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PROCEEDINGS

A National Conference on "Advancements in Engineering and Science" NCAES- 2018

Date: 25.08.2018

Online Published In Association with-

International Journal of Engineering Sciences Paradigms and Researches

Organised by

GANDHI ACADEMY OF TECHNOLOGY AND ENGINEERING

Golanthara, Berhampur, Ganjam, Odisha- 761008

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ABOUT THE CONFERENCE

The purpose of this conference is to bring together international scholars working in the field of educational architecture in the broadest sense of the words. This could include (pre)schools and universities (colleges), but also playgrounds, theme parks and children's libraries; all are constructions which have educative and civilizing purposes. We want to discuss the past, present – and the future of such constructions. Advances in Engineering Science and Technology is an on line open access journal, basically the aim of this journal to promote the new Innovative ideas in all fields of Engineering Science & Technology. Journal will focus on all aspects of engineering disciplines; which could include design, development of engineering techniques, cost optimization, economic aspects of industry, nanotechnology, image analysis, fuel cells, environmental management via treatment and control of hazardous wastes among others. We also want to stress and discuss various methodological approaches, alternating between fieldwork, archival studies, observations and interviews.

ABOUT THE INSTITUTE

Begin its journey in the year 2009 at Berhampur, the Silk City of Odisha, Gandhi Academy of Technology and Engineering is managed by "Tarini Educational Trust". GATE, an Institute, is approved by AICTE New Delhi & Affiliated to BPUT, Rourkela, Odisha. The Institute works with a mission to provide quality education of international standards for producing technocrats and future leaders in a disciplined and conducive environment as an integral part of our social commitment to promote education globally. GATE offer graduate programmes in Mechanical Engineering, Civil Engineering, Electronics Engineering and Electrical Engineering and Post Graduate Program in Mechanical Engineering. More than 900 graduate and post graduate students are being groomed here to excel in their area of specialization. GATE's alumni have been well accepted by both public sector and private sector companies and many are holding important positions in their respective organizations.

The Institute works with a mission to provide quality education of international standards for producing technocrats and future leaders in a disciplined and conducive environment as an integral part of our social commitment to promote education globally.

CONFERENCE PROCEEDINGS

(ORAL & PAPER PRESENTATION)

Gandhi Academy of Technology & Engineering
Golanthara, Berhampur, Odisha- 761008

Dr. Satya Praksh Panda
Chairman

MESSAGE FROM THE CHAIRMAN

On behalf of the Gandhi Academy of Technology and Engineering (GATE), I extend a very warm welcome to all delegates and participants to the National Conference. GATE has borne the mantle of excellence, omitted to ensuring the students their own space to learn, grow and broaden their horizon of knowledge by indulging into diverse spheres of learning. In our endeavor to raise the standards of discourse, we continue to remain aware to meet the changing needs of our stakeholders.

Last but not the least; we would also like to thank the staff, faculty members, the Organizers and the students for their contribution in successfully organizing and managing this event. This event wouldn't have been possible without their guidance and constant support.

We welcome all of you to GATE and hope that, this national conference will act as a medium for all to ponder upon the topic of discussions, challenge us to strive towards it, and inspiring us to go ahead

Thank you!

Dr. Satya Prakash Panda

Gandhi Academy of Technology & Engineering
Golanthara, Berhampur, Odisha- 761008

Prof. (Dr.) Gouri Shankar Mohapatro
Principal, GATE

MESSAGE FROM THE PRINCIPAL

The conference is necessary to bring at the culture of information exchange and feedback on developing trends in technologies. I am delighted to note that the Organizing the National Conference on Advancements in Engineering and Science. Certainly, this type of conference not only brings all researches, students in one platform, but it also inculcates the research culture among the entire fraternity of Education in the country, thereby contributing to the development of the nation.

I hope that this conference would certainly induce innovative idea among the participants paving way for new invention and technologies in the field of application of optimization techniques and stainable development in engineering sciences.

I congratulate all Professors and the entire organizing team for initiating the conduction of such an important event at our institute.

I wish the conference a grand success.

Prof. (Dr.) Gouri Shankar Mohapatro

Gandhi Academy of Technology & Engineering
Golanthara, Berhampur, Odisha- 761008

MESSAGE FROM CONVENER

It is a moment of great pleasure and honors that organizing the National Conference on Advancements in Engineering and Science at Gandhi Academy of Technology and Engineering (GATE), Berhampur, Odishha. I wish that the conference will bring the scientists, researchers, scholars, faculty members and students to a single platform for exchange of their ideas and innovations for development of new technologies and products for future towards betterment of the society and the globe. I am confident that the national conference will achieve its key objectives with a great glory.

I wish the conference a phenomenal success.

Tushar Kanta Satapathy

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Activity Analysis of Iron in Water Using a Simple LED Spectrophotometer

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Gandhi Academy of Technology and Engineering,
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ABSTRACT

Admittance to clean water is a crucially significant piece of the lives, everything being equal, yet there is many times a worry about the tainting of water by weighty metals. The location and estimation of weighty metals in water can be performed utilizing colorimetric reagents matched with ultraviolet−visible light (UV−vis) spectrophotometer. The introduced movement incorporates development of a straightforward, reasonable single-frequency spectrophotometer involving LEDs as the light source furthermore, identifier. Utilizing a colorimetric reagent, 2,4,6-tripyridyl-s-triazine, the convergence of iron can be estimated by the Drove spectrophotometer. Various normal water tests were gathered and investigated by this method, and the exhibition of the Drove spectrophotometer was contrasted with that of a customary UV−vis spectrophotometer. The Drove spectrophotometer

1. INTRODUCTION

Water is a fundamental piece of regular day to day existences, and the admittance to clean water can be a worry as the consequence of changes to civil water treatment or normal disasters.1,2 As per the Unified States Land Study, the absolute withdrawal of water by the U.S. is around 1.3 trillion liters of water each day (counting water system and mining), with the all out public supplied water use at 159 billion liters of water for every day.3 With such an enormous reliance of the U.S. on water, it is critical that the water has low degrees of harmful synthetic toxins. Under the power of the Protected Drinking Water Act 40 CFR 141, the U.S. Ecological Assurance Office (USEPA) sets administrative principles for drinking water; the USEPA requires most extreme focus limits on harmful metal fixations in drinking water, including arsenic, lead, chromium, and mercury.

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New organometallics imines of Rhenium(I) as potential ligands of GSK-3β: Synthesis, characterization and biological studies

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ABSTRACT

Subbed amino-piperazine subsidiaries have been blended and utilized as forerunners in the readiness of a progression of new organometallic Re(I) imine edifices of the overall equation [(η5-C5H4CH=N-(CH2)5-Pz-R)Re(CO)3] (Pz-R: -alkyl or aryl piperazine). The piperazine-based ligands were intended to be likely inhibitors of the GSK-3β kinase. All ligands and buildings were full portrayed and assessed in HT-29 and PT-45 disease cell lines, where GSK-3β assumes a urgent part. In this specific situation, we completed natural assessment utilizing the MTT colorimetric examine. Concerning structure action relationship, our discoveries

1. INTRODUCTION

Bioorganometallic science is the investigation of organically dynamic atoms that contain carbon straightforwardly attached to metals or metalloids. The functionalization of metal piece with natural ligands or potentially formed biomolecules (amino acids, peptides, proteins or starches) has turned into a suitable system to acquire new builds that have exorbitant interest as designated therapeutics.1-14 Albeit a large portion of the work in this space has been centered around medium and late progress metal edifices, rhenium subsidiaries have been concentrated as potential anticancer agents.15 Regarding cytotoxicity, some rhenium carbonyl buildings equivalent or even surpass that of the deep rooted hostile to disease drug cisplatin. There are various models that incorporate the Re(I) tricarbonyl center with subordinate ligands (N,N; alcoxido/hydroxido; N,O; P,P bidentate).

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Cobalt (II) complex with novel unsymmetrical tetradentate Schiff base (ON) ligand: In vitro cytotoxicity studies of complex, interaction with DNA/protein, molecular docking studies, and antibacterial activity

Prof. (Dr.) Amit Kumar Jana
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Gandhi Academy of Technology and Engineering, Berhampur, Odisha, India

ABSTRACT

[C20H17N3O2] and cobalt (II) complex [Co(L2)(MeOH)2].ClO4, (L2=4-((E)- 1-((2-(((E)- pyridin-2- ylmethylene) amino) phenyl) imino) ethyl) benzene-1, 3-diol) novel Schiff base has been synthesiszed and chracterized by FT-IR, UV-Vis, 1H-NMR spectroscopy and essential investigation procedures. The connection of Co(II) complex with DNA and BSA was explored by electronic assimilation spectroscopy, fluorescence spectroscopy, round dichroism (Disc) and warm denaturation studies. Our investigations show that this complex could

1. INTRODUCTION

Since Schiff bases can undoubtedly frame stable edifices with most progress metal particles, they play an significant part in inorganic science (Cheng et al. 2011, Wu et al. 2011). Furthermore, heaps of research has as of late been done on metal edifices of Schiff bases got from heterocyclic compounds (Golbedaghi et al. 2010, Shivakumar and Halli 2008). Coordination with different metal particles and development of stable mixtures has made tetradentate Schiff bases notable. In addition, organic chemists have likewise been zeroing in on Schiff bases.

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Interactions of cinnamaldehyde and its metabolite cinnamic acid with human serum albumin and interference of other food additives

Prof. (Dr.) Dr. Sagarika Pasayat
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Gandhi Academy of Technology and Engineering, Berhampur, Odisha, India

ABSTRACT:

Taking into account the unfriendly impact of food added substances on people, exhaustive examination of their physiological impacts at the atomic level is significant. The connections of cinnamaldehyde (CNMA), a food fragrance, and its major metabolite cinnamic corrosive (CA) with human serum egg whites (HSA) were analyzed by numerous spectroscopies. NMR examination uncovered CNMA and CA both bound to HSA, and sexually transmitted disease NMR tests laid out CNMA and CA basically associated with site I and site II of HSA, separately. The ligands caused solid extinguishing of HSA fluorescence through a static extinguishing component, with hydrophobic and electrostatic collaboration between CNMA/CA and HSA, individually. UV-vis assimilation and Disc results

1. INTRODUCTION

Cinnamaldehyde (CNMA, Fig. 1A) is the significant part in cassia also, cinnamon bark oils. CNMA, which is a for the most part supported fixing of scents and forces, grants a cinnamon flavor to food varieties what's more, is likewise utilized as a characteristic food additive to safeguard sea-going and meat items from growths. The significant metabolite of CNMA is cinnamic corrosive (CA, Fig. 1A), oxidized by β-oxidation similar to that of greasy acids (Peters and Caldwell, 1994).

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Towards the interaction between calcium carbide and water during gas-chromatographic determination of trace moisture in ultra-high purity ammonia

Prof. (Dr.) Priyabrat Mohapatra
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Gandhi Academy of Technology and Engineering, Berhampur, Odisha, India

ABSTRACT:

The momentum study centers around the cycles required during the stream change of water into acetylenein a calcium carbide response cell for the follow dampness examination of smelling salts by response gas chromatog-raphy. The elements adversely influencing the reproducibility and the exactness of the estimations aresuggested and examined. The intramolecular response of the HO Ca C CH transitional was found tobe a side response delivering foundation acetylene during the contact of wet smelling salts gas with calciumcarbide. The presence of the HO Ca C CH transitional among the response items is affirmed by anFTIR ghostly

1. INTRODUCTION

IntroductionMoisture assurance at follow levels in electronic gradeammonia is one of the most significant and simultaneously mostdifficult issues of follow examination [1-6]. High virtue ammonia(>99.9995%) is utilized as the nitrogen hotspot for the AlGaN/GaNepilayers in the creation of light-discharging diodes (LEDs), semi-guide lasers, and high electron versatility semiconductors (HEMTs)[7-9]. Follow dampness emphatically influences the exhibition of grownlayers during the synthetic fume testimony process (CVD) andcauses decrease of the interaction yield. While standard techniques for water content assessment (dewpoint, Karl-Fisher titration, conductivity estimation,

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A Study on the Importance of CSR for the Economic Development of the Society in India

Prof. (Dr.) Ramesh Chandra Rath
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ABSTRACT:

The phrase (CSR) corporate social responsibility is not a new one. Previously, only a few firms did anything for the betterment of society. All shareholders are essential components of every company entity. If they are serviced better, the organization will undoubtedly survive. The objective of this study is to help readers comprehend the importance of CSR in societal economic development.

Keywords – Economic development, sustain, CSR.

1. INTRODUCTION

A sense of responsibility for the well-being of society should be embedded in the company's Culture. "The individual sense of social responsibility is an extension of the CSR." Ratan Tata stated that active participation in CSR projects is required for the corporation.

In today's world, digitalization is important in both company and non-commercial organizations. Many business tasks have become practical and simple as a result of Internet use, including promotion, virtual exhibition, production, distribution, and many more. It benefits the organization in many ways, but there are some difficult roles to play that we cannot deny. Corporate social responsibility is all about improving society with the help of organizations.

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A Comprehensive Study of New Tax Regime on Salaried Persons in Berhampur City

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ABSTRACT:

In the era of economic slowdown the finance minister Nirmala Sitharaman presented her second union budget on 1st February 2020. In this budget she introduced a new tax regime, where salaried taxpayer can choose any option out of either old tax regime or new tax regime. If tax payer selects old tax regime he/she can avail all tax exemptions and deductions which was availed by him/her in previous year 2019-20 or before, but if he/she selects new tax regime he/she has to forgone about 70 exemptions and deductions. The basic object of this research is to compare the old tax regime and new tax regime. This study will help the taxpayer to select the old or new tax regime on the basis of their investments and earnings.

Key words: - New tax regime, Old tax regime, Deductions

1. INTRODUCTION

The vital source of revenue of government is taxation. Government collects revenue from tax and non-tax sources. Tax sources include income tax, corporate tax, custom duty, union exercise duty and goods& service tax. Non tax sources include non-debt capital receipts, non-tax revenue, borrowings and receipt from other liabilities. Taxation is known as mandatory charge. Direct and indirect taxes are two different sources of tax in Indian taxation system. Direct tax is progressive in nature whereas indirect tax is proportionate in nature. In direct tax incidence of tax and impact of tax lies on the same person whereas indirect tax can be collect from other persons i.e. costumers.

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Impact of Demonetization on Indian Economy

Prof. (Dr.) Tanmaya Kumar Pradhan
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Gandhi Academy of Technology and Engineering, Berhampur, Odisha, India

ABSTRACT:

Demonetization is the act of stripping a currency unit of its status as legal tender. It occurs whenever there is a change of national currency. While this is the third time in the Indian history that Indian high value currency has been stripped of its status as a legal tender, the first two instances of demonetization did not have an impact like the recent one. This is primarily because, this time, the demonetized currency represents 86% of the total currency in circulation. Immediate impact People's purchasing power would be lowered resulting in a reduction in demand since they are left with no case. Though some may believe that prices will fall when supply exceeds demand, there is a chance that prices will raise if supply is also reduced. Because the money supply has been significantly reduced, certain industries will be badly impacted as cash transactions cease. Income and consumption would be

Keywords: Money, Income, Transactions, Demonetization, Reduce Corruption, Economy etc.

1. INTRODUCTION

Demonetization is the act of removing a monetary unit's legal tender status. It occurs whenever a country's currency is changed: the present form or forms of money are removed from circulation and retired, frequently to be replaced with new notes or coins. A country's old currency is sometimes totally replaced with new currency.

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Impact of FDI on Financial Performance of Insurance Companies

Prof. (Dr.) Jyotirmaya Satapathy
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INTRODUCTION

Risk is an essential aspect of life, and the insurance sector is regarded as the backbone for the country's risk management systems. This is one of the key reasons why the government develops particular rules and regulations to promote the insurance sector and its growth. One of the reasons that foreign direct investment was introduced in the insurance business was to expand these organizations' risk coverage capabilities toward the Indian populace. India has a large population, and a considerable proportion of people live below the poverty line. Because of the scarcity of insurance businesses in India, total insurance premiums are very high, resulting in lower insurance penetration.

1. RESEARCH QUESTION AND OBJECTIVE

An organization's profitability can be affected by a variety of internal and external factors, one of which is its capital structure. The key research goal in the provided situation will be to determine whether FDI in a company's equity capital affects its profitability or not. Furthermore, how FDI investment affects profitability will be examined with the help of this research (Myers, 2019). Over a four-year period, the profitability of private and public sector firms will be compared to the increase and decline in FDI investment.

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Research on MTI talent cultivation under language education planning

Prof. (Dr.) Bairagi Patra
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ABSTRACT:

In order to tell China's stories well, promote the Chinese voice, and show a true and comprehensive China, to enhance our capacities of transnational communication, our country has elevated its understanding of the discrepancies of transnational communication work to a new position. The authors fete the close connection between the diligence and propose that graduate scholars majoring in restatement in the new period should concentrate on the practical conditions of transnational communication and laboriously acclimatize to the requirements of global development.

INTRODUCTION

The civilization of MTI bents has always been an important issue in the field of language restatement and communication under language education planning. With the development of globalization and the adding frequence of multilingual communication, there's a growing demand for restatement professionals who are complete in multiple languages. The MTI program is devoted to cultivating largely professed and well- rounded restatement professionals for society. Against the background of current global language planning, in- depth exploration into the styles and ways of MTI gift civilization is of significant significance in perfecting the quality and effectiveness of restatement and interpretation exploration. In the period of globalization, language education planning has come an important part of public development and artistic exchange.

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Teaching English for Research Publication Purposes to science students in China: A case study of an experienced teacher in the classroom

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ABSTRACT:

Within ESP/EAP, compared with the large volume of corpus-informed discourse analytic research, there is only limited literature featuring the actual classroom discourse, or more specifically, the ESP/EAP practitioners' teaching itself. Such classroom-based research, however, can significantly inform the preparation of ESP/EAP teachers. In this paper, we address the research gap by presenting a case study of how an experienced, native-English-speaking English for Research Publication Purposes (ERPP) teacher went about teaching an ERPP course by invitation at a university in China. Data were collected through classroom observation with audio and video recordings and interviews.

INTRODUCTION

In common with schoolteacher education for ESP/ EAP in general(Basturkmen, 2014), there's little literature aimed at the medication of preceptors of English for Research Publication Purposes(ERPP)(Cargill & Burgess, 2008). 1 Research applicable for the tutoring of ERPP includes a) converse analysis, in particular Swalesian kidney analysis(Swales, 1990); b) social constructivist accounts of how expert and neophyte pens go about writing for publication, grounded on interviews and textbook analysis(J. Flowerdew, 2000, Li, 2006, Lillis and Curry, 2010); c) first- person accounts of successful alternate language academic pens(Belcher & Connor, 2001).

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Mathematical model to analyze the flow and heat transfer problem in U-Shaped geothermal exchangers

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ABSTRACT:

In this study, we propose a fine model for U-shaped geothermal heat exchange ers grounded on the unsteady Navier – Stokes problem. In the numerical result of this problem, we divide the exchanger into two computational disciplines rectilinear pipes where the temperature field is reckoned analytically, and a U-curved pipe where results for both the inflow and heat exchange are calculated using a numerical procedure grounded on the Galerkin finite rudiments system. The results of some numerical simulations are handed and used to study the performance of geothermal exchangers by assessing the effective en ergy produced. We also present a confirmation analysis grounded on experimental measures attained from a real geothermal exchanger.

INTRODUCTION:

Geothermal energy is generated and stored in the form of heat below the Earth's face. This renewable resource may be unique because it's nearly independent of solar energy and the rainfall conditions. This point is notable for renew suitable energy coffers because it means that geothermal energy is available every day throughout the time. It's also an indefatigable energy resource and in mortal terms, its eventuality is similar to that of the sun. Useful operations of geothermal energy include electric power generation and perfecting the effectiveness of systems for hot water product and air- exertion in structures.

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Predator interactions Population dynamics with multiple Allee effects induced by fear factors – A mathematical study on prey-

Prof. (Dr.) Sandhya Mishra
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ABSTRACT:

In the present, ecologists generally consider the relations, which are directly related to the viscosity goods, that species have on each other, like predation, mutualism, retreatment. Still, some experimental studies showed that piecemeal from the direct payoff, predation fears itself can reduce the prey growth rate by 40. thus, in the present study, we have considered a particularity effect, which is characterized by the reduction of prey growth rate due to fear of bloodsucker, where the prey is formerly suffered by the lovemaking convinced strong Allee goods, in the reduplication process. First, we developed and anatomized the single species model and showed that how the fear effect can significantly reduce the per-capita growth rate (pgr) and may be a possible cause of the multiple Allee goods at low pop ulation viscosity.

1. INTRODUCTION:

The presence of bloodsucker may significantly alter the prey gets , such an extent that it could affect the prey more influential than direct predation(1,2). But in utmost of the studies on prey- bloodsucker systems, only consider the direct payoff of prey in the presence of bloodsucker, as this predation is veritably easy to observe in nature. Though we only observe the direct payoff, but all prey responds to the predation threat and shows different types ofanti-predator responses, which includes habit tat changes.

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Mathematical modelling and analysis of nano particle gradients induced by magnetic fields

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ABSTRACT:

In this paper, we infer numerical models for the elements of super paramagnetic nano particles beneath the impact of connected attractive areas. Such models are required in numerous applications, e.g. attractive medicate focusing on in cancer treatment. They are the beginning point for the advancement of steady numerical approaches and for the definition of optimization issues, which are required for the ideal plan of attractive field arrangements. Besides, we appear the presence and uniqueness of classical radially symmetrical arrangements and outline their subjective conduct by numerical reenactments utilizing Matlab.

INTRODUCTION:

In this paper, we are concerned with the numerical demonstrating and investigation of forms within the field of attractive focusing on. By and large talking, the point is to control the flow of attractive particles by connected attractive areas. In our examinations, we consider super paramagnetic nano particles which these days are at the center of numerous applications; here, we say those from biomedicine. In this area, magnetic targeting may be a promising approach e.g. in cancer treatment, where it can give an vital elective or expansion to customary treatments, [13,1,14,9]. In customary treatments, such as chemotherapy, drugs are dispersed all over the body, so that they slaughter not fair fast-growing cancer cells, but moreover bone-marrow, skin, hair, intestinal and immune-system cells. Hence, the awesome esteem of the attractive focusing on strategy comprises within the capacity to target illness locations.

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Global analysis of a mathematical model for hepatitis C considering the host immune system

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ABSTRACT:

A fine model is considered in order to dissect the dynamics of hepatitis C contagion (HCV) and the host vulnerable system. This model is grounded on a system of four discrimination equations. By using geometric tools, enough conditions are determined in terms of the parameters that guarantee the global stability of the aboriginal equilibrium.

INTRODUCTION:

Hepatitis C is a complaint that substantially affects the liver. It's caused by the hepatitis C contagion (HCV). The acute infection is generally asymptomatic, but the habitual infection(50 – 70 of the cases) might produce liver damage, and about 20 of the cases get cirrhosis ten times after being infected(9). The HCV is substantially caused through the blood, some rare cases by sexual contact and infrequently from mama to her baby. Roughly from 130 to 150 millions of people around the world are infected by HCV (2015).1 currently, there's no vaccine against HCV. The current treatment consists in barring the viral cargo using interferon and ribavirin for 48 weeks. The treatment cures about half of the cases, but it constantly has secondary responses that can be mortal. There are some procedures to estimate the hepatic lesion; one of them is the liver vivisection which was the stylish tool for times to cover the elaboration of the hepatic complaint. Its use has dropped because it's veritably aggressive procedure for the case.

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Solutions for General Relativity in modified gravity

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ABSTRACT:

Later gravitational wave perceptions of parallel dark gap mergers and a parallel neutron star merger by LIGO and Virgo Collaborations related with its optical partner compel deviation from Common Relativity (GR) both on strong-field administration and cosmological scales with tall exactness, and assist solid imperatives are anticipated by near-future perceptions. Hence, it is vital to distinguish hypotheses of modified gravity that naturally have the same arrangements as in GR among a gigantic number of hypotheses. We clarify the three conditions for speculations of modified gravity to permit GR arrangements

1. INTRODUCTION:

Later estimations of gravitational waves (GWs) from twofold dark gap (BH) mergers by LIGO and Virgo Collaborations clarified that the watched GWs are reliable with the expectation of Common Relativity (GR) for parallel coalescence waveforms. Additionally, the nearly concurrent location of GWs from a neutron star (NS) merger , and the brief gamma-ray burst has significantly obliged a deviation of engendering speed of GWs over cosmological remove from the speed of light down arrange 10−15 . End of the estimations of GWs with uncommon exactnesses will make it conceivable to test modified gravity from totally diverse viewpoints.

Different gravitational speculations elective to GR have been professional- postured to clarify inflation and/or late-time speeding up of the

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The affect of radiation treatment arranging strategy on spontaneous clinic affirmations

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ABSTRACT:

PURPOSE: Treatment burdens and toxicities related to palliative radiation treatment (RT) may lead to impromptu healing center confirmations (UHAs). The probability for these toxicities may be related to treatment method. We compared rates of UHA between patients accepting nonconformal (2- dimensional) and conformal (3-dimensional or higher) radiation medications to bone metastases including the vertebral column.

Methods and materials: We reflectively analyzed patients treated with RT for bone metastases at a single tertiary care center between 2010 and 2017. We compared rates of RT-related UHA inside 90 days of accepting radiation utilizing Cox competing hazard relapse models.

INTRODUCTION:

Radiation treatment (RT) may be a profoundly compelling shape of indication palliation for patients with bone metastases. At the same time, patients who get palliative RT for bone metastases are especially helpless to treatment-related burdens and toxicities that in some cases lead to unplanned hospitalizations.1 Spontaneous healing center confirmation (UHA) could be a result of treatment-related burdens that overpower dad- tients to such an degree that hospitalization is required.

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Analytical Solution for Ultimate bearing capacity of strip footing seated on inclined backfill

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ABSTRACT:

Concurrent building construction began when inclines on Earth's surface began to receive more infrastructure. Shallow foundations were preferred for residential and commercial buildings with low ceilings. Footings were positioned differently on slanted terrain than they were on a level one. Meyerhof was the first to give analytical answers for footing on inclined ground. Other academics have since extended these ideas. The ultimate carrying capacity of a footing on a slope has been determined through the development of analytical solutions in this study. Rankin's Earth Pressure Theory was employed to conduct the study of one-sided equilibrium. For the c-φ soil, the results have been shown for various values of slope angles. Meyerhof's theoretical solution, which established the ultimate bearing capacity of a shallow foundation situated on a slope, has been compared to analytical results.

1. INTRODUCTION:

This study provides an analytical solution using Rankine's earth pressure theory to calculate the ultimate bearing capacity of footing at varied angles of θ.One of the most significant earth pressure theories, Rankine's theory, is still in use today due to its exacting theory, understandable concept, and straightforward computation. The one-sided equilibrium analysis was carried out using it to determine the footing's ultimate bearing capacity.

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Behavior of Rectangular RC Columns Confinedwith BFRP sheets Subjected to Axial Loading

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ABSTRACT:

This work presents the results of a research into the behavior under axial compression stress of small rectangular reinforced concrete columns encased in fiber reinforced polymer (FRP) sheets. The purpose of this study is to evaluate the performance of these strengthened columns experimentally utilizing sheets made of a novel and promising FRP material called basalt fiber reinforced polymer (BFRP). Additionally, it seeks to explore the upper bound of the cross-sectional aspect ratio parameter, a contentious topic for the past twenty years. Eight RC columns with aspect ratios of 1.0, 1.5, 2.0, and 2.5 were therefore put to the test.An analysis was conducted on the axial and transverse behavior of columns. The nominal compressive strength of rectangular RC BFRP-confined column sheets was then predicted using a few confinement models for rectangular RC columns that were already in use.

INTRODUCTION

Due to their excellent engineering qualities, which include minimal thickness in addition to high strength and high corrosion resistance, fiber reinforced polymer (FRP) composites have shown to be a viable alternative to steel for reinforcing concrete structures in recent decades. In addition, they maintain the architectural perspective. FRP materials have successfully improved the behavior of circular concrete columns with a geometrical structure that permits the fibers to be stressed uniformly, with regard to an important structural element like a column.

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Characteristic Study Of Concrete By Replacing Glass Cullet And Ceramic Tiles Over Conventional Aggregates

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ABSTRACT:

Invention of various researches in concrete proves that compressive strength of concrete can be easily obtained using various wastes from environment into a great extent. Therefore, from these results the strength also obtained under sustainable rate without making any hazard to the environment. Here, a study was carried to improve the compressive strength of concrete by replacing coarse aggregate with ceramic wastes and fine aggregate with Glass cullet at different proportions.

INTRODUCTION

The combination of cement, coarse aggregate, Fine aggregate with different proportions of water makes the combined substance to resist the compressive stress is Known to be Concrete. Thus, under eco free considerations, variousalternates are chosen by replacing these constituents thereby,the strength, durability's are also enhanced into a great extent (1,2,4). Here, M30 Grade of concrete being chosen for the strength determinations with 0%-0%, 10%-20% and 20%-10% replacementofGlassculletandCeramicwastesinconcrete. This combined action increases the compressive stresses at higher level than to the conventional mix of concrete(2,3). Concrete samples of M-30 grade are prepared as per IS-10262, 2009 mix design procedure with and without replacement of Glass cullet and Ceramic wastes.

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Evaluation of vehicle light weightingto reduce greenhouse gas emissionswith focus on magnesium substitution

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ABSTRACT:

In order to decrease runoff from a site and replenish ground water levels, pervious concrete is a unique high porosity concrete that is used for flatwork applications. It permits water from precipitation and other sources to pass through there. Important characteristics of pervious concrete are its durability and water absorption capacity. Large aggregates are used in its construction, with little to no fine aggregate. With very little fine aggregate, it is mostly composed of water, coarse aggregate, and cement. Parking lots, places with little traffic, residential streets, pedestrian walkways, and greenhouses are among the typical applications for pervious concrete.

INTRODUCTION

A unique kind of concrete known as "pervious concrete" substitutes gravel for coarse aggregate and does not use any fine aggregate. A homogenous mixture of cement, gravel or aggregate, and water is known as pervious concrete. "No-fines" concrete is another term for pervious concrete. One of the most crucial factors to take into account when designing new buildings and evaluating the state of existing ones is the durability of the concrete. Concrete construction is becoming increasingly complex and the importance of producing structures that are both cost effective and durable has never been higher.

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A Methodical Mapping Study of Block chain-Based Applications in Higher Education

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ABSTRACT:

Blockchain technology is now being applied in areas other than digital money, including education, health, and the Internet of Things. We provide a methodical mapping analysis in this work to gather and examine pertinent blockchain research pertaining to the higher education sector. The focus of the article is on two primary themes. Initially, it looks at cutting edge blockchain-based apps created for educational reasons. It also enumerates the difficulties and areas of unfinished study that require attention in further investigations.

INTRODUCTION

By utilizing modern technologies like the Internet and World Wide Web, the traditional educational system in higher education has experienced considerable and ongoing development. Web-based apps are being used to foster active learning, enhance collaboration, facilitate resource sharing, and improve communication. There aren't many goods now built on blockchain, and blockchain applications for education are still in their infancy. Nonetheless, there are a lot of new opportunities that blockchain technology may provide.

2008 saw the initial development of blockchain for the Bitcoin electronic payment system [2]. From then on, this new technology has developed quickly and is now the focus of extensive study in several enterprises, research centers, and academic institutions worldwide [3][8][49]. The goal of blockchain technology is to address the issue of a "trusted" central authority handling the task of mediating transactions between parties.

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A Systematic Mapping Study of Blockchain-Based Supply Chain Management

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ABSTRACT:

Incredibly, in the past several years, blockchain technology (BCT) has become increasingly important and widely accepted. applied to a variety of fields, including supply chain networks, banking, supply and legal sectors, and smart property. Without the assistance of a third party, this technique guarantees the integrity and immutability of data. BCT may also ensure a decentralized and transparent transaction system across industries and enterprises. A thorough study of the present research difficulties related the effective use of BCT in supply chain management (SCM) is lacking, despite the fact that general research in the field has been conducted. There isn't currently a comprehensive literature review (SLR) on blockchain-based supply chain management.

INTRODUCTION

In an effort to enhance supply chain performance across various industries and offer novel approaches to supply chain management (SCM), recent systematic literature reviews (SLRs) on the subject have emphasized the significance of information and communication technology (ICT) in SCM, though they have not specifically addressed blockchain technology (BCT).

Because of the BCT's novel features, which offer effective answers to the gaps that exist in a number of supply chain sectors, it has been inspiring study topics. In fact, the subject of the blockchain's applicability for supply chain management has not been included in any of the SLRs that have been done up to this point.

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Self-Driving Database Management Systems: Query-based Workload Forecasting

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ABSTRACT:

The capacity to simulate the workload of the target application is the first step towards developing an autonomous database management system (DBMS). In order to foresee future workload requirements and promptly pick the appropriate optimizations, this is required of the system. Previous forecasting methods model the query' resource usage. But these measurements are unstable, changing as soon as the hardware resources and database's physical layout do, making earlier forecasting models meaningless.

1. INTRODUCTION

We introduce QueryBot 5000, a powerful forecasting tool that leverages previous data to provide a DBMS with a projected future query arrival rate prediction. Our method relies on the logical structure of the workload rather than the quantity of physical resources utilized to execute the queries in order to better accommodate highly dynamic situations. This offers distinct aggregation intervals for various horizons, ranging from short-term to long-term. Another method we provide for lowering the overall number of forecasting models that need to be maintained is based on clustering. Using three real-world database traces, we assess our method by comparing our predicting models to other cutting edge algorithms.

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Analysis of information Storage Security Issues in Cloud computing paradigm

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ABSTRACT:

Cloud computing gives on request services to its clients. Data capacity is among one of the essential services given by cloud computing. Cloud service provider has the data of data proprietor on their server and client can get to their information from these servers. As information owners and servers are diverse personalities the worldview of information capacity brings up numerous security challenges. An autonomous instrument is required to create beyond any doubt that information is accurately facilitated in to the cloud storage server. In this paper we'll talk about the distinctive strategies that are utilized for secure information capacity on cloud.

INTRODUCTION

Cloud computing is the combination of many preexisting advances that have developed at distinctive rates and in numerous settings. The objective of cloud computing is to permit clients to require advantage from all these innovations. Numerous organizations are moving into cloud since it permits the clients to store their information on clouds and can get to at anytime from anyplace. Information breaching is conceivable in cloud environment since information from different clients and commerce organizations lie together in cloud. By sending the information to the cloud the information proprietors exchange the control of their information to a third individual that will raise security issues. Now and then the Cloud Benefit Provider (CSP) itself will use/corrupt the information illicitly.

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Dynamic controllable external database with Fresh cloud service

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ABSTRACT

Database outsourcing is one of the prominent cloud services in which the database owner (DO) delegates database management to a cloud service provider (CSP) to reduce the cost of database management and maintenance. Despite its huge advantages, it suffers from certain security problems, such as secrecy of outsourced databases and controllability of search results. Recently, some research has been done on the verifiability of external databases (ODB) search results, which ensures the correctness and completeness of the search results.

1. INTRODUCTION

Database outsourcing is one of the prominent cloud services in which the database owner (DO) delegates database management to a cloud service provider (CSP) to reduce the cost of database management and maintenance. Despite its huge advantages, it suffers from certain security problems, such as secrecy of outsourced databases and controllability of search results. Recently, some research has been done on the verifiability of outsourced databases (ODB) search results, which ensures that sercCloud Computing is a new information technology (IT) paradigm that enables on-demand, daily access to a shared network. a set of configurable computing resources. One of the main services of the cloud service is the outsourcing of databases. Where the customer can delegate database management to the CSP to reduce maintenance and database management costs. Despite its many advantages, ODB has some security problems [1]. One security

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A Collaboration Platform for Enabling Industrial Symbiosis: Application ofthe Database Engine for Waste-to-Resource Matching

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ABSTRACT:

Database outsourcing is one of the prominent cloud services in which the database owner (DO) delegates database management to a cloud service provider (CSP) to reduce the cost of database management and maintenance. Despite its huge advantages, it suffers from certain security problems, such as secrecy of outsourced databases and controllability of search results. Recently, some research has been done on the verifiability of external databases (ODB) search results, which ensures the correctness and completeness of the search results.

1. INTRODUCTION

Population growth, along with a growing middle class and affluent consumers, is accelerating per capita consumption of global resources. Thanks to this, waste is generated in the world faster than other environmental pollutants, including greenhouse gases [1]. Such waste is especially urgent in densely populated and landless cities like Singapore. Although 61% of the 7.81 million tones of waste generated in Singapore in 2016 was recycled [2], incineration and landfill capacities are struggling to keep up with the increasing amount of waste generated over the years. In addition, incineration and landfill represent a missed opportunity for businesses. There is potential value in waste that can be recycled by turning waste into natural resources.

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Challenges and security issues of underwater wireless Sensor networks

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ABSTRACT:

With the advances in technology, there has been an increasing interest from researches and industrial institutions in the use of Underwater Wireless Sensor Networks (UWSNs). Constrained by the open acoustic channel, harsh underwater environment and the particularities of itself, UWSNs are vulnerable to a wide class of security threats and malicious attacks. A survey on threats, challenges and security issues ofUWSNs are presented in thispaper. In addition, current security researches and mechanisms are presented and discussed.

1. INTRODUCTION

Underwater wireless sensor networks (UWSNs) have proven robust in various underwater applications in ocean surveillance, resource exploration, surveillance, and military applications under severe underwater conditions [1][2]. Current research focuses primarily on communication, self-organization, connectivity, processing ability, adaptability and low energy consumption. UWSNs are vulnerable to a number of security threats and malicious attacks that severely disrupt network communication and collaboration. Security requirements for UWSNs are implemented to prevent these attacks. Unfortunately, these studies were limited to mitigating security threats in UWSNs because resources are much more limited, while the security situation is more server-based due to functions and network environments

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Developmental methods for creating artificial Intelligence in robotic systems

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ABSTRACT:

This paper explores evolutionary methods of symbolic regression to build artificial intelligence for robotic systems. We look at symbolic regression methods and show the features of their application in solving the synthetic task of controlling robot systems. The measure of the complexity of artificial intelligence is determined and the advantage of using the principle of small variations of the basic solution in relation to the creation of intelligent control systems is pointed out. A variational analysis programming method is described and an example of its use for the synthesis of intelligent control is described.

1. INTRODUCTION

The current problem of creating artificial intelligence has become more acute with the development of robotic systems. Despite the fact that much has been said about the problem of creating artificial intelligence ,the concept of artificial intelligence itself and its definition are important. It is clear that the presence of intelligence is essential in decision systems, pattern recognition, inference and learning, and thus these human-developed systems must contain elements of artificial intelligence**.**

The statement that artificial intelligence is a system containing conditional operators is also confirmed by the fact that it is difficult to find a mathematical device where the formal mathematical formulation of the problem would give a conditional operator as a solution.

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Time series forecasting using artificial neural methods: a systematic review

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ABSTRACT:

This paper examines the development of time series forecasting models using artificial neural methods in a systematic literature review. A systematic review of articles published in the past 11 years on time series forecasting with new neural network models was performed and the methods used were presented. Among the results obtained during the period covered by the study, 17 studies were found that met all the search criteria. Only three of the proposals received dealt with a neural network model of an autoregressive different process. From these results, it is concluded that although there are many studies that introduce the application of neural network models, but few of them have proposed new neural

INTRODUCTION

Time series is a general problem of great practical interest in many fields. Because it allows you to find the future values of the series from its previous values with a certain margin of error. In the related literature, there are many successful applications in various fields such as economics, finance, and water science.In the late 1970s, Box and Jenkins [20] did important work on the study of applications consisting of mathematical linear models. These models represent autoregressive (AR) and moving average (MA) processes. AR processes assume that the current value of a time series is a linear combination of its previous values.

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Future Prospects and Difficulties of Blockchain- Integrated Internet of Things

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ABSTRACT:

Within the Web of Things (IoT) thought, normal contraptions conclusion up sharp and self-governing. As we are seeing thought behind usually changing into a authenticity on account of accomplishment in development, but we still confront challenges, particularly in a few field like security e.g., data constancy. Taking account, the up and coming headway within the field of IoT,it appears exceptionally imperative to give trust within the field of colossal drawing closer information establishment. Blockchain has given us the other way to share our information with others.

1. INTRODUCTION

The web of things (IoT) spread an thought which depicts the association of normal gadgets with the web but with the capability to recognize themselves as an person and diverse gadget. This innovation is closely related to the RFID "radio-frequency identification" for communication methodology, indeed it may assimilate the other advances like OR codes, remote innovations or to a few expand sensors advances [1]. On the other hand, blockchain is an progressed record of exchanges. Blockchain was started from the concept where each block named as record are associated together in a frame of chain subsequently named as block-chain.

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Investigation into the Impact of Primary Load Imbalance on the Composite Transformer's Accuracy

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ABSTRACT:

The assessment of the error in a three-phase three-element combined transformer involves employing a three-phase detection method to accurately measure the error in both current and voltage transformers. The close proximity of these transformers in the combined structure makes them susceptible to electromagnetic interference, particularly in situations with imbalanced primary loads, a common occurrence in power systems. This paper presents an experimental investigation aimed at understanding the impact of primary load imbalance on the error characteristics of three-phase three-element combined transformers.

1. INTRODUCTION

Three-phase three-element combined transformers are extensively utilized in power grids with voltage levels ranging from 6kV to 35kV. These transformers exhibit two structural variations: independent iron core structure and three-column core structure. The three-column core structure, when compared to the independent iron core structure, offers advantages such as a compact design, smaller volume, and lower cost . This paper primarily focuses on the three-phase three-element transformer with a three-column iron core structure. The preferred detection method for such transformers is the three-phase detecting method, which involves simultaneously raising the voltage and current of each phase to detect errors during actual operational conditions.

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Optimal Design of Static Plate in UHV Converter Transformer Utilizing PSO Algorithm

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ABSTRACT:

Electrostatic plates, positioned at both ends of the windings in UHV converter transformers, serve to shield the electric field of the winding ends and enhance voltage distribution during impulse voltages. Existing literature on optimizing electrostatic plate structures often focuses on surface maximum field stress rather than the overall insulation margin. The allowable stress value in transformer insulation design is closely tied to the stress oil volume (or the size of the oil gap). Therefore, reducing surface maximum field stress may not necessarily improve the overall insulation margin. This means that optimizing for surface maximum field strength only satisfies local insulation requirements. This paper.

1. INTRODUCTION

Electrostatic plates, commonly known as electrostatic rings, installed at both ends of transformer windings, serve the purpose of shielding the electric field at the winding ends and enhancing voltage distribution during impulse voltages. Existing literature on electrostatic plate optimization often prioritizes surface maximum field stress over the overall insulation margin. The allowable stress in transformer insulation design is intricately linked to the stress oil volume (or oil gap size). Therefore, reducing surface maximum field stress does not necessarily

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Analysis of the Key Insulation Structure in a 500kV Radial Split Transformer and Optimize it

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ABSTRACT:

The split transformer, widely used in power stations for efficiently limiting short-circuit currents, has found extensive application, particularly in LV split-type starting-up standby transformers. This paper focuses on ensuring the insulation structure's reliability in a 500 kV radial split transformer. Finite Element Method (FEM) analysis was employed to examine the electric field distribution in HV winding end insulation, lead insulation, and HV winding outlets insulation. The insulation structures were optimized based on the FEM analysis results. Changes were implemented in the static plate structure of the high voltage winding, transforming it into a composite insulation structure. Additionally, improvements

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INTRODUCTION

Presently, the 500 kV transmission line serves as the backbone network in China. The utilization of a 500 kV split transformer directly from the 500 kV line for power generation has become common. In comparison to double-winding transformers of the same capacity, the 500 kV split transformer exhibits greater split impedance with its low-voltage split windings. This characteristic effectively reduces short-circuit currents and short-circuit capacity. Power plant design specifications mandate the use of split transformers for 200 ~ 600 MW units in HV power plants. While the capacity of split transformers may not be large.

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Investigation of Insulation Material Properties under Nonlinear AC–DC Composite Electric Field for Converter Transformer

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ABSTRACT:

This paper explores the nonlinear ac–dc composite electric field within the winding area of a converter transformer, taking into account the frequency and temperature dependence of insulation materials. Initial measurements were conducted on the relative permittivity and conductivity of insulation papers, vegetable oils, and mineral oils at various frequencies and temperatures. Subsequently, a model of the oil-paper insulation structure for a 500 kV converter transformer valve-side winding was established.

1. INTRODUCTION

The converter transformer holds significant importance in the primary system of high-voltage direct current transmission, crucially impacting system stability. The converter transformer plays a pivotal role in the DC transmission system. Employing an oil-paper insulation structure, this system is susceptible to partial discharge, a primary factor contributing to insulation performance deterioration. The condition of the oil-paper insulation directly influences the state and lifespan of various power appliances, emphasizing the critical role of converter transformer design . Consequently, the study of composite electric field calculation methods and the permissible field strength of insulation materials under this field is integral to converter transformer design.

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Magnetostriction Characteristics of Electrical Steel and its Correlation with No-Load Noise in Power Transformers

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ABSTRACT:

This paper investigates the correlation between the experimentally determined magnetostriction of grain-oriented electrical steel (GOES) coils and the no-load noise of power transformers (PT). The primary source of a PT's no-load noise is the magnetostrictive vibration of the magnetic core constructed with stacked GOES sheets. Using an in-house measurement system capable of assessing steel coils weighing up to 6,000 kg, distinctions in the magnetostriction of GOES materials were identified. The study analyzes the flux-dependent behavior and harmonic composition of magnetostrictive properties in different steel coils. Two experimental studies with PTs are presented, demonstrating exemplary results. The

INTRODUCTION

In recent decades, a noticeable increase in noise levels, particularly in populated areas, has been observed. This rise in noise pollution can be attributed primarily to population growth and urbanization. The overall impact of noise pollution has prompted governments to amend legislation and implement noise limits. The European Parliament has also taken steps to establish relevant policies, exemplified by the European Directive 2002/49/EC. These regulatory changes affect operators of power transformer (PT) substations and PT manufacturers alike.

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An Innovative Approach to Investigate Core Vibration in Power Transformers

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ABSTRACT:

Large power transformers often face significant challenges related to vibration and noise, with core vibration serving as a critical factor in accurate calculations. The complexities of vibration calculation intensify for transformers housed in tanks, considering the intricate propagation path of vibration within the tank and transformer oil. This paper presents an innovative approach to investigating core vibration in the DFP-270,000/500 super high-voltage generator transformer. Through vibration-acoustic coupling calculations, the damping coefficient of the transformer's core vibration is determined, employing magnetic structural coupling analysis. To assess the proposed method's feasibility and applicability, numerical results are compared with experimental data.

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1. INTRODUCTION

In recent times, the escalation of power transformer capacity and voltage levels has exacerbated the issue of transformer noise, making it a significant concern . Transformer noise emanates from various sources, including the core, winding, and cooler, with the core being the primary contributor. The noise generated by the core is attributed to the magnetostrictive effect induced by the alternating magnetic field acting on the silicon steel sheets comprising the core. This magnetostriction causes periodic vibrations in the transformer core, resulting in propagated noise.

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Eddy Current Loss Analysis in Transformer Foil Winding Utilizing Magneto-Fluid-Thermal Simulation

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ABSTRACT:

Accurate estimation of temperature distribution in foil windings is essential for ensuring the longevity of power transformers, as localized heating can expedite the aging of insulation materials. Traditional 3-D electromagnetic models, coupled with heat transfer principles, face challenges in estimating non-uniform losses and temperature distributions due to the intricate magnetic leakage flux. This paper presents a magneto-fluid-thermal coupling model to calculate temperature rise and predict potential hotspots in a simplified 2500 kVA dry-type power transformer. The model considers the influence of insulation barriers, reshaping the air-flow path and affecting radiative effects between high-voltage and low-voltage windings. Experimental temperature rises, measured using infrared thermography,

1. INTRODUCTION

In the realm of energy transmission, power transformers play a pivotal role, making their reliability paramount for power systems. Transformer failures often stem from thermal effects, with local heating posing a significant threat to the insulation structure. The calculation of additional losses in the windings of large-capacity power transformers, especially the highly non-uniform power losses in foil windings due to induced current, is a critical consideration.

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Enhancement of Variable Speed Controllability for a 20 kW Class High-Temperature Superconducting Induction / Synchronous Motor under No-Load Conditions

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ABSTRACT:

The term "HTS motor" in this context refers to a high-temperature superconducting motor. Specifically, the HTS induction/synchronous motor (HTS-ISM) mentioned in the abstract is a type of motor utilizing high-temperature superconducting technology. The focus of the research and development described in the abstract is on the application of this motor in next-generation transportation equipment such as trains and buses.

1. INTRODUCTION

Energy-Effective buses have been spotlighted in the world. marketable preface of Electric Vehicle(EV) or Plugin Hybrid Vehicle(PHV), as a representative one, are adding time by time. In order to further ameliorate the total system effectiveness of the below machine, exploration and development of largely effective drive motor is veritably important. An HTS motor is seen as a advance towards achieving similar pretensions. Development of superconducting traction motors for automotive operation have been reported in literature(1),(2). Our design group has developed the high performance superconducting motor for the forenamed operations. We call our motor a High Temperature Superconducting Induction/ Synchronous Motor (HTS- ISM) (3).

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Optimization and Comparative Analysis of Linear Flux-Switching Permanent Magnet Motor and Linear Induction Motor for Electromagnetic Launch Systems

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ABSTRACT:

In pursuit of a motor design that combines the simplicity and robustness of induction linear motors with the high power factor and efficiency of permanent magnet linear motors, this paper introduces, investigates, and quantitatively compares a novel long primary double-sided linear flux-switching permanent magnet (DSLFSPM) motor with linear induction motors (LIM) for electromagnetic launch systems. The topology, operational principles, and electromagnetic performance of the DSLFSPM motor are explored. To comprehensively analyze linear induction motors, three LIMs are designed with identical overall dimensions and key parameters.

1. INTRODUCTION

With the advancement of industry and weaponry, the electromagnetic launch system has found widespread applications in shipboard aircraft launches, unmanned aerial vehicle launches, vehicle impact tests, and other military and civilian equipment . Currently, there are two primary methods employed in shipboard aircraft launches: the steam launch system and the electromagnetic launch system. In comparison to the steam launch system, the electromagnetic launch system boasts several advantages, including a wide application range,

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Modeling and Operation of a Fixed-Pole Rotor Induction Motor with Bearing less Configuration

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ABSTRACT:

Traditional bearingless induction motors (BIMs) generate rotor currents through both the suspension force winding magnetic field and the torque winding magnetic field, leading to errors in radial suspension force generation. To address this issue, we propose a novel design known as the bearingless fixed-pole rotor induction (BFPRI) motor. We analyze the structure of the BFPRImotor, deduce mathematical models for radial suspension forces, and conduct finite element analysis to investigate induced currents and radial suspension forces. The results are compared with traditional BIMs. Additionally, we build a prototype motor and conduct experimental research.

1. INTRODUCTION

Magnetic bearings provide non-contact support between the stator and rotor using electromagnetic forces, effectively addressing issues like wear, vibration, noise, and the need for lubrication. These bearings find applications in specialized machines such as turbo-molecular vacuum pumps, artificial heart pumps, and centrifugal blood pumps . However, motor systems supported by magnetic bearings often face challenges such as long axial length, low critical speed, and complex structures, limiting the development of high-speed and high-power magnetic bearing motors.

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Refined Validation of a Rotor Fault Diagnosis Approach in Laboratory and Field Soft-Started Induction Motors

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ABSTRACT:

Induction motors are ubiquitous rotating electrical machines in various industries. Predictive maintenance of these motors is critical to prevent unexpected faults that can result in substantial economic losses for companies. In recent years, industrial induction motors operated by different types of drives, including soft-starters, have become more prevalent. Soft-starters offer advantages such as damping high starting currents, enabling a smooth motor startup, and avoiding undesirable commutation transients from other starting methods. Despite these benefits, they do not eliminate the potential occurrence of rotor damages, a common fault in such motors.While a few works have proposed predictive maintenance techniques for diagnosing rotor conditions in soft-started machines, very few have demonstrated the validity of their methods in real motors.

1. INTRODUCTION

Induction motors find applications across various industrial sectors, with factories housing hundreds or even thousands of these reliable machines. Despite their general reliability compared to other motor types, such as DC machines or synchronous motors, they are susceptible to various faults. Studies indicate that the most common issues include bearing failures, stator insulation faults, and rotor damages, .Rotor faults, in particular, pose significant risks for several reasons maintenance of this motor component is often limited or nonexistent.

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SIMO Type Voltage Mode Two- Square Multifunction Filter

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ABSTRACT:

This document provides an overview of international efforts to establish standards for voice, audio and video signal processing for use in the emerging Integrated Services Digital Networks (ISDN). ISDN is the focus of the ongoing work of the CCITT (International Telegraph and Telephone Consultative Committee). Designed as evolved networks from basic digital telephone networks, ISDNs provide end-to-end digital connections to support a wide range of services, including voice, data, voice and video applications. The CCITT Forum has been a driving force in the development of digital devices and networks in recent years. Today, CCITT's standardization role is growing in importance due to the rapid development of digital communication technology and the global development of new communication services.

1. INTRODUCTION

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(All papers of SPIN-2014, SPIN-2015 and SPIN 2016 have been published in IEEE Xplore Digital Library and have been indexed by Scopus, Google Scholar etc.).Papers of SPIN-2017 have been submitted to IEEE Xplore for publishing and under process of being published.

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A New Implementation of the first- order universal Filter for the current state

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ABSTRACT:

A new first-order current-state universal filter structure (FOCMUF) is introduced. The circuit uses a second-generation differential dual X current driver (DD-DXCCII), a versatile member of the current driver family. Simultaneous multiple filter functions, i.e., high-pass (HP), low-pass (LP), and all-pass (AP) are readily available in high-impedance connectors, making the proposed topology suitable for sequential applications. The main highlights of the presented configuration are the use of only one active block, only grounded capacitor, high operating frequency and low sensitivity. In addition, non-ideal analyzes and parasitic studies are also presented.

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1. INTRODUCTION

The current mode approach is rated quite high compared to the voltage mode because of its inherent advantages in the design of analog signal processing modules. The main advantages are higher operating bandwidth, higher linearity, better dynamic range, greater circuit simplicity and lower supply voltage requirements (Ferri and Guerrini, 2003; Minaei et al., 2006). Variations of current carriers such as active building blocks (ABBs) (Kumar and Chaturvedi, 2017; Kumar and Chaturvedi, 2018; Chaturvedi and Kumar, 2018a; Maheshwari, 2013)

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Research on optimization methods for biomedical signal properties

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ABSTRACT:

Effective treatment of health problems requires reliable and rapid diagnosis of diseases in the early stages. The best possible way to achieve this is to develop a visualization system to assess the problem and recommend corrective measures for treatment. The main purpose of medical image analysis will be to support physicians in specific clinical applications that require visual evaluation of medical images develop the objectivity and reproducibility of the analysis. Medical image analysis includes different stages medical image retrieval from multiple medical data centres, relevant feature extraction, feature dimension reduction and classification of medical images based on optimal features. In this review paper,

1. INTRODUCTION

Automation of disease diagnosis is becoming very popular, especially when a quick report is needed. Currently, researchers often prefer to use slow, manual analysis to extract information from images time-consuming and certainly not scalable for large-scale medical image database studies. Medical images are proved critical in the search for answers to many important problems in disease diagnosis and prognosis, as well as in medicine. target confirmation Implementing advanced healthcare display systems is a challenging task for engineers. in in standardized image systems.

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Simulating the operational details of a 16-bit Microprocessor

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ABSTRACT:

The goal of this project is to design and simulate a 16-bit processor. The design was implemented using VHDL synthesis tool Xilinx 9.2i. A microprocessor is basically an electronic device that consists of ALU and control circuits required for a computer to function as a processor. The microprocessor is an integrated circuit that interprets and executes program instructions and behaves intelligently. The the processor runs at the internal clock speed and the clock frequency depends on the no. / pulses per second. With each clock pulse, the processor performs an action corresponding to a guide Thus, the CPU power can be reduced to zero. of orders executed accordingly secondly. During the execution of instructions, data is temporarily stored in memory units called records Control signals are electronic signals used to communicate between different processor units during instruction execution.

1. INTRODUCTION

The main objective of this project is to design a 16-bit MICROPROCESSOR using VHDL (Very High). speed Integrated circuit Hardware description language). It is better to plan such a project you have an idea about the functionality of the project, because in such cases we do not need to generalize system This limits both costs and time required for system development. That's the basic idea behind the project. Basically, a microprocessor contains RAM, ALU, and a controller information flow. Before designing a

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Ensemble methods for classifying moving image eeg signals

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ABSTRACT:

Brain-Computer Interface (BCI) allows disabled people to interact with the real world without using neuromuscular pathways. BCIs are based on artificial intelligence piloted systems. They collect patterns of brain activity related to mental processes and convert them into commands for actuators. A possible application of BCI systems is in rehabilitationcenters. In this regard, a new method for automatic recognition of motor imagery (MI) tasks was developed. The contribution is an effective hybridization of multistep principal component analysis (MSPCA), wavelet packet decomposition (WPD), statistical feature extraction of subgroups, and ensemble learning-based classifiers for MI task classification. The proposed electroencephalogram (EEG) signals are segmented

1. INTRODUCTION

Brain-Computer Interface (BCI) allows people to use the electroencephalogram (EEG) to operate peripheral devices such as virtual worlds, robots or spelling machines. The main purpose of BCI is to use brain signals to generate commands to control peripheral devices. The most important application is to bypass damaged areas of the body or to stimulate partially paralyzed organs. BCI devices are considered the best solution to alleviate the problems of people with various neuromuscular disorders such as spinal cord injuries, amyotrophic lateral sclerosis, cerebral palsy and cerebral palsy [1].

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Parking indicator nearby

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ABSTRACT:

In cities like Mumbai where the population is at its peak and the roads are full of vehicles and long traffic jams. With such a growing population, it is difficult to find a parking space for our car. We came up with an idea where users can log into our app and find the ideal parking space closest to their destination. This saves users time and fuel. The user can easily see parking options from the app and drive directly to the location without wasting time. Thus, it is an intelligent parking system that takes into account the driving time location of the driver and predicts the availability of parking spaces for different parking spaces based on real-time parking data. Users can enter the destination they want to go to, and based on the location, the system offers different parking spaces in the area.

1. INTRODUCTION

In big cities like Mumbai where the population is at its peak and the roads are full of vehicles and long traffic. As the demand for vehicles increases, it is difficult to find a parking space for our bicycles. Therefore, people have to haphazardly park their vehicles wherever they can find a space, leading to traffic violations such as illegal, accidental double or corner parking [2]. To deal with such a parking crisis in Mumbai, a user can check the availability of parking spaces near their destination using a mobile application. Our application allows the driver to reserve a parking space. The application provides the driver with a route from their current location to the parking lot with an estimated time, taking into account traffic along the route.

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Artificially intelligent integrated cyber security system

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ABSTRACT:

This study presents and analyzes recorded failures of AI systems. After that, we extrapolate the results to possible future AIs. I argue that future AI disruptions will become more frequent and worse over time. Cyber security professionals and #039; ideas can be used to improve AI security. While corporate cybersecurity breaches are just as important as narrow AI security failures, large-scale AI failures have a very different consequence. A highly intelligent system and a single failure can lead to a catastrophic scenario with no recovery. AI Safety aims to ensure that no attack ever escapes the system and its defences, while Cyber Security aims to reduce the number of successful attacks against the system. Unfortunately, such a thing is impossible to do at a certain level.

INTRODUCTION

The intelligence exhibited by machines is known as artificial intelligence or artificial intelligence. When a machine becomes aware of its environment and acts within that context to achieve a goal. When a machine behaves like a human when solving problems or learning, also known as machine learning, the term artificial intelligence is often used. Our laws, rules and policies have had to adapt and evolve as the information age progresses. However, policies, rules and laws have often found it difficult to keep up with the speed and intensity of technological development [1]. Delay Important policy decisions can be made in the creation of laws and regulations. changes, as happened with other rapid changes.

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A new method for identifying copy shop fakes in image forensics

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ABSTRACT:

Image forensic analysis plays an important role in digital image security due to forgery and forgery. Image forgery violates the authenticity and ownership of digital images. Copy-and-move speech is an important forensic image analysis algorithm. In this case, the forger copies a part of the original image and then pastes it in the same image at a selected location. The purpose of forgery is to hide or highlight a certain area of the original image. Copying and Moving There are two traditional techniques for detecting forgery: block-based and keypoint-based. The main disadvantage of keypoint-based technology is insufficient features for small and flat areas, which leads to imperceptible fakes. In contrast, block-based technology is processing intensive.

1. INTRODUCTION

Digital image forgery is a very complex field that deals with the hardening and manipulation of digital images. It has become a major concern of the whole society. Merriam-Webster described it as "the misleading and fraudulent alteration of a digital image", an idea dating back to 1840. It reproduces images with different parameter values [65]. Serious cases of image forgery are increasing and alarming the world's law and order systems [30]. There are many photo manipulation, enhancement, correction, editing and entertainment tools available that facilitate crime. In areas such as forensics, criminal investigation, intelligence systems, medical imaging, insurance claims and journalism, digital images become

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Exploring NANO Electronic devices: An Alternative to MOS Devices

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ABSTRACT:

Although most of the electronics industry depends on the ever-shrinking sizes of lithographic transistors, that scale cannot continue indefinitely. Nanoelectronics (circuits built with 10 nm components) appear to be the most promising successor to lithography-based microcircuits. Molecular devices such as diodes, bstable switches, carbon nanotubes and nanowires have been produced and characterized in chemical laboratories. Techniques to self-assemble these devices into various architectures have also been demonstrated and used to build small-scale prototypes. Although these devices and assembly techniques lead to nanoscale electronics, they are also error-prone and transient.

1. INTRODUCTION:

Electrochromic devices (ECDs) [1,2] have recently attracted much attention due to the modulation of their electrically responsive optical properties (absorption or transmission) and large potential applications such as functional energy storage devices [[3], [4], [5] , [6]], sensors [[7], [8], [9]] and most importantly in Smart Windows [[10], [11], [12]]. As the name suggests, the main function of an ECD is a reversible color change when an electrical bias is applied. A typical EC device is often fabricated as a multilayer structure consisting of electrochromic layers containing redox-active materials, an ion transport layer (i.e., electrolytes), and sometimes a counterion layer that supports the redox activity of the active material.

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The influence of grinding conditions and strategy on Cutting edge quality

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ABSTRACT:

This article bargains with the exploratory pounding of cemented carbide cutting instruments. A few carbide processing instruments with the same geometry were ground beneath the diverse pounding conditions and procedure depicted in this inquire about. The most point is to decide the impact of the crushing handle on the quality of the cutting edge. Diverse crushing conditions and techniques were utilized in pounding of the essential outspread help on the fringe cutting edge. The cutting edge was examined after pounding by an optical-scanning gadget and an electron magnifying instrument to decide the quality of the cutting edge and outspread alleviation confront of the apparatus. EDX investigation was utilized for the chemical characterization of the ground surface.

1. INTRODUCTION

Cemented carbides perform astoundingly as a cutting fabric due to the combination of difficult carbide particles and an intense metallic cover. This composite fabric with extraordinary hardness, quality and fractural durability is an great choice for the generation of cutting apparatuses utilized in the machining of metal amalgams. The pounding handle is the primary handle within the generation of strong cutting tools to get the specified geometry of the cutting instrument. Amid pounding fabric is expelled by geometrically indistinct cutting edges. In addition to geometry, the surface judgment after crushing is additionally a critical calculate which influences the quality of the cutting edge and the cutting execution

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Impacts of cooling rate in an inventive warm treatment Course for high-strength steels

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ABSTRACT:

The prerequisite for tall quality and ductility is ordinarily related with martensitic microstructure with a certain sum of held austenite. One of the inventive warm treatment forms that can lead to such microstructure is the Q&P prepare (Extinguishing and Apportioning). It can deliver microstructures comprising of martensite and a certain sum of held austenite, which show qualities over 2000 MPa and prolongation levels of more than 10%. The objective of this inquire about was to investigate the impacts of the cooling rate within the Q&P prepare and assess the impacts of different microstructure constituents on mechanical properties of high-strength steels. Three newly-created exploratory steels, which contained 0.43% carbon and had diminished Ms Temperatures much obliged to

1. INTRODUCTION

Today's progressed steels are required to have tall quality and ductility. Tall quality is ensured in martensitic steels. On the other hand, it tends to be at the fetched of ductility in these steels. This insufficiency can be overcome by creating extra stages within the microstructure. In progressed high-strength steels, such a stage is held austenite which is show as foil-like particles along the boundaries between martensite strips. To keep held austenite steady, carbon is required to mi-grind from super-saturated martensite to held austenite, rather than shaping pearlite or carbides and clearing out held austenite exhausted.

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Integrated optimization model in wire electric discharge machining utilizing gaussian process regression and wolf pack algorithm technique while milling sicp/al composite

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ABSTRACT:

To assist progress forecast precision and optimization quality of wire electrical release machining of SiCp/Al composite, trim cuts were performed utilizing Taguchi test strategy to explore the impact of cutting parameters, such as beat term (Ton), beat interim (Toff), water weight (Wp), and wire pressure (Wt)), on fabric expulsion rate and three-dimensional surface characteristics (Sq and Sa). An optimization show to foresee fabric expulsion rate and surface quality was created employing a novel crossover Gaussian handle relapse and wolf pack calculation approach based on explore comes about. Compared with straight

1. INTRODUCTION

SiCp/Al composite may be a metal lattice composite (MMC) comprising of aluminum lattice and silicon carbide particles. Due to its fabulous characteristic, such as tall quality, moo thickness, warm soundness, and great wear resistance, it is broadly utilized in airplane components, space frameworks, and high-end hardware. In any case, its support particles make it difficult to be machined in conventional ways, which can cause tall device wear.1,2 The destitute machinability limits its encourage application, so an temperate machining strategy with a tall execution is in incredible require.

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Unmanned surface vehicle steering system with neural adaptive sliding mode controller

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ABSTRACT:

Unmanned surface vehicle has the properties such as complexity, nonlinearity, time inconstancy, and vulnerability, which lead to the trouble of getting a exact kinematics demonstrate. A neural versatile sliding mode controller for the unmanned surface vehicle controlling framework is created based on the sliding mode control procedure and the spiral premise work neural arrange. Within the modern approach, two parallel spiral premise work neural systems are utilized to decrease the impact of the framework instabilities and kill the reliance of the controller on the exact kinematics show of the framework. Among these two

1. INTRODUCTION

Unmanned surface vehicles (USVs) pull in the consideration of numerous nations and ended up a hot inquire about spot within the field of marine hardware since of its moo labor cost and solid maneuverability. Within the future, USVs will play a imperative part in anti-submarine fighting, mine countermeasures, environmental detection, water testing, faculty look and protect within the sea, and so on.1 As an cleverly surface body of independent route, an effective directing framework is an imperative issue. With the alter of the parameters such as cruising speed, water profundity, and dispatch stacking, the frame of the damp region and drag characteristics will alter essentially. This will lead to alter in different hydrodynamic coefficients of the USV demonstrate.

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Intelligent cross-coupled control of a unique two-axis differential micro-feed system

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ABSTRACT:

Nonlinear contact in a customary drive bolster framework bolstering at moo speed could be a fundamental figure that contributes to nourish drive complexity. A novel two-axis differential micro-feed framework is created in this ponder to overcome the accuracy limitation of routine drive nourish framework. Rather than the screw-rotating-type ball screw received in routine drive bolster system, the transmission component of the proposed two-axis differential micro-feed framework may be a nut-rotating-type ball screw. In this setup, not as it were the screw but too the nut is driven by a servo engine. By superposing the two high-speed revolving movements (motor–drive–screw and motor–drive–nut) with a comparable tall speed and the same turning course through the novel transmission component, the nonlinear unsettling influence from the ball screw can be

INTRODUCTION

Nourish drive framework has gotten to be increasingly imperative within the areas of fabricating, review, and assembly. Be that as it may, grinding contains a noteworthy and negative impact on the situating exactness of a bolster drive framework. For a normal routine drive bolster framework (CDFS) prepared with straight movement (LM) guides and a ball screw, it is troublesome to realize exact and homogeneous relocation at moo speeds for the reason that contact habitually generates large following blunders, undesired stick-slip movements, and restrain

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Active suspension-based active tilt control in automobiles

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ABSTRACT:

The rolling control of a car that centers on lessening the roll point latently has constrained execution of expanding dealing with solidness, passing speed, ride consolation, and rollover anticipation whereas turning. This venture presents a strategy for controlling a car to tilt toward the turning heading utilizing dynamic suspension. A 6-degree-of-freedom vehicle show with a 2-degree-of-freedom controlling demonstrate and a 4-degree-of-freedom tilting show is built up. The dynamic tilt sliding mode controller, which causes zero steady-state tilt point mistake, is set up after the required tilt point is decided by energetic examination.

INTRODUCTION

Conventional detached suspension (PS) avoids vehicle roll by improving suspension firmness and introducing a stabilizer bar but diminishes vehicle ride consolation and is incapable to avoid rolling and move forward ride consolation at the same time. Dynamic or semi-active roll control can illuminate this inconsistency. A control strategy performs dynamic or semi-active control by introducing an actuator in arrangement with a stabilizer bar, and another strategy conducts demeanor control on the vehicle body to control rolling through dynamic or semi-active suspensions. Dynamic or semi-active suspensions can moreover be utilized to control rollover; in any case, this control methodology isn't the same as the anti-roll control when the vehicle voyages regularly. In expansion, powerfully interconnected suspensions too have a great impact on anti-roll.8

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A steering model for an articulated tracked vehicle that takes soil deformation into account during track-soil contact

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ABSTRACT:

With the advantage of controlling execution, verbalized followed vehicles have great versatility in off-road application. In any case, in current models for directing execution, soil distortion on the interaction between track and soil cannot continuously be taken under consideration. Hence, directing execution cannot continuously be calculated precisely. In arrange to fathom the issue, it is fundamental to propose a directing show which can take the impact of soil distortion on track–soil interaction into thought. In this article, a controlling demonstrate of enunciated followed vehicle is proposed on track–soil interaction.

1. INTRODUCTION

In later a long time, the investigates on controlling execution have made significant accomplishments. At to begin with, Steeds proposed skid-steer concept1 and after that a parcel of work had been explored from all aspects. In any case, not at all like a skid-steer vehicle, a verbalized vehicle uses an verbalized component to attain a directing way. Which means for a skid-steer vehicle, the proficiency of controlling execution will be debased due to the slip and slide wonder. Be that as it may, for a verbalized vehicle, the proficiency will not be debased since of enunciated instrument. In addition, followed vehicles have great.

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Theoretical and experimental comparison of axial thrust variation for high-speed mine submersible pumps

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ABSTRACT:

In this article, three sorts of high-speed mine submersible pumps were planned and tested. Amid the unwavering quality execution test, the hub pushed adjusting gadget of GFQ150-700 was over-burden and harmed due to an unacceptable planned esteem of hub pushed. The outlined water powered hub pushed with the genuine esteem is compared in this article, and the reason for hub pushed deviation is talked about. Comes about appear that hub pushed of the hypothetical calculation is near to the numerical reenactment esteem at a certain degree. GFQ100-1000 gets the greatest hypothetical hub pushed, whereas the most extreme recreated esteem is delivered in GFQ150-700, which is confirmed by tests.

1. INTRODUCTION

The avoidance of mine water catastrophe is one of the critical issues for the security and productive generation of coal mine, and the level of anticipation depends on water control innovation and equipment. When mine water inrush happens, the capacity of momentary spouting water will be more than the greatest waste capacity of the pump house, which is able because flooding mishap. High-power submersible pump is the major hardware of coal mine profitable waste rescue. With tall stream rate and head, high-power submersible pump can rapidly deplete the water within the mine. Due to the overwhelming and huge measure of the pump and the limitation of the mine shaft cage estimate and underground

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Investigate the driving strategy of a heavy-haul train using an enhanced genetic algorithm

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ABSTRACT:

The driving security of heavy-haul train is influenced by the train's footing weight, the length of train, the line profile, the line speed constrain, and other components. For the most part, when the train is running on a persistently long and soak downsize line, it needs utilizing the circulating discuss braking to alter speed. When it is braking, the brake wave is transmitted non-linearly along the course of the train. When it is diminished, it must be guaranteed that there's adequate time for the train to be swelled. Hence, it is troublesome to guarantee the secure operation of the heavy-haul train. In this article, a modern strategy of the train's driving methodology based on progressed hereditary calculation is proposed.

INTRODUCTION

Amid the driving prepare of the heavy-haul train, the train will be subjected to the joint drive within the transverse, longitudinal, and vertical bearings within the course of operation, and the constrain condition is more complicated.1 Sidelong flow basically affects the solidness of train's operation. The drive within the vertical heading is basically the back drive of the train. The secure operation control centers on the relationship between the drive and the increasing speed amid the train's operation, so the longitudinal push of the train along the track heading is basically considered.

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A systematic review of studies on heavy-duty machine tool foundation Systems was conducted

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ABSTRACT:

The quality of heavy-duty machine apparatus establishments can radically influence the working life and working accuracy of the device, and the tall taken a toll of make has drawn a parcel of consideration. This article summarized the investigate status of the important writing on the characteristics, vibration confinement, establishment optimization, and quality review of heavy-duty machine tool-foundation framework, actuated the affecting laws of the impacting variables of the framework, checked on the highlights and accomplishments within the investigate of overwhelming machine tool-foundation framework at display, and put forward a few issues and development headings existing within the inquire about of overwhelming machine tool-foundation framework.

INTRODUCTION

The quality of establishments supporting heavy-duty machine devices can radically influence the working life and exactness of the apparatus. Strict measures exist for the most extreme secure vibration plentifulness of overwhelming machine tool-foundation frameworks and greatest passable distortion, in both the transverse and longitudinal planes. Subsequently, it is essential, and basic, to consider the impact of establishments on the characteristics of heavy-duty machine devices. Hypothetical and down to earth importance can be ascribed to progressing the advancement and plan of overwhelming machine instruments. As of 12 September 2017.

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Indian hotel industry branding

(With Use of Digital Marketing)

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ABSTRACT:

Because technology is raising consumer expectations, it will be vital to establish a great hotel brand. The hotel's success will be determined by how much it invests in and customizes digital marketing methods to improve every area of its brand, because how your customers perceive the hotel is vital for businesses. Aside from that, the choice of other customers might be put up as a preference on their decision rather than a hotel among brand customers. Intangible assets that serve to accomplish strategic benefits and provide financial value for their ability to generate income are referred to as brands. A well-known brand arose from the brand of marketing efficiency and performance associated with that brand.

1. INTRODUCTION

The brand's value to potential purchasers and investors is considered. Hotel firms such as Marriott, Hilton, and InterContinental Hotel Group are merging, resulting in worldwide brands. A hotel brand can consist of five or more hotels that all have the same brand personality. A sub-brand is a brand that is related to the parent brand but has a different brand name. Customers choose branded hotels because they provide a consistent guest experience regardless of location. Managers must understand how passengers see their brand, how the competition perceives the competition, and which work and investment must be made to develop a dependable, distinctive brand.

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Exploring employee engagement: It's impact in the world of constant disruption

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ABSTRACT:

The purpose of this study is to show employee engagement in the current scenario continuous disruption and its positive impact on employee performance and retention. Make them, forcethem still carry values and are they still needed in an ever-turbulentworld? To understand this, this study examines the factors of employee engagement and their importance to find out their meaning in the current environment. The review methodology used review articles. Different factors at organizational and individual levels were studied. This study is useful for all organizations create effective and robust employee policies based on employee involvement and leaders can work with a more satisfied workforce

1. INTRODUCTION

In the field of personnel (human resources), employee engagement practices have been established for a long time. All types initiatives have different practices and policies to promote commitment and engagement their workforce. Employee engagement involves the extent to which employees are fully engaged yourself in your work and the strength of your commitment to the organization. Employee engagement is a management tool in addition to modern management practices. Measuring employee engagement in an organization requires validation and standardization measurement method and/or tool.