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S. No			Page No.
1.	**Authors:**	**S. Narasimha Kumar**	
	Paper Title:	**Experimental Investigation of Two Stroke Copper Coated Spark Ignition Engine with Gasoline and Gasohol**	

Abstract: The concept of catalytic combustion in spark ignition engines has been tried by various researches which offers improved thermal efficiency and reduced exhaust emissions due to oxidation of fuels with aid of catalyst. The piston top and cylinder head are coated with catalytic materials such as copper, chromium and nickel using flame spray gun. The performance, emission and combustion characteristics of the engine coated with catalytic materials are studied and are compared with the standard engine. In the present paper experimental investigations were conducted to evaluate the performance and control the exhaust emissions from two-stroke, single cylinder, spark ignition (SI) engine, with alcohol blended gasoline (80% gasoline and 20% ethanol by volume) having copper coated combustion chamber [CCCC, copper-(thickness, 300 μ) coated on piston crown, inner side of cylinder head] provided with catalytic converter with sponge iron as catalyst and compared with conventional SI engine (CE) with pure gasoline operation. Performance parameters (brake thermal efficiency, exhaust gas temperature and volumetric efficiency) and exhaust emissions (carbon monoxide (CO) and un-burnt hydro carbons (UBHC)) were determined with different values of brake mean effective pressure of the engine. A microprocessor-based analyzer was used for the measurement of CO/UBHC in the exhaust of the engine. Copper coated combustion chamber with alcohol blended gasoline considerably improved the performance and reduced pollutants in comparison with CE with pure gasoline operation. Catalytic converter with air injection significantly reduced pollutants with test fuels on both configurations of the combustion chamber. The catalyst, sponge reduced the pollutants effectively with both test fuels in both versions of the combustion chamber.

Keywords: S.I. Engine, CE, copper coated combustion chamber, Performance, Exhaust Emissions, CO, UBHC, Catalytic converter, Sponge iron, Air injection.

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2.	**Authors:**	**Mohamed Zakaulla, A. R. Anwar Khan, P. G. Mukunda**	
	Paper Title:	**The Effect of Electroless Cu Coating of SiC Particles on the Mechanical Properties of Al6061 based Cast Composite**	

Abstract: Al6061 – SiC Composites with varying wt% of uncoated and copper coated SiC particles reinforced were prepared through stir casting technique. SiC particles were coated with copper by Electroless deposition method. The effect of PdCl2 concentration and time of stirring of the activated particles in electroless solution are reported. It is observed that density, hardness and Tensile strength increases with increase in wt% of SiC. It was also found that Copper coated SiC particles reinforced composite showed considerable improvement with respect to density, hardness and Tensile strength in compare to uncoated SiC composite due to improved wettability and better interfacial bonding. Fracture surface of tensile specimen was examined under SEM, which revealed a dimple formation, areas of brittle fracture, voids and fractured particles. Copper coating on SiC particles improved the ductility due to better interface bonding.

Keywords: Coated SiC, Electroless, Interface, Stir casting, Wettability.

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3.

Authors: **K. Prabakaran, M. Viswanathan**

Paper Title: **Distributed Accountability and Logging Mechanism for Data Sharing in the Cloud**

Abstract: Cloud computing present an innovative technique to progress to their exploit and liberate replica for IT services base on the internet, by provided that for aggressively scalable and regularly virtualized resources because a service above the internet. It enables enormously scalable services toward be by no problem consumed above the internet on a desirable source. A most important characteristic of the cloud services to be facilitate user's data be usually process hazily in anonymous tackle that users do not hold or else control. Whereas enjoy the ability bring by this original maturing technology, we suggest an innovative truly decentralized within sequence dependability formation to maintain course of the actual observe of the user's data into the cloud. In fussy, we propose an object-centered shift to facilitate enable enclose our sorting mechanism mutually through user's data and policy. We influence the sorting mechanism toward together create a dynamic and nomadic object , also near make sure to several access to user's data determination to establish legalization along with mechanical sorting. To construct stronger user's control, we besides there spread audit mechanism. We offer broad audition study to facilitate to illustrate the superior association and triumph of the deliberate result.

Keywords: Cloud computing, Object-centered, Sorting mechanism, Innovative technique.

14-17

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4.

Authors: **Saeed Amini, Md. Tavakoli Bina, Amin Hajizadeh**

Paper Title: **Reactive Power Compensation in Wind Power Plant Using SVC and STATCOM**

Abstract: The WECS is a fixed speed/constant frequency system that is equipped with an induction generator driven by an unregulated wind turbine Although integration of high levels of wind power into an existing transmission system does not require a major redesign, it necessitates additional control and compensating equipment to enable recovery from severe system disturbances. This thesis investigates the use of a Static Synchronous Compensator (STATCOM) along with wind farms for the purpose of stabilizing the grid voltage after grid-side disturbances such as a three phase short circuit fault, temporary trip of a wind turbine and sudden load changes. The strategy focuses on a fundamental grid operational requirement to maintain proper voltages at the point of common coupling by regulating voltage. The DC voltage at individual wind turbine (WT) inverters is also stabilized to facilitate continuous operation of wind turbines during disturbances. The proposed paper is shown that the use of advanced control methods, such as the standard robust control method, in the control system of FACTS could improve their performance.

Keywords: Wind Energy Conversion System (WECS); FACTS; STATCOM,SVC, voltage control, reactive power compensation.

18-21

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5.	**Authors:**	**EhsanRezapour, Md. Tavakoli Bina, Amin Hajizadeh**
	Paper Title:	**Reactive Power Controller Design for Single- Phase Grid- Connected Photovoltaic Systems**

Abstract: Lack of adequate transmission capacity is a major impediment in connecting more of renewable energy sources (wind, solar) into the transmission grid.This paper at first presents a control algorithm for a single-phase grid-connected photovoltaic system in which aninverter designed for grid-connected photovoltaic arrays can synchronize a sinusoidal current output with a voltage grid. The power provided by the PV panels is controlled by a Maximum Power Point Tracking (MPPT) algorithm based on the incremental conductance method specifically modified to control the phase of the PV inverter voltage. The controller feeds maximum active power intogrid at unity power factor, whereas it also allows the adjustment of reactive power injected into the grid. Simulation results show that the control system has good performances.

Keywords: Grid connected, photovoltaic system, reactive power, MPTT Algorithm.

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22-24

6.	**Authors:**	**K. Nithya, A. Rajiv Kannan**
	Paper Title:	**A Modern Approach for Urgent Script Cluster Processing and Summarization with Involuntary Length Recognition**

Abstract: Detection the apposite extent of clusters to which credentials should be separation is vital in text cluster. In this dissertation, we suggest a fresh approach, namely DPMTP (Dirichilet Process Model Trait Partition), to realize the embryonic huddle construction based on the DPM model lacking requiring the amount of huddle as key. Elements classify into two class, important expressions and un match terms.Also find the new approach for simultaneouslyclustering and summarization.Probabilistic Hidden Semantic Analysis has been popularly used in document analysis.Topropose Bi-mixture Probabilistic Hidden Semantic Analysis , a new formulation of PHSA that allows the number of latent word classes to be different from the number of latent document classes.Extended method of Bi-PHSA Bi-mixture PHSA with sentence bases (Bi-PHSAS) to simultaneously cluster and summarize the documents utilizing the mutual influence of the document clustering and summarization procedures. Additionally propose a Bayesian nonparametric model for multidocument summarization in order to determine the proper lengths of sum maries.

Keywords: Huddle, DMA, Trait Partition, DPMTP, BNP Summarization.

25-28

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7.

Authors: **Nirmala N. Pansare, Ashwini C. Ithape, Shamal R. Gawande, A. D. Jadhav**

Paper Title: **Cloud Compiler and Technical Support**

Abstract: The system mainly deals with the creation of Integrated Development Environment for the java language to code compile, run, test and debug the code using the browser based IDE through the Internet and a web browser. The client machine doesn't having java development kit. The paper aims to describe an centralized compiler which helps to reduce the problems of portability and storage space. The errors/ outputs of the code are stored in a more convenient way. Also, installation of the compiler on each computer is avoided. It was assumed that the user will use his or her favorite text editor to create and correct program files In this system we also create new java editor to create and correct program files and install mobile technology in which we can type program code in mobile and send to centralized server compiler and get the accepted output through GSM phone, but we required to connect another mobile technology to the centralized server. Another important application of our system is if we occur any query while doing the program then put this query in technical blog and if anyone are interested to give answer of that question then they put their answer on the technical blog and show this discussion for all user.

Keywords: Java Compiler, Cloud Computing, Technical Blog, Logger, GSM Phone, Bluetooth Dongle, LAN Cable.

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8.

Authors: **Ram Baksh**

Paper Title: **A Survey on Routing Protocols in Wireless Sensor Networks**

Abstract: Extensive usage of wireless sensor network (WSN) is the reason of development of many routing protocols. Recent advances in WSN now witness the increased interest in the potential use in applications like Military, Environmental, Health (Scanning), Space Exploration, Vehicular Movement, Mechanical stress levels on attached objects, disaster management, combat field reconnaissance etc. Sensors are expected to be remotely deployed in unattended environments. Routing as one key technologies of wireless sensor network has now become a hot research because the applications of WSN is everywhere, it is impossible that there is a routing protocol suitable for all applications. In this paper, the various routing protocol are classified and described. The growing interest in WSN and the continual emergence of new architectural techniques inspired surveying the characteristics, applications and communication protocols for such a technical area.

Keywords: Energy Awareness, Hierarchical Routing Protocols, Routing Protocols Wireless Sensor Networks.

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Authors:	**M. Pitchaimani, G. Somasundara Ori**	
Paper Title:	**Existence of Critical Gompertz Parameter for Solid Tumour Growth Model and Its Asymptotic Expression**	

Abstract: In this paper we provide an interval of existence of critical Gompertz parameter of solid tumour growth model and their asymptotic formula for large number of tumour cells, in the absence of specific volume data at particular time.

Keywords: Critical Gompertz parameter, tumour cells, specific volume data.

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36-41

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Authors:	**G. V. Krishna Reddy, H. S. Monohar N. Chikkanna, B. Umamaheswar Goud**
Paper Title:	**Evaluation and Enhancement of Thermal Transport Characteristics of Metal Matrix Composites and Contact Interfaces**

Abstract: In this work, effort has been made in the evaluation and enhancement of thermal transport characteristics of metal matrix composites and contact interfaces. The thermal management systems are important in today's faster growing industrial needs which are demanding the high end processors with highest speed and reliability of performance. The thermal management systems are used for applications like central processing unit (CPU) cooling, cooling of electronics circuit boards, cooling of mechanical and automobile systems like engine cooling. However, this work focuses on thermal management systems related to CPU cooling. In this work, initially, the importance and motivation behind the evaluation of the thermal characteristics for the MMC's as well as TIMs. Thermal contact resistance in heat transfer applications are presented with examples. The heat transfer phenomenon at the interfaces is detailed with the classification based on contact criteria. The development of new MMC's was detailed along with the different compositions of the MMCs. For this, initially, baseline materials were explained in detail along their thermal properties. Six MMC's have been proposed with varying compositions of aluminum and silicon carbide. Aluminum was varied in percentage composition from 25% to 35% . The MMC's were evaluated for the properties like thermal conductivity, specific heat, thermal diffusivity, CTE, density and Young's modulus. Also, the variation of these properties with respect to temperature is evaluated. Finally recommendations are given for the MMC's based on the required property criteria of the heat source material. As a second approach, the thermal contact resistance models were developed. A measurement system for contact resistances has been established by performing measurements on the known properties of the greases. Application of thermal greases is given in detail. The measurement system was established by conducting the experiments.

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Keywords: Heat sink, Aluminum, silicon carbide, Thermal grease, Thermal interface material, contact interface.

42-49

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11.

Authors:	**Waman Sudhir K, Patil Shamli N, Bhamare Bhushan B, Thorat Avinash A, Gaikwad Kundan K**
Paper Title:	**Video Recovery and Enhancement**

Abstract: Today is the world of digitization. Everything in the world is digitized. So, the video also plays an important part. Now-a-days many false videos are created or some of the part of the original video is damaged. Video recovery and enhancement provide a way to repair the damaged parts in the video. This is done by completing Motion and Frame.

Keywords: Digitization, Frame, Motion, Video.

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12.

Authors:	**Pooja Jha, Soni Goyal, Tanya Kumari, Neha Gupta**
Paper Title:	**Robots Exclusion Protocol**

Abstract: World Wide Web (WWW) is a big dynamic network and a repository of interconnected documents and other resources, linked by hyperlinks and URLs. Web crawlers are used to recursively traverse and download web pages for search engines to create and maintain the web indices. Moreover, the need of maintaining the up-to-date pages causes repeated traversal of websites by crawler. Due to this, the resources like CPU cycles, disk space, and network bandwidth, etc., become overloaded which may lead to crashing of website and increase in web traffic. However, websites can limit the crawlers through Robots Exclusion Protocol. It is a mechanism for www servers to indicate to crawlers which part of their server should not be accessed. To implement this protocol, a plain text file called robots.txt is created and placed under root directory of the web servers. This approach was chosen as a crawler can find the access policy with only single document retrieval. Also, it supports auto-discovery of XML sitemaps. Thus, this protocol aids in controlling the crawler's activity.

Keywords: Robots Exclusion Protocol, robots.txt, Robots Meta tags, web crawler.

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13.

Authors:	**Manjanaik N, Manjunath R**
Paper Title:	**Intra Frame Coding for Advanced Video Coding Standard to Control PSNR and Bitrate Using Gaussian Pulse**

Abstract: This paper proposes Intra frame coding for Advanced Video Coding Standard to control PSNR, bit rate and achieve high compression ratio using Gaussian pulse. Gaussian pulse, which improves the reconstructed image ie removes ringing, blocking artifacts and improves functionality of quantization. The Gaussian pulse operation smoothens the signal. Each Gaussian pulse multiplication scales the information content of the signal in a reversible way. The resulting signal would turn abstract. The proposed algorithm intra frame coding implemented using matlab. In the proposed algorithm Gaussian pulse applied before quantization block. The simulation results are presented using Matlab. The PSNR, compressed ratio and bit rate achived for Intra frames ie mother daughter frames, was presented for different quantization parameters with Gaussian scaling factor. The proposed algorithm gives better PSNR, compression ratio and low bit rate. The simulation results are obtained for yuv video sequences in CIF and QCIF format for different quantization parameters with Gaussian scaling factor. The simulation results are listed in table and represented rate distortion curve, compression ratio vs quantization parameter, and bit rate vs quantization parameter. The simulation results shows that the proposed algorithm achieve controlled reconstructed picture quality (PSNR), higher compression ratio and reduced bit rate.

Keywords: AVC, Macroblock, Gaussian pulse, PSNR, CAVLC, DCmode, QCIF.

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56-61

14.

Authors:	**Alexander Osei-Owusu, Stephen E. Armah**
Paper Title:	**Investigating the Applicability of Dynamic Pricing to Ghana's Telecom Infrastructure Market**

Abstract: Telecom operators in Ghana are likely to face large infrastructure investment needs over the coming decade because of rising demand for mobile phone and other related services due to population pressure and an expanding economy. This raises questions about the traditional model of single ownership of physical telecom infrastructures and network layers. The situation has led to infrastructure sharing (IS) among Ghana's major telecom infrastructure owners. However, IS has not been very successful as a cost effective solution to the ever increasing need for infrastructure capital. This is probably because current owners of infrastructure typically employ the "fixed" pricing model in implementing IS. This research investigated the applicability of Dynamic Pricing (DP) to Ghana's Telecom Infrastructure Market. DP involves price discrimination over the time dimension and is likely to be a more useful pricing strategy compared to fixed pricing. The study adopted mainly exploratory and descriptive analysis as well as a combination of qualitative and quantitative data collection approaches. Purposive sampling and simple random techniques were used in selection and administering of questionnaires to employees and subscribers of Telecom infrastructure companies from some selected regions in Ghana. The findings of the research identified challenges facing the current "fixed" pricing model, which include surplus inventory, inability to attract new customers and insecurity. The research also confirmed that the market is made up of a variety of customers. They include customers that buy: at an initial full price, when discounted price is sufficiently low, when price is anticipated to remain the same for the entire period and when prices can be bargained. The study also finds that "dynamic Pricing" can boost revenues and it is also the most likely effective strategy for Ghana's Telecom Infrastructure market.

Keywords: Dynamic pricing, Infrastructure sharing, fixed pricing, price discrimination, Ghana telecom sector.

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Authors: **M. D. Pasarkar, S. B. Thakre**

Paper Title: **Deformation of CAD Surface Models Using Programming Approach: A Review**

Abstract: CAD models especially surface models are basically not easy to design and edit with 2- D based interfaces due to their three dimensional nature. Many researchers have presented their work on techniques for deformation of CAD surface models. Achieving greater control on the shape of deformation of surface models is thus a need. Many techniques are numerically not that much efficient and deforming complex surface models in real time is thus a difficult task. An effort is made here to review papers based on deformation of CAD surface models critically and thus provide solution to these complex problem. In this context model gains specific importance as it not only help in learning the factors associated with it but also will provide a direction for improvements. This paper makes an attempt to study various techniques to deform surface model in real time. The primary aim of this paper is to understand and enhance the important aspects. Thirteen models are reviewed in this paper. Each of them is representative of a different conceptual view about deformations. The organization of this paper is as follows: initially after highlighting the need for the present study, a generalized framework of the study is presented. This is followed by a brief discussion and a critical appraisal. Finally the agenda for future research is spelt out.

Keywords: CAD: Computer Aided Design.

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Authors: **Rushikesh T. Bankar, Rudra Prasad Patra, Arjun Choudhari, Gaurav Jasutkar**

Paper Title: **CBIR Representation in Terms of Rotation Invariant Texture using LBP Variance**

Abstract: Local rotation invariant feature extraction has been widely used in texture classification.. This paper proposes an alternative hybrid scheme, using LBP distribution, we first estimate the principal orientations of the texture image and then use them to align LBP histograms. Then the aligned LBP histograms were in turn used to measure different images from the database. A new texture descriptor, LBP variance (LBPV), is proposed to characterize the local contrast information into the one-dimensional LBP histogram. For more accurate result we propose a method to reduce feature dimensions using Euclidian Distance measurement. The experimental results of the databases show that the proposed LBPV operator can achieve significant Improvement, sometimes more than 10% in terms of classification point of view, over traditional locally rotation invariant LBP method.

Keywords: LBP distribution, LBPV operator, Euclidian Distance measurement.

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75-77

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Authors: **Dimple Gogoi, Ratul Ch. Rajkhowa, A. K. Handique**

Paper Title: **Nutritive Values of Some Non-Conventional Leafy Vegetables of Ethnic Sources from Nagaland, N.E. India**

Abstract: Major nutritional components as well as calorific values were estimated for nine non- conventional wild leafy vegetables traditionally used by various tribal communities of Nagaland. Different plant types were covered in the study viz herb - Eryngium foetidum, Polygonum microcephalum; shrub - Gentum gnemon, Rhynhotechum ellipticum, Zanthoxylum oxyphylum, Zanthoxylum acanthopodium, Skimmia arborescens, Lycianthus pachypetala and tree - Rhus semialata. Crude protein contents were very impressive in the range of 11.65% in S. arborescens to 28.54% in E. foetidumI. All the species were very rich in total mineral in the form of ash content which varies from 7.0% in P. microcephalum to 19.69% in S. arborescens. Crude fibre were found in apparently highamount and varied from 12.50% in Z. oxyphylum to 26.59% in G. gnemon. Total carbohydrate and lipid content were comparatively low with limited variability. Calorific value exhibited wide variability n the range of 98.21 K cal/100 gm in S. arborescens to 168.44 K cal/100gm in G. gnemon

Keywords: Non-conventional food plants, crude protein, carbohydrate, lipid, crude fibre, ash content, calorific value.

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Authors: **Sneha P. Gadpayle, Rashmi N. Baxi**

Paper Title: **Electric Melting Furnace - A Review**

Abstract: Electric furnace is used for heating purpose in various industrial production processes. Electric furnaces are used where more accurate temperature control is required. Melting of metals, glass, and other materials has been a vital manufacturing process for several thousand years, producing molten liquids that can be poured and solidified into useful shapes. Although the basic process continues to be the same, the utility of cast products has come a long way. The productions of metal in foundries and in all human lives have become a general practice. Different melting techniques are in practice with different energy sources. This topic deals principally with the mechanical and electrical requirements for furnace production. The electrical aspect deals with the furnace power requirement to make it functional. A blast furnace performs basic melting (of iron ore) operation to get pig iron, cupola furnace is used for getting cast iron and an electric arc furnace is used for re-melting steel.

Keywords: Electric heating, mechanical components, electrical components, melting, heat distribution.

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19.

Authors: **H. Y. Kaundanyapure, P. J. Salunke, N. G. Gore**

Paper Title: **Infinite Beams on Elastic Foundation by Using Meshfree Method**

Abstract: The present studies emphasis the analysis of beam for elastic foundation using the Element Free Galerkine Method (EFGM). The attempt was made to provide a simple model for beams on elastic foundation using Mesh Free Technique, called as Element Free Galerkine Method which does not rely on the mesh. The EFGM presented in the study employs generalized Method of Least Square (MLS), which is used to construct shape function based on the set of nodes. The Discrete system equation are derived from the variation form of system equation. A FORTRAN and MATLAB program is developed and numerical example of finite and infinite beams on elastic foundation are presented. Numerical examples are provided to study the convergence and the efficiency of the method.

Keywords: Elastic foundation, Element Free Galerkine Method (EFGM), beams on elastic foundation, Mesh Free Technique and Method of Least Square interpolation.

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Authors: **Iuliana Florentina GHEORGHE, Ion BARBU**

Paper Title: **Green Infrastructure - An Important Factor in the Preservation and Use of Biodiversity to Reduce Diffuse Pollution and Production of Biomass**

Abstract: Presently the European Union countries are confronted with the need for development, the increase of living standards involving an increased use of resources and energy, and also an increase of pollution. Natural and semi-natural ecosystems are the main sources in the production of resources and energy generation. With the increase in the amount of required resources and energy the human pressure exerted on ecosystems and biodiversity is higher, which implies the need for preservation of these species and ecosystems. Residues arising from the use of resources that emphasize forms of pollution accentuate the anthropogenic pressure on natural capital. Keeping a mosaic structure is an ideal solution to harmonize the development of society with nature conservation. A green infrastructure with lakes and rivers, wetlands, different types of forest, pastures, shrubs including different types of crops, represents the ideal structure to meet both goals.

Keywords: Type of vegetations, Primary production and productivity, C stocks, N stocks, C and N uptake.

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