Quasi Z-Source Inverter Design For DC-AC Grid Connected Pv Systems

R.Sathishkumar, K.Satyanarayana, M.Veera Chandra kumar

Abstract: For the enormously increased power demand in the modern world, the existing fossil fuel sources seem to be inadequate to meet the demands. Hence, it is necessary to switch over to use Renewable Energy Sources (RES). Besides the demand concerns, the power generation from fossil fuels causes the environmental pollution prominently. As a result, the utilization of RES has been encouraged. When RES is interconnected with the grid, this system becomes an excellent solution to fulfill the power demand of present scenario. The energy generated from the renewable energy sources vary according to the seasonal variations. The power generated from RES can be delivered to the load by interconnecting it with the grid. When a small size RES system is connected with the distribution network, it can deliver energy to the isolated zones where the energy cannot be drawn from the conventional network.

A dual configuration for integrating the wind and the solar with the grid has been proposed in this thesis based on the single and the dual stages. In the first work, the Quasi Z Source Inverter (qZSI) based Photo Voltaic (PV) source integration with the grid is carried out. In order to extract maximum power from PV, an Artificial Neural Network (ANN) based Maximum Power Point Tracking (MPPT) scheme has been introduced in this work. Also, a bi-directional charger is introduced to overcome the battery issues. The model is simulated in MATLAB/SIMULINK software. The performance of the system is analyzed by applying different voltage levels to qZSI. The voltage gain, efficiency of system, MPP tracking and the regulation of the voltages are observed.

Keywords :qZSI, MPPT, converter, inverter, pv.

INTRODUCTION

The major Renewable Energy Sources (RES) are photovoltaic energy, wind power, and fuel cell and these are systematically accepted with the microgrid application. In general, the output power of RES is not regulated and it must be controlled with the help of power converters. The power system reliability is ensured according to the performance of the converters. Regarding the converter circuit, the conventional cascaded topology of DC-DC boost converter and inverter makes the power circuit and controller circuit more complex. Furthermore, the cost and the space requirements are also high. More number of power electronic switches causes lower efficiency.

Photovoltaic (PV) power generation is becoming more promising, since the introduction of thin film PV technology, due to its lower cost, excellent high temperature performance, low weight, flexibility, and glass-free easy installation. However, there are still two primary factors limiting the widespread application of PV power systems. The first is the cost of the solar cell/module and the interface converter system and the second one is the variability of the output (diurnal and seasonal) of the PV cells. The voltage of a PV cell varies widely with temperature and irradiation. But, the traditional Voltage Source Inverter (VSI) cannot deal with this wide range without over rating of the inverter. Because, the VSI is a buck converter whose input dc voltage must be greater than the peak ac output voltage and due to this, a transformer and/or a DC-DC converter is usually used in PV applications. In order to deal with the range of the PV voltage, inverter ratings are reduced and a desired voltage is produced for the load. This leads to a higher component count and low efficiency which oppose the goal of cost reduction.

In order to interconnect a PV based power source with the grid, it is mandatory to interconnect a DC-DC converter which increases the cost of operation. Using these DC-DC and DC-AC configurations would result in a larger stage of power conversion configuration. In order to reduce

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Effect of SiHGM reinforcements on the corrosion rate of Al 4032 MMC

Avinash Gudimetla [a c] ⊠ , Dumpala Lingaraju [b], S Sambhu Prasad [c]

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Abstract

Al 4032 was being used as the material for manufacturing of pistons in automobiles and its usage was not limited only to pistons, but this material was being used in many structural and aerospace applications. The corrosive properties of Al 4032 have a major influence for adopting this material for long service life of the components. Hence, in this study an attempt was made to study the corrosive properties of Al 4032 and the composites manufactured by reinforcing silicon hollow glass microspheres (SiHGM) in Al 4032. The composites are fabricated using stir casting technique and their corrosive rate was studied by conducting electrochemical polarization test. From the results of the tests, the composites have shown better corrosion resistance when compared to the matrix material and the corrosion resistance of the composites has increased with the increase in amount of reinforcement.

Introduction

Tailor made materials are proving themselves worthy as an efficient weight saving materials. Aluminium and its alloys are one among such materials, which have the capacity to get mixed and casted with wide range of reinforcements. Composites fabricated using aluminium alloys are exhibiting better wear and corrosive behavior apart from having light weight and high specific strength. Aluminium alloys exhibit better corrosive properties because of their inherent behavior to form in generating a protective layer of oxide on the surface of the material. The research on aluminium composites was being done by reinforcing with the particulates of oxides and ceramics, for increasing the strength of the composites [1], [2], [3], [4], [5], [6], [7]. Recently, investigations are done on corrosion behavior of Al 4032 reinforced with carbon nano tubes as well as by performing heat treatment on Al 4032. The results of the research conducted by Cacho et

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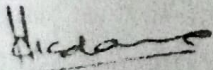# Recent Advances in Manufacturing
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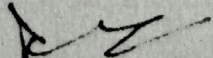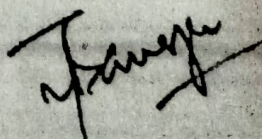This is to certify that Dr./Prof./Mr./Ms _____ **BSV Ramarao**

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Multi-response optimization of PMEDM parameters using Taguchi, TOPSIS and VIKOR

BSV Ramarao

Dr. Harshit K. Dave
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Dr. Shailendra Kumar
Professor, MED
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Dr. Jyotirmay Banerjee
Head, MED
SVNIT, Surat

Mechanical Department, GIDC Degree Engineering College, Navsari, India

Mechanical Department, Mahatma Gandhi Institute of Technology Education and Research Centre, Navsari, India

Mechanical Department, Government Engineering College, Daman, India
*hari.mech.patel@gmail.com

Abstract: This investigation aims to study the sustainable turning of Ti-6Al-4V alloy requires the process to be energy-efficient having a longer tool life, greater surface integrity, and excellent quality with maximized productivity. The turning operation is associated not only with one input but it has the effect of a vast variety of performance parameters. The integration of the multiple higher cognitive processes is important for optimizing the method of characterization. The present work includes the Ti-6Al-4V bar turning experiments with uncoated Al2O3- ZrO2 ceramic insert in the dry machining environment for investigating the ideal machining parameters. Several experimental runs were administrated and conducted as Taguchi-based L16 orthogonal array. The effect of the different levels of input machining parameters which were analyzed as depth of cut, speed of cutting, insert tool nose radius, and feed rate for optimizing of four response parameters. force used for cutting, life of tool, surface roughness and material removal rate. Taguchi-DEAR based multi response decision making integrated approach was adopted to enhance the performance measures by developing a multi-criteria decision optimization objective function. The experimental outcome shows that cutting speed has the foremost influence on determining the performance characterization. As per ANOVA, cutting speed was found to be the parameter having the highest degree significant followed by the depth of cut, feed rate, and nose radius respectively in terms of overall contribution. The optimal values were avewing by a confirmation of test with a range of deviation with 1.2% value from the average MRPI value.

Keywords: Sustainable machining, Al2O3-ZrO2 ceramic insert, ANOVA, Dry machining Optimization

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Multi-response optimization of PMEDM parameters using Taguchi, TOPSIS and VIKOR

BSV Ramarao[1*]

[1]Mechanical Engineering Department,
Pragati Engineering College (A), Kakinada, AP, INDIA.
*svramaraoboda@gmail.com

Abstract: Multi response optimization deals with the many responses of any machining which will be obtained and considered as output parameters. Powder mixed

one of the best one among the conventional machining operations in the Taguchi, TOPSIS and VIKOR are the useful methods in their categories. In this current research paper it is discussed that, experiments on PMEDM are being conducted as L27 orthogonal array on the basis in Taguchi. Removal Rate of the material, Surface Roughness, the rate of tool, Recast Layer Thickness along with Surface Crack Density was measured when working on Titanium alloy. The MCDM methods TOPSIS and VIKOR are applied and the preferable sequence in each method is identified. Finally the most influenced input parameter was identified in both the cases.

Keywords: Taguchi, TOPSIS, VIKOR, MRR, TWR

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Selection of optimal EDM process parameters for machining maraging steel using Grey-Fuzzy relational analysis- An experimental approach

MD. Sameer[1*], B. Sai Kartheek Reddy[1], N. Amrutha[1], K. Srishma[1] and K .Samantha[1]

[1]ME Department, KITSW.- India.
*mds.me@kitsw.ac.in

Abstract: The Electric Discharge Machine (EDM) is a modern machining technique that uses electrons discharged from the tool to extract material from the workpiece through heat generation. This method is used in the current study to create intricate curves and contours on the chosen workpiece material. Maraging Steel, an iron-nickel alloy along with trace amounts of cobalt, aluminium, titanium, and molybdenum was selected for this research. The parameters to be employed are PULSE-ON time (TON), discharge current (Amp) and PULSE-OFF time (TOFF). The current research uses a hybrid approach based on grey-fuzzy relational analysis to compare various responses and select the best parameters for achieving the desired target. The best parameter combination that results in the output of a workpiece with low tool wear rate (TWR) and high material removal rate (MRR) was analysed. Experiments were developed using the Taguchi L16 orthogonal array architecture of Experiments (DOE), with the input parameters of discharge current, TON, TOFF and Tool material.

Keywords: Grey-Fuzzy Relational Analysis, EDM, Maraging Steel, Optimization

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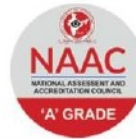
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Title of the Paper: Performance And Emission Characteristics Of Diesel Engine With Linseed Oil- Diesel Blends As Fuel With VCR

Authors: Satish Geeri[1], JyothuNaik. R[2], P.SrinivasaRao[3], K.Kiran chand[4]

Affiliation: [1]Pragathi Engineering College, Surampalem, E.G, A.P., [2]Rayalaseema University, Kurnool,

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Performance analysis of a 5-stroke IC engine by changing different fuels

Sri Ram Deepak Akella, Sai Srihari Challa, V.V.N. Sarath 👤 ✉

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Abstract

An Internal Combustion Engine (ICE) is a heat engine in which fuel combustion happens with an oxidizer (usually air) in a combustion chamber that's a necessary portion of the working liquid stream circuit. An IC engine's extension of the high-temperature and high-pressure gasses created by combustion applies a coordinate drive to a few engine components. This paper made design modification and performance analysis of the 5-Stroke IC engine based on the previous article. The design of the IC engines is considered within a perspective of the required feature for the 5-Stroke engine. We had performed the simulation on it by replacing the primary fuel (with a constant fuel/air ratio of 1/16) called petrol with five different kinds of other fuels such as 1. Hydrogen, 2. Butanol fuel, 3. Methanol fuel, 4. Ethanol (AKA "ethyl alcohol"), 5. Acetylene. Then we observed the engine's performance with each of these fuels, compared it with each other in terms of performance and efficiency, and followed the harmful chemical composition that may release into the atmosphere. Also, we considered the availability of fuel in nature. While the design of the engine and its simulation is done on SolidWorks and Ansys software with a steady-state thermal workbench, and the flow simulation was in SolidWorks fluid simulation. At the end of the calculation and simulation, which we had performed under the assumed conditions, it states that methanol has the required properties, all under different criteria.

Introduction

A Heat engine is a system that converts heat energy (obtained mainly by chemical combustion) into mechanical energy. Heat engines are primarily classified into two categories. They are IC engines and External Combustion engines. An Internal Combustion engine in which the combustion of fuels occurs with

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for

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Conceptual Design And Thermal Analysis Of A Finned Type Concentric Tube Heat Exchanger Using Different Materials By Applying CFD

Jithendra Sai Raja Chada[1], Ganesh Nathipam[2] and Dharmalingam R[3]

[1]Department Of Mechanical Engineering, Pragati Engineering College, INDIA. (E-mail: csai0799@gmail.com) [2]Department Of Mechanical Engineering, Pragati Engineering College, INDIA.(E-mail: ganeshnathipam381@gmail.com) [3]Department Of Mechanical Engineering, Pragati Engineering College, INDIA .(E-mail: dharmalingamsns@gmail.com)

ABSTRACT

Heat Exchangers are the equipment used to transfer heat from high-temperature fluid to low-temperature fluid without direct contact. Usually the heat exchangers are large in size in industrial applications. The objective of this study is to reduce the size of the heat exchanger and increasing the effectiveness of using suitable materials. The present study is carried out on a concentric tube heat exchanger. The rectangular fin configurations with rectangular extensions are placed about the circumference of the tube. The initial simulation is carried out to find the best material among aluminium bronze and Al 6061. The study is further continued to find the best inlet conditions by varying the mass flow rate between 0.25-3 Kg/s in an interval of 0.25 and inlet temperature is varied between 800C-900C at an interval of 50C. The cold water flow conditions like the mass flow rate of 1.5 Kg/s and inlet temperature 30oC are constant throughout the study. The modeling of the heat exchanger is done in SOLIDWORKS 2020. The flow simulation and Thermal analysis are carried out in SOLIDWORKS Flow Simulation 2020.The experimental study have shown that the variation from the software and actual results is 4.2%.

Keywords: *Fins; Concentric Tube; Flow analysis;Fin Extensions; Heat Transfer.*

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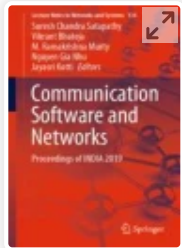
Communication Software and Networks pp 177–186

A Relativistic Study on Recent Clustering Algorithms

D. Sirisha ✉ & S. Sambhu Prasad

Conference paper │ First Online: 04 October 2020

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Abstract

Ever-increasing volumes of data necessitate novel algorithms for extracting inherent information from voluminous data. Generally, clustering is adopted for voluminous and intricate data for determining groups and classifying stimulating categories in the data. Most of the available clustering algorithms are suitable for identifying spherical-shaped clusters and are not capable of handling outliers efficiently. In the

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Artykuł - szczegóły

Modelling and optimization of wear parameters of Al 4032 reinforced with coal ash using Taguchi and RSM approach

Gudimetla, Avinash , Lingaraju, Dumpla , Sambhu Prasad, S.

Wybrane pełne teksty z tego czasopisma: http://www.kompozyty.ptmk.net

Warianty tytułu:

PL Modelowanie i optymalizacja parametrów zużycia Al 4032 zbrojonego popiołem węglowym z zastosowaniem metod Taguchi i RSM

Języki publikacji: EN

Abstrakty:

EN The present study aimed to analyze the wear behaviour of composites synthesized by reinforcing Al 4032 with 2, 4, 6 wt.% of coal ash using the stir casting technique. Wear testing was performed on the composites at room temperature in the absence of lubrication using a pin-on-disc tribometer considering the process parameters as wt.% of reinforcement, speed and load. Micro structural characterization using scanning electron microscope (SEM) and energy dispersive X-ray analysis (EDX) was performed on the cast composites to ascertain the existence of the reinforcement along with its distribution in the prepared composites. The Taguchi L16 orthogonal array was utilized to design experiments to study the significance of the process parameters on the wear rate. A mathematical model was developed for the wear rate using response surface methodology (RSM). 6 wt.% reinforcement, at the speed of 100 rpm and 10 N load were the obtained optimized parameters for the minimum wear rate. Surface plots as well as contour plots were analyzed to understand the consequence of the process parameters on the wear rate. The analysis of variance (ANOVA) revealed that speed with 76.10 % was the most prominent parameter followed by load and reinforcement with 11.23 and 9.42% respectively.

Słowa kluczowe:

PL popiół węglowy   odlewanie z mieszaniem   właściwości mechaniczne   szybkość zużycia   Taguchi   RSM   ANOVA

   EN coal ash   stir casting   mechanical properties   wear rate   Taguchi   RSM   ANOVA

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Twórcy:

autor Gudimetla, Avinash
        Research Scholar, Department of Mechanical Engineering, JNTUK, Kakinada, Andhra Pradesh, India, avinashdattu1@gmail.com
        Department of Mechanical Engineering, Pragati Engineering College, Surampalem, Andhra Pradesh, India

autor Lingaraju, Dumpla
        Department of Mechanical Engineering, University College of Engineering, JNTUK, Kakinada, Andhra Pradesh, India

autor Sambhu Prasad, S.
        Department of Mechanical Engineering, Pragati Engineering College, Surampalem, Andhra Pradesh, India

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An intellectual fault diagnosis system for vehicular driveline system

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Abstract:
Automobile driveline systems often play a vital part in the effective functioning of multiple engines. The hierarchal operational pattern of a vehicular driveline system should be free from vibrations, but in reality attenuation of the undesired vibration is a difficult task. Drive-train vibrations arising in an automobile driveline systems affects the effective functioning of the individual components which eventually leads to reduced efficiencies and fatigue failure. The current research chiefly intended for envisaging the damage extent in a vehicular driveline systems by developing a genetic algorithm. The time-domain reflexes arising along the length of the vehicular driveline system specify the extent of the damage. These time-domain reflexes i.e. the torsional vibration reflexes characterizes the extent of decline in the individual component stiffness (i.e. the reduced stiffness coefficients). The responsive coefficients of reduced stiffness are predicted by engaging a novel genetic algorithm. Likewise, the multiple responsive mechanisms involved in the torsional vibration of the vehicular driveline system are discussed thoroughly.

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I. Introduction

Vehicular driveline systems are prone to severe vibrations during the acceleration and deceleration thereby affecting the smooth functioning of automobiles which eventually lead to the fatigue failure of the entire system [1]. These undesired vibrations lead to sudden seizure of the clutches, thereby creating an inevitable damage to the various driveline components. Several research enthusiasts and industrialists have developed numerical and theoretical models for predicting the extent of the damage arising in the vehicular driveline systems. The numerical modelling techniques engage the finite elemental classification of multiple time-domain reflexes for envisaging the dynamic behaviour and the damage extent of the driveline system [2]. From the previous literature, it is evident that many researchers have developed inherent elemental models which depict the exact working of automobile components for envisaging the damage extent and fault detection [3], [4]. A novel multiple-elemental analysis has been achieved on the vehicular gear tooth for determining the stiffness coefficients and the damage extent [5]-[8]. Vehicular driveline systems witness undesired vibrations due to the conjecture of several mechanical components which eventually leads to the fatigue failure of the entire system. Henceforth envisaging the time response reflexes which determine the extent of damage incurred is very crucial [8], [9]. The current paper aspires for developing a novel unconstrained optimization technique for envisaging the damage extent witnessed in a vehicular driveline system.

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≡ **Contents**

I. Introduction

Vehicular driveline systems are prone to severe vibrations during the acceleration and deceleration thereby affecting the smooth functioning of automobiles which eventually lead to the fatigue failure of the entire system [1]. These undesired vibrations lead to sudden seizure of the clutches, thereby creating an inevitable damage to the various driveline components. Several research enthusiasts and industrialists have developed numerical and theoretical models for predicting the extent of the damage arising in the vehicular driveline systems. The numerical modelling techniques engage the finite elemental classification of multiple time-domain reflexes for envisaging the dynamic behaviour and the damage extent of the driveline system [2]. From the previous literature, it is evident that many researchers have developed inherent elemental models which depict the exact working of automobile components for envisaging the damage extent and fault detection [3], [4]. A novel multiple-elemental analysis has been achieved on the vehicular gear tooth for determining the stiffness coefficients and the damage extent [5]-[8]. Vehicular driveline systems witness undesired vibrations due to the conjecture of several mechanical components which eventually leads to the fatigue failure of the entire system. Henceforth envisaging the time response reflexes which determine the extent of damage incurred is very crucial [8], [9]. The current paper aspires for developing a novel unconstrained optimization technique for envisaging the damage extent witnessed in a vehicular driveline system.

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An intellectual fault diagnosis system for vehicular driveline system

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Automobile driveline systems often play a vital part in the effective functioning of multiple engines. The hierarchal operational pattern of a vehicular driveline system should be free from vibrations, but in reality attenuation of the undesired vibration is a difficult task. Drive-train vibrations arising in an automobile driveline systems affects the effective functioning of the individual components which eventually leads to reduced efficiencies and fatigue failure. The current research chiefly intended for envisaging the damage extent in a vehicular driveline systems by developing a genetic algorithm. The time-domain reflexes arising along the length of the vehicular driveline system specify the extent of the damage. These time-domain reflexes i.e. the torsional vibration reflexes characterizes the extent of decline in the individual component stiffness (i.e. the reduced stiffness coefficients). The responsive coefficients of reduced stiffness are predicted by engaging a novel genetic algorithm. Likewise, the multiple responsive mechanisms involved in the torsional vibration of the vehicular driveline system are discussed thoroughly.

Published in: 2020 International Conference on Smart Technologies in Computing, Electrical and Electronics (ICSTCEE)

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Vehicular driveline systems are prone to severe vibrations during the acceleration and deceleration thereby affecting the smooth functioning of automobiles which eventually lead to the fatigue failure of the entire system [1]. These undesired vibrations lead to sudden seizure of the clutches, thereby creating an inevitable damage to the various driveline components. Several research enthusiasts and industrialists have developed numerical and theoretical models for predicting the extent of the damage arising in the vehicular driveline systems. The numerical modelling techniques engage the finite elemental classification of multiple time-domain reflexes for envisaging the dynamic behaviour and the damage extent of the driveline system [2]. From the previous literature, it is evident that many researchers have developed inherent elemental models which depict the exact working of automobile components for envisaging the damage extent and fault detection [3], [4]. A novel multiple-elemental analysis has been achieved on the vehicular gear tooth for determining the stiffness coefficients and the damage extent [5]-[8]. Vehicular driveline systems witness undesired vibrations due to the conjecture of several mechanical components which eventually leads to the fatigue failure of the entire system. Henceforth envisaging the time response reflexes which determine the extent of damage incurred is very crucial [8], [9]. The current paper aspires for developing a novel unconstrained optimization technique for envisaging the damage extent witnessed in a vehicular driveline system.

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
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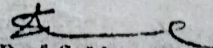
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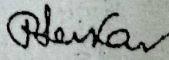
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G. Satish ✉, K. Ashok Kumar & N. Srinivasa Rao

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Abstract

A hybrid laminate of carbon nanotubes effects on mechanical properties (tensile, flexural, and hardness) by changing the fiber orientation. In the present paper, fabrication of glass fiber reinforced of 1% CNT-based laminated composite with varying the orientation of reinforced fiber were prepared by hand layup technique on percentage of volume. Three different samples were fabricated by varying the

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OPTIMIZATION AND EVALUATION OF SANDWICH STRUCTURE WITH EFFECT OF CELL SHAPE UNDER STATIC LOADING CONDITION

[1]D.Mahalakshmi, [2]A.V.Ramana Rao, [3]A.Phani Bhaskar

[1]Assistant professor, Pragati Engineering College, Surampalem, A.P, India
[2]Assistant professor, Pragati Engineering College, Surampalem, A.P, India
[3]Assistant professor, Pragati Engineering College, Surampalem, A.P, India

Email: [1]mahalakshmi310@gmail.com, [2]allaboina@gmail.com, [3]phanibhaskar0101@gmail.com
Contact: [1]7386450065, [2]9966965644, [3]8121412442

Abstract:. A composite material is a mix of at least two materials that outcomes in preferable properties over those of the individual parts utilized alone. Rather than metallic alloys, every material holds its individual mechanical, chemical and physical properties. The two constitutes are a reinforcement and a matrix. The fundamental favorable circumstances of composite materials are their high strength, stiffness and lower density, when compared with bulk materials, allowing for a weight reduction in the final part.

A sandwich- structured composite is an extraordinary instance of composite material which comprises two solid skins or faces isolated by a thick light weight core. This structure gives extraordinary adaptability as an extensive variety of core and facing material blends can be chosen. This development is generally utilized in aviation, aeronautics, transportation rails and different ventures because of their excellent stiffness at low weight. This construction plays a vital role in amongst the most esteemed auxiliary designing advancements created in the composite industry.

This paper addresses on optimum design of sandwich panels by shape effect of stiffened core. The core is typically having low strength, yet its higher thickness gives high bending stiffness to the sandwich composite with low density. In the present application static 3-point bending tests were carried out in order to investigate deflection variations in honeycomb sandwich structure by fluctuating the load and furthermore its impact on cell state of the core. The sandwich structure comprised of Aluminum honeycomb core with stainless steel confronting. Theoretical Calculations and Simulation investigation are carried out by utilizing CATIA and ANSYS to study about the deflections at different loads. The acquired outcomes are compared with experimental esteems.

Index terms: Composite Structure, Shape of cell, CATIA, ANSYS.

I.
II. INTRODUCTION

The Structural members made up of two in number, strong and stiff skins isolated by a lightweight core are known as sandwich panels. The separation of the skins by the core builds the moment of inertia of the panel with little increment in weight, creating a productive structure for resisting bending and buckling loads. Along these lines, sandwich panels are frequently used in applications where weight-saving is critical: in aircraft, in portable structures, and in sports equipment. In these examples the skins or face materials are regularly aluminum or fiber-reinforced composites; the cores are aluminum or paper-resin honeycombs, polymeric foams or balsa wood, all of which have a cellular structure.

The word 'cell' gets from the Latin word cella ie., a little compartment, an encased space. Our advantage is in groups of cells – to the Romans, cellarium, to us (less exquisitely) cellular solids. By this we mean a gathering of cells with strong edges or faces, stuffed together so they fill space.

A cellular solid is one comprised of an interconnected system of solid struts or plates which frame the edges and also faces of cells. A two-dimensional cluster of polygons which pack to fill a plane region like the hexagonal cells of the honey bee; and hence we call such two-dimensional cellular materials honeycombs. Structures like the honeycomb can be made in somewhere around four different ways. The most evident is to squeeze sheet material into a half-hexagonal profile and paste the corrugated sheets together. More commonly, glue is laid in parallel strips on flat sheets, and the sheets are stacked with the goal that the glue bonds them together along the strips. The stack of sheets is pulled separated (extended) to give a honeycomb. Paper–resin honeycombs are made this way; the paper is glued and expanded, and after that dipped into the resin to secure and stiffen it. Honeycombs

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[1]Assistant professor, Pragati Engineering College, Surampalem, A.P, India
[2]Assistant professor, Pragati Engineering College, Surampalem, A.P, India
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Email: [1]mahalakshmi310@gmail.com, [2]allaboina@gmail.com, [3]phanibhaskar0101@gmail.com
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[3]Assistant professor, Pragati Engineering College, Surampalem, A.P, India

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FEM Modeling of Coated Tools to Study the Influence of Coating Thickness

- M. Khirod Kumar (1) Email author (khirodmech@gmail.com)
- Manne Hareesh (1)
- P. Vamsi Krishna (1)
- S. Sambhu Prasad (2)

1. Department of Mechanical Engineering, National Institute of Technology, Warangal, , Warangal, India
2. Department of Mechanical Engineering, Pragathi Engineering College, , Surampalem, India

Abstract

The aim of this paper is to study the performance of coated tools in machining with multilayer coatings. The coatings are made usually by using PVD or CVD techniques, and the coating material should be in such a way that it should make a very strong bond with the base material. In this paper, FEM model is developed by considering workpiece as AISI 1045 and tool as three-layered (TiC/Al_2O_3/TiN) coated tungsten carbide. Deform 2D software is used to simulate the model. Initially, the model is simulated at a different feed rate to observe the temperature distributions, and then, outcomes are compared with the experimental values to validate the model. After ensuring the accuracy of the developed model, the performance of tungsten carbide coated tool is studied by using this model. The influence of coating thickness is observed at the same machining conditions. Cutting forces, cutting temperature and effective strains are measured for all the combination of coatings selected in this study.

Keywords

Coated tools   Multilayer coating   FEM analysis
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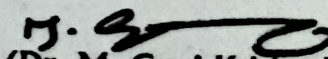
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Multiplication is basics for any arithmetic operations of central processing unit
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applications. Therefore, high performance multipliers are mandatory to design
and implement fast multimedia devices. Several high-performance multipliers
are suggested in the last few decades by researchers such as booth
multiplication, wallace tree multiplication, bough wooley multipliers, karatsuba
multipliers and logarithmic multipliers. Among the various schemes of
multipliers and logarithmic multipliers. Among the various schemes of
multiplication algorithms, logarithmic multiplication is widely used in image
processing and multimedia applications due its high performance. This paper
analyses the very large-scale integration (VLSI) characteristics of different
logarithmic multipliers in terms of speed, power consumption and area
utilization. Based on the detailed review, this paper suggests that logarithmic
multiplier which uses an approximation-based multiplier by using the concept of
double-sided fault distribution is deemed as high-accuracy baseline design for
implementing instead of using the Mitchell-based algorithm. This
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EMBEDDED SYSTEMS AND IOT :
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Dr. G Vimala Kumari
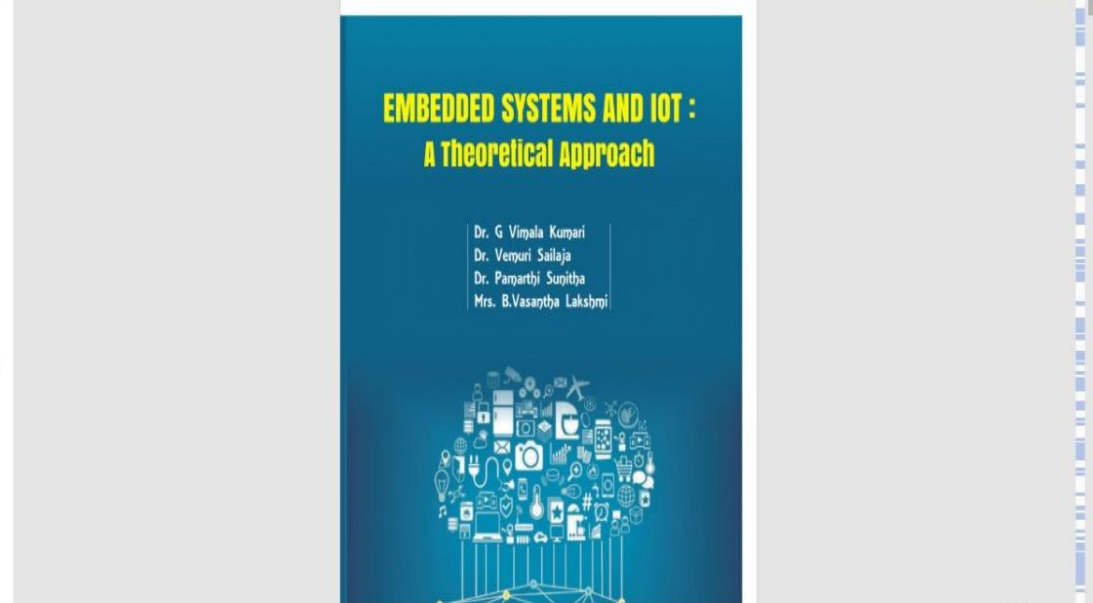Dr. Vemuri Sailaja
Dr. Pamarthi Sunitha
Mrs. B.Vasantha Lakshmi

AUTHORS PROFILE

Dr. B. Rama Rao working as Professor & Head of the Department in Electronics & Communication Engineering at Aditya Institute of Technology and Management, Tekkali, Srikakulam. He graduated in Electronics & Communication Engineering at Andhra University, Visakhapatnam, Andhra Pradesh, India. He secured Master of Technology in the stream of Radar and Microwave Engineering at Andhra University, Visakhapatnam, India. He secured Ph.D., in Electronics & Communication Engineering at Andhra University, Visakhapatnam, Andhra Pradesh, India. He is in the field of Microstrip Antennas at Aditya Institute of Technology and Management, Tekkali, Srikakulam, Andhra Pradesh, India. He is in teaching profession for more than 22 years. He has presented 40 papers in National and International Journals, Conference and Symposiums. He is senior member of IEEE and life member of IETE and ISTE. His main area of interest includes Microstrip Antennas and signal Processing.

Dr. K. S. Chakradhar working as Associate Professor in the Department of Electronics & Communication Engineering at Sree Vidyanikethan Engineering College, Sree Sainath Nagar, A. Rangam Pet, Tirupathi. He graduated in Electronics & Communication Engineering at JNTU, Kakinada, Andhra Pradesh, India. He secured Master of Engineering in Electronics & Control Engineering at Satya Bhama Deemed University, Chennai, Tamilnadu, India. He secured Ph.D., in Electronics & Communication Engineering at GITAM (Deemed to be University), Visakhapatnam, Andhra Pradesh, India. He is in the field of MicroStrip Antennas at Sree Vidyanikethan Engineering College, Tirupathi, Andhra Pradesh, India. He is in teaching profession for more than 22 years. He has presented 25 papers in National and International Journals, Conference and Symposiums. He is life member of ISTE. His main area of interest includes Microstrip Antennas and Image Processing.

Dr. Dasari Nataraj working as a Professor in the Department of Electronics and Communication Engineering at Pragati Engineering College (A). Surampalem. He graduated in Electronics & Communication Engineering B.Tech., at JNTU, Kakinada and Andhra Pradesh, India. He secured M.Tech., in Digital System and Computer Electronics (DSCE), ECE Department at JNTUH, Hyderabad, A.P State, India. He secured Ph.D., in ECE Department at GITAM (Deemed to be University), Visakhapatnam, A.P State, India. He is in the field of Microstrip Patch Antenna at Pragati Engineering College (A), Surampalam, A.P. State, India. He is in teaching profession for more than 22 years. He have presented 25 papers in National and International Journals, Conference and Symposiums. His main area of interest includes Microstrip Patch Antenna and Wireless Communication.

Mrs. G Vinutna Ujwala working as an Assistant Professor in the Department of Electronics and Communication Engineering at Pragati Engineering College (A). Surampalem. She graduated in Electronics and Communication Engineering B.Tech., at Pragati Engineering College, Surampalem, Andhra Pradesh, India. She secured M.Tech., in Computers and Communications, ECE Department at JNTUK, Kakinada, A.P State, India. She pursuing Ph.D., in ECE Department at GITAM (Deemed to be University), Visakhapatnam, A.P. State, India. She is in the field of Microstrip Patch Antenna at Pragati Engineering College (A), Surampalam, A.P. State, India. She is in teaching profession for more than 9 years. She has presented 10 papers in National and International Journals, Conference and Symposiums. Her main area of interest includes Microstrip Patch Antenna and Wireless Communication.

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Pragat Engineering College, Department of ECE, Kakinada, AP, India

Abstract

This research work focuses on power thermal power plant efficiencies, which are associated with many more indirect losses and have been broadly examined for proportional solution for it. Waste heat can be primary point here, which be suitable to reuse at certain heating process, it a concept of efficiency improvement. Some of most sensitive points like drying of fuel, preheating air for combustion monitoring, and rising of feed water temperature are observed for better approach during this work plan. It is theoretically proved, minimization of as extra 1% wt. on moisture of fuel and rise up to inlet air of 15 °C, improving efficiency by 1% and tuning of 50 ton of fuel on and average during a year. An intelligent process has been designed that operates, monitors and controls properly the heat recovery. Due analysis of traditional PID with proposed FUZZYPID after the result justifies its utility over nonlinear complex to nonlinear process. So, this proposed intelligent process is accepted for all range of operating condition with most expected developing of efficiencies. © 2021, Springer Nature Singapore Pte Ltd.

SciVal Topic Prominence ⑦

Topic: Furnaces | Billets | Heating

Prominence percentile: 81.318 ▬▬▬▬ ⑦

Author keywords

(Blow down monitoring) (Fuzzy based controller) (Hybrid system) (Intelligent system) (Process efficiency) (Thermal power plant)

Indexed keywords

Engineering controlled terms: (Conversion efficiency) (Efficiency) (Fuels) (Thermoelectric power plants) (Waste heat) (Waste incineration)

Engineering uncontrolled terms: (Combustion monitoring) (Efficiency improvement) (Feed water temperature) (Heating process) (Improving efficiency) (Nonlinear process) (Operating condition) (Thermal power plant)

Engineering main heading: (Engineering research)

Chapter 14
Transformation and Future Directions of the Integrated Chip (IC) Manufacturing Industry Using Artificial Intelligence Models

G. S. Siva Kumar
Pragati Engineering College, India

Srinivas Akula
Pragati Engineering College, India

Suneetha P.
Pragati Engineering College, India

Vasantha Lakshmi B.
Pragati Engineering College, India

Sailaja V.
Pragati Engineering College, India

Ravi Kumar M.
Pragati Engineering College, India

ABSTRACT

The era of the semi-conductor manufacturing industry is from 1970 to recent times. During these decades, the manufacturing process has achieved its greatest heights. At present, it reached its saturation level in terms of VLSI, ULSI, SOC manufacturing techniques. Recently artificial intelligence models are expanding their domains and applications in all the sectors. In this regard, changes in the hardware modeling also play a crucial role. In this chapter, the authors present artificial intelligence on hardware models, how the IC manufacturing industry is turning its conventional methods to add new features, and future directions at the business level.

Analysis of Shape Signature in First and Second Derivatives by Using Wavelet Transformation

Authors:

Radhika Mani
Pragati Engineering College

Bommagani Naga Jagadesh
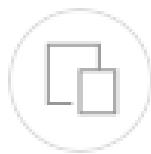K L University

Ch. Satyanarayana

Dakshina murthy Potukuchi
Jawaharlal Nehru Technological Universit...

Open Source Developments Novel Perspectives in Imitation Learning: Trends, Challenges, Future Directions

June 2023

Authors:

Ch E N Sai Priya

Manas Yogi
Pragati Engineering College

FACE RECOGNITION FOOTAGE ON GOOGLE MAP USING OPEN CV

P. SRILAKSHMI, K. LAKSHMI VIVEKA and T. TEJASVI

Department of Computer Science Engineering

Pragati Engineering College

Surrampalem, E.G. Dt., A.P., India

E-mail: srilakshmi.p@pragati.ac.in

viveka.k@pragati.ac.in @gmail.com

tejasvi.t@pragati.ac.in

Abstract

As of late face acknowledgment is pulling in much consideration in the general public of organization mixed media data access. Regions, for example, network security, content ordering and recovery, and video pressure profits by face acknowledgment innovation since "individuals" are the focal point of consideration in a ton of video. Face identification is the most well known zone of examination in the vision of software engineering. It is a PC innovation which is being utilized in an assortment of uses that distinguishes human appearances in computerized pictures [1]. Face location is one of the most discussed in innovation. Limitation of human appearances is considered as the essential and the underlying stage in investigation of face discovery. For instance, in home video observation and so on Face restriction can be alluded to as extraction of facial highlights utilizing design acknowledgment framework. Both MATLAB and Open CV can be utilized for making such models and frameworks. In this paper we have completed our exploration utilizing Open CV since utilizing it brings about more use of time and assets in picture handling and less in deciphering and wrongdoing planning assists with distinguishing the guilty party from different areas utilizing gmplot.

I. Introduction

Face Recognizing System is a PC application that is utilized to distinguish individuals from a picture or a video film. It is fundamentally utilized in security purposes to get track of who is entering a specific office or to look through somebody in a specific spot. It may not be as legitimate as bio

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P. SRILAKSHMI, K. LAKSHMI VIVEKA and T. TEJASVI

Department of Computer Science Engineering
Pragati Engineering College
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A REVIEW ON APPLICATIONS OF MACHINE LEARNING IN E-COMMERCE

M. V. RAJESH and S. RAO CHINTALAPUDI

Computer Science and Engineering
Pragati Engineering College
India
E-mail: magavenkatarajesh@gmail.com
        srao.chintalapudi@gmail.com

Abstract

This paper is aimed to explore the applications of Machine Learning in the domain of E-commerce. Recently, E-commerce platforms have extensive impacts on our human life. The rapid growth in E-Commerce industry has lead to an exponential increase in the online purchases. Machine Learning (ML) is a multidisciplinary field which is a combination of statistics and computing techniques with the application of algorithms which is widely used in various domains. In this paper a review has been done on the usage of machine learning techniques in the E-commerce applications like Product Recommendations, Dynamic Price Adjustment, Supply and Demand Prediction, Fraud Detection and Segmentation, Personalization and Targeting.

I. Introduction

Machine Learning is a branch of Artificial Intelligence. Computing systems can be designed that can learn from data as being trained. Many different algorithms can be employed in machine learning based on the required output. There are many applications of machine learning like spam detection, voice recognition, stock trading, robotics, medicine and health care, advertising, retail and E-commerce, gaming analytics, internet of things, etc [1].

Operations from business to business (B2B) which means cutting costs in transactions between businesses and, business to consumer (B2C) which reflects sales of goods and services are included in E-commerce. E-Commerce

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A MACHINE LEARNING APPROACH FOR CROP YIELD PREDICTION IN AGRICULTURE

S. RAO CHINTALAPUDI, CHANDRA SEKHAR KOPPIREDDY and VIJAYA KUMAR GUBBALA

Department of CSE
Pragati Engineering College
(Autonomous) Surampalem
Andhra Pradesh, India
E-mail: srao.chintalapudi@gmail.com
        sekhar222.k@gmail.com
        vijay9908914010@gmail.com

Abstract

In agriculture sector, Crop Yield Prediction is an important issue to address food security challenges and reducing the impact of climate change. In this paper, machine learning techniques are used to predict yield of most consumed crops using publicly available data from FAO and World Data Bank. Different Regression analysis algorithms such as Decision Tree Regressor, Random Forest Regressor, Gradient Boosting Regressor are applied on the dataset to predict the crop yield. The performance of these algorithms is measured using R^2 score and among these three algorithms Decision Tree Regressor results good R^2 Score.

I. Introduction

Agriculture plays a critical role in the global economy. With the expansion of human population, understanding worldwide crop yield is an important issue to address food security challenges and reducing the impact of climate change. The agricultural Yield is primarily depends on usage of pesticides, weather conditions like rainfall, temperature [1] [2] etc. Accurate information about history of crop yield will play a crucial role for future yield prediction. Climatic factors include humidity, rainfall, temperature and

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Department of CSE
Pragati Engineering College
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E-mail: srao.chintalapudi@gmail.com
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A SURVEY OF USABILITY FACTORS OF INFORMATION SYSTEMS

A. RADHA KRISHNA[1], P. LALITHA KUMARI[2] and U.V. RAMESH[3]

[1,3]Department of Computer Science Engineering
Pragati Engineering College
Surrampalem, E.G. Dt., A.P., India
E-mail: vasjrs2004@gmail.com
        lalithakumari4@gmail.com

[2]Research Scholar
JNTU, Kakinada, India
E-mail: uvramesh7@gmail.com

Abstract

Now-a-days, the advancement of recent technology is creating the power of capability in Information Systems. In this paper, we explained the wide variety of desirable and likely features of Information Systems, where they have used effectively. This paper presents a systematic review of literature Information Systems (ISs) and it usages in various aspects respectively. We identified that the study various usability testing's done in hospitals is termed as Health Information Systems (HISs). The usability study of medicine developed mainly for defense force purpose using mobile devices is termed as Mobile Medical Information Systems (MMISs). In an organization, the view of academic details of students, teaching and non-teaching staff, courses taught, academic activities and curriculum information is termed as Academic Information Systems (AISs). The study of the services provided y the government to its people by using internet is termed as Human Resource Management Information Systems (HRMISs). This paper delineates the arena in terms of various ISs are found to be potential areas for research work.

1. Introduction

In our research work we have given a detailed taxonomy for ISs and classified various ISs w.r.t their characteristics. The taxonomy is as shown below:

THE MOST TRENDING ARTICLES EVERY YEAR USING NATURAL LANGUAGE PROCESSING (NLP) TECHNIQUE

DARAPU UMA[1], ALLAMPALLI HARINI[2] and GRLM TAYARU[3]

Computer Science and Engineering Department

Pragati Engineering College Surampalem, India

E-mail: uma.d@pragati.ac.in
    a.harini04@gmail.com
    ramalakshmi.g@pragati.ac.in

Abstract

The basic purpose of the project is extract the text features by using the Natural Language Processing (NLP) techniques like classification learning models, tokenizers, named entity recognition on the title attribute which helps in getting rid of the unregulated text data and further generates the desired outputs. This classification is based on determining whether the text contained in the title is in unigrams, bigrams or n-grams. The main notation at the data that we have used is unfaired. From various way outs we will get world news that have been used. Their main aim is to sell papers, and thus their reporting is mainly focus in that way. In general, humans have a negativity unfaired and papers aim to publish negative stories by considering this to their advantage, like a war breaking in the middle east, a fact reported every few years between 2008 and 2015. Most headlines are objective in phrasing, so there are few samples where personalized is not null. And not objective headlines which may contains only few have negative sentiment, which twists the data towards a negative sentiment.

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A NOVEL APPROACH FOR EXTRACTION OF DOMINANT REPRESENTATION POINTS OF THE IMAGE

G. KUMARI[1], M. RADHIKA MANI[2] and CH. SATYANARAYANA[3]

[1]Asst. Professor, [2]Professor
Dept. of CSE
Pragati Engineering College
Kakinada, India
E-mail: kumari517@gmail.com
        drradhikamani@gmail.com

Professor, Dept. of CSE
JNTUK, Kakinada, India
E-mail: chsatyanarayana@yahoo.com

Abstract

In the applications of computer vision, the image representation techniques are found to be prominent. Among various techniques, visual representation techniques are found to be better than the other techniques. In visual representation techniques, the representation points are to be identified efficiently. So, the present paper proposes a novel approach for representation of dominant points (NARDP). With these dominant points, the represented image will be efficiently described with various features. The proposed NARDP algorithm works on four different types of the images and the results show the efficacy of the proposed algorithm.

I. Introduction

The computer vision majorly focuses on the object recognition approaches. Among various approaches, the representation of shape of the image is found to be crucial for all the algorithms. The verge representation points [1] are found to be prominent for reconstruction of input image. These points are further used for representing the input image at multiple scales. The

UNINTENTIONAL OUTFLOW OF CONFIDENTIAL DATA SEVERE SECURITY ORGANIZATIONS IN DIGITAL AREA

M. S. V. V. RAMESH and M. S. R. S. PRASAD

Assistant Professor

Department of Computer Science and Engineering

Pragati Engineering College

Affiliated to JNTUK

Surampalem, India

Ideal Institute of Technology

Affiliated to JNTUK

Kakinada, A.P., India

E-mail: rameshmerla@gmail.com
         prasadmerla@gmail.com

Abstract

We produce LIME, one for charged with low frequency across more than one entities. We present a standard proof progeny formulate activity (LIME) that results drift transversely a couple of entities. In several instances, tag of the leaker is observed due to rhetorical techniques. The proposed methods will discover the simplified non-repudiation and loyalty assumptions of the prototype. Then estimated measures will be spread at intervals of two entities. Generally, the LIME approach is more suitable for radio band, to turn into a key walk vis-à-vis achieving liability voluntarily. The very important feature about the prototype is it enforces answerability explicitly.

DETECTION WEEDS IN THE FIELD USING IMAGE PROCESSING

P. SIVA SATYA PRASAD, K. V. V. SUBBARAO and G. VANI

Department of CSE
Pragati Engineering College
India
E-mail: sivasatyaprasadp@gmail.com
　　　subbu1223@gmail.com

Department of CSE
Adarsh College of Engineering
India
E-mail: vani.mca1@gmail.com

Abstract

Information about the dispersion of herbs (weeds) in the field is an essential for explicit treatment. Optical sensors make it conceivable to identify differing weed densities and species, which can be planned utilizing GPS information. The weeds are separated from pictures utilizing picture preparing and portrayed by shape highlights. An order structured on the highlights uncovers the type and quantity of weeds per picture. For the arrangement just a limit of 16 highlights out of the 81 processed ones are utilized. Highlights are utilized, which empower an ideal differentiation of the weed classes. The desire must be viable utilizing data mining calculations, which fee the discriminance of the highlights of models. On the off chance that no models are accessible, grouping calculations can be utilized to naturally create bunches. In a following stage weed classes can be appointed to the groups. Weed maps are created utilizing the framework. Weed maps are contrasted with the after impact of a guide weed examining.

I. Introduction

In former times weed location was finished by utilizing a few men, particularly for weed evacuation reason. Most weeds are either controlled precisely, by some type of development or artificially, by utilization of

FAKE NEWS ARTICLES TO IDENTIFY AS A SUPERVISED LEARNING TECHNIQUE

ADDANKI JANARDHANA RAO, SRIKANTH KOSARAJU and SHAIK MAHABOOB BASHA

Department of Computer Science and Engineering
Pragati Engineering College
Surampalem (Andhra Pradesh), India

Department of Computer Science and Engineering
Holy Mary Institute of Technology and Science
Hyderabad, India
E-mail: janaradhanara.a@pragati.ac.in
        srikanth.k@pragati.ac.in
        bashashaik1617@gmail.com

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Department of Computer Science and Engineering
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Hyderabad, India
E-mail: janaradhanara.a@pragati.ac.in
srikanth.k@pragati.ac.in
bashashaik1617@gmail.com

Abstract

A tale managed AI framework is created to characterize counterfeit news whether the news is veritable or counterfeit. To discover best model considering identification achievement rate, mix of administered learning calculation and highlight choice have been utilized. Through this examination, it is discovered that Natural Language Processing based AI with help vector machine (SVM) procedure while arranging counterfeit news story. Text mass, NL, and Toolkits were utilized to build up a novel phony news finder that utilizations cited attribution in a Bayesian AI framework as a key element to appraise the probability that a news story is phony. Near investigation shows that the proposed model is more proficient and precise that other existing model.

I. Introduction

Introduced under the appearance of real reporting is an overall data exactness and trustworthiness issue. In this paper we gather data from two sites they are the onion, and another isn't the onion. The onion is the phony news site not the onion is the authentic news sites. The onion is an American

Exercising machine language paradigms in software engineering

Precise estimation of software development exertion is basic in software designing. Thinks little of lead to time weights that may bargain full useful development and intensive testing of software. Interestingly, overestimates can bring about noncompetitive contract offers as well as over designation of development assets and work force. Thus, numerous models for assessing software development exertion have been proposed. This work portrays principles of machine learning, which we use to manufacture estimators of software development exertion from recorded information. Our work demonstrates that these strategies are focused with conventional estimators on one dataset, yet additionally delineate that these techniques are delicate to the information on which they are prepared. This preventative note applies to any model-development procedure that depends on authentic information. Every single such model for software exertion estimation ought to be assessed by investigating model affectability on an assortment of authentic information.

Mr. Manas Kumar Yogi is currently working as Assistant Prof. in Department of Computer Science Engineering, Pragati Engineering College (A), Surampalem, E. G. Dist, A. P., India. He is a member of IEEE & ACM . He has published more than 60 review, research papers in reputed international journals, conferences including ETE sponsored conferences.

Scholars' Press

Manas Kumar Yogi

Vinay Garapati

Exercising machine language paradigms in software engineering

A Quick Primer

ADVANCED ANDROID

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Dr. T. Venkateswara
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Quantum Inspired Evolutionary Algorithm for Web Document Retrieval

Manas Kumar Yogi ✉ & Darapu Uma

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Upgrade- Data Security in Cloud by Machine Learning and Cryptography Techniques

[1]Puli Srilakshmi, [2]K Lakshmi Viveka,[3]Y.Jnapika

[1]Asst.Professor, [2]Asst.Professor,[3]Asst.Professor

[1]Department of Computer Science and Engineering, [2]Department of Computer Science and Engineering,[3]Department of Computer Science and Engineering

[1]Pragati Engineering College, Surampalem,   East Godavari, India,[2]Pragati Engineering College, Surampalem,   East Godavari, India,[3]Pragati Engineering College, Surampalem,   East Godavari, India,

[1]thotasrilakshmi1@gmail.com ,[2]viveka509@gmail.com,[3] jnapikay@gmail.com

ABSTRACT

Cloud computing is termed as the shared pool of configurable computer system resources and high level services that can be rapidly provisioned with a minimal management effort over the internet. Cloud computing has transformed the way organizations approach IT, enabling them to become more agile, introduce new business models, provide more services, and reduce IT costs. Cloud computing technologies can be implemented in a wide variety of architectures, under different service and deployment models, and can coexist with other technologies and software design approaches. The prevalent problem associated with cloud computing is data privacy, security, anonymity and reliability. Cloud computing provides the way to share distributed sources and services that belong to different organizations or sites. Since it shares distributed resources via network in open environment that makes it cause security issues. In this paper, the proposed work plan is to eliminate the concerns regarding to data privacy using encryption algorithms to enhance the security in the cloud. In this method some important security services including authentication, encryption and decryption, compression are provided in cloud computing system.

KEYWORDS

1. INTRODUCTION

Upgrade- Data Security in Cloud by Machine Learning and Cryptography Techniques

[1]Puli Srilakshmi, [2]K Lakshmi Viveka, [3]Y Jnapika

[1]Asst.Professor, [2]Asst.Professor, [3]Asst.Professor

[1]Department of Computer Science and Engineering, [2]Department of Computer Science and Engineering, [3]Department of Computer Science and Engineering

[1]Pragati Engineering College, Surampalem, East Godavari, India, [2]Pragati Engineering College, Surampalem, East Godavari, India, [3]Pragati Engineering College, Surampalem, East Godavari, India,
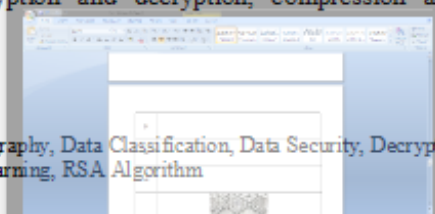
[1]thotasrilakshmi1@gmail.com , [2]viveka509@gmail.com, [3] jnapikay@gmail.com

ABSTRACT

Cloud computing is termed as the shared pool of configurable computer system resources and high level services that can be rapidly provisioned with a minimal management effort over the internet. Cloud computing has transformed the way organizations approach IT, enabling them to become more agile, introduce new business models, provide more services, and reduce IT costs. Cloud computing technologies can be implemented in a wide variety of architectures, under different service and deployment models, and can coexist with other technologies and software design approaches. The prevalent problem associated with cloud computing is data privacy, security, anonymity and reliability. Cloud computing provides the way to share distributed sources and services that belong to different organizations or sites. Since it shares distributed resources via network in open environment that makes it cause security issues. In this paper, the proposed work plan is to eliminate the concerns regarding to data privacy using encryption algorithms to enhance the security in the cloud. In this method some important security services including authentication, encryption and decryption, compression are provided in cloud computing system.

KEYWORDS

Keywords: Cloud computing, Cryptography, Data Classification, Data Security, Decryption, Encryption, HMAC function, KNN technique, Machine Learning, RSA Algorithm

Upgrade- Data Security in Cloud by Machine Learning and Cryptography Techniques

[1]Puli Srilakshmi, [2]K.Lakshmi Viveka,[3]Y.Jnapika

[1]Asst.Professor, [2]Asst.Professor,[3]Asst.Professor

[1]Department of Computer Science and Engineering, [2]Department of Computer Science and Engineering,[3]Department of Computer Science and Engineering

[1]Pragati Engineering College, Surampalem, East Godavari, India,[2]Pragati Engineering College, Surampalem, East Godavari, India,[3]Pragati Engineering College, Surampalem, East Godavari, India,
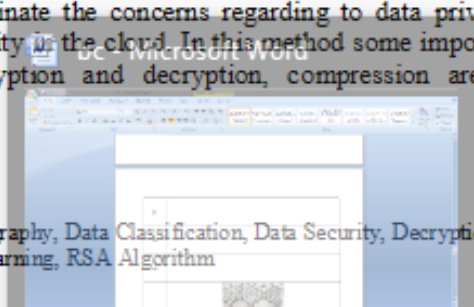
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[1]Pragati Engineering College, Surampalem, East Godavari, India,[2]Pragati Engineering College, Surampalem, East Godavari, India,[3]Pragati Engineering College, Surampalem, East Godavari, India,
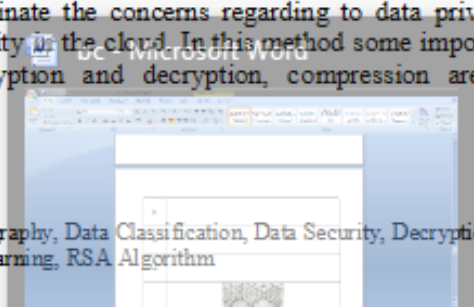
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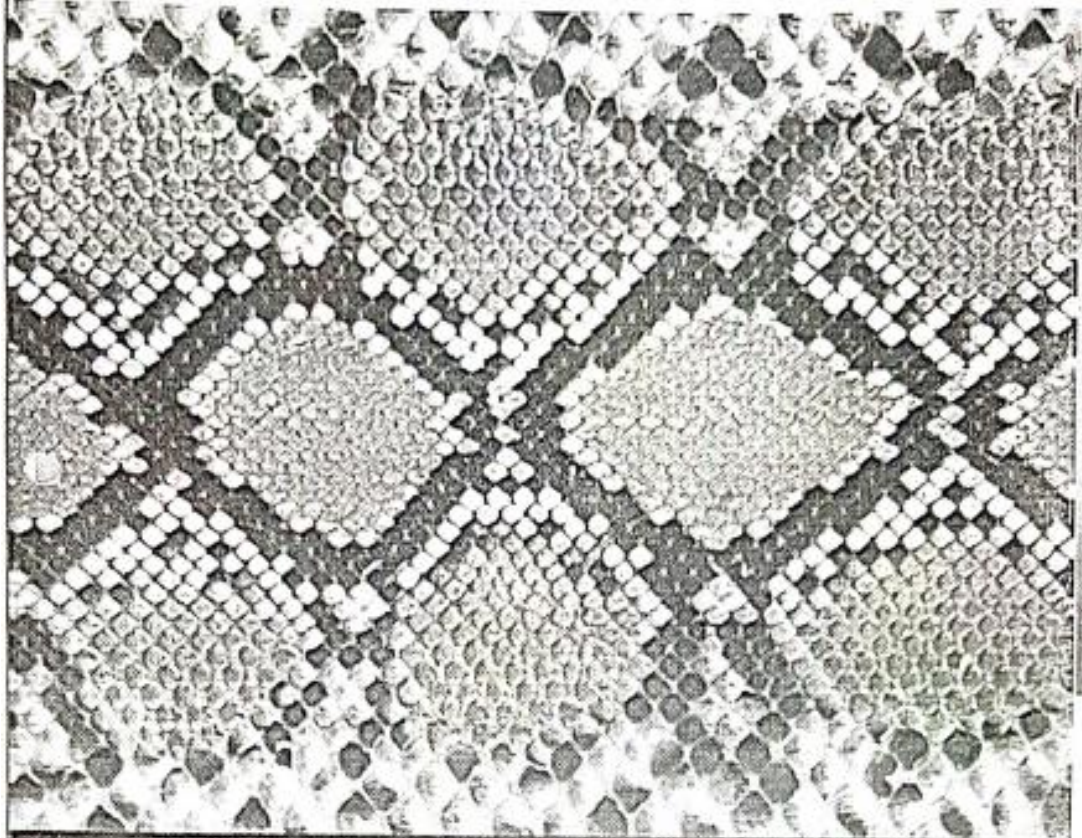
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Python
PROGRAMMING

Ch Satyanarayana
M Radhika Mani
B N Jagadesh

Regression testing is an essential and expensive activity in the maintenance phase to show that the code has not been affected by the changes. It consumes 80% of the maintenance cost. Hence optimizing the regression testing will be the prime motives for the software testers. We prioritize the test case based on number of the modified lines the test case covers. The test case that covers the maximum number of the modified lines is given highest priority, and executed first. Hence even if testing is not completed we can cover maximum number of modified lines. The test cases prioritization is done by using genetic algorithm. It takes the test case information as input and it produces a sequence of the test case that has to be executed so that maximum number of the modified code gets covered.

GA FOR TEST PRIORITIZATION

Manas Kumar Yogi

Effect of Genetic Algorithm in Prioritization of Regression Test Cases
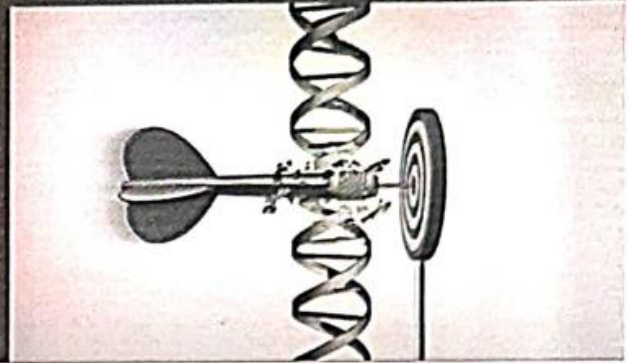
Mr. Manas Kumar Yogi is currently working as Assistant Professor in the department of Computer Science Engineering , Pragati Engineering College (Autonomous),Surampalem, East Godavari District, since 2014. He is a member of IEEE & ACM. He has published more than 60 reviews and has research papers in reputed international journals.

An Empirical Study on Community Detection Algorithms

K. Chandusha, S. Rao Chintalapudi and M. H. M. Krishna Prasad

Abstract Social networks are simply networks of social interactions and personal relationships. They have several properties, and community is one among them. These communities can be arranged by individuals in such a way that within the group they can connect more frequently compared to the outside of the group. Community detection can discover groups within a network where individuals' group memberships are not explicitly given. These networks are represented in the form of graph. When graph size is increased then the number of communities will also be increased. Because of this complexity and dynamic nature of the graph, community detection in social network becomes a challenging task. Hence, more research is going on community detection, resulting in plenty of algorithms that come into picture to find effective way of detecting communities in a graph. In this paper, authors have presented different community detection algorithms and also discussed their pros and cons. Finally, authors stated some of the research challenges in this area.

1 Introduction

Social media is an interactive and Internet-based application. Nowadays social media is used everywhere on smart phones, tablets and computers to create highly interactive platform for users. In the physical world, it is very difficult to find similar interests, but it is much easier to find friends in social networks with same kind of interests. As a result, we can connect with the world using social networks. Social

K. Chandusha (✉) · M. H. M. Krishna Prasad
Jawaharlal Nehru Technological University, Kakinada, Andhra Pradesh, India
e-mail: chand.luckystar@gmail.com

M. H. M. Krishna Prasad
e-mail: krishnaprasad.mhm@gmail.com

S. R. Chintalapudi
Pragati Engineering College (Autonomous), Surampalem, Andhra Pradesh, India
e-mail: srao.chintalapudi@gmail.com

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An Investigative Study of Societal Implications of Nanotechnology

Manas Kumar Yogi[1], G. Bhaskara Rao[2], G.Vijay Kumar[3]

[1,3]*Asst. Prof. Dept. of CSE, Pragati Engineering College (Autonomous),Surampalem, A.P. (India)*

[2]*Asst. Prof. Dept. of BS&H, Pragati Engineering College (Autonomous),Surampalem, A.P. (India)*

ABSTRACT

Codes of ethics signal the seriousness of a group of professionals to think about their impacts and goals. The emergence of professional organizations and professional codes of ethics are an important part in the development of a discipline or sub-discipline. They help provide a professional identity for a field of study. Nanotechnology, being so diverse and distinct because of its diversity, should be developed to address the aims of the many other disciplines it encompasses, but this coming together of disciplines also serves to make the formation or "professionalization" of this field more difficult and complex. How should this profession develop, and what values should it hold? What is its identity? What is the aim of this new field? In other words, what should its code of ethics be? Professionals working with the nano scale need to be aware of the public's perception when they make statements.

Keywords - Nano , Nano Particles, Ethics, Societal, Nanobots

I. INTRODUCTION

Nanoethics, or the study of nanotechnology's ethical and social implications, is an emerging but controversial field. Outside of the industry and academia, most people are first introduced to nanotechnology through fictional works that posit scenarios which scientists largely reject – of self-replicating "nanobots" running amok like a pandemic virus. In the mainstream media, we are beginning to hear more reports about the risks nanotechnology poses on the environment, health and safety, with conflicting reports from within the industry. But within the nanotechnology industry, there is a strange schizophrenia afoot. We have heard about the wonderful things that
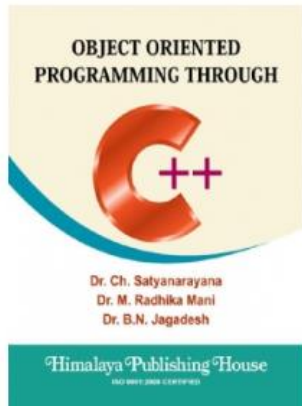
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Chapter Preview

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Cattle Health Monitoring Through Sensors Using IOT

Viveka K. Lakshmi[1,*], Ahuja Deepthi[2,**], Alekhya A. Sneha[2,***], Koduri N.S.D. Vikas[2,****]

[1]Assistant Professor, Department of Computer Science and Engineering, Pragati Engineering College, Surampalem, Andhra Pradesh, India

[2]Assistant Professor Department of Electronics and Communication Engineering, Pragati engineering College, Surampalem, Andhra Pradesh, India

*Email: viveka509@gmail.com

**deepthiahuja143@gmail.com

***snehaalekhya999@gmail.com

****vikaskoduri21@gmail.com

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Abstract

Mobile, wireless sensor networks are bringing a new level of monitoring into many industries. This paper describes how wireless technologies can be used to create a platform for animal health monitoring. The sensors communicate wirelessly with each other and continuously connected over the mobile telephone network to provide a real time view of the animal's behaviour data using standard web services from anywhere on the internet.

The sensor measures the parameters like-pH and temperature. Regular measurements like quantity of milk, quality of milk etc. are also measured. These measures are then used to predict various states of the animal like getting disease, getting pregnant etc. A lot of diseases can be prevented.

Top

Article

Security and Information Assurance using Palm Vein Technology

May 2018

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Compiler Optimization using Machine Learning Techniques

Satya Mohan Chowdary G[1] | Ganga Bhavani T[2]

[1]Department of IT, Pragati Engineering College, Surampalem, AP, India.

ABSTRACT

In the last decade, machine learning based activities has moved from an obscure research niche to a mainstream activity. Here in this article, we describe compiler optimization using machine learning techniques. We then provide a comprehensive survey and provide overview for the wide variety of different research areas involved in this. One of the key challenges for compilation is to select the right code transformation, or sequence of transformations for a given program. This requires effectively evaluating the quality of a possible compilation option e.g. how will a code transformation affect eventual performance.

KEYWORDS: Compiler, Auto-Tuning, Machine Learning, Code Optimization

1. INTRODUCTION

Compilers translate programming languages written in human understandable language into machine understandable language where correctness is critical. Machine- learning on the other hand is sub area of Artificial Intelligence aimed at detecting and predicting patterns.

A. Optimization-Important phase in Compiler

Compiler mainly do two things — translation and optimization. There are many different correct translations whose performance varies significantly, traditionally misnamed optimization.

Machine learning based on prior data predicts an outcome for a new data point. This ability to predict based on prior information can be used to find the data point with the best outcome and is closely tied to the area of optimization. It is at this overlap of looking at code improvement as an optimization problem and machine learning as a predictor of the optimization done where we find machine learning compilation.

An interesting question is therefore why the convergence of optimization and machine learning taken so long? There are two fundamental reasons. Firstly, highly increase in the potential performance of hardware, software is increasingly unable to realize it leading to a software-gap. This gap has yawned right open with the advent of multi-cores. Compiler writers are looking for new ways to bridge this gap.

Secondly, computer architecture evolves so quickly, that it is difficult to keep up. By using the desirable property of being automatic Machine learning has. Rather than relying on expert compiler writers to optimize the code, we can let the machine learn how to optimize a compiler to make the machine run faster, an approach sometimes referred to as auto-tuning. Machine learning is, therefore, ideally suited to making any code optimization decision where the performance impact depends on the underlying platform.

Machine learning is part of a tradition in computer science and compilation in increasing automation The

Classification and Recognition of Traffic Signs Using Deep Learning

D. Sirisha ✉, Y. Srilatha & N. V. S. Sowjanya

Abstract

The demand for employing Artificial Intelligent and data driven decision making in recognition of traffic signs in autonomous vehicles, self-driving cars, and not only in self-driving cars sometimes the driver who is driving also cannot recognize and follow the traffic signs is expediting. It is essential for autonomous vehicles to understand and follow all the traffic rules. The dynamic environment on which autonomous vehicles operate s risky due to insufficient training data. So by using this traffic signs recognizer, the driver will receive the information

Check for updates

Compiler Optimization using Machine Learning Techniques

Satya Mohan Chowdary G[1] | Ganga Bhavani T[2]

[1]Department of IT, Pragati Engineering College, Surampalem, AP, India.

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Machine learning is part of a tradition in computer science and compilation in increasing automation The

A Relativistic Study on Recent Clustering Algorithms

D. Sirisha and S. Sambhu Prasad

Abstract Ever-increasing volumes of data necessitate novel algorithms for extracting inherent information from voluminous data. Generally, clustering is adopted for voluminous and intricate data for determining groups and classifying stimulating categories in the data. Most of the available clustering algorithms are suitable for identifying spherical-shaped clusters and are not capable of handling outliers efficiently. In the present work, a relativistic study of two clustering algorithms, namely BIRCH and CURE algorithms, is carried out. These algorithms are reported to be pertinent for large databases, thus address the problems of traditional clustering techniques. Experimentations are conducted to study the relative efficiency of BIRCH and CURE. Experimental results reveal that CURE is much faster and can efficiently detect the significant outliers and identify non-spherical-shaped clusters with a wide range of size than BIRCH.

1 Introduction

To cluster the huge and dynamic databases, the classical clustering algorithms are not befitting since they presume enough main memory is available to place the data for clustering. Keeping in view of large databases comprising enormous data items, a clustering algorithm must possess the following desired features: one scan (or less) of database is required; provide online status while the algorithm is executing. Moreover, the clustering algorithm must dynamically appraise the results upon the inclusion or exclusion of data from the database [1]. Furthermore, it can be suspended, stopped, resumed, requires less main memory, has an ability to identify diversified data (e.g. sampling), and process each tuple only once [2].

D. Sirisha (✉) · S. S. Prasad
Pragati Engineering College, Kakinada, India
e-mail: sirishad998@gmail.com

S. S. Prasad
e-mail: drssp@gmail.com

Toward Ameliorating K-Means Clustering Algorithm

D. Sirisha and S. Sambhu Prasad

Abstract Mining knowledge and predicting the behavior of the data have become major challenge with the advent of unprecedented escalation in the volume of the existing databases. Generally, clustering is adopted for voluminous and intricate data. In the present work, two techniques of K-means clustering, namely, K-means algorithm with random sampling (without realignment) and K-means algorithm with realignment sampling, are compared in terms of time taken and number of moves made for clustering the given data. The first one checks for any transfers between the clusters after inserting all the data. The second one is to check for any transfers between clusters for each new data inserted into cluster. The experimental results reveal that K-means clustering algorithm with realignment has performed reasonably well against K-means clustering algorithm without realignment.

Keywords Data mining · Clustering · K-means clustering algorithm

1 Introduction

The expeditious progress in the size and number of existing databases poses crucial challenges in mining knowledge from data vital in reinforcing decision-making besides predicting the behavior of the data [1]. Generally, clustering is employed keeping in view of the volume and the complexity of the data set. Clustering is often the recourse when the data set is large and complex entailing many variables and internal structures [2].

In the present work, two techniques for clustering data through K-means clustering algorithms are implemented. One is implemented by calculating the centroid of each cluster after inserting all records. Other one is implemented by realignment when a new data is inserted or transferred from one cluster to another cluster. Clustering

D. Sirisha (✉) · S. S. Prasad
Pragati Engineering College, Surampalem, India
e-mail: Sirishad998@gmail.com

S. S. Prasad
e-mail: dessp@gmail.com

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A Hybrid Methodology for Multi Owner Information Sharing in Untrusted Cloud Using Secure Mona Convention

Banda S N V Ramanamurthy[1] and D.Sirisha[2]

[1,2] Department of Computer Science and Engineering,

Pragati Engineering College, Surampalem, India.

Abstract

Sharing social event asset among cloud clients is a significant impact, so appropriated figuring gives a preservationist and convincing course of action. In perspective of proceeds with change of sharing information, interest in a multi-proprietor way to an un trusted cloud is still a testing issue. Here in this paper, we propose a safe multi-proprietor information sharing arrangement, for dynamic group in the cloud. By giving social affair mark and component show encryption methods, any cloud clients can protectively confer information to others. By then a meanwhile, the limit overhead and encryption count cost of the arrangement are free with the amount of denied clients. In other hand, we explore the security of this arrangement with intensive confirmations. OTP (One-Time Password) is one of the least complex and most prevalent types of confirmation that can be utilized for securing access to accounts. OTP are regularly alluded to as a safe and more grounded types of confirmation, and tolerating them to introduce over different machines. We give a numerous levels of security to share information among multi-proprietor process. Initially the client chooses the pre-chosen picture to login. At that point chooses a picture from the matrix of pictures. By utilizing this, the OTP is produced consequently and sent to comparing email account.

Keywords- Security, Broadcast Message, Encryption, Cloud computing.

1. Introduction

Distributed computing imagines exceedingly accessible, on-interest system access to a common pool of configurable figuring assets [1], [2], [3]. Clients can appreciate adaptable capacity limit and calculation ability without paying consideration on the development and support of these bases. While distributed computing acquires promising open doors, it likewise brings along new security and protection issues, which thwart the general population to embrace the cloud advancements. The information in travel or put away in distributed storage could be tempered by unapproved people or even the distributed storage supplier [4], [5], [6]. Various encryption methods are accessible to ensure the security of Cloud information and administrations [7], [8], [9]. Be that as it may, as these encryption methods bring along new procedures, additional complexities must be conceived to oversee encoded information safely and productively.

For an individual distributed storage client, he/she stores his/her information and recovers part of the put away information later. Be that as it may, for big business clients, the put away information ought to be shared among gathering individuals. One sort of encryption plan called quality based encryption (ABE) could be utilized to apply fine-grained access control over the mutual information [10], [11], [12], [13], [14], [15]. Furthermore, the elements of gathering individuals and relating put away information ought to be considered to build a plausible fine-grained access control for the undertaking [16], [17], and [18].

Moreover, given the aggregate sum of information created and put away in the cloud, getting to information through route is tedious and annoying. Getting to cloud information through (watchword) hunt is thought to be commonsense and in unnecessary. Nonetheless, as the cloud information are secured through cryptographic methods, which acquire high expenses when recovering through seeking. Searchable encryption was acquainted with empower clients to shroud the searchable watchwords (of a record) by encryption [19], [20], [21], [22], [23], [24]. Later, clients could produce proper tokens/trapdoors for particular watchwords to recover the encoded information containing these catchphrases. The clients looking capacity is additionally shared under fine-grain arrangements [25], [26], [27], [28] One client can produce searchable records for a document and indicate a subset of clients who can use these searchable files. Clients outside the predefined bunch can't look out this record. In any case, progression of gathering individuals and searchable records ought to be considered to yield a down to earth and vigorous searchable encryption [29], [30].