



**INTERNATIONAL CONFERENCE ON
RECENT RESEARCH IN MANAGEMENT, ENGINEERING,
SCIENCE & TECHNOLOGY**

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**1st INTERNATIONAL CONFERENCE ON RECENT RESEARCH IN MANAGEMENT,
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JOURNAL CONFERENCE BY

VISVESWARAYA COLLEGE OF ENGINEERING & TECHNOLOGY

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N. GAJJALAIAH

Chief Patron & Chairman -VCET

Visveswaraya College of Engineering and Technology



MESSAGE

My delightful greetings to all departments of Visveswaraya College of Engineering and Technology for organizing prestigious event “1st INTERNATIONAL CONFERENCE ON RECENT IN MANAGEMENT, ENGINEERING, SCIENCE & TECHNOLOGY (ICRRMEST-2018)” On 26th FEB 2018. It’s always amazing to see youngsters showcasing their technical knowledge. I feel events like these are platforms to share and aware of latest trends in the technical scenario. VCET has time and again proved its mettle in the disburse of the state-art knowledge for enabling development of correct aptitude for attitude and skills.

The consistent efforts made by Institution to go beyond the conventional boundaries and make a mark at the State & National levels are appreciable. I congratulate the Management, Convener and the entire event coordinators for organizing such a fabulous event.

I wish a 1st INTERNATIONAL CONFERENCE ON RECENT RESEARCH IN MANAGEMENT, ENGINEERING, SCIENCE AND TECHNOLOGY (ICRRMEST-18) very grand success.

N. GAJJALAIAH

P. SRI RAM REDDY

Patron & Secretary-VCET

Visveswaraya College of Engineering and Technology



MESSAGE

In the context of modern world, Engineers have a great many difficult and newer challenges to face. It is not more Technical Knowledge that is important. More than Knowledge, several other competencies such as Leadership, Interpersonal relationship, Confidence, Communication skills etc., plays a vital role for eminent Engineers.

I extremely glad to convey our best wishes to “1st INTERNATIONAL CONFERENCE ON RECENT IN MANAGEMENT, ENGINEERING, SCIENCE & TECHNOLOGY (ICRRMEST-2018)” which gives a unique platform for Engineers.

I wish “1st INTERNATIONAL CONFERENCE ON RECENT IN MANAGEMENT, ENGINEERING, SCIENCE & TECHNOLOGY (ICRRMEST-2018)” a very grand success.

P. SRI RAM REDDY

Dr. B. SATEESH KUMAR

B.Tech(CSE), M.Tech(SE), Ph.D(CSE), MISTE
Associate Professor Department of CSE - JNTUH

Keynote Speaker

Visveswaraya College of Engineering and Technology



MESSAGE

I am delighted that VCET college is organizing “1st INTERNATIONAL CONFERENCE ON RECENT IN MANAGEMENT, ENGINEERING, SCIENCE & TECHNOLOGY (ICRRMEST-2018)”.

I am sure this conference will provide a good platform to Multi-Disciplinary researches, Academicians and students who are participating to showcase and share their knowledge. I congratulate all departmental faculty for their tremendous efforts to make this event successful. I welcome and congratulate all the participants from various colleges, universities of the state. I wish you all the best for everyone.

I wish “1st INTERNATIONAL CONFERENCE ON RECENT IN MANAGEMENT, ENGINEERING, SCIENCE & TECHNOLOGY (ICRRMEST-2018)” a very grand success.

Dr. B. SATEESH KUMAR

Dr. B. RAVEENDRANADH SINGH

Conference Chair & Principal

Visveswaraya College of Engineering and Technology



MESSAGE

I am very happy that our college is conducting the 1st INTERNATIONAL CONFERENCE ON RECENT IN MANAGEMENT, ENGINEERING, SCIENCE & TECHNOLOGY (ICRRMEST-2018) to provide an opportunity for engineers, scientists, scholars and students of various streams to share their knowledge and modern trends in the fields of engineering and technology with main objective of conference is promoting scientific temper for education activities.

It is heartening to note that our institute is organizing international conference in remote area during 26th February 2018 at VCET campus. The response to our conference indicates the dedicated efforts of convener, management and organizing team and also highlights the importance of the domain and expectations from all participants, understanding, processing and application hold the key to the effectiveness of any concept.

Rapid changes in requirement in all sectors like communication, computer science, production, manufacturing, management, agriculture, basic need of human beings of today's generation in terms of availability of resources, environmental regulations, sustainability, changes in technology, are posing everlasting challenges to all domains of technology to dig deeper for better understanding and go towards better and the best viable alternative procedures.

I expect that our conference shall give right platform for all the academicians and researches to present, discuss, share knowledge, stage of the art information on all latest challenges of global and approach towards possible contemporary solutions.

I hope it is a golden opportunity to our college students to witness research scholars and professors across the country show casting their talent in the event.

I extend my best wishes to all the participants, congratulate the entire organizing team and wish the conference (ICRRMEST-18) a grand success.

DR. B. RAVEENDRANADH SINGH

Dr. VUPPU PADMAKAR

Convener & Dean

Visveswaraya College of Engineering and Technology



MESSAGE

I extend a warm welcome to all delegates from various Engineering Colleges, to participate and present the Research Papers in the 1st INTERNATIONAL CONFERENCE ON RECENT IN MANAGEMENT, ENGINEERING, SCIENCE & TECHNOLOGY (ICRRMEST-2018) Organized by Visveswaraya College of Engineering and Technology, Ibrahimpatnam Mandal, HYDERABAD. As convener of the conference I take great pleasure in upcoming all the innovative ideas and the great minds behind them to our international conference. Any event cannot be successful with out the hard work and dedication of the organizers.

My deepest regards to Management and my Sincere thanks to the Principal, Chief Guest, guest of Honors and special invites for giving this opportunity to organize this conference. I would like to congratulate the organizing committee for their efforts, enthusiasm and technical skills in organizing this conference.

A Special thanks to Management and Principal for assisting us in the preparation of proceeding which made us to publish all the research papers in an efficient manner.

I am sure that this conference would have provided a very good foundation for various categories of delegates to discuss and share their novel thoughts about the concepts of multi disciplinary.

I wish all the participants a beneficial, fulfilling and enlightening conference.

DR. VUPPU PADMAKAR

RAKESH ORUGANTI

Organizing Secretary

IJIEMR

Editor-in-Chief



I am delighted to celebrate the launch of 1st INTERNATIONAL CONFERENCE ON RECENT IN MANAGEMENT, ENGINEERING, SCIENCE & TECHNOLOGY (ICRRMEST-2018)” On 26th FEB 2018. It’s always amazing to see Authors showcasing their technical knowledge. I feel events like these are platforms to share and aware of latest trends in the technical scenario.

In the context of modern world, Engineers have a great many difficult and newer challenges to face. It is not more Technical Knowledge that is important. More than Knowledge, several other competencies such as Leadership, Interpersonal relationship, Confidence, Communication skills etc., plays a vital role for eminent Engineers.

Rapid changes in requirement in all sectors like communication, computer science, production, manufacturing, management, agriculture, basic need of human beings of today’s generation in terms of availability of resources, environmental regulations, sustainability, changes in technology, are posing everlasting challenges to all domains of technology to dig deeper for better understanding and go towards better and the best viable alternative procedures.

I extend my best wishes to all the participants, congratulate the entire organizing team and wish the conference (ICRRMEST-18) a grand success

RAKESH ORUGANTI

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A Hybrid Cloud Approach for Secure Authorized Deduplication

Dr.B.RAVEENDRANADH SINGH

Principal visvesvaraya College of Engineering and Technology

Abstract: Data deduplication is one of important data compression techniques for eliminating duplicate copies of repeating data and has been widely used in cloud storage to reduce the amount of storage space and save bandwidth. To protect the confidentiality of sensitive data while supporting deduplication the convergent encryption technique has been proposed to encrypt the data before outsourcing. To better protect data security, this work makes the first attempt to formally address the problem of authorized data deduplication. Different from traditional deduplication systems, the differential privileges of users are further considered in duplicate check besides the data itself. The work also presents several new deduplication constructions supporting authorized duplicate check in hybrid cloud architecture. Security analysis demonstrates that our scheme is secure in terms of the definitions specified in the proposed security model. As a proof of concept, the work implement a prototype of proposed authorized duplicate check scheme and conduct tested experiments using the prototype. The work shows that the proposed authorized duplicate check scheme incurs minimal overhead compared to normal operations

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An Evaluation of ASPECT ORIENTED REFACTORING FOR SOFTWARE
MAINTENANCE

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Abstract: Aspect Oriented Refactoring (AOR) is the process of refactoring an application by moving code that implements cross-cutting concerns into aspects. AOP inspects each application to identify the cross-cutting concerns. The identified cross-cutting concerns are replaced by aspects. Mock based system approach is used to implement the aspects. It reduces code size and improves understandability, maintainability, change locality and concern diffusion. Aspect Mining (AM) is an important enabler of AspectOriented Refactoring (AOR). Proposed system is an automatic aspect mining tool that is based on dynamic program analysis. Proposed system evaluates traced call sequences to discover repeated patterns, which are then—if certain thresholds in repetition are reached—reported as aspect candidates. Comparing results of aspect mining with refactoring to the aspects, by manually analyzing the system might be an interesting benchmark. Keywords: Aspect Oriented Refactoring, crosscutting concerns, legacy application, Aspect Mining.

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Energy Management And Power Control Of A Hybrid Active Wind Generator For Distributed Power Generation And Grid Integration

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Abstract—Classical wind energy conversion systems are usually passive generators. The generated power does not depend on the grid requirement but entirely on the fluctuant wind condition. A dc-coupled wind/hydrogen/super capacitor hybrid power system is studied in this paper. The purpose of the control system is to coordinate these different sources, particularly their power exchange, in order to make controllable the generated power. As a result, an active wind generator can be built to provide some ancillary services to the grid. The control system should be adapted to integrate the power management strategies. Two power management strategies are presented and compared experimentally. We found that the “source-following” strategy has better performances on the grid power regulation than the “grid-following” strategy.

Index Terms—Distributed power, energy management, hybrid power system (HPS), power control, wind generator (WG).

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Global Maximum Power Point Tracking Method For Photovoltaic
Arrays Under Partial Shading Conditions Journal

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Abstract There exists a variety of maximum power point tracking (MPPT) techniques, each having its own merits and demerits. Under partial-shading conditions, the conventional tracking techniques fail to guarantee successful tracking of the global maximum power, i.e. the conventional MPPT methods such as perturb and observe and incremental conductance may converge on local maximum power point resulting in significant reduction of power generated. This paper discusses about an improved technique for tracking global maximum power point of photovoltaic arrays that has better performance under partial shading conditions. The first stage in this method is to find out global maximum power point among the local maxima. Once the global maximum power point is found then by adjusting the duty ratio, the voltage corresponding to maximum power can be found out. The control is then transferred to perturb and observe algorithm stage. This technique could be applied for both stand alone and grid connected PV system. A comparison study between a SEPIC converter and a buck boost converter with the above mentioned algorithm has also been carried out in order to verify the performance of both the converters. The above mentioned converters have been designed for 150W at a switching frequency of 10 KHz. Modified algorithm has been simulated using MATLAB/Simulink and results are obtained. Partial shading condition was modelled in MATLAB/Simscape and analysed the solar array characteristics under various shading conditions. From the simulation results it was found that the SEPIC converter is much more efficient and is highly suitable for photo voltaic applications.

Key Words: Partial shading, DC-DC converters, Global maximum power point, SEPIC converter.

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Maximum Boost Control Of Diode- Assisted Buck Boost Voltages Source Inverter With Minimum Switching Frequency Journal

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Abstract-This work presents the proposed diode assisted VSI enhances the voltage boost capability which is suitable for wide range voltage regulation in DC to AC power conversion. This project mainly concentrates on the PWM techniques for the diode assisted VSI. Improved PWM strategies demonstrates good performances: less switching device requirement and higher efficiency at high voltage gain. This PWM technique is theoretically studied and analysed for diode assisted and simulation results are validated through Mat lab 2013a.

Keyword- SPWM, Boost converter, VSI, Diode Assisted Network

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DESIGN EVOLUTION AND OPTIMIZATION OF NOZZLE USED IN DIESEL
ENGINE FUEL INJECTOR

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ABSTRACT: The nozzle is used to convert the chemical thermal energy generated in the combustion chamber into kinetic energy. The nozzle converts the low velocity, high pressure, high temperature gas in the combustion chamber into high velocity gas of lower pressure and temperature. Nozzle is a device designed to control the rate of flow, speed, direction, mass, shape, and/or the pressure of the stream that exhaust from them. Nozzles come in a variety of shapes and sizes depending on the mission of the rocket, this is very important for the understanding of the performance characteristics of rocket. Convergent divergent nozzle is the most commonly used nozzle since in using it the propellant can be heated in combustion chamber. In this thesis the convergent divergent nozzle changing the different nozzle diameters and different fluids at different velocities. We modeled convergent divergent nozzle changing with different nozzle diameters and Analyzed the convergent divergent nozzle with different mass flow rates to determine the pressure drop, heat transfer coefficient, and velocity and heat transfer rate for the fluid by CFD technique.

Key Words: Finite element analysis, nozzle, CFD analysis, thermal analysis.

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DESIGN AND ANALYSIS OF TWO WHEELER SHOCK ABSORBER COIL SPRING

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TECHNOLOGY

ABSTRACT: In vehicles problem happens while driving on bumping road condition. The objective of this project is to design and analyze the performance of Shock absorber by varying the wire diameter of the coil spring. The Shock absorber which is one of the Suspension systems is designed mechanically to handle shock impulse and dissipate kinetic energy. It reduces the amplitude of disturbances leading to increase in comfort and improved ride quality. The spring is compressed quickly when the wheel strikes the bump. The compressed spring rebound to its normal dimension or normal loaded length which causes the body to be lifted. The spring goes down below its normal height when the weight of the vehicle pushes the spring down. This, in turn, causes the spring to rebound again. The spring bouncing process occurs over and over every less each time, until the up-and-down movement finally stops. The vehicle handling becomes very difficult and leads to uncomfortable ride when bouncing is allowed uncontrolled. Hence, the designing of spring in a suspension system is very crucial. The analysis is done by considering bike mass, loads, and no of persons seated on bike. Comparison is done by varying the wire diameter of the coil spring to verify the best dimension for the spring in shock absorber. Modeling and Analysis is done using Pro/ENGINEER and ANSYS respectively.

Key Words: Shock Absorber, Coil Spring, Modified design, Stress analysis.

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STRUCTURAL ANALYSIS OF TWO WHEELER SUSPENSION FRAME

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TECHNOLOGY

ABSTRACT The two-wheeler chassis consists of the frame, suspension, wheels and brakes. The chassis truly sets the overall style of the two-wheeler. Automotive chassis is the main carriage systems of a vehicle. The frame serves as a skeleton upon which parts like gearbox and engine are mounted. It can be made of steel, aluminum or an alloy. It is essential that the frame should not buckle on uneven road surfaces and that any distortions which may occur should not be transmitted to the body. The frame must therefore be torsion resistant. The aim of the project is to model a frame using 3D modeling software Pro/Engineer. To validate the strength of a frame, Structural analysis is done by applying the wheel forces. In this analysis ultimate stress limit for the model is determined. Analysis is done for frame using four materials alloy steel, aluminum alloy A360, magnesium and carbon fiber reinforced polymer to verify the best material for frame. Model analysis is also done to determine different mode shapes for number of modes. Analysis is done in ANSYS software.

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STATIC AND THERMAL ANALYSIS OF TURBINE BLADE OF TURBOCHARGER

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ABSTRACT—This paper borders around analysis of turbine blade. The blade is a rotating part which converts kinetic energy into mechanical energy. Turbine blade is critical part of turbocharger which has shown increasing growth of failure damaging turbine disk. It deals with Static and thermal analysis of turbine blade which is made up of INCONEL 718 to estimate its performance. The causes of failure for turbine blade have also been found out. The investigation has been done using SolidWorks and ANSYS software. SolidWorks is used for modeling of turbine blade and analysis has been done by ANSYS software. An attempt has been made to investigate the effect of induced stresses, pressure and temperature on the turbine blade. A structural analysis has been carried out to investigate the stresses and displacements of the turbine blade. A thermal analysis has been carried out to investigate the thermal gradient and thermal stress.

Key Words—ANSYS, FEA, INCONEL 718, Turbine blade, SolidWorks

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DESIGN AND ANALYSIS OF HEAVY VEHICLE CHASSIS BY USING MATERIALS STEEL & S-GLASS

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ABSTRACT: The automobile is divided into two parts body and chassis. The chassis is basic structure of a vehicle. It contains all the engine parts and power systems but the frame is the main portion of chassis which do not contain any other assemblies like engine parts. Its principle function is to safely carry the maximum load for all designed operating conditions. Composite material is a material composed of two or more distinct phases and having bulk properties significantly different from those of any of the constituents. Different types of composite material are available and one of it is Polymer matrix composite. It has the benefits of high tensile strength, high stiffness and good corrosion resistance etc. At present this polymer matrix composite materials are used in aerospace, automobile industries due to it high strength to low weight ratio. In the present work, the dimensions of an existing heavy vehicle chassis of a TATA 1109 EX2 vehicle is taken for modeling and analysis. The vehicle frame is initially modeled by considering „C“ cross section in SOLID WORKS 2014 then it is imported to ANSYS 13.0. The analysis is done with two different composite materials namely Steel and S-glass/Epoxy subjected to the same pressure as that of a steel frame. The design constraints are stresses and deformations. The results are then compared to finalize the best among all the four frames.

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PERFORMANCE ANALYSIS OF VARS USING EXHAUST GAS HEAT OF C.I
ENGINE

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ABSTRACT: In this paper the waste heat from C. I engine is suggested as one of the alternative energy source for refrigeration system. In this study, an overview of utilization of waste heat with a brief literature of the current related research is studied. The review covers the vapour absorption refrigeration system connected to the four stroke diesel engine. From the engine the two main areas through which the heat exhausted into the atmosphere are the cooling water and the exhaust gases. The heat available at exhaust gas is 5.5 KW and heat carried by cooling water is 12.54 KW. Vapour absorption refrigeration system is presented as an attractive substance that utilizes the waste heat from C. I engine. For the present investigation, a vapour absorption system associated with waste heat recovery from four stroke diesel engine is used to find out the coefficient of performance and energy Consumption. By using waste heat energy the coefficient of performance is increased to 23% and the energy consumption of 220 KJ/K is saved than the existing system. So it is estimated that recovery of waste heat reduces heat loss, improves performance of the system, saves the fuel, reduces the emission of exhaust gas, and is economically feasible. Also the area from which heat is lost to the surroundings decreases. From the experimental study, the vapour absorption refrigeration system can be obtained using heat that is expelled in to the atmosphere from C. I. engine. Through the study and by analyzing the obtained results it is evident that the waste heat based refrigeration system is economic, eco friendly with zero co₂ emissions. Hence the system selected is technically proven, eco friendly and economically better.

Key words: Exhaust Gas, Waste Heat, Refrigeration, COP .

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DESIGN AND ANALYSIS OF CYLINDER AND CYLINDER HEAD OF 6-STROKE
SI ENGINE FOR WEIGHT REDUCTION

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Abstract: The present paper deals with design of cylinder & cylinder head with air cooling system for 6 strokes 6 cylinder SI engine. The main objective of design is to reduce weight to power ratio & will result in producing high specific power. The authors have proposed preliminary design cylinder & cylinder head of a horizontally opposed SI engine, which develops 120 BHP and possess the maximum rotational speed of 6000rpm. Four stroke opposed engine is inherently well balanced due to opposite location of moving masses and also it provides efficient air cooling. For the requirement of weight reduction the material selected for design of cylinder and cylinder head is Aluminum alloy that is LM-13. The cylinder bore coating using NIKASIL coating was done to improve strength of cylinder with minimum weight.

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A STUDY OF EFFECTS OF MACHINING PARAMETERS ON TOOL LIFE

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ABSTRACT: This work involves the investigation carried out to study the effects of machining parameters on tool life under dry machining environment. Three cutting tool materials (HSS blank tool - M2 C66, tungsten carbide insert tool grade P-10, DMNG carbide insert tool 150412-SA) and work materials (medium carbon steel 0.4 wt% C, mild steel 0.29 wt% C, brass C330) were examined. The experiments were conducted under three different spindle speeds (900, 1120, 1400rev/min); feed rates (0.1, 0.2, 0.3mm/rev) and depths of cut (0.5, 1.0, 1.5mm). The settings of machining parameters were determined by using the Taguchi experimental design method. The level of importance of the machining parameters on tool life was determined by using analysis of variance (ANOVA). The optimum machining parameters combination was obtained by using the analysis of signal-to-noise (S/N) ratio. The relationship between cutting parameters and tool life was obtained. From the results, the spindle speed had the most significant effects on tool life followed by feed rate and the depth of cut. The life of the HSS when cutting the three work pieces (medium carbon steel, mild steel and brass) was 161s, 321s and 386s respectively. The life of tungsten carbide when cutting the three work materials was 480s, 726s and 1028s respectively. The life of DMNG carbide were 782s using medium carbon steel, 864s using mild steel, and 1183s using brass. The shortest life of the three cutting tool materials (HSS, tungsten carbide and DMNG carbide) on the three work material (medium carbon steel, mild steel and brass) occurred at cutting speed (1400 rev/min), feed rate (0.3 mm/rev) and depth of cut (1.5 mm), where the life of the HSS were (15s using medium carbon steel, 58s using mild steel, 94s using brass). The life of tungsten carbide were (135s using medium carbon steel, 180s using mild steel, 274s using brass) and the life of DMNG carbide were (219s using medium carbon steel, 215s using mild steel, 311s using brass). The increment of spindle speed, feed rate and depth of cut value mostly will affect the tool life.

Keywords: Machining Operation, Cutting Tools, Cutting Conditions, Taguchi Method, ANOVA

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DESIGN AND TRANSIENT THERMAL ANALYSIS OF A DIESEL ENGINE OUTLET BI METAL VALVE FOR
OPEN AND CLOSED CONDITIONS

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ABSTRACT: The valves used in the IC engines are of three types: Poppet or mushroom valve or Sleeve valve or Rotary valve. Of these three types, Poppet valve is most commonly used. Since both the inlet and exhaust valves are subjected to high temperatures of 1930°C to 2200°C during the power stroke, therefore, it is necessary that the materials of the valves should withstand these temperatures. The temperature at the inlet valve is less compared to exhaust valve. Thus the inlet valve is generally made of nickel chromium alloy steel and exhaust valve is made of silchrome steel. The aim of the project is to design an exhaust valve for a four wheeler diesel engine using theoretical calculations. 2D drawings are drafted from the calculations and 3D model is done in Pro/Engineer. Transient thermal analysis is to be done on the exhaust valve when valve is open and closed. Analysis is done in ANSYS. Analysis will be conducted when the steady state condition is attained. Steady state condition is attained at 5000 cycles at the time of when valve is closed is 127.651 sec and valve is opened 127.659 sec. The materials used for exhaust valve is EN52 steel for valve seat Austenitic Stainless Steel for valve tip. Pro/ENGINEER is the standard in 3D product design, featuring industry leading productivity tools that promote best practices in design. ANSYS is general-purpose finite element analysis (FEA) software package. Finite Element Analysis is a numerical method of deconstructing a complex system into very small pieces (of user-designated size) called elements.

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OPTIMIZATION OF A LARGE TRANSPORTABLE VACUUM INSULATED
CRYOGENIC VESSEL BY USING CAD/CAE TOOLS

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ABSTRACT: The denotation “cryogenics” is defined as the study of a liquefied gas at very low temperature (below -150°C), as well as how materials perform at the aforementioned temperature. In this case, the cryogenic fluid is methane, which presents very good flammable qualities allowing it to be used as a new fuel and energy source. This project is deals with design and analyzes a large transportable vacuum insulated cryogenic vessel that will be attached to a truck in order to keep, maintain and transport by road liquid methane. Considerations such as different pressure loads, dimensions, materials as well as their mechanical properties, constraints, masses, insulation systems and weather-environmental conditions are made in the mechanical analysis. The CAD software Pro/Engineer (creo-2) is used to visualize the models for the chosen designs. In addition, the finite element module ANSYS WORKBENCH 15.0 is used to obtain results of mechanical analyses in order to determine if the stresses are within margins. Finally this project concludes which is most suitable material at different loading conditions.

Key Words: CREO, ANSYS WORKBENCH 15.0, transportable vacuum insulated cryogenic vessel.

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IMPLEMENTATION OF LOW POWER OPTIMIZING CHIEN SEARCH USAGE IN THE BCH DECODER

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ABSTRACT: In this a new power-saving chien search (CS) structure is proposed for parallel Bose-Chaudhuri-Hocquenghem (BCH) decoder. The CS plays an important role in identifying the areas of error in syndrome-based decoding, but incurs a huge waste of exhaustive computation power consumption. In this proposed architecture, the process of searching for the binary representation of the matrix is decomposed in two steps. The first step is accessed every cycle, but the second step is activated only when the first step is successful, this will result in remarkable power saving. Here an effective construction is presented in a two stage process to avoid an increase in the delay of the critical path. Experimental results of the proposed two-step structure for the BCH (8752, 8192, 40) code that saves 50% power consumption compared to a conventional building of the show.

Keywords: Bose–Chaudhuri – Hocquenghem (BCH) codes, Chien search (CS), low power, two-step approach.

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EMBEDDED PATIENT MONITORING SYSTEM

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ABSTRACT— ICU stands for Intensive Care Unit, a place in the hospital where very ill patients are monitored very closely. Typically, the patient-staff ratio is very low and the LIFE-SAVING EQUIPMENT used is very advanced. Generally ICU is a hospital facility for provision of intensive nursing and medical care of critically ill patients, characterized by high quality and quantity of continuous nursing and medical supervision and by use of sophisticated monitoring and resuscitative equipment. The patients in the ICU need a constant monitoring of their Temperature and heart beat blood pressure. This project is a working model, which incorporates sensors to measure important parameters namely the Temperature, Respiratory temperature and Heart Beat. The sensors are interfaced to computer, so that the condition of a patient can be analyzed by doctors in any part of the hospital wherever they are. Whenever there is an abnormality felt by the patient, the particular patient will give an alarm signal, by which the doctor can rush to the patient. Even when the patient is in an unconscious condition, all the parameters will be sensed and doctor will be cautioned, thus it reduces doctor's workload and also gives more accurate results. Our project is a working model which incorporates sensors to measure all these parameters like body temperature, Respiratory Temp and Heart Beat rate and transfer it to the computer, so that the patient condition can be analyzed to by doctors in any part of the hospital wherever they are. Thus it reduces doctors work load and also gives more accurate results, wherever there is an abnormality felt by the patient, we have also incorporated saline monitoring system which gives an alarm when the saline bottle about to empty.

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**SIMULATION AND OPTIMIZATION OF DEEP DRAWING PROCESS
PARAMETERS FOR CYLINDRICAL CUP BY USING FEM AND TAGUCHI**

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ABSTRACT: This paper is one of the most used Metal Forming Process within the industrial field. Different analytical, numerical and empirical methods have been developed in order to analyze it. The objective of this study is to determine the factors influencing a drawing process and analyzing the process by varying the Die radius, blank thickness, applied force and keeping the Friction as constant. In this paper Punches, blank thickness of same geometry and dies of various geometries were drawn by using CATIA software. And an effort is made to study the simulation effect of main process variant namely die radius using finite element analysis. As the FEM code, the commercially available software ANSYS WORKBENCH 14.5 is used here. Aluminium alloy 6061 is used for deep drawing. Finally presents an investigation of the effect of die draw radius, sheet thickness and applied force on the variation in deformation of a deep drawn cup using finite element simulations. The variation in punch force is minimized by carrying out analysis of variance (ANOVA) for individual factors and their interactions. In this work, the combination of finite element method and Taguchi design of experiments and ANOVA has been applied to analyze the influencing process parameters on Deep drawing for cylindrical cup component.

Keywords- Metal forming process; Deep drawing; finite element simulations; design of experiments; ANOVA;

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A MULTI AUTHORITY CP-ABE ACCESS CONTROL SCHEME FOR PUBLIC
CLOUD STORAGE

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ABSTRACT: The primary personality based communicate encryption plot with steady size figure writings and private keys. Our development is a Key Encapsulation Mechanism (KEM), in this manner long messages can be scrambled under a short symmetric key. In our answer, figure writings and private keys are of steady size, and people in general key is direct in the maximal estimation of s . In addition, in our plan, the Private Key Generator (PKG) can powerfully include new individuals without adjusting already disseminated data (as in IBE plans). We likewise take note of that there is no chain of importance between characters, in spite of HIBE. The general population enter is straight in the maximal size of S , and not in the quantity of decoding keys that can be conveyed, which is the quantity of conceivable characters. In this utilize a straightforward situation to acquaint the testing issues relating with bunch classification and key administration. We consider a source that sends information to an arrangement of beneficiaries in a multicast session. The security of the session is overseen by two principle useful substances: a Group Controller (GC) in charge of confirmation, approval and get to control, and a Key Server (KS). To guarantee classification amid the multicast session, the sender (source) shares a mystery symmetric key with all legitimate gathering individuals, called Traffic Encryption Key (TEK). To multicast a mystery message, the source scrambles the message with the TEK utilizing a symmetric encryption calculation. From the above papers, it is watched that how to share a protected information in cloud without lost the keys. In this paper, we present a novel Digital mark, SSH key, Hashing capacities and key escrow calculations.

Keywords: Data usage, anonymous network, distributor, fake question, information spillage, finger print, fake actor.

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SUPPORTING REPUTATION BASED TRUST MANAGEMENT FOR CLOUD SERVICES

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ABSTRACT: In cloud computing growth, the management of trust element is most challenging issue. Cloud computing has produce high challenges in security and privacy by the changing of environments. Trust is one of the most concerned obstacles for the adoption and growth of cloud computing. Although several solutions have been proposed recently in managing trust feedbacks in cloud environments, how to determine the credibility of trust feedbacks is mostly neglected. In this project the system proposed a Cloud Armor, a reputation-based trust management framework that provides a set of functionalities to deliver Trust as a Service (TaaS). “Trust as a Service” (TaaS) framework to improve ways on trust management in cloud environments. The approaches have been validated by the prototype system and experimental results.

Keywords: Cloud computing, Trust, Obstacles, Reputation, Feedbacks.

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SECURE SHARING OF PERSONAL HEALTH RECORDS IN CLOUD USING ATTRIBUTE-BASED ENCRYPTION

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Abstract -- The Personal Health Record (PHR) is an emerging framework of health information exchange, which is often stored at cloud servers. But there are still various privacy problems as personal health information could be discovered to unauthorized people. To guarantee the patients control over to their own PHRs, it is a method to encrypt the PHRs before storing on cloud. But still issues such as risks of privacy, efficiency in key administration, flexible access and efficient user administration, have still remained the important challenges toward achieving better, cryptographically imposed data access control. Here in this research paper, we develop a model and mechanism for control of data access to PHRs stored in cloud servers. To achieve efficient and modular data access control for PHRs, we provide ABE encryption approach to encrypt each PHR file. In this system we try to focus on the multiple data owner scheme, and divide the users into security domains that highly reduce the key management complication for owners and users. In this system patient privacy is guaranteed by exploiting multi-authority ABE. Our system's scheme also enables modification of access policies or file attributes, and break-glass access under emergency situations. Extensive analysis and experimental results are presented which shows the security and efficiency of our proposed scheme.

Keywords— Personal health report, cloud computing, data isolation, fine-grained access control, attribute-based encryption

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A MULTI-LEVEL SECURITY MECHANISM FOR DATA STORAGE IN CLOUD COMPUTING: A REVIEW

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ABSTRACT— Cloud computing is a highly-scalable distributing computing platform in which resources are offered as services. The security of data in cloud is one of the important issue which act as an obstacle in the implementation of cloud computing. This paper is proposing an efficient cloud security model in which the model is providing the multi-level encryption mechanism over the data to be uploaded at the cloud as well as role-based authentication for the users. The model is including four parties: Data owner, Private Cloud, Admin and User. The encryption mechanism is using the RSA algorithm first and further re-encrypts the data with MD5 to enhance the security of the data. The Message authentication Code is being generated before uploading the encrypted data which will be used after downloading of the data. The Message Authentication Code of downloaded data will be decrypted first by user and then send to Data owner for data integrity check. After that the user can decrypt the downloaded data if he get confirmation from Data owner. The model is using the best possible multiple techniques in a single approach.

Keywords— Cloud Computing, Encryption, Message Authentication Code, Role-based Authentication.

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AN IMPROVED HANDWRITTEN TAMIL CHARACTER RECOGNITION SYSTEM USING OCTAL GRAPH

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ABSTRACT: Handwriting recognition has attracted voluminous research in recent times. The segmentation and recognition of the characters from handwritten scripts incorporates considerable overhead. Almost all the existing handwritten character recognition techniques use neural network approach, which requires lot of preprocessing and hence accomplishing these problems using neural network is a tedious task.

Approach: In this study we propose a novel solution for performing character recognition in Tamil, the official language of the south Indian province of Tamil Nadu. Pursued by the preprocessing techniques, Segmentation, Normalization and Feature Extraction the approach utilizes octal graph conversion for recognizing off-line handwritten Tamil characters which improves the slant correction. The graph tries to represent the basic form of a letter independent of the style of writing. Using the weights of the graphs and by the appropriate feature matching with the predefined characters, the written characters are recognized.

Key words: Optical character recognition, hand written recognition, segmentation, normalization, slant correction, feature extraction, octal graph conversion

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NEAREST KEYWORD SET SEARCH IN MULTI-DIMENSIONAL DATASETS

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ABSTRACT— In computer Data set analysis, hundreds of files are usually examined. Much of the data in those files consists of unstructured text, whose analysis by computer examiners is difficult to be performed. In this context, automated methods of analysis are of great interest. In particular, algorithms for clustering documents can facilitate the discovery of new and useful knowledge from the documents under analysis we present an approach that applies document clustering algorithms to forensic analysis of computers seized in police investigation. We illustrate the proposed approach and get the lines and clustering word matching lines. We also present and discuss several practical results that can be useful for researchers and practitioners of Data set.

Keywords—Clustering,Filtering,Multi-dimensional data, Indexing, Hashing.

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**TEES: AN EFFICIENT SEARCH SCHEME OVER ENCRYPTED DATA ON MOBILE
CLOUD TEES (TRAFFIC AND ENERGY SAVING ENCRYPTED SEARCH)**

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ABSTRACT: Cloud storage provides a convenient and more storage at low cost, but data privacy is a major concept that prevents users from storing files on the cloud. One way of improving the data privacy is to encrypt the files before sending them onto the cloud and decrypt the files when they are downloaded. However, data encryption is a difficult task for the mobile devices, and data retrieval process is a complicated communication between the data user and cloud. With limited capacity and a limited battery life of mobile phones, these issues may introduce heavy overhead to computing and more power consumption for mobile device users, which makes the encrypted search over mobile cloud very difficult and as a challenge task for the user. In this paper, we have proposed, TEES, in which with more bandwidth and better energy efficient encrypted search over a mobile cloud. The proposed architecture removes the computation from mobile devices to the cloud, and hence we further can optimize the communications of the mobile clients and the cloud.

Keywords: Mobile Cloud Storage, Searchable Data Encryption, Energy Efficiency, Traffic Efficiency.

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A STATISTICAL CLUSTERING DATA STREAMS BASED ON SHARED DENSITY AMONG MICRO CLUSTERS

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ABSTRACT

As of currently the applications offer streaming information, an agglomeration information stream has introduced a very important formulation for information and information engineering. A tough understanding is to instantiate the information stream in period with an internet method to create an enormous variety of functions known as micro-clusters. Micro-clusters formulates shared density enhance by providing the information the knowledge the information of huge data points during an outlined place. On the prevailing demand, a (enhanced) supposed to convey agglomeration algorithmic rule that is employed during a specific offline step to create the micro-clusters into immense final clusters. to create agglomeration, the information of the small clusters are used as pseudo points with clusters isn't keep within the on-line method and re agglomeration is predicated on specific engorged assumptions concerning the promotion of information among and between small clusters that incontestable captures the density between small clusters via information streams supported shared density graph. Data stream information during this graph is then used for re agglomeration supported shared density between adjacent small clusters. We have a tendency to conclude the realm and time complexness of handling the shared density graph. Tests supported big selection of incontestable and original information sets highlight that victimization shared density improves agglomeration quality over different exhausted information stream agglomeration strategies that need the creation of an enormous variety of less small clusters to extract comparable results.

Key words—Data mining, data stream clustering, density-based clustering

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ENHANCED DATA SHARING SECURITY AND SEARCHING AT THE EDGE OF CLOUD-ASSISTED INTERNET OF THINGS

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ABSTRACT— Cloud computing even though Internet of Things (IoT), two in general different advancements, is all things considered both accurate now part of the life of our own. Their take preferred position of with massive reception are expected to build all the further essential parts of the Future Internet. A novel paradigm where IoT and Cloud are really combining is for seen as challenging and in addition an empowering manipulate of a great deal of use scenario. This paper proposes a viable information sharing framework which takes into consideration smart products to share secure information with other individuals at the edge of cloud helped Web of Things (IoT). We inside like manner recommend a secured seeking plan to Data inside claim/shared information on storage space were wanted via seek.

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**A REVIEW PAPER ON MULTI KEYWORD RANKED SEARCH ON ENCRYPTED
CLOUD DATA**

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ABSTRACT: Because of the expanding prominence of distributed computing, more information proprietors are inspired to outsource their information to cloud servers for extraordinary accommodation and diminished expense in information administration. Then again, delicate information ought to be scrambled before outsourcing for security prerequisites, which obsoletes information use like catchphrase based report recovery. In this paper, we show a safe multi-essential word positioned inquiry plan over encoded cloud information, which at the same time bolsters element overhaul operations like cancellation and insertion of archives. Specifically, the vector space model and the broadly utilized TF×IDF model are joined as a part of the record development and question era. We build a unique tree-based file structure and propose an "Avaricious Depthfirst Search" calculation to give efficient multi-magic word positioned inquiry. The protected kNN calculation is used to scramble the file and question vectors, and in the interim guarantee exact pertinence score count between encoded list and inquiry vectors. With a specific end goal to oppose factual assaults, apparition terms are added to the list vector for blinding indexed lists. Because of the utilization of our exceptional tree-based file structure, the proposed plan can accomplish sub-direct inquiry time and manage the erasure and insertion of archives flexibly. Broad analyses are led to exhibit the efficiency of the proposed scheme.

Keywords: Searchable encryption, multi-keyword ranked search, dynamic update, cloud computing.

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PRIVACY-PRESERVING MULTI-KEYWORD RANKED SEARCH OVER ENCRYPTED CLOUD DATA

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Abstract- The advent of cloud computing, data owners are motivated to outsource their complex data management systems from local sites to commercial public cloud for great flexibility and economic savings. But for protecting data privacy, sensitive data has to be encrypted before outsourcing, which obsoletes traditional data utilization based on plaintext keyword search. Thus, enabling an encrypted cloud data search service is of paramount importance. Considering the large number of data users and documents in cloud, it is crucial for the search service to allow multi-keyword query and provide result similarity ranking to meet the effective data retrieval need. Related works on searchable encryption focus on single keyword search or Boolean keyword search, and rarely differentiate the search results. In this paper, for the first time, we define and solve the challenging problem of privacy-preserving multi-keyword ranked search over encrypted cloud data (MRSE), and establish a set of strict privacy requirements for such a secure cloud data utilization system to become a reality. Among various multi-keyword semantics, we choose the efficient principle of “coordinate matching”, i.e., as many matches as possible, to capture the similarity between search query and data documents, and further use “inner product similarity” to quantitatively formalize such principle for similarity measurement. We first propose a basic MRSE scheme using secure inner product computation, and then significantly improve it to meet different privacy requirements in two levels of threat models. Thorough analysis investigating privacy and efficiency guarantees of proposed schemes is given, and experiments on the real-world dataset further show proposed schemes indeed introduce low overhead on computation and communication.

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SECURING CLOUD DATA IN THE NEW ATTACKER MODEL

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Abstract- The world just witnessed the surge of a new and powerful attacker, which was able to coerce operators and acquire the necessary keys to break the privacy of users. Once the encryption key is exposed, the only viable measure to preserve data confidentiality is to limit the adversary's access to the ciphertext. This may be achieved, for example, using multi-cloud storage systems. These systems spread data across multiple servers in different administrative domains, to cater for availability and fault tolerance. If the adversary can only compromise a subset of these domains, multi-cloud storage systems may prevent the adversary from accessing the entire ciphertext. However, if data is encrypted using existing encryption schemes, spreading the ciphertext on multiple servers does not entirely solve the problem since an adversary which has the encryption key, can still compromise single servers and decrypt the ciphertext stored therein. In this paper, we leverage multi-cloud storage systems to provide data confidentiality against an adversary which has access to the encryption key, and can compromise a large fraction of the storage servers. For this purpose, we first introduce a novel security definition that captures data confidentiality in the new adversarial model. We then propose Bastion, a primitive that is secure according to our definition and, therefore, guarantees data confidentiality even when the encryption key is exposed, as long as the adversary cannot compromise all storage servers. We analyze the security of Bastion, and we evaluate its performance by means of a prototype implementation. Our results show that Bastion incurs less than 5% overhead compared to existing semantically secure encryption modes. We also discuss practical insights with respect to the integration of Bastion in commercial multi-cloud storage systems.

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AN APPLICATION OF VISUAL CRYPTOGRAPHY TO FINANCIAL DOCUMENTS

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Abstract: VCRYPT, an application of visual cryptography, is described as a means of transmitting financial documents where moderate security is required. Visual cryptography in general uses a simple algorithm unlike the complex, computationally intensive algorithms used in other techniques. The interface to the system is window based. The VCRYPT implementation solves the outstanding problem of the greying effect in which the decoding results in a distinctly “grey” or fuzzy version of the source document. Thus, when visual cryptography is applied to financial documents, it is often difficult to distinguish digits accurately, making it an unattractive protection technique. VCRYPT overcomes this problem using a threshold technique to produce a clear, crisp document, identical to the original. Although visual cryptography requires increased storage and multiple transmissions, the simple share creation algorithm, decreasing storage costs, and fast transmission times, make this a viable alternative for sharing financial documents over the Internet.

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USING GENETIC ALGORITHM FOR WHOLE TEST SUITE GENERATION OF
OBJECT ORIENTED PROGRAMS

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Abstract— In Software testing there is a great demand for the automation of test cases. The test cases are either generated before coding using software specifications or after coding using program execution traces. Many genetic algorithms have been proposed for procedural programming but they do not suit well for object oriented programming. This is because in object oriented programs the object relationship exists and considering them is important for the generation of best test suite. We propose a method to generate test suites for object oriented programs using genetic algorithm by considering the object- relationships and their dependencies such as polymorphism, message passing and inheritance that exists among them. The key feature of our proposed technique is that the test suites are evolved as a whole instead of generating one test case for each coverage goal. To investigate the effectiveness of our approach we have used a java program of Chocolate Vending machine as the source code and few test cases have been relatively developed to evaluate the fittest test suite with maximum coverage. We have applied our technique in the EVOSUITE tool to determine the efficiency of our approach. Our results indicate that the use of genetic algorithm in Test case Generation is beneficial than the traditional approach of targeting single branches.

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AN EFFICIENT EVALUATION SCALABLE MANAGEMENT OF RDF DATA IN THE CLOUD

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Abstract: Despite recent advances in distributed Resource Description Framework (RDF) data management, processing large-amounts of RDF data in the cloud is still very challenging. In spite of its seemingly simple data model, RDF actually encodes rich and complex graphs mixing both instance and schema-level data. Sharing such data using classical techniques or partitioning the graph using traditional min-cut algorithms leads to very inefficient distributed operations and to a high number of joins. In this paper, we describe Diplo Cloud, an efficient and scalable distributed RDF data management system for the cloud. Contrary to previous approaches, Diplo Cloud runs a physiological analysis of both instance and schema information prior to partitioning the data. In this paper, we describe the architecture of Diplo Cloud, its main data structures, as well as the new algorithms we use to partition and distribute data. We also present an extensive evaluation of Diplo Cloud showing that our system is often two orders of magnitude faster than state-of-the-art systems on standard workloads.

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A TIME EFFICIENT APPROACH FOR DETECTING ERRORS IN BIG SENSOR DATA ON CLOUD

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Abstract: Big sensor data is prevalent in both industry and scientific research applications where the data is generated with high volume and velocity it is difficult to process using on-hand database management tools or traditional data processing applications. Cloud computing provides a promising platform to support the addressing of this challenge as it provides a flexible stack of massive computing, storage, and software services in a scalable manner at low cost. Some techniques have been developed in recent years for processing sensor data on cloud, such as sensor-cloud. However, these techniques do not provide efficient support on fast detection and locating of errors in big sensor data sets. For fast data error detection in big sensor data sets, in this paper, we develop a novel data error detection approach which exploits the full computation potential of cloud platform and the network feature of WSN. Firstly, a set of sensor data error types are classified and defined. Based on that classification, the network feature of a clustered WSN is introduced and analyzed to support fast error detection and location. Specifically, in our proposed approach, the error detection is based on the scale-free network topology and most of detection operations can be conducted in limited temporal or spatial data blocks instead of a whole big data set. Hence the detection and location process can be dramatically accelerated. Furthermore, the detection and location tasks can be distributed to cloud platform to fully exploit the computation power and massive storage. Through the experiment on our cloud computing platform of U-Cloud, it is demonstrated that our proposed approach can significantly reduce the time for error detection and location in big data sets generated by large scale sensor network systems with acceptable error detecting accuracy.

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**CONCURRENT AND INDEPENDENT ACCESS TO ENCRYPTED CLOUD
DATABASES**

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Abstract— Since data in cloud will be placed anywhere, because of the critical nature of the applications, it is important that clouds be secure. The major security challenge with clouds is that the owner of the data may not have control of where the data is placed. This is because if one wants to exploit the benefits of using cloud computing. This requirement imposes clear data management choices: original plain data must be accessible only by trusted parties that do not include cloud providers, intermediaries, and Internet; in any untrusted context, data must be encrypted. Satisfying these goals has different levels of complexity depending on the type of cloud service. We propose SecureDBaaS as the first solution that allows cloud tenants to take full advantage of DBaaS qualities, such as availability, reliability, and elastic scalability, without exposing unencrypted data to the cloud provider. The architecture design was motivated by goal: to allow multiple, independent, and geographically distributed clients to execute concurrent operations on encrypted data, including SQL statements that modify the database structure.

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ANONYMOUS AUTHENTICATION OF DECENTRALIZED ACCESS CONTROL
OF DATA STORED IN CLOUD

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Abstract: Cloud computing is location that allows users to store the data. Cloud computing is logically developed technology to store data from more than one user. In decentralized access control data is stored securely in cloud and here only valid users are able to decrypt the data stored in cloud and this is added feature of this scheme. This scheme supports anonymous authentication. It also supports construction, variation and reading data stored in cloud and also deals with user revocation. This access control scheme is decentralized and robust which is different from other access control scheme and costs are equivalent to centralized approaches.

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A DEDUPLICATION-AWARE RESEMBLANCE DETECTION AND ELIMINATION
SCHEME FOR DATA REDUCTION WITH LOW OVERHEADS

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Abstract—Data reduction has become increasingly important in storage systems due to the explosive growth of digital data in the world that has ushered in the big data era. One of the main challenges facing large-scale data reduction is how to maximally detect and eliminate redundancy at very low overheads. In this paper, we present DARE, a low-overhead deduplication-aware resemblance detection and elimination scheme that effectively exploits existing duplicate-adjacency information for highly efficient resemblance detection in data deduplication based backup/archiving storage systems. The main idea behind DARE is to employ a scheme, call Duplicate- Adjacency based Resemblance Detection (DupAdj), by considering any two data chunks to be similar (i.e., candidates for delta compression) if their respective adjacent data chunks are duplicate in a deduplication system, and then further enhance the resemblance detection efficiency by an improved super-feature approach. Our experimental results based on real-world and synthetic backup datasets show that DARE only consumes about 1/4 and 1/2 respectively of the computation and indexing overheads required by the traditional super-feature approaches while detecting 2- 10 percent more redundancy and achieving a higher throughput, by exploiting existing duplicate-adjacency information for resemblance detection and finding the “sweet spot” for the super-feature approach.

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REVIEW ON “DATA MINING WITH BIG DATA”

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Abstract—Big Data relates large-volume, complex, increasing data sets with multiple independent sources. With the rapid evolution of data, data storage and the networking collection capability, Big Data are now speedily expanding in all science and engineering domains. Big Data mining is the ability of extracting constructive information from huge streams of data or datasets, that due to its variability, volume, and velocity. Data mining includes exploring and analyzing big quantity of data to locate different molds for big data. Artificial intelligence (AI) and statistics are the fields which develop these techniques, This paper discusses a characterizes applications of Big Data processing model and Big Data revolution, from the data mining outlook. The analysis of big data can be troublesome because it often involves the collection and storage of mixed data based on different patterns or rules (heterogeneous mixture data). This has made the heterogeneous mixture property of data a very important issue. This paper introduces —heterogeneous mixture learning,|| We study the tough issues in the Big Data revolution and also in the data-driven model.

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Does Monetary Policy Signal Future Economic Risk? Investigating the Link between Monetary Policy Shocks and Stock Returns

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Abstract:

We investigate the impact of monetary policy shocks on stock returns using an Arbitrage Pricing Theory framework. After controlling for other risk factors, we find that changes in a monetary policy index measure is a significantly positive risk factor that raises excess returns (risk premiums) on monthly U.S. stocks. We argue that this relationship is due to the signal to financial markets that changes in monetary policy reveal about the Federal Reserve's forecast of future economic activity. Our result lends support to the findings of Romer and Romer (2000), and Peek et al. (2003) that the Fed possesses inside information that is not known to the public.

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IMPACT OF INDUSTRIAL RELATIONS ON EMPLOYEE PRODUCTIVITY

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Abstract:

The importance of growth in productivity for speeding up economic growth, there is little analysis of the concrete situation which can facilitate or hinder improvements in productivity. The gains of the 'green revolution' are reflected in the improvements in productivity. But there has not been any reference to the quality of human inputs, as if it does not have much to contribute. In the industrial field, also, new technologies are being introduced and additional capital input of improved quality is being provided to increase production. Larger inputs can give larger returns but that does not necessarily mean improvement in productivity. In all economic organizations, apart from the quality and the quantity of material input, it is recognized on all sides that the quality of the human input is the crucial factor in promoting productivity, consequently in economic growth and development. This paper will brief about the Productivity and its importance, various forms of productivity, the quality of human input required, the quality of industrial relations, tools and techniques used by the management to improve the employee productivity and the most important role of the trade union in this concept

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**The Empirical Relation between Price Changes and Trading
Volumes: Further Evidence from European Stock Markets**

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Abstract:

Extant literature on price-volume relation of stock markets relies mainly on standard linear Granger causality tests and draws evidence mostly from individual or aggregate US stock markets and those of other major industrial economies. This paper employs linear and nonlinear Granger causality tests to examine the price-volume relation of 10 relatively small European stock markets. Because these markets present a broader range of institutional, organizational, and structural factors than the major industrial markets, their analyses will enrich the literature on price-volume relation of stock markets. The empirical results using the traditional Granger causality tests indicate, in general, a mild causal relation between stock returns and trading volumes. In contrast, the nonlinear Granger causality tests indicate a stronger causal relation between the two variables. These results demonstrate the largely untapped capacity of nonlinear techniques to unravel financial asset price dynamics that may be beyond the scope of linear analyses.

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A Model for Pricing Derivatives on Ceiling Underlying Variables

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Abstract:

Eurodollar futures, Euroyen futures, and EuroCanada futures represent financial assets which have ceilings. This paper presents a theory which establishes a risk neutral valuation relationship (RNVR) for pricing derivatives written on upper bounded underlying variables. First, the theory is developed in a single period economy. It is assumed that there is a representative agent with a particular utility function of the HARA family of utility functions, and that aggregate wealth and the underlying variable are bivariate upper bound or negatively skewed lognormally distributed. Second, the theory is developed in a continuous-time framework where the risk aversion assumption is dropped, and replaced by the assumption of two long lived underlyings dynamically traded. It is assumed that the risky underlying follows an upper bound or negatively skew geometric brownian motion which has, at the end of each period, an upper bound lognormal distribution. The model is applied to derive closed-form solutions for the price of call and put options. These solutions depend on an extra parameter, not contained in the Black-Scholes model, the upper bound parameter.

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A GENETIC ALGORITHM BASED APPROACH TO OPTIMAL POWER FLOW
PROBLEM JOURNAL

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Abstract- This paper presents an efficient genetic algorithm for solving non-convex optimal power flow (OPF) problems with bus voltage constraints for practical application. In this method, the individual is the binary-coded representation that contains a mixture of continuous and discrete control variables, and crossover and mutation schemes are proposed to deal with continuous/discrete control variables, respectively. The objective of OPF is defined that not only to minimize total generation cost but also to improve the bus voltage profile.. The proposed method is demonstrated for a IEEE 30-bus four generator system, and it is compared with conventional method. The experimental results show that the GA OPF method is superior to the conventional.

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**A SINGLE PHASE TRANSFORMER LESS INVERTER WITH CHARGE PUMP
CIRCUIT CONCEPT FOR GRID-TIED PV APPLICATIONS JOURNAL**

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Abstract- This paper presents an improved transformer less inverter with common mode leakage current elimination for a photovoltaic grid connected power system. To eliminate the common-mode leakage current in the transformer less Photovoltaic grid-connected system, an improved single-phase inverter topology is presented. The improved transformer less inverter can sustain the same low input voltage as the full-bridge inverter and guarantee to eliminate common-mode leakage current. The inverse sine carrier pulse width modulation (ISPWM) control strategy can be applied to implement the presented inverter. The lower total harmonic distortion and higher fundamental output voltage are obtained by using the inverse sine carrier pulse width modulation (ISPWM). The maximum power point tracking (MPPT) is used to extract the maximum power from PV panel. The simulation result of the proposed topology using MATLAB/SIMULINK is presented.

Index Terms- Common mode leakage current, Inverted sine pulse width modulation, Transformer less Inverter, Virtual DC bus

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