to overcome these problems, Stainless Steel fiber can be adopted. The Stainless Steel fiber acts similar to that of steel fiber but it will not be subjected to corrosion. The paper deals with the effects of addition of various percentage of stainless steel fiber (0-1.5%) in addition with M30 grade of concrete. An experimental program was carried out to explore its effects on compressive, tensile, flexural strength, EMI shielding behavior. The optimum strength is found and beam is casted and then the strength is calculated. The experimental strength of beam is compared with ANSYS result and graph is drawn. A notable increase in flexural, tensile and compressive strength was found.

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STUDY ON PROPERTIES OF FIBRE REINFORCED CONCRETE WITH PARTIAL REPLACEMENT OF COARSE AGGREGATE BY STEEL SLAG

N.Manoj, Mrs.N.Nandhini

ABSTRACT: Fibre-reinforced concrete (FRC) is concrete containing fibrous material which increases its structural integrity. It contains short discrete fibers that are uniformly distributed and randomly oriented. In addition, the character of fiber-reinforced concrete changes with varying concretes, fiber materials, geom. etries, distribution, orientation, and densities. Generally fibers do not increase the flexural strength of concrete, and so cannot replace moment–resisting or structural steel reinforcement. Indeed, some fibers actually reduce the strength of concrete. In this project work polyester fibers of 0.5%, 1%, 1.5% and 2% is used and its compressive, split tensile and flexural strength is determined. In this phase optimum dosage of concentration of fibers is determined. Steel slag was found to be the best replacement for natural aggregates of concrete. Steel slag which is produced as a waste material in the steel industry and has a negative impact on environment when disposed. In the course of future project work by the replacement of steel slag for the coarse aggregate in concrete of 25%, 50%, 75% & 100% with the addition of optimum polyester fibers to achieve the effective strength of concrete.

STUDY ON INFLUENCE OF REAL ESTATE INDUSTRY IN NATIONAL ECONOMIC GROWTH

S.Nithyamanohari[1], D.Ambika[2]

ABSTRACT: It is necessary that real estate development in the country takes place in a very healthy and efficient manner.Indian real estate sector growing as thrice the country's GDP rate.The objective of this study is to get the latest information and to identify key factors that influence the real estate industry.Data's are collected through questionnaires and distributed to respondents who work at various building constructions in wide area in India. Respondents were required to choose the option using their experience and the factors were identified from past researches, which affect the real estate industry.The data collected are analyzed using SPSS software which is an analytical software.Based upon the responses and analysis done, suggestion and recommendation are given to enhance the economy of nation and to develop or improve the infrastructure facilities.

STUDY ON FACTORS INFLUENCING CONSTRUCTION PROCESS PERFORMANCE

V.Priyanga[1], D.Ambika[2]

ABSTRACT: Construction industry has complexity in its nature to do a successful project because it contains large number of parties as clients, contractors, consultants, stakeholders, shareholders, regulators and others. Various researches have tried to determine the factors that are responsible for a successful project. Performance processes are initiating, planning, executing, monitoring, controlling and closing. Some of those factors which affect the construction process performance such as cost, duration, quality, productivity, client satisfaction, health and safety and environmental factors are considered in this project. These factors are identified from literature survey and a questionnaire was prepared and given to site engineers working in various construction companies. SPSS software will be used for statistical analysis of the data acquired from the companies. Statistical analysis is done for ranking and selection of major factors contributing the construction process performance. Thus the study aims on identifying the factors which influence and enhance the process performance.

A STUDY ON INFRASTRUCTURAL DEVELOPMENT USING GIS IN RESOURCE MANAGEMENT

T.Rajaprawin and Mr.S.Loganathan., ME

ABSTRACT: The purpose of this study is to improve the utilization of resources in construction industry. Resource planning is a critical task for management. Resource planning is a critical task for management. It identifies the various resources are needed for building throughout its life period. Effective resource management increases profitability of optimum utilization of resources in and around construction Industry. This system provides a technical support for the full & effective management and use for the transportation of resources. This can be done with the use of emerging field, Geographical Information System (GIS). GIS is a tool, which has an ability to handle both spatial and attributes. This platform provides a sophisticated facility compared to available tool, which helps to interlink various resources to be allocated effectively. This facility provides the manager, to a new experience in construction industry.

DEVELOPING A PROJECT EXECUTION PLAN ON THE GUIDE-LINES OF PMBOK FOR A REAL ESTATE PROJECT

B. Shyamala[1] , P.S Kothai[2]

ABSTRACT: Construction is the second largest economic activity in India after agriculture and remains with the continuation of development process. These Construction activities require lot of pre and post planning. Construction Project Manager has the overall responsibility for the successful initiation, planning, design, execution, monitoring, controlling and closure of a project. This study focuses on developing a project execution plan with the guidelines of Project Management Body of Knowledge (PMBOK). The nine knowledge areas of project management which control deflect or mitigate the efforts of any occurrence or situation that could affect the project success. The Project Execution Plan (PEP) may be a development of the business case and the strategic brief. Any project can only be successful if all aspects of Project Management are well thought of in advance and an executable plan is prepared that express identified risks, uncertainties, key success factors, resource availability etc. Project Execution Plan is a key document that can act as a warning during project execution if drafted properly complying with the triple constraints. For developing a better and improved execution plan, a detailed survey was conducted on the "Project Execution Plan" with different companies. Through the survey analysis, development of improvised Project Execution Plan for a Real Estate Project was successfully established.

AIR QUALITY MODELING IN TUTICORIN CITY

Joyce Vetha Evelyn. A[1],Thirumal. J[2]

ABSTRACT: This Air Quality Modeling (AQM) study will provide a quantified analysis and recommendations on how best to improve air quality in the city of Tuticorin and to reduce greenhouse gas (GHG) emissions, while meeting critical health and economic development objectives. To accomplish this, a comprehensive inventory of point, area, and line sources was conducted in the selected study area, primarily aiming to estimate the sectoral emission contributions to ambient air quality. The Industrial Source Complex Short–Term Model, Version 3 (ISCST3) will be used to predict the ambient concentrations of total suspended particulate matter (SPM), Sulphur dioxide (SO_2), and Nitrogen dioxide (NO_2) at seven monitoring sites (receptor locations) three operated by the Central Pollution Control Board (CPCB) and four operated by the Tuticorin Thermal Power Plant(TTPS) for the for Calendar Year (CY)-2012(as baseline) and for Business as usual (BAU)-2013 and future scenario for 2020.

RECOVERY OF POLLUTANTS FROM THERMAL POWER PLANT TUTICORIN

M. U. Vinitha, J. Thirumal

ABSTRACT: Emissions standards are becoming more stringer, as a result new technique are being applied in the existing Tuticorin Thermal Power Plant (TTPS) by using Imported and Indian Coal. Electrostatic Precipitators (ESP) are used to control fly ash. The Indian coal burned in TTPS is having low calorific value 3300 Kcal/kg., and high ash content 42.5%. Thus compared to Imported coal, Indian coal generates about 8 to 10 times more ash for collection for similar electricity generation. Thus ESPs in India is having lower collection efficiencies than the ESPs in other Developed Countries

In this paper we discuss Ammonia Injection method which are being applied in different power plants in India to improve the collection efficiencies of ESP. Blending of coal is done and Ammonia is injected in different concentration there by reducing the SPM ranges from 900 to 120 mg/Nm^3. The paper describes the experiments and analysis. The results obtained by SPM range is brought below 150 mg/Nm^3 as prescribed by Pollution Control Board and in turn reduces pollution.

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AN EFFICIENT PULSE DETECTOR WRIST WATCH WITH ARDUINO GPS GSM SHIELD

Mr. Akshay keshwatkar[1], Mr. John Williams.R[2] , Mr. Vishwa V[3] Ms. P.S.Smitha[4]

ABSTRACT: People across the world face the problem of measuring their heart pulse rates .Initially everybody went to hospitals and clinics to measure pulse rate and later they moved on to measuring instruments. Pulse rate can be counted by applying slight pressure on any artery in the body where heart pulse can be felt. In order to make it easy, in this paper a wrist watch is developed to measure the pulse rate. The structure of the wrist watch is sensitive as well as robust against hand movements. This wrist watch mainly focuses on measuring the heart pulse using a pulse sensor which is interfaced with an Arduino microcontroller incorporated with GPS and GSM chips. The pulse detector measures the rate of heart pulse in bpm units and sends it to the Arduino interface. Then the application informs the relatives and doctors about the patient if his heart pulse rate is irregular for a prolong time. It also gives information about the patient location and status in order to send him immediate aid and help.

SURVEY OF SPATIAL DOMAIN IMAGE FUSION TECHNIQUES

C. Morris & R. S. Rajesh

ABSTRACT: The objective of Image fusion is to combine the information of the number of images of the same scene from different sensors or the images with focus on different objects. The result of image fusion is an image which is more informative and of better quality. This Image fusion is finding its application in all spheres of life. In this paper an detailed survey of spatial domain image fusion techniques is done. On the basis of the survey a new special domain fusion techniques is also proposed.

RETRIEVAL OF MOST RELEVANT DOCUMENTS USING THE WEB MINING TECHNIQUE AND RANK THEM BY THE EXPERTS' RANKING SYSTEM

Sridharn Krishanan M.E.,(Ph.D), Ashwin R, DineshKumar R.C, Kamaraj C, Gowtham M

ABSTRACT: In the present day scenario, Internet has become a major source of information that people dump a huge amount of data every day. When it comes to the searching point of view, it becomes difficult for the people to get the content what they seek. Many search engines are introduced consecutively in order to make people's task ease and they are working pretty well. This paper mainly focuses on the task what the search engine performs and refines them so that the accuracy of the data that is being searched is achieved to the maximum. For this we use the concepts of data extraction, clustering and identification of semantic similarity between the entities to refine the searching process. Finally, in order to rank and to rate, an experts' system is used.

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SEMANTIC INFORMATION RETRIEVAL MODEL BY SPECTRAL CLUSTERING

[1]Annie Jones, [2]Senduru srinivaslu

ABSTRACT: The Web which is increasing day by day has huge volume of unstructured data, with several aims, qualities and aspects which makes retrieval a tedious task. Semantic web which extend our current web has a focus to retrieve the data more precisely with vocabularies. These vocabularies are understood by the people and computer. Ontology, the core concept of semantic web which explodes data from knowledge base consists of instance of classes. This paper proposes method on how retrieval of information semantically can be done from heterogeneous data store. Here clustering methodology is used to match both ontology and the user query. The algorithm will navigate into the deep roots of the ontology structure and group the similar nodes with the query. The collected similar data are stored in a buffer area to produce an optimized output. The clustering of the data is done semantically to achieve higher relevancy. The spectral clustering algorithm which is used to achieve clustering semantically will locate the sparsely located data and match them efficiently. The basic idea is to collate the web not only to link the large heterogeneous documents but also to instruct meaning of the information in those documents.

KEYWORD RANKED METADATA INDEXED OBJECT CLAWLER IN CLOUD SERVERS

R.Bakyalakshmi[1] , Dr.R.Rameh[2]

ABSTRACT: Ranked search greatly enhances system usability by enabling search result relevance ranking instead of sending undifferentiated results, and further ensures the file retrieval accuracy. The statistical measure approach, i.e., relevance score, from information retrieval to build a secure searchable index, and develop a one-to-many order-preserving mapping technique to properly protect those sensitive score information. The resulting design is able to facilitate efficient server-side ranking without losing keyword privacy. Thorough analysis shows that our proposed solution enjoys "as strong-as-possible" security guarantee compared to previous searchable encryption schemes, while correctly realizing the goal of ranked keyword search. Our system provides B-Tree conceptual data storage associated with easy indexing and fastest searching option on the dynamic ranked data. Extensive experimental results demonstrate the efficiency of the proposed solution.

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EFFICIENT ANALYSIS OF RFID

Sangeetha.S1 , Mrs.A.Sivagamidevi M.E2

ABSTRACT: RFID is used capture an individual objects, but it does not capture the inter-object relationship such as collocation and containment information. So, it leads to insufficient information about objects. RFID readings are inherently noisy with read a rate significantly leads to below 100 percent in actual deployments. This is largely due to sensitivity of radio frequency to environment factors such as metal objects and collisions among tags. So this leads to incomplete data. RFID can read excessive amount of large volume of data. However, the resulting data may encode significant amount of redundant information such as unchanged object locations. So it is necessary to be filtered and compressed the data. In this system addresses the above challenges by enhancing the Data inference and Compression techniques to reduce the collision rate and augment the missed data through anti-collision algorithm. It provides the accurate object location and collocation by using data inference.

A USER FEED BACK APPROACH FOR RECOMMENDATION IN PERSONALIZED   MOBILE SEARCH

N. Jagadish Kumar

ABSTRACT: As mobile devices are most widely used by the mobile users the importance of mobile search is also becoming popular. But mobile search is quite different from standard PC-based web search because an effective retrieval of the most relevant documents from the Web through a mobile search engine for a mobile user is difficult due to the small form factor of mobile devices. Researchers have been conducted on ways to improve the efficiency of Information retrieval in mobile search by adapting to an emerging technology called personalized mobile search. Personalization of Mobile search is to carry out retrieval for each user by incorporating his/her interests. To arrive to a suitable solution different types of miming algorithms were used which in turn helps in retrieving the needed result from the web documents according to the user's query and re-rank the search result according the user's preference. Hence the objective of the proposed work is to integrate an user feedback mechanism into the personalized frame work. The feedback given by a user for the particular personalized search result is consider as opinion of the user, by mining this opinion we can analyze the user interest in particular area and collaborate different user with similar interest based on ratings given by them and also predict the item set the user may interest (On assumption that user with same opinion may have same interest) for a particular search. Thus the personalized framework proposed in this work can able to retrieve opinionated text and recommended contents based upon the opinion of the already used individuals.

DETECTING DENIAL OF SERVICE ATTACK USING MULTIVARIATE CORRELATION ANALYSIS

V.Vijayalakshmi, P.Pooja, S.Divya,P.Chitra

ABSTRACT: In computing, a denial-of-service (DoS) or distributed denial-of-service (DDoS) attack is an attempt to make a machine or network resource unavailable to its intended users. DOS attack reduces the efficiency of the server, inorder to increase the efficiency of the server it is necessary to detect the dos attacks. Hence MULTIVARIATE CORRELATION ANALYSIS is used, this approach employs triangle area for extracting the correlation information between the ip addresses. Based on the extracted information the denial of service attack is detected and the response to the particular ip address is blocked, thus increasing the efficiency. Our proposed system is evaluated using KDD Cup 99 data set, and the influence of data on the performance of the proposed system are examined.

INDEX METHOD FOR GEOSPATIAL CONTENT BASED IMAGE RETRIEVAL

Adlene Ebenezer P[#1], Suchithra S[#2], Poovaraghan R J[#3]

ABSTRACT: In recent years, due to the enormous increase in image database sizes, there is a need for indexing and image retrieval system development. The problem for fast searching and retrieval of refined images has attracted tremendous attention. Content Based Image Retrieval is the most emerging field in the area of image search and indexing, finding similar images for the given query image from the image database. CBIR system focuses on retrieving images from the database, the system depends on how the indexing is being implemented. The proposed technique for indexing is weighted multi indexing; weights for the each index can be obtained dynamically for each query. The input to the search process is a multi object; a multi object search can be used to identify relevant groups of object which match a given set of query objects. In the area of satellite imagery retrieval, the images stored in the database are labeled by feature vectors, which are extracted from the images. CBIR indexes are built for each class of features.

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SECURE SHARING OF PRIVATE DATA USING PRIVACY-PRESERVING DATA ANALYSIS

R.Nandhini[2], L.Nandhini[3], A.Sangeeth Sharmili[3] ,D.S. Deepika1

ABSTRACT: Generally, colliding parties who have private data may conduct privacy-preserving data analysis (PPDA) tasks to learn beneficial data models in a distributed manner. The field of privacy has seen rapid advances in recent years because of the increases in the ability to store data. In particular, recent advances in the data mining field have lead to increased concerns about privacy. While the topic of privacy has been traditionally studied in the context of cryptography and information-hiding, recent emphasis on data mining has lead to renewed interest in the field. In this paper, we will introduce the topic of privacy-preserving data mining. It is often highly valuable for organizations to have their data analyzed by external agents. However, any program that computes on potentially sensitive data may lead to risks leaking information through its output. Differential privacy provides a theoretical framework for processing data while protecting the privacy of individual records in a dataset. Unfortunately, it has seen limited adoption because of the loss in output accuracy, the difficulty in making programs differentially private, lack of mechanisms to describe the privacy budget in a programmer's utilitarian terms. So, in this paper we have proposed how to share private data securely..

DYNAMIC AND EFFICIENT RESOURCE ALLOCATION ON CLOUD ENVIRONMENT

M.NAVEENA, S.MADHUBALA, B.ARUNA

ABSTRACT: In cloud environment dynamic resource allocation is a problematic situation To resolve this problem, we propose a gossip protocol that ensures fair resource allocation on our sites and applications ,dynamically scales and adapts both number of physical machines and allocation to the load changes. We present a protocol that computes an optimal solution without considering memory constraints and prove correctness and convergence properties. This gossip protocol provides an heuristic solution for minimizing the cost of allocation. This work will ensure continuous execution and don't require global synchronization. In proposed system, we make a significant contribution towards engineering a resource management middleware for cloud environments.

DYNAMIC RESOURCE ALLOCATION TECHNIQUE FOR VM BASED DATA CENTERS

S.Rajashree, A.Priyanka, R.Renuka, L.MariaMicaelVisuwasam

ABSTRACT: In the virtualized environment, different quality of applications will gives rise to various dynamic resource demands and their dynamic load changes as well. As we are using static resource allocation in existing technique it will reduce the application quality as well as lowers the resource utilization and it leads to the server down problems. Data Centers suffers from the lower utilization due to over provisioning as well as time varying resource demands of different quality of applications. One approach to meet the QoS of hosted applications and to increase resource utilization is On-demand resource allocation using two-tier mechanism. The two-tier are local and global resource scheduler which are adaptive to various dynamic loads of the hosted applications. This can overcome the existing techniques in which it follows turning on or off servers when the server goes down or fails. But the application workload scheduling was not focused in the two-tier technique where just round robin mechanism was followed in request dispatching which conflicts with On-demand resource allocation technique. So, we propose task scheduling mechanism to dispatch requests to VMMs where the applications are hosted. We use periodic task scheduling algorithm to achieve the load balance even if the workload switching is unaware of the On-Demand resource allocation. This will achieve the predicted CPU utilization with 27percent higher on average and meet the QoS of the applications.

FEATURE SPACE SCALING OF 2D SEGMENTED PSORIASIS SKIN IMAGES

Anuradha Balasubramaniam[1], Anbu Selvi[2]

ABSTRACT: Psoriasis is a chronic inflammatory, immune mediated skin disease. Assorted techniques are used to assess psoriasis severity and to monitor therapeutic response. The PASI system of scoring employs a visual analogue scale to score the thickness, redness (erythema), and scaling of psoriasis lesions. PASI scores are subjective and suffer from indigent inter and intra-observer concurrence. A Pixel Labelling Algorithm incorporating color, contrast and image texture conjointly provide a treatment solution. This includes feature extraction and classification. The process involved is scaling segmentation of the image. The Markov random field (MRF) is used to smooth a classification from a support vector machine (SVM) that utilizes a feature space derived from image color and scaling texture. So initially the image is contrasted to find the affected area. The concentration is on the lighting and the skin type. The scaling contrast map provides an effective way to contrast image. It focuses on colour and intensity of the image. Gabor filter is used to extract the texture from the image. The final image obtained is the ground truth. The proposed system focuses on segmentation and scaling of 2D digital images of Psoriasis to detect vague scaling. An edge mapped luminance algorithm is used. Using this algorithm, the detected vague scale gives the exact amount of affected area.

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AUTOMATED PATH ASCEND CRAWL METHOD FOR WEB FORUMS

Prabakaran V, Thirunavukkarasu M

ABSTRACT: FoCUS (Forum Crawler Under Supervision), is a supervised web-scale forum crawler. The goal of FoCUS is to crawl relevant forum content from the web with minimal overhead. FoCUS is an automation engine that will dynamically crawl the relevant content in a forum . Forum threads contain information content that is the target of forum crawler. Cleanup of data and moving the contents to the appropriate web pages is the major scope of the project. The content of forum may be the queries asked by the users. After crawling the content, FoCUS will dynamically move the queries in the related forum, which will deal the particular query. Then FoCUS cleanup the unrelated query from the particular forum, and that free space is allocated to new queries posted by user. FoCUS take six path from entry page to thread page. It helps the frequent thread updation in forum. FoCUS makes use the technique called differential content extraction, which helps to maintain a record for already crawled data. In each time FoCUS will not crawl the forum data from the beginning, it will maintain a record of already crawled data and manipulates only the newly posted queries.

AUTOMATIC DETECTION OF RETINAL HEMORRHAGE BASED ON GABOR WAVELET AND HYBRID KNNSVM ALGORITHM FOR FUN-DUS IMAGES

Karunya Karo Shanthi.Y , Karpagam.V

ABSTRACT: Retinal hemorrhage is the abnormal bleeding of the blood vessels in the retina, the membrane in the back of the eye. In retinal image, automated detection of hemorrhage is a major challenging factor. For automated detection of hemorrhage, a generalized framework is need to train a classifiers with optimal features learned from available dataset. Because of the variability in appearance of these lesions(i.e., hemorrhages), different techniques had been designed to detect each type of these lesions (i.e., hemorrhages) separately in detection system. We need a generalized framework to detect these types of lesions in fundus (i.e., retinal) image. A robust and computationally efficient approach for hemorrhage detection in a fundus retinal image is presented in this paper. Splat feature classification method is proposed with application to retinal hemorrhage detection in fundus images. Automated screening system is very much important to detect a retinal hemorrhages. Based on the supervised approach, fundus images are partitioned into non overlapping segments covering the entire image. Each splat contains a similar color and spatial location. A set of features is extracted from each splat using the GLCM & Gabor Wavelet. These features' describes a characteristic relative to each pixel in a splat. Supervised classification predicts the likelihood of splats being hemorrhages with the optimal features subset selected in a two-step feature selection process. Preliminary feature selection is done by filter approach followed by a wrapper approach. Hybrid KNNSVM classifier is trained with expert annotation. From the resulting hemorrhageness map, a hemorrhage index is assigned. A classifier could evaluate on the publically available dataset. This work will provide a greater AUC in splat level and image level.

Two Step Share Synthesized Image Stamper Algorithm for Secure Visual Sharing

K. Tamilarasi, S.Naveenkumar, M.Alaguraja, S.Parthasarathi

ABSTRACT---- In mamagement side the dealers are facing the problem , because they cannot find their shares visually. The conventional visual secret sharing schemes are used to generate noise-like random pixels and to hide secret images. To avoid this problem using extended visual cryptography scheme (EVCS) a meaningful cover image is added in each share. Still, EVCS which was used in previous version, general access structures(GAS) suffer from a pixel expansion problem. In spite of it, a codebook design for various schemes is required to the visual cryptography (VC)-based approach Here we solve the above mentioned problem using a general approach. Binary secret images in non-computer-aided decryption environments use this approach. We are going to use two phases in the proposed approach. We construct meaningless shares using an optimization technique and the construction for conventional VC schemes based on a given access structure in the initial phase. The cover images are added in every shared using a stamping algorithm in the second phase. A solution to the pixel expansion problem of the EVCS for GASs is achieved as per the experimental results. And also the display quality of the recovered image is very close to that obtained using conventional VC schemes.

Mining signature of heterogeneous event sequences using beta divergence to develop highly robust data

D.Gayathri, F.Evelin Rosy, D.Vani,

Abstract- Large collections of electronic clinical records today provide us with a vast source of information on edical practice. However, the utilization of those data for exploratory analysis to support clinical decisions is still limited. Extrmacting useful patterns from such data is particularly challenging because it is longitudinal, sparse and heterogeneous. In this paper, we propose a Nonnegative Matrix Factorization based framework using a convolutional approach for open-ended temporal pattern discovery over large collections of clinical records. We call the method One-Sided Convolutional NMF. Our framework can mine common as well as individual shift-invariant temporal patterns from heterogeneous events over different patient groups, and handle sparsity as well as scalability problems well. Furthermore, we use an event matrix based representation that can encode quantitatively all key temporal concepts including order, concurrency and synchronicity. We derive efficient multiplicative update rules for OSC-NMF, and also prove theoretically its convergence. Finally, the experimental results *on* both synthetic and real world electronic patient data are presented to demonstrate the effectiveness of the proposed method.

Element Based Secure Encryption And Decryption With Proxy Verification

S.Poojitha, C.R.Preethi, D.Sangavi

Abstract – Issues related to sharing information in a distributed system is one of the major practical issue consisting of autonomous entities which needs to be securely transferred in a heterogeneous multi subdivided system. Attribute Based Encryption (ABE)   transfer the data from source to destination securely, by public key encryption with set of attributes. It fails to account for increase in cipher text size and decryption time when cipher text policies complexity grows thus concept of outsourced decryption emerges. Hence in this paper we propose a new system of proxy verification. A novel based method of verifying the correctness of the conversion from encryption to decryption are made. In the existing system, private and public keys are generated by the source organization and proxy verifies the private key before issuing. But in the existing system, attribute based master secret key are not unique at their attribute consideration. Hence a system is proposed so as to define a strategy to check the unique attribute based encryption using proxies and Outsourced Decryption.

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ADAPTIVE FIR FILTER USING LMS ALGORITHM FOR AN AREA EFFICIENT DESIGN

R.Ranjitha[1] and R.Rajeswari[2]

ABSTRACT: This briefly presents a novel pipelined architecture for low-power and low-area implementation of Adaptive filter based on distributed arithmetic (DA). The conventional adder-based shift accumulation for DA-based inner-product computation is replaced by conditional signed carry-save accumulation in order to reduce the sampling period and area complexity. Reduction of power consumption is achieved in the proposed design by using a fast bit clock for carry-save accumulation but a much slower clock for all other operations. It involves the same number of multiplexers, smaller LUT, and nearly half the number of adders compared to the existing DA-based design. By changing the inner block we are going to achieve low area and low power .So our previous DA-based adaptive filter in average for filter lengths N=4and N=16 Implemented.

IMAGE SUPER-RESOLUTION USING MULTI SURFACE FITTING AND WAVELETS BASED ON INTERPOLATION

K.Chaitanya Prakash[1], Mrs.P.Muthu Krishnammal[2]

ABSTRACT: In this paper, we propose a new interpolation based method of image super resolution. The idea is using multi surface fitting to take full advantage of spatial structure information. Each site of low resolution pixels is fitted with one surface, and the final estimation is made by fusing the multi sampling values on these surfaces in the maximum in a posteriori fashion. With this method, the reconstructed high resolution images preserve image details effectively without any hypothesis on image prior. Furthermore, we extend our method to a more general noise model.Experimental results on the simulated and real world data show the superiority of the proposed method in both quantitative and visual comparisons using Wavelets.

AN ALTERNATE APPROACH IN RESOLUTION ENHANCEMENT FOR MR BRAIN IMAGE

S. Nithya1, S. Kalyani2

ABSTRACT: In recent years, the occurrence of brain tumor has been on the rise. A lot of methods have been proposed to obtain medical images (CT scan, different types of X-rays, MR images and other radiological techniques) for further analysis. Major problem in the images obtained through the above said methods is the presence of blur, noise, artifacts, and distortion. Even a small amount of noise may lead to false diagnosis. Hence there is a prerequisite for the reductions of noises for correct diagnosis. To reduce the noise present in MR image, in this paper different filtration techniques are used and their performances are compared by evaluating MSE and PSNR. Once when the image is filtered its quality gets degraded and hence to enhance the quality of an image, a novel resolution enhancement technique which generates a high resolution image is proposed. In this work, DWT is applied to decompose a low resolution image into different sub bands. Similarly SWT is also applied to decompose an image into different sub bands. Then the three high frequency sub band images of DWT is interpolated using bi-cubic interpolation. The high frequency sub- bands obtained by SWT of the input image are summed up to the interpolated high frequency sub bands in order to correct the estimated coefficients. In parallel, the input image is also interpolated separately. Finally, corrected interpolated high frequency sub bands and interpolated input image are combined by using IDWT to achieve a high resolution MR image. The performance of this transform technique is analysed quantitatively with the conventional DWT and SWT methods. The PSNR for the proposed method is found to be 10dB to 20dB more than the conventional methods. Thus the results obtained proved that the proposed technique gives a better quality image.

CROSS CALIBRATION AND NORMALIZATION FOR SPECKLE NOISE REDUCTION IN SATELLITE IMAGES

N. Shanthi[1], C. Elayaraja[2]

ABSTRACT: Speckle noise in SAR is generally more serious, causing difficulties for image interpretation. Reduction of speckle noise is one of the most essential tasks to add up the quality of radar coherent images. Filtering is one of the common methods, which is used to lessen the speckle noise. Several adaptive filtering methods have been documented to deal with this issue such as Kuan, Lee, MMSE and Frost filters. They degrade the spatial resolution of the image and also smooth the details while significantly decreasing the speckle noise level. There are also other filters such as Enhanced Lee and Gamma Map but they could not adequately suppress speckle noise. In this paper, ainnovative approach for speckle reduction has been suggested and then its performance on simulated imageries with other existing filtering methods has been compared. The results have been presented by filtered output images, statistical tables and bar charts. The implementation of de-noising technique with enhancement technique as a whole is the proposed method. All the simulation is done with the help of MATLAB R2012a environment.

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NEMS AND ITS APPLICATION IN CANCER TREATMENT

M. Rehman shariff[1], B. Prasanna[2], B. Vijay kumar[3]

ABSTRACT: At present there are wide varieties of technology, which are vastly being used to analyze biological cells to diagnose diseases and develop methodologies to cure diseases. One such technology is 'Nanotechnology'."Nanotechnology will change the very foundations of cancer diagnosis, treatment, and prevention".Nano scale devices used for the treatment of cancer are based on the constant study of cancer cells and nanotechnology. Nano scale devices which are smaller than 50 nanometers can easily enter the most cells, while those smaller than 20nanometer can move out of the blood vessels as they circulate through the body. Nanotechnology offers a wealth of tools with new and innovative ways to diagnose and treat cancer. In this paper we design a Nano-device which contains sensors, motor, gene reader, processor, transceiver, and camera and Nano shells. The major source for the destruction of tumor cells was IR (Infra Red) signals and nano-shells. This treatment doesn't involve any critical operations (or) risk factors. This technique will be very well used for the cancer affected people than other technique. I.e. chemotherapy & radiation therapy.

SEGMENTATION OF DEGRADED DOCUMENT TEXT BY LOCAL THRESHOLD METHOD

Anees Fathima1 , T.N. Sudhashree2

ABSTRACT: Restoration plays a very important role in enhancing the degraded image. This paper proposes a novel document image binarization technique that addresses the issues by using adaptive image contrast. The adaptive image is the combination of local image contrast and local image gradient. For a degraded input image, adaptive image contrast is first constructed. The contrast map is then binarized and combined with canny's edge map to identify the text stroke edge pixels. The local threshold segments the document text that is estimated based on the intensities of detected text stroke edge pixels. Post processing techniques are applied to the image and the restored document is obtained.

AUDIO FEATURE EXTRACTON AND CLASSIFICATION USING WAVELET TRANSFORM AND SVM TOOL

Nandhini .P, Infant Sneha .C, Sangamithira .I

ABSTRACT: Feature extraction and analysis are the foundation of audio classification. Here we propose an improved audio classification and categorizing method which makes use of wavelets and Support Vector Machines (SVM's).An audio signal is preprocessed using hamming window when a audio is given, wavelets are first applied to extract acoustical features such as sub-band power & pitch information. Also by using Fourier transform Bandwidth & Brightness of the audio features are extracted features are extracted. The proposed method uses SVM over these acoustical Features and additional parameters such as mean and median values of acoustical features.

SECURITY IN MOBILE DATA OFFLOADING USING STEGANOGRAPHY: DIAMOND ENCODING

M.VINOTH KUMAR[1]   ANIL KUMAR GONA[2]   VENNETI KIRAN[3]

ABSTRACT: Mobile cloud offloading can save the energy consumption in the user mobile devices and PDAs. The mobile devices which has limited resources sends the heavier part of the program to a server in the cloud through network and the mobile device performs the lighter part of the program process. The server executes the program and sends the computed result to the mobile device, where both the results are combined and it is executed to the user. It is observed that offloading also reduces the response time of the device. Mobile data offloading, however involves security and privacy issues of the data being offloaded. To solve this problem we use Steganography methods to hide the data being offloaded out of the grid. Here the data is hidden in a cover image and it is transmitted as the resulting stego image. The server cannot read the hidden data, as we are not transmitting the cover image to the cloud. The existing method uses simple LSB substitution method to hide the data in the cover image, which provides PSNR values ranging from 32dB to 50dB and has fewer payloads. The proposed method introduces an efficient data hiding method called Diamond Encoding which results in higher PSNR values than the existing system and also provides larger payloads, that is more data can be hidden than the existing system.

NEXT GEN GLUCOSE SENSOR

1.V.Abhishek Chowdary 2.V.S.Dinesh 3.S.Padmapriya

ABSTRACT: With advancements in Sensor Technology, the Wireless Sensor networks (WAN) offer attractive solutions to many problems in process monitoring systems. The WSN has abundant applications in continuous or discrete monitoring systems irrespective of the field. The Bio-compatible wearable sensors allow vast amounts of data to be collected and mined for clinical trials, reducing the cost and inconvenience of regular visits to the physician. Implying this concept, our project is used to track diabetes using a wireless sensor network as an implant to continuously monitor the patient's blood glucose level. The sensor implanted in the body identifies the level of glucose in blood. The level thus measured needs to be monitored.

The most conveniently used method to monitor the implant would be to use a detector to telemeter the collected sugar concentration to an external receiver. In the case of our project, we aim to replace the detector by transmitting the monitored data as a message to the patient's cell phone itself. This is a simple and an efficient way to make the process less strain full for the patient and also relatively cheaper.

Thus the sensor can effectively monitor the glucose level and can also send a notification message to the patient, thereby reducing the need of tedious physical processes by the use of smart futuristic technology.

E-TRACKING SYSETEM FOR MUNICIPAL SOLID WASTE MANAGEMENT USING RFID TECHNOLOGY

G. Aruna Devi, L.S.Kavitha, S.Meera,S.Padmapriya,R.Siva Kumar

ABSTRACT: With the increase of population of a country, proper management of cumulative of Municipal Solid Waste (MSW) becomes more acute for maintaining green environment. In conventional approach a number of trucks collect the MSW and then transport and transfer these MSW in a pre-specified location, but all the above jobs are not properly monitored. It is very important to monitor the trucks and record the information related to the collecting time and area from a central location to ensure the job well done. This project exploits the tremendous power of RFID technology and presents the development of an electronic monitoring (e-monitoring) system to overcome the above problem in the conventional approach. The proposed e-monitoring system is an embedded system that consists of RFID technology interfaced with PIC micro-controller and a web based computerized software. A web based GUI so that the system can be accessed from anywhere and information can be viewed by different group of people. The GUI will have the facility for the citizens to put their complaints and comments on the service. It has been tested in the laboratory environment as well as in the field environment. The test results show that the system   functions properly and is working real time. Municipal authority can monitor the SW collecting status through the system and can generate different reports to improve the performance of their service.

DESIGN AND DEVELOPMENT OF A HAND-GLOVE CONTROLLED WHEEL CHAIR USING ZIGBEE

1.G.Aravind Kumar, 2.M.Prasanth, 3.K.Sajith Mohamed,S.Padmapriya

ABSTRACT: Wheelchairs are a way of reincarnating the purpose of life in the lives of disabled people and elderly people. Effective and efficient ways of delivering a cost-effective and affordable wheelchair to the common masses, which is not only at par with the present day technology, but is much easier to use are presented herewith.Replacement of the popular joystick stick controlled wheel chair with a hand-glove control system for easier maneuvering by bending the fingers, is discussed in this paper. Intended users control the system by wearing an instrumented glove fitted with flex or bend sensors for controlling the movement and direction of the wheelchair.Uni-directional wireless communication exists between the instrumented gloves and the controller which is sandwiched between the user's seat and the wheels.The technologies presented in this paper suggest a wide domain of possibilities to a wide variety of users. In addition, it also aims at making a cost-effective chair so that more hi-tech wheelchairs are made use of, widely, by people with disabilities.

TELEMEDICINE CONSULTATION SYSTEM

Mrs. T.Uma Maheshwari Mr.P.Manoj Kiran, Mr.N.Karthikeyan, Mr.R.Gokul

ABSTRACT: In order to solve the medical assurance problem of remote-area patients, this paper studies the telemedicine consultation system and proposes a model with three subsystems which are separately front-end embedded diagnostic system, patients' data information server and hospital monitoring terminal. It emphasizes the software and hardware realization of embedded diagnostic system, analyzes the collection process of temperature, heart rate and blood pressure under the coordination of the ARM system, GPRS module, GPS module and vital signs information collection module. The patient's position system is also analyzed which is aimed at real-time monitoring of vital signs and remote assistant diagnosis and treatment.

IMPLEMENTATION OF FAST CLUSTERING BASED FEATURE SUBSET SELECTION ALGORITHM FOR HDD

T.Gayathri[1] D.Suvidha[2] P.V.Monisha[3] U.Jothilakshmi[4]

ABSTRACT: Feature selection involves identifying a subset of the most useful features that produces compatible results as the original entire set of features. A feature selection algorithm may be evaluated from both the efficiency and effectiveness points of view. While the efficiency concerns the time required to find a subset of features, the effectiveness is related to the quality of the subset of features. Based on these criteria, a fast clustering-based feature selection algorithm, FAST, is proposed and experimentally evaluated in this paper. The FAST algorithm works in two steps. In the first step, features are divided into clusters by using graph-theoretic clustering methods. In the second step, the most representative feature that is strongly related to target classes is selected from each cluster to form a subset of features. Features in different clusters are relatively independent, the clustering-based strategy of FAST has a high probability of producing a subset of useful and independent features. To ensure the efficiency of FAST, we adopt the efficient minimum-spanning tree clustering method. The efficiency and effectiveness of the FAST algorithm are evaluated through an empirical study. The results, on 35 publicly available real-world high dimensional image, microarray, and text data, demonstrate that FAST not only produces smaller subsets of features but also improves the performances of the four types of classifiers.

Proficient Transmission of Depth Based Routing and Void-Aware Pressure Routing for Underwater Sensor Networks: Review

S.Jessintha Gnana Kiruba[1], M. Navin Kumar[2]

ABSTRACT—Underwater Acoustic Sensor Networks (UW-ASNs) have the potential to enable many applications such as environmental monitoring, undersea exploration and distributed tactical surveillance. Under water acoustic communication is preferred over Electromagnetic communication (radio and optical communication) due to higher propagation delay along with high attenuation of radio communication while the effect of scattering is higher at optical communication. Fundamental differences between underwater acoustic propagation and terrestrial radio propagation might need a new criterion for the design of networking protocols. Under water acoustic communication is difficult due to the fact of Energy consumption, delay and propagation speed along with node mobility in underwater environment. The prime objective is to find out a good performance metric considering the problems associated with the Depth Based Routing and to analyze Void Aware Pressure Routing using cross layer pair wise interconnection using enhanced beaconing and opportunistic data forwarding. Comparisons have been done through ns2 simulator with aquasim patch which shows that VAPR outperforms DBR in all aspects of productivity and responsiveness with Packet size.

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Design and Implementation of Wireless Gas Sensing Network for Preventing Industrial Calamity

S.Padmapriya , J.Omaana, Ashwini.R, Seethaladevi.S, ShreeMathe.R

ABSTRACT— The former systems can not react in time, even cannot obtain data from an accident. This system gives real time detective of potential risk area, collect the data of leak accident and reports to the proprietor. This system uses Wireless Gas Sensing Network Technology for detecting the seepage of Gas. The hazardous gasses like Liquefied Petroleum Gas and Propane were sensed and displayed each and every second in Liquid Crystal Display. If these gasses exceed normal level then alarm is generated immediately. LED indicators were also used to visualize the status of system.In this system MQ-6 gas sensor used to sense poisonous gas and has high sensitivity to LPG and also response to natural gas. The alert message will be received by the proprietor of an organization through GSM Technology. This work modifies the existing safety model installed in industries. This structure submits instant response time and accurate detection.

POWER EFFICIENT CELL PHONE JAMMING TECHNIQUE

M.Vijaya Laxmi, Dr.S.Narayana Reddy

ABSTRACT— Cell phone jamming devices are an alternative to more expensive measures against cell phones. Cell-phone jammers are devices that have an on/off switch and a light that indicates it's on. Disrupting a cell phone is the same as jamming any other type of radio communication. Smaller jamming devices are battery operated like cell-phone batteries. Cell phones are designed to add power if they experience low-level interference, so the jammer must recognize and match the power increase from the phone. Circuit Analysis simulation is performed using speace-spice software. Antenna simulation is performed using IE3D software.

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COORDINATION AND CONTROL OF SOLAR-WIND HYBRID SYSTEM FOR REMOTE TELECOM TOWERS UNDER VARIOUS CLIMATIC CONDITIONS

R.Karthikeyan1, P.Mahalakashmi2 N.GowriShankar3

ABSTRACT: Most of the Telecom towers in India are located at remote areas where supplies for these towers are needed to be supplied by using Diesel generators mostly. These system are highly costly and emission of green house gases is evitable thus by using renewable resources the demand for the towers can be satisfied partially so that the cost of operation of telecom towers can be reduced and emission of green house gases and harmful gases can be reduced to an extent. A hybrid generation system consist photovoltaic (PV), wind turbine (WT) and Battery is presented to supply stable power to rural residential loads. DC/DC converters are used to control the power flow to the load and Maximum Power Point Tracker (MPPT) is used for maximum power extraction from the solar photovoltaic systems and wind turbine. To compensate power fluctuation of renewable energy MPPT method is used. When PV and WT generate power is lower than demand power, the Battery is controlled to discharge power to complete the difference of supply and demand power. If PV and WT generate power is higher than demand power, the Battery is controlled to charge power. The system was simulated by using MATLAB/Simulink and a control system is designed using ARM Microcontroller for energy management. The simulation results show the proposed system can compensate power fluctuation.

OPTIMAL LOCATION OF SMES FOR IMPROVING POWER SYSTEM VOLTAGE STABILITY USING PSO ALGORITHM

G.Supraja[1], V. Usha Reddy[2]

ABSTRACT: Superconducting Magnetic Energy Storage (SMES) system is an equipment that can help to improve the voltage stability of power system. Location of SMES in multi-node power network plays a significant role for the stability improvement level. In this paper, Particle Swarm Optimization (PSO) of the SMES location based on the quantitative voltage stability(L-index). In PSO, voltage stability index is used as the fitness function. The proposed algorithm is tested on IEEE 14-bus system. and best results are obtained.

PFC AND SPEED CONTROL OF BLDC MOTOR USING ZETA CONVERTER

C. Christo Shijith 1, S. Sujith 2

ABSTRACT: A Power Factor Correction (PFC) and sensorless speed control of BLDC (Brushless DC) motor using zeta converter is presented. Zeta converter is a fourth-order DC-DC converter made up of two inductors and two capacitors and capable of operating in either step-up or step-down mode. The PFC is achieved by zeta converter. Sensorless speed control of BLDC motor is achieved and the cost and wiring of sensors are reduced. A MATLAB/ Simulink environment is used to simulate the developed model to achieve a wide range of speed control with high PF (Power Factor) and improved PQ (Power Quality) at the supply.

FUZZY LOGIC: A NEW APPROACH TO PREDICT LIGHTNING IMPULSES ON TRANSMISSION LINE TOWER

Maroofa H.Rawoot1 , M.F.A.R.Satarkar2, Gorakhshnath B.Abande3

ABSTRACT: Lightning is a widespread natural phenomenon, but also a kind of natural disasters. So it is important to monitor and study lightning signal for early warning effectively. The researchers almost have to keen to mitigate overvoltage problems related to lightning. Lightning causes huge disasters to not only electrical and electronics equipments but also to the human beings. It is very advantageous to predict its occurrence. This paper summarizes the idea behind the prediction of lightning by using fuzzy logic controller. By using this method we know the possibilities of lightning stroke. Hence the damages to the power system equipment can be minimized to large extent.

TRANSFORMER LESS VOLTAGE MULTIPLIER FOR AN HIGH STEP UP DC/DC CONVERTER USING AN CASCADED COCKCROFT–WALTON

MA.Pravinn[1] R.Aiswarya,M.E.[2]

ABSTRACT: This paper deals with the high step-up dc-dc converter without an step- up transformer instead of which we are using an cascaded Cockcroft-Walton (CW) voltage multiplier to achieve high voltage gain. The proposed converter operates in an continuous input current which provide low ripple, low stress on switches, diodes, and capacitors because of which it can be used in low-input level dc systems. This proposed converter can provide a suitable dc source for an n +1-level multilevel inverter. The control strategy of the system is to combination of two independent frequency, which operates at highfrequency switch and low frequency switching. This is to minimize the size of the inductor and to obtain desired output voltage ripple. Finally an dc/dc converter of five stage Cockcroft-Walton (CW) voltage multiplier is designed with four mosfet switches and the results has been successfully verified by simulation.

FUZZY LOGIC BASED DSTATCOM FOR VOLTAGE REGULATION AND HARMONIC REDUCTION

T. Varadharaj1, S. Krishna Kumar2

ABSTRACT: These papers propose the nonlinear control of DSTATCOM (distribution STATCOM) using fuzzy logic based supervision of PI regulator. In this the control methodology of DC capacitor voltage is regulated using a fuzzy PI controller. However during load change, there is considerable variation in DC voltage which might affect compensation. In this work the fuzzy based supervision is proposed to improve transient performance of DC link, which varies the gain of PI regulator to minimize the error in DC link capacitor voltage during the load change is obtained. Additionally the harmonic of the load current is reduced below the standard value.

DESIGN AND PERFORMANCE COMPARISON OF PI AND PID CONTROLLERS FOR HALF BRIDGE DC-DC CONVERTER

R. Ilayaraman[1], L.Raguraman[2], J.Rajakumar[3]

ABSTRACT: Proportional Integral Derivative (PID) controller is the most widely used controller in the industries because of its simplicity and robustness. Different types of tuning are proposed for PID controllers[1]-[4]. This paper proposes a new technology, which utilizes the duty cycle signal to improve the light load efficiency with simple implementation. In this paper Ziegler-Nichols tuned PID scheme is developed for DC-DC converters where large load changes are expected or the need for fast response time [9]. The Ziegler-Nichols rule developed in this paper is used for tuning discrete PID controller to   obtain its parameters with a minimum computing complexity and is applied to Half Bridge DC-DC   converter to improve its performance. The transient response and settling time of the converter is   improved and it is compared with the Ziegler-Nichols based PI controller.

PERFORMANCE ANALYSIS OF TRANSIENT STABILITY ON A POWER SYSTEM NETWORK

Ramesh B Epili[1], Dr.K.Vadirajacharya[2] Dr. Babasaheb Ambedkar

ABSTRACT: Three phase fault on a power system network is most severe and uncommon. In order to maintain stability of power system, it is required to adjust the excitation system. A prior study of the effect of disturbance is required for proper designing of power system equipment's. This paper analyses the effect of a three phase fault on a power system 33kV/11kV/3.3kV/0.415kV system. Power flow analysis, transient stability study is presented using ETAP simulations.

PMSG FED IMPROVED FULL BRIDGE THREE LEVEL DC/DC CONVERTER FOR WECS

K. Abinaya [1], A. Sudha [2]

ABSTRACT: This paper introduces a novel three level dc-dc converter topology which is the improved full-bridge three level (IFBTL) converter for offshore wind turbines. The power generated from the permanent magnet synchronous generator (PMSG) is rectified and fed to the IFBTL converter which is preferably a dc/dc converter. A passive filter is inserted into the dc/dc converter. The passive filter effectively reduces the voltage stress of the medium frequency transformer in the IFBTL dc/dc converter. A voltage balancing control strategy is also proposed for the IFBTL converter. This voltage balancing concept balances the input capacitor voltage which improves the performance of the converter. Finally, a small-scale IFBTL dc/dc converter which is fed by PMSG was built and the results have been successfully verified by simulation.

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OPTIMAL TCSC PLACEMENT USING HARMONY SEARCH ALGORITHM IN
TRANSMISSION SYSTEM FOR LOSS MINIMIZATION

S. Anusha[1], V. Usha Reddy[2]

ABSTRACT: This paper presents one of the latest heuristic algorithms, namely Harmony Search algorithm for solving optimal TCSC placement problem in transmission systems i.e, to select the optimal parameter setting of TCSC device which minimizes the real power loss. The proposed algorithm is tested on IEEE-14 bus system and better results are obtained when compared with existing method.

BOTTLED BIOGAS: AN INNOVATIVE APPROACH TO RENEWABLE ENERGY

Vinayak R. Gaikwad[1], Dr.P.K.Katti[2]

ABSTRACT: The ever increasing demand of electrical energy due to industrialization and urbanization has led to concentrate on the use renewable energy sources to their capacity. Under the renewable energy sources biogas energy source is most challenging one to cope up with scarcity of electrical energy. Biogas from the biogas digesters can be compressed and bottled, and can be put in use to the extent where it is required. This would lead to ease of transportation, which is a major hurdle in biogas usage. This paper summarizes technological view that can be carried out for effective biogas compression and bottling process. The paper also includes 3D model of the proposed method developed in Solid works software.

A NOVEL TEN SWITCH SINGLE PHASE FIFTEEN LEVEL INVERTER USING SINGLE DC SOURCE FOR AC DRIVES

A.Manoj , A.Kalaimurugan

ABSTRACT: The multilevel voltage source inverter is recently applied in many industrial application such as ac power supplies, static VAR compensators, drive systems, etc. One of the significant advantages of multilevel configuration is harmonic reduction in the output waveform without increasing switching frequency or decreasing the inverter output. The output voltage waveform of a multilevel inverter is composed of the number of levels of voltages, typically obtained from capacitor voltage sources. As the number of levels reach infinity, the output THD approaches zero.

PERFORMANCE COMPARISON OF THREE PHASE FIVE LEVEL AND SEVEN LEVEL DCMLI

SagarUttamShinde[1] ,K. Vadirajacharya ,Dr.BabasahebAmbedkar

ABSTRACT: Multilevel inverter technology has emerged as a very important alternative in the area of high-power medium-voltage energy control. It offer several advantages as compared to the hard-switched two-level pulse width modulation inverters, such as their capabilities to operate at high voltage with lower dv/dt per switching, high efficiency, low electromagnetic interference. The THD and switching losses will vary with respect to topology and control technique adopted. This paper aims at comparing the performance of three phase five and seven level diode clamped inverter with respect to their THD, switching losses and number of components. The performance is verified through extensive simulations on MATLAB Simulink   platform for IGBT device.

DISTRIBUTION SYSTEM RELIABILITY ANALYSIS USING ETAP

Prem Prakash[1], Vivek Anand Verma[2], R.C. Jha[3]

ABSTRACT:With recent advents in technology,efficient utilization of resources is now a need for secure and reliableelectrical power distribution system. For the concern of both customers and power utilities, reliability is a major issue for power distribution system. In this paper, reliability of distribution side is assessed using ETAP software with various scenarios viz. consideration of lateral distributor protection and passive failure rate of components and large impact of distributed generations. The improvement in reliability in various cases has been evaluated on the basis of various reliability indices such as load point indices and system indices. The variation of indices has been followed with various different cases. The usefulness of this work is analysis of reliability, security and efficient operation of electrical distribution system. The analysis is performed on Roy Billinton Test System (RBTS) using Electrical Transient Analyzer Program(ETAP).

VOLTAGE PROFILE IMPROVEMENT BY REACTIVE POWER INJECTION USING FUZZY INFERENCE SYSTEM

Prem Prakash1, Vimla Kumari2, R.C. Jha3

ABSTRACT: With the increasing load, power systems are becoming indefensible to voltage instability. Voltage instability is a major concern for the secure and reliable operation of the power system. Voltage instability causes a progressive and uncontrollable decline in voltage. The main factor causing instability of the system is the inability of the power system to meet the demand of reactive power. Deficiency of reactive power support causes the bus voltage deviation from the allowed limits at the buses. The main focus is to raise the overall voltage of the system to avoid voltage instability. One of the methods to achieve this is by reactive power support. In this paper a fuzzy inference system based approach is used for determining the amount of reactive power to be injected at more sensitive buses in a network. Depending on the severity of the contingency, voltage sensitivity and the voltage of the buses during contingency, the amount of reactive power to be injected is decided. Sensitivity assessment is done to find out the lines which are most sensitive to instability. This approach is tested on IEEE 24 bus system.

A FUZZY CONTROLLED STRATEGY FOR THREE PHASE ACTIVE POWER FILTERS TO REDUCE HARMONICS

Praveen, R.Barath kumar, S.Kelvin Sujith

ABSTRACT: This paper proposes an advanced control strategy to enhance performance of shunt active power filter (APF). The proposed control scheme requires only two current sensors at the supply sideand does not need a harmonic detector. In order to make the supply currents sinusoidal, an effective harmonic compensation method is developed with the aid of a conventional proportional-integral (PI) and Fuzzy controllers. The absence of the harmonic detector not only simplifies the control scheme but also significantly improves the accuracy of the APF, since the control performance is no longer affected by the performance of the harmonic tracking process. Furthermore, the total cost to implement the proposed APF becomes lower, owing to the minimized current sensors and the use of a four-switch three-phase inverter. Despite the simplified hardware, the performance of the APF is improved significantlycompared to the traditional control scheme, thanks to the effectiveness of the proposed compensation scheme. The proposed control scheme is theoretically analyzed, and a 1.5-kVA APF is built in the laboratory to validate the feasibility of the proposed control strategy.

ANALYSIS OF THERMOELECTRIC BATTERY CHARGER

K.Kharthikeyan, V. Sivakami

ABSTRACT: Thermoelectric generator is a device which converts thermal energy into electrical energy. It is an alternative green technology when compared to other power generating sources, which does not need any external electrical input supply for its operation. This work focuses on two folds. Initially mathematical modelling is proved with MATLAB simulations incorporate developed thermoelectric module and finally the hardware description had been analysed, were heat is given as input to the thermoelectric module; it produces a Direct Current as output voltage. The output is given to a Boost converter, which is used for charging a battery. The novelty insists on voltage generation without an external input source.

INTEGRATED RENEWABLE ENERGY SYSTEM WITH HYDROGEN ENERGY STORAGE

K.Sivaraj, S. Rajasekaran, S. Julius Fusic

ABSTRACT: The system integrates various renewable energy sources and converts it into stable power for standalone operation. The Renewable energy is then converted into Hydrogen using fuel cells to store the renewable energies in an electrochemical form. The stored Hydrogen is used to generate clean electricity by fuel cells to meet energy demand at a desired time. Renewable Energies from Solar Photovoltaic, Wind are integrated with combined Electrolysis system. Electricity from the above sources can be used to run an electrolyzer. The electrolyzer splits water into hydrogen and oxygen. The hydrogen and oxygen can be used to power a fuel cell and produce electricity. Sometimes there are low wind speeds and lesser sunny conditions and therefore power generation by solar and wind energy is reduced. The proposed system in which solar and wind energy is integrated with fuel cell to provide a continuous power supply to a small local load to enhance Reliability of power supply and stores the excess energy in to hydrogen and oxygen. Here PV and wind energy is used as the primary source of power with the fuel cell section acting as a power backup system. Renewable energy portability and long term storage of renewable energies are achieved in the proposed system.

Comparative Performance of Conventional Transducers & Rogowski Coil for Relaying Purpose

Ashish S. Paramane1, Avinash N. Sarwade2*, Pradeep K. Katti3, Jayant G. Ghodekar4

ABSTRACT— The power system monitoring & protection normally makes use of different types of relays. These relays basically operate with signals drawn from system such as voltage & current those are sensed in the current practice by using current transformer & capacitive voltage transformer. These devices suffer problems such as ratio & phase error along with saturation which affects the performance of relay & hence fail to operate. This limitation can be overcome by rogowski coil having air core. This paper while addressing the problems related to current transformer & capacitive voltage transformer using PSCAD software also presents effectiveness of rogowski coil by experimental validation.

HIGH PERFORMANCE PV POWER GENERATION USING Z SOURCE INVERTER

Selva santhose Kumar R[1], Priyaa Dharshini R S [2]

ABSTRACT: Photovoltaic source (PV) has become one of the most promising DC sources of the future. We use inverter to convert the dc output of the PV in order to utilize it for AC appliances. Z-source inverter which is an advancement of traditional converter (VSI & CSI), with a built-in X shaped impedance network. This provides a single stage power conversion concept whereas the traditional inverter requires two stage power conversions for renewable energy applications. With modification to the traditional pulse width modulated (PWM) signal there are three PWM strategies are used for Z-source inverter. In this maximum boost control which helps in high voltage conversion factor with a short shoot through duration and helps in attaining voltage boost gain by converting all traditional zero states into shoot-through state. This prevents the damage of inverter, high voltage stress and reduces dead time delay.

OPTIMIZATION OF WIND TURBINE CONTROL AND MONITIORING USING PLC AND SCADA

A.AL.ABDUL RAHMAN [1] , P.BHARATH KUMAR[2], M.SAMUEL PRABHAKARAN[3].

 Abstract- Wind turbine gear box is the one of the most important and most expensive component of wind turbine. Once installed, it is difficult to repair. Therefore, it needs effective experiments during its design and protection to meet the strict quality requirements. The test platform adopts closure design, which enables it to experiment two gear box products at the same time. Enables to study the running conditions and operating parameters in real time. The comprising systems are the lubrication system, cooling system, Yaw control, Pitch control and other equipments. Besides, an alarm indication is given when a problem occurs in the test platform. The yaw and pitch control are to increase the efficiency of the wind turbine while cooling and lubricating system are to increase the working of turbine over a wide range of temperature. The performance of each equipment can be intelligently controlled and studied.

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EXPERIMENTAL EVALUATION OF THRUST FORCE, TORQUE, OVALITY AND SURFACE ROUGHNESS IN DRILLING OF CFRC COMPOSITES

K.V.Krishna Sastry[1], V.Seshagiri Rao[2] , M.S.Kumar[3] , A.Velayudham[4,]

ABSTRACT: The Technological advancement in materials division has created curiosity among engineers, scientists and researchers to develop new materials with the required properties. One such material is Carbon Fibre Reinforced Carbon (CFRC) composite material, which is used mostly in the fabrication of advanced structures like space shuttles, missiles, airbuses etc. Generally these composites are very expensive and the addition of machining cost of these materials makes them more expensive. Hence careful selection of proper machining parameters is required to machine these special composites. The prime objective of this paper is to investigate experimentally to find the optimal drilling parameters by using Grey Relational Analysis technique. The drilling experiments were carried out on a CFRC composite plate with High speed steel tool on the VMC100 computer numerically controlled drilling machine, which is in the workshop of Anna university campus, Chennai, India.

EXPERIMENTAL STUDIES ON IGNITION DELAY TIME FOR HYDROGEN – OXYGEN MIXTURES AT HIGH CONCENTRATIONS

Fathima Niloopher[1], Aldin Justin[2], A.N.Subash[3]

ABSTRACT: This study addresses the ignition delay time for hydrogen-oxygen mixtures at high concentrations at the sudden rise in pressure. Using a shock tube facility, measurements on ignition delay times of hydrogen-oxygen mixtures diluted with argon (20-30%) were conducted. The experiments have been carried out under normal shock wave conditions at temperatures of 1000-1300 K, pressure of 0.450barfor rich mixtures as well as lean mixtures.

CFD ANALYSIS OF 2-D UNSTEADY FLOW PAST A SQUARE CYLINDER AT AN ANGLE OF INCIDENCE

Kavya H.P[1], Banjara Kotresha[2], Kishan Naik[3]

ABSTRACT: This paper presents a numerical simulation of two dimensional unsteady flow past a square cylinder at an angle to the incoming flow. The main objective of this study were to capture the features of flow past a square cylinder in a domain with the use of CFD for the Reynolds number (Re) considered in the range 50-200 so that flow is laminar. The shape and size of the re-circulation bubble downstream of the cylinder are strong function of orientation. Results are presented in terms of Strouhal number (st), Time-averaged velocity and Vorticity field. The Lift Co-efficient (cl) and velocity component in the wake region were monitored for calculation of Strouhal number. The variation of Strouhal number with Reynolds number was found from the analysis.

EVALUATION OF TENSILE BEHAVIOR OF SEA SHELL-JUTE FABRIC REINFORCED COMPOSITE

V. Manohara[1], C. G. Sreenivasa[2], K. N. Bharath[3],

ABSTRACT: The aim of this paper is to study the tensile behavior of sea shell-jute fabric reinforced composites. The composites were prepared by using sea shell powder as filler material in jute fabric reinforced with epoxy composite. The tensile behaviors of this composite were studied by varying the sea shell filler percentage. The experimental investigation has revealed that, 5% sea shell filler in jute fabric reinforced composite give maximum tensile strength of 8400N with less deformation. The results were supported with SEM analysis. The present study of an interesting filler material (sea shell) on jute fabric reinforced composite.

NUMERICAL ANALYSIS OF HEAT TRANSFER ENHANCEMENT AND TURBULENT FLOW THROUGH A CHANNEL WITH DIFFERENT BAFFLE PROFILES

Madhavi G1 , Kishan Naik2 , Banjara Kotresha3

ABSTRACT: The present work presents the numerical analysis of the turbulent flow and heat transfer enhancement of air inside a channel of rectangular section with two baffles sequentially arranged in the top and bottom of the channel wall. Three different types of baffles are used. The governing equations based on the k-Ɛ model with low Reynolds number used to describe the turbulence phenomenon are solved by finite volume method using SIMPLEC algorithm. The velocity profiles are obtained for all the geometry considered and for selected sections namely upstream, between baffles and near exit section. Temperature contours for all three cases are obtained. Results demonstrate that in presence of inclined baffle the heat transfer is significantly enhanced.

EXPERIMENTAL INVESTIGATION OF PERFORMANCE CHARACTERISTICS OF DIESEL ENGINE FUELED WITH LINSEED - COCONUT OIL BIO DIESEL

K.Rajesh1, Jana Prakash2, R.Vinod Raj3

ABSTRACT: Due to industrialization, globalization and green revolution in agriculture have increased the demand for the petroleum products. Petroleum fuels release more emissions like CO, NOX, CH4 & CFC which are responsible for global warming & ozone layer depletion. Biodiesel is a less pollutant, biodegradable and renewable alternative fuel that can be used with little modifications. The objective of this study was to investigate the effect of the biodiesel produced from Linseed - Coconut Oil on single cylinder water-cooled diesel engine. In the current research work biodiesel is prepared from Linseed - Coconut Oil. The Experimentation was conducted on four stroke single cylinder water-cooled diesel engine using linseed biodiesel and their performance characteristics were studied. Results of performance using linseed biodiesel were compared with that of diesel fuel.

Requirement of Agile Manufacturing for the Sustainability of SME's

Dr. Abhijit Chakraborty , Mrs. Reyya Pawani

ABSTRACT—Agility in manufacturing is critical for competitiveness. It is an ability to quickly change in a flexible way to meet market demand. This requirement has come as a result of the globalization phenomenon that has affected all companies in one way or the other. To compete effectively in the global market place of the twenty-first century, manufacturing companies are trying to maintain a high level of flexibility and responsiveness to achieve agility and to remain competitive. In this paper a case study of SME's conducted on agile manufacturing in the tool manufacturing industry. The study provides the reader with an insight into the company and its agility level. In addition, a framework has been formulated to highlight some important areas and to offer solution alternatives not only to the current problems but also to the ones that may be encountered in the future.

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AN EXAMINATION OF THE ASIAN AMERICAN IDENTITY FOCUSING ON THE JAPANESE IN THE UNITED STATES OF AMERICA IN JOHN OKADA'S *NO-NO BOY*

Shyama Ramsamy

ABSTRACT: From the primitive time, Man has been moving from one place to another in search of food in the figure of nomads. The need to cater for their basic needs urged them to explore new terrains for their survival. As such, the process of Nomadism witnessed a twist throughout ages as it ultimately metamorphoses into the phenomenon of mass immigration across the global village. Countries like the United Kingdom, India, France, Italy, Mauritius the United States of American among others were not spared by the tentacles of the immigration which has an inevitable heavy bearing upon the World History. Urged by heteroglossic reasons like politics, warfare, economy, education, employment and better like the others, the Japanese also found the USA as the 'land of Fortune' to secure their hazy future in their motherland. Immigration irrevocably carries the two faces of the same coin as it does not solely bring in benefits to the immigrants but is also accompanied by the harmful effects which scar a whole communal psyche.

THE PROCESS OF CREOLIZATION AND HISTORY IN POSTCOLONIAL CARIBBEAN

"I was Creolized from an early age, which is a good thing, in my opinion as a mixing of tradition makes for a more harmonious world" (Selvon).

Guruprasad S Y

ABSTRACT: The present study deals with the history and culture of the Caribbean in the postcolonial context. Despite the physical isolation and colonization, de-colonization, displacement, slavery and emancipation, Caribbean society leads to the emergence of 'new world', 'new ethnicity' (Stuart Hall), national culture and literary identity. This article makes an attempt to study the process of Creolization and historical background of postcolonial Caribbean society. The concept of Creolization in the Caribbean context is a social process that lies at the very centre of discussion of transculturalism, transnationalism, multiculturalism, diversity, and hybridization (Young, Robert). This study examines the terms rooted in the ethnic and cultural complexities of the Caribbean experience.

SUPERFLUOUS IDENTITIES: LOOKING BEYOND THE 'MAIN STREET'

Anusha Bharath

ABSTRACT: This article with reference to 'Out on Main Street', a short story by the Trinidadian-Canadian writer Shani Mootoo, explores the potentiality of the inexplicable boundaries and the never known categorization of the 'Self'. It renders a lucid understanding of those identities that come into being outside of existing norms. In this sense, it suggests that by existing beside norms we can begin to reformulate, revisit and recreate boundaries of existence and belonging. Moreover, it argues that these actions are constantly in process and always coming into being, thus demanding a perpetual critique and responsibility. Finally, it suggests that there is a need to work with our own vulnerabilities rather than representing the human as a contained, coherent, invincible being. Through this idea of the hesitant and superfluous characterization articulated in Mootoo's story, we begin to see non-violent belonging as becoming imaginable. This study hence endeavours to give a broadened perspective and present the normatized section of the society-be it sexual minorities or cultural and lingual minorities- in a better form, so as to help them create their own 'self' identity in a heteronormative set-up.

AFRICA LOST AND LOST AND LOST

Tanusri Dutta

ABSTRACT: Loss, in many ways, is related to Africa; especially Africa under colonial domination and the impact of various forms of loss is evident in various forms in the African life and culture. This paper tries to study the element of loss found in different forms in African poetry written in or translated into English focusing on some celebrated names like Gabriel Okara, David Diop and Kofi Awoonor. This paper, at its end, tries to highlight the fact that, "loss" as a theme, enriches the African poetry to a great extent though different sorts of loss affect the African life and culture in many ways.

DELINEATION OF SOIL AVAILABLE SULPHUR STATUS IN MADURAI DISTRICT OF TAMIL NADU – A GIS APPROACH

TH. SA. Raja Rajeshwaran

ABSTRACT: The study was conducted in Madurai district with a view to assess the soil available sulphur status at block level. A total of 1724 geo referenced surface soil samples have been manually collected from 13 blocks. The soil samples were analyzed and it is observed that 95and 5 % of the samples of the study area are deficient and sufficient in available sulphur content. The overall results portray that: barring Kottampatti block, the remaining blocks are severely deficient in available sulphur irrespective of the type of cropping systems and hence an intelligent application of sulphur fertilizers and organic manures are right away recommended

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"I wanted to rise, but the disemboweled silence fell back upon me"
The theme of silence in J. M. Coetzee's novel Dusklands

Gamal Abdo Nasser

Abstract:J. M. Coetzee is one of the most accomplished writers and novelists of South Africa whose imagination helped him to write his novels to project silence that was present in South Africa. In other words, one of the striking features in most of his novels is the theme of silence which is conveyed in graphic details in many of his books. In this paper, I will discuss the various instances where silence speak volumes affecting anyone opposing the whites in one of his popular novels *Dusklands* and how silence has played an important role in the power dichotomy.