Machine Learning Approach Via an Ensemble of Classifiers for Computer Aided Lung Nodule Diagnosis

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Abstract: The objective is to foretell methods for lung cancer prediction that are based on machine learning. Using supervised machine learning to analyse datasets(SMLT) to analyse the full dataset, validate the data, clean and prepare it, and visualise the results, as well as to conduct uni-, bi-, and multivariate analyses, missing value treatments, and variable identification. Using supervised classification machine learning techniques, we aim to provide a machine learning-based approach for accurate lung cancer prediction.In addition, we will evaluate the user interface of a GUI for lung cancer prediction by characteristics and compare and contrast the performance of several machine learning algorithms using the dataset provided by the transportation traffic department.

Keywords: Dataset, Machine Learning Classification method, Python, Prediction of accuracy result

Introduction

A devastating disease, cancer affects many people's lives. During vital functions, the lungs' primary function is to draw oxygen into the bloodstream and exhale carbon dioxide. Lung cancer develops when cells and tissues proliferate uncontrollably. Cancer, which is the first malignancy, which is the leading cause of cancer-related mortality in men and the second leading cause of cancer-related mortality in women. Nearly one million elderly people die each year because of cancer worldwide [1].Tumours may only be classified as either benign or malignant. Cancer comes in many forms, including colon cancer, leukaemia, melanoma, and

many more [2]. Since the early eighteenth century, the incidence of cancer has significantly increased. Many other things may cause carcinoma, including smoking, secondhand smoke, exposure to gases like radon, asbestos, and many more.There are two subtypes of lung cancer, small cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC).At partner diplomas in higher degrees, the radiologists may use computerised tomography (CT) and opportunity scanning techniques to find the harmful nodules [3]. Their origin is in the bronchi, which are located in the chest's midsection. Malignant neoplasm symptoms includesymptoms such as difficulty breathing when moving, lethargy, speech impediment, dysphasia, blood in the cough, lack of appetite, and pain in the shoulder, chest, or arm [4].Considering the symptoms, the crucial task of detecting cancer in its early stages may be quite challenging.carcinoma has the highest death rate of any cancer kind because its symptoms are most severe in the latter stages. Doctors rely on correct designations for different types of carcinoma to help them determine and choose the best therapy [5]. While physician recommendations remain the most important part of any designation process, current data suggests that various AI class methodologies might assist physicians in improving their procedures. Misuse class tactics are a common way to lessen the likelihood of errors caused by inexperienced physicians [6].

One use of artificial intelligence is machine learning (ML), which allows computers to learn and improve themselves via experience rather than

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Next-Generation Mobile Payment Systems Security:

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Abstract

The most important component of mobile commerce is mobile payment. We categorize the payment options based on a number of criteria, evaluate each one, and highlight its advantages and disadvantages. Mobile payment service has entered people's lives as a type of mobile data service. It mostly focuses on the telecom service provider industry. Radio Frequency Identification (RFID) is a transaction solution prior to the mobile payment system. [4].

Cash payment is still king in several markets, accounting for more than 90% of the payments in almost all the undergoing growth countries. The use of things not fixed telephones is good looking normal in this present time. Readily moved telephones have become a together the entire time friend for many users, giving out to much more than just news apparatus for making or put right things. Every coming after person is heavily being dependent on them because of, in relation to much-sided use and payment power.

We explore multiple proposed models of the mobile payment system (MPS), their technologies and comparisons, payment methods, different security mechanisms involved in MPS, and provide analysis of the encryption technologies, authentication methods, and firewall in MPS. We also identify current challenges and future directions of mobile phone security.

Smartphone instead of cash:-

Mobile phones companies, network operators and financial institution promise themselves to make phones capable for money exchange. As per a study expansion of mobile devices in upcoming years will increase significantly. Through this paper we will discuss how software system handles the payment process by the usage of mobile devices and the payment servers. Wireless communication is making a big impact to daily life. The swift advance of wireless networking, communication, and mobile technology is make huge impact. The significant increase of mobile device users in the recent years causes a strong demand on secured wireless network and reliable mobile commerce application. Since mobile is critical part of most wireless information services and application.

1. INTRODUCTION:

Mobile commerce is defined as any transaction with a monetary value that is conducted via a mobile telecommunication network. Cash payment is still ruler in several markets, accounting for more than 90% of the payments in all almost all the developing countries. In our time, the use of readily moved apparatuses by people has increased greatly[1]. A much number of people use things not fixed telephones to act day-to-day task. These apparatuses can be used for many works, such as making telephones cries, web surfing, emailing, playing activity, and many other works.

Simplified the current operation of making observations in this area is gave all attention on the use of things not fixed telephones to act payment safely. However, things not fixed systems face several limiting conditions such as low place for storing and computation powers, because of, in relation to which they cannot act weighty process of changing knowledge into a secret from operations. Different attacks are stated on readily moved apparatuses because of, in relation to existence without of safety bits of land such as spoofing, phishing 3, malware 4, and smelling attacks.

The advancement of wireless networking and communication, and mobile technology is changing people's life. As there is a significant increase of mobile device users, mobile payment method are needed more wireless services. The system is two dimensional secured protocol to support the peer to peer transaction between two mobile clients. This m-payment system can be used in different scenarios such as:-

- M-payments between a passenger and taxi driver.
- M-payments between merchants in flee market and their customers.
- M-payments for parking fees and subways.

Analyzed Payment Methods According To Several Standards, and Point Out Merits and Drawbacks of Each Method

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Abstract

Mobile payment is the killer application in mobile commerce. We classify the payment methods according to several standards, analyze and point out the merits and drawbacks of each method. As a kind of mobile data service, mobile payment service has approached people's lives. It main focus on field of telecom service provider. Before the mobile payment system Radio Frequency Identification (RFID) is transaction solution [4].

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How Online Exam Portals Provide a Convenient and Efficient Way for Organizations

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Abstract

In the modern digital era, online tests are becoming more and more popular, especially with students and job seekers. It emphasizes how firms may easily and effectively hire employees and evaluate candidates' skills by using online exam sites. The purpose of the research paper is to examine the efficacy and usefulness of an online exam hiring portal created to help businesses locate qualified applicants for open positions. The standard hiring procedure, which entails skill evaluations, interviews, and resume screening, is frequently time-consuming. Online exam portals, however, have become a practical way to speed up the hiring process.

Keywords: Organizations, Convenient, students

INTRODUCTION

This study paper's opening examines the typical hiring process, which is frequently drawn-out and time-consuming. It entails a number of procedures, including screening resumes, organizing interviews, and carrying out talent tests. Online exam portals have, nevertheless, become a viable option due to technological advancements for streamlining the hiring process.

The introduction emphasizes how firms can easily and effectively find people and evaluate candidates' skills by using online exam sites. Employers can perform exams, analyze individuals' talents, and shortlist people for additional rounds of interviews using these websites. Additionally, they provide a stage for applicants to exhibit their abilities and credentials to potential employer.

Types Of Portal

Online exam portals come in various types, each catering to different needs and purposes. Here are some common types of online exam portals:

1. Educational Institution Exam Portals

These portals are designed specifically for educational institutions such as schools, colleges, and universities. They provide a platform for educators to create and administer exams for their students. These portals often include features such as question banks, exam scheduling, grading systems, and result management.
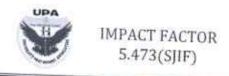
2. Certification and Licensing Exam Portals

Certification and licensing bodies use these portals to conduct exams for individuals seeking professional certifications or licenses. These portals typically offer a secure environment for exam delivery, identity verification, and result reporting. They may also include features like exam preparation materials and practice tests.

3. Job Recruitment Exam Portals

These portals are used by companies and organizations to assess job candidates' skills and knowledge during the recruitment process. They offer a platform for employers to create and administer pre-employment tests, screen candidates, and evaluate their

A COMPOSITION OF CASTABLE AND CURABLE MAGNETIC CEMENT AND A PROCESS FOR MAKING IT IN INDIAN ROAD

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Abstract :

A castable and curable magnetic cement composition with strong magnetic characteristics is the subject of the current research invention. The mechanical and magnetic properties of cement were improved by the addition of magnetic particles. An aluminosilicate particle in the range of 32-46%, a cement particle in the range of 0.00272 vm, a magnetic or magnetizable particle in the range of 32-96%, a binding modifier in the range of; and v) a surface-active dispersing agent in the range of 0.1-4% by weight are all components of the castable and curable magnetic cement composition. The stages involved in creating the cement composition are as follows: i) homogenising the mixture by combining the particles with a dispersion agent; and ii) adding a silica-bearing additive.

Key word: *- Concrete, Magnet, Cement, Magment, mechanical and magnetic properties.*

Background :

Research involves slabs made with magnetizable concrete instead of just the plain concrete that we all know. There's an embedded coil, and we circulate a high-frequency current, and we generate a magnetic field. That field is then picked up by a compatible coil on an electric vehicle—so that vehicle's retrofitted with a coil and converts it back to electricity and that can power the motor directly or charge the battery … The goal is to bring the charge to the vehicles, rather than the vehicle stopping at charging stations.

In this research we can reduce the size of the battery, and that will immediately reduce the cost, which is very important—both for private and also commercial vehicles. But specifically for commercial vehicles, smaller batteries will help them carry more cargo— so, that means more revenue. And if we end up building this electrified roadway infrastructure that is shared among all vehicle classes, that would really benefit electrified long-haul trucking and will bring additional benefits in terms of economic development, quality reductions, and so forth."

We already have initial results on the financial feasibility of this technology that I know a lot of people have been asking about. Our results indicate that, long term, the investment is feasible both for public and private owners and operators—direct benefits to both. But also, indirect benefits to the broader economy and society; communities benefiting by reduced

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Leucaena Leucocephala Medicinal Plant Seed Galactomannan Extraction Procedure

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Abstract

This research paper describes how to extract galactomannan from Leucaena leucocephala plant seeds. A process for extracting the seed extract from the Leucaena leucocephala plant involves crushing five seeds, followed by solvent extraction.

Leucaena leucocephala was used to isolate a water-soluble galactomannan that contains D-galactose (1 part) and D-mannose (3 parts). Three methylated sugars, in the molar ratios of 1.00:1.07:2.19, were produced by hydrolysis of methylated seed gum: 2, 3, 4, 6, tetra-o-methyl-D-galactose, 2, 3, 6, tri-o-methyl-D-mannose, and 2, 3 di-o-methyl-D-mannose. The seed gum was partially hydrolyzed by acid, releasing four oligosaccharides: mannotriose, galactosyl mannobiose, epimelebiose, and mannobiose. Studies on periodate methylation and oxidation both revealed 25% of end groups. Recent investigations have shown that galactose units exclusively occur in terminal positions in galactomannans.

Key words: Acidic hydrolysis, Methylation, periodate oxidation enzymatic hydrolysis, mucilage, end group analysis.

1. Introduction:-

Phytochemical refers to the extraction, **screening** and identification of the medicinally active substances found in plants. Some of the bioactive substances that can be derived from plants are flavonoids, alkaloids, carotenoids, tannin, antioxidants and phenolic compounds.

In single word "**Biologically active compound found in plants.**

The plants of Leucaena leucocephala (Family Leguminasae) have an evergreen shrub or tree with a fairly open, rounded crown; it can grow from **5 - 20 meters tall.** The bole(trunk of tree) is generally short and can be **10 - 50cm in diameter.**

Image and seeds of Plant Leucaena leucocephala

Known Hazards:- The plant is classified as 'Least Concern' in the IUCN Red List of Threatened Species. The leaves of most forms of this plant contain the unusual amino acid mimosene. In large quantities this can be harmful. There are low-mimosene cultivars.

Its **range** from Central America - northern Panama, north to central Mexico and found in Dry coastal regions, waste ground.

There are some more properties, due to these reasons; it is very much using i.e.

Weed Potential – Yes   Conservation Status- Least Concern

Research Paper on Biometrics Security System

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Abstract

A biometric security system is a technology-based authentication system that uses unique physiological or behavioural characteristics of an individual to verify their identity. Biometric systems are considered more secure than traditional authentication methods, such as passwords and PINs, because they are difficult to replicate or steal. Biometric systems can use a variety of traits for identification, including fingerprints, facial recognition, voice recognition, iris and retina scans, and even behavioural biometrics like gait or typing patterns. Biometric systems are used in a variety of applications, such as physical access control, time and attendance tracking, and online authentication. However, biometric systems also raise concerns about privacy, security, and the potential misuse of personal data. As technology continues to advance, biometric security systems are expected to become even more prevalent in various industries and applications.

Introduction: - Biometric security systems have become increasingly prevalent in today's digital age, as individuals and organizations seek more secure ways to authenticate identity and protect sensitive data. The word Biometrics originates from the Greek arguments "bios" (life) and "metrikos" (measure). Strictly talking, it refers to a discipline connecting the statistical examination of biological characteristics.

These systems rely on unique physical or behavioural characteristics of an individual to verify their identity, providing a higher level of security than traditional authentication methods such as passwords or PINs. The use of biometric security systems has expanded into a wide range of applications, including physical access control, time and attendance tracking, and online authentication. However, while biometric technology offers many benefits, it also raises concerns about privacy, security, and the potential misuse of personal data. As the technology continues to evolve, the use of biometric security systems is expected to become even more widespread. Therefore, it is crucial to

conduct research that explores the effectiveness and reliability of these systems, as well as the ethical and legal considerations that come with their use. This research aims to provide a comprehensive overview of biometric security systems, including their applications, advantages, and potential limitations. Additionally, it will examine the legal and ethical issues surrounding biometric technology, as well as explore current research and future directions in the field. By conducting this research, we can better understand the benefits and risks of biometric security systems and help ensure that their use is responsible and effective.

Biometrics: -

Definition: -

Biometric systems are a type of authentication system that use unique physiological or behavioural characteristics of an individual to verify their identity.

These systems rely on the premise that every person has unique physical or behavioural traits that can be used to accurately identify them. Biometric systems are used in a wide range of applications, from physical access control in buildings to online authentication for banking and other sensitive accounts. While biometric systems offer a high level of security, they also raise concerns about privacy, security, and the potential misuse of personal data.

Types of Biometrics: -

There are several types of biometric systems, each using different traits for identification. Some of the most commonly used biometric systems include:

- ❖ Fingerprint recognition - This biometric system uses the unique ridges and valleys on a person's fingertips to identify them.

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Research Article

A 30 Ghz Slotted Bow-Tie Rectangular Patch Antenna Design For 5g Application

Sanjeev Sharma[1]*

Abstract:

In this work, we suggest a new rectangular microstrip patch antenna (RMPA) with a relative permittivity (er) of 4.3 and a thickness (h) of 0.254 mm, and we examine its design and performance at (f).The wavelength is 28 GHz. In order to enhance the antenna radiation performance, particularly the antenna gain and bandwidth, three distinct feeding strategies are explored utilising Computer Simulation Technology (CST) and the High Frequency Structure Simulator (HFSS): microstrip inset line, coaxial probe, and proximity linked line. Although it has a bigger antenna than the other feeding options, the proximity-coupled fed still manages to produce a highly directed pattern and keep radiation performance good, according to the simulated frequency responses. The three feeding methods increase the gain from 5.50 dB to 6.83 dB. Furthermore, for f r = 28 GHz, with the reflection coefficient S11= -10 dB, the antenna bandwidth is enhanced from 0.6 GHz to 3.60 GHz. The suggested architecture is more suited to various 5G application systems than the previously developed RMPA due to its greater bandwidth, higher gain, and dependable size.

Keywords: Feed techniques, gain, broadband bandwidth, microstrip patch, 5G

Introduction

All facets of our lives have been touched by wireless apps in the last few years. Antennas necessary for 5G and millimetre wave networks must have small size, strong gain, and wide bandwidth uses of waves [1, 2]. In such cases, an RMPA, or rectangular microstrip patch antenna, might work well. Nevertheless, its narrow bandwidth and low gain are seen as its two major downsides. To get around these problems, a lot of research has been done in the literature.

Reducing substrate thickness, improving substrate permittivity, feeding strategies, and using different optimisation methods are just a few of the many approaches that have been investigated in an effort to increase the gain and bandwidth of MPAs [3]. In addition, the primary goal of the mode shift theory given in [4] was to increase the bandwidth of the dual-mode RMPA by the stimulation of two resonant modes. The antenna size was lowered while the bandwidth and efficiency were enhanced by exciting the higher mode in the RMPA.

To increase the MPA's bandwidth, two slots were carved from the microstrip patch as described in [5] to stimulate adjacent radiative modes. However, according to [6], a typical patch antenna might have its gain increased by as much as 48% by using a superstrate lens to standardise the electric field's phase distribution over the patch.

Furthermore, [7] suggested incorporating a ferrite ring into the RMPA's hybrid substrate to generate constructive interference between the incident and reflecting fields in the substrate. This would result in a 4.0 dB gain enhancement for the antenna without sacrificing bandwidth. Then, to improve the antenna's overall performance, two sets of short-circuited patches were included in [8] to excite two sets of orthogonal electric and magnetic dipole modes. The array used a

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Develop And Implement A Fast-Firing Transistor (FFT) Processor With Minimal Complexity, Maximum Area Utilisation, And High Throughput

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Abstract

Modern wireless technologies get even more benefits from using FFT processors to handle data, such as reduced circuit complexity, fast speed, and low power consumption. Building a high-performance FFT architecture is, hence, crucial to satisfy the real-time requirements. This paper aims to synthesise two 8-point fast Fourier transform (FFT) processors into a single 16-point radix-2 based decimation-in-frequency (DIF) processor. We used ModelSim to model the new 16-point DIF-FFT architectural design, and Xilinx ISE Project Navigator for hybrid synthesis. In this comparison, we look at the synthesis reports of both the current and proposed designs. In conclusion, the results of the comparisons reveal that the suggested 16-point DIF-FFT design uses less power, is faster, and makes better use of memory. Therefore, any application requiring low power and high speed operation may make advantage of the suggested design.

Keywords: Fast Fourier Transforms, Xilinx with ModelSim

INTRODUCTION

One of the most common methods for modifying data sequences in fourier analysis is the fourier transform. It translates functions from the time domain into their frequency domain equivalents. One way to get discrete inputs for the DFT is to sample a continuous time function. Similarly, the duration of the discrete input function is finite. For this reason, the discrete Fourier transform is often cited as an essential tool for studying discrete-time functions with limited durations.DFT is well-suited for processing data stored in computers since it has a limited series of real or complex inputs. Digital Fourier transform (DFT) is extensively used in signal processing for frequency content analysis of sampled signals and convolution operations. Fast Fourier Transform (FFT) technique allows for fast computation of DFT in reality for the aforementioned applications, which is a significant enabling element. The Fast Fourier Transform (FFT) is now standard practice in several technical domains. The implementation of various communication systems is highly dependent on high speed FFT structures. Utilising an FFT processor for wireless communication enhances modern wireless technology with additional benefits such as reduced power consumption, increased speed, and so on. Thus, designing a high-performance FFT architecture is crucial to satisfy the real-time requirements. Building a new architecture for a 16-point Decimation in Frequency (DIF), Fast Fourier Transform (FFT) processor is the driving force behind this study. The most important factor is that we anticipate a

Improving the Performance of DS CDMA System over Multipath Fading Channels

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Abstract

This article provides a comprehensive overview of the research on improving the quality of multipath fading channels and lowering their effective Bit Error Rate (BER). Since bit error rate (BER) is inversely related to signal-to-noise ratio (SNR), a lower SNR indicates a lower BER. Enhancing the functionality of digital communication systems is the primary goal of the research. In order to ensure consistentconveying information, the bit error rate (BER) need to be minimised, i.e., improved BER. To improve the Signal-to-Noise Ratio (SNR) and reduce the Bit Error Rate (BER), a rake receiver multiplies the received signal by time-shifted copies of a local code sequence. This specific form of receiver is composed of numerous correlators. Here we analyse the bit error rate (BER) performance of the AWGN and Rayleigh fading channels for 16-QAM and simulate it with the Gold Code carrier for multipath using the Rake receiver. We also evaluate the BER performance for QPSK, 64-QAM, and 256-QAM with the AWGN and Rayleigh fading channels. The MATLAB software is used to run the simulation. The paper discusses baseband modulations for the AWGN channel as a means to increase the BER of DSCDMA systems employing QAM.

Keywords: BER, DS-CDMA, Fading, Multipath Fading Channels, SNR, QAM Rake Receiver

Introduction

With the proliferation of wireless communication as a de facto standard for data transmission, the key issue is finding ways to make the most efficient and reliable use of the limited bandwidth available for data transfer [1].A number of pathways are used by the signal to reach the receiver. The receiver is responsible for picking up sent signals via A received signal is actually the sum of multiple components, independent of the main component, each of which travelled a different path from the transmitter. This can happen either directly, along a Line of Sight (LOS), or indirectly, due to the scattering, reflection, and diffraction of nearby objects like buildings, trees, and other obstacles. This causes a delay in the multipath components proportional to the length of their paths. The comparable data rate that a channel can handle is limited due to Inter-Symbol Interference (ISI), which is caused by delayed multipath components. Fading is another big issue with multipath channels. [6]. When several multipath components approach at different times and cancel each other out at any location in free space, the received signal intensity drops significantly, a phenomenon known as multipath fading. The multipath environment experiences a rise in interference from numerous directions when several concurrent conversations are carried out. The signal at the receiver side becomes severely distorted and fades due to multipath propagation, which lowers the Signal-to-Noise Ratio (SNR) and leads to a higher Bit Error Rate (BER) [5]. BER is a useful tool for evaluating the dependability of wireless communication systems.

Broadband occupancy is much greater than normal according to the spread spectrum communication theory.

The power spectral density drops with increasing bandwidth, and the signal becomes indistinguishable from noise in the channel. CDMA's superior performance and capacity have made it a prominent and widely used technology in cellular systems. It is known as DS-CDMA because it uses Direct-Sequence Spread Spectrum modulation. Here, several users may share a single channel for data transmission at the same time [6].The DS-CDMA transmitter takes the data signal from each user and multiplies it by a unique code waveform. The detector then gets a signal that includes all of theoverlapping signals from users, both in terms of frequency and duration. The complete received signal is correlated with the same user's code waveform in a conventional DS-CDMA system in order to identify a particular user's signal. Assigning the correct amount of correlators and accurately estimating the amount of pathways at the receiver end are both very demanding tasks.

Multiple Access Interference (MAI) is an additional element that limits the capacity and performance of the DS-CDMA system [4].[6]. The term used to describe the process by which

K-Means and Fuzzy Based Hybrid Clustering Algorithm for WSN

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Abstract

Wireless Sensor Networks (WSNs) play a pivotal role in various applications, ranging from environmental monitoring to industrial automation. Clustering is a fundamental technique employed in WSNs to enhance network efficiency, prolong network lifetime, and reduce communication overhead. In this context, this research proposes a novel hybrid clustering algorithm that integrates the strengths of both K-Means and Fuzzy Logic for improved performance in WSNs. The proposed algorithm aims to address the limitations of traditional clustering algorithms by combining the efficiency of K-Means with the flexibility of Fuzzy Logic. The K-Means component provides a robust and efficient initial clustering of sensor nodes based on distance metrics, while the Fuzzy Logic component introduces a degree of membership for each node to multiple clusters. This fuzzy membership allows a node to belong partially to different clusters, providing a more nuanced representation of its relevance to various groups within the network.

Keywords: Fuzzy Logic, Wireless Sensor Networks (WSNs), K-Means, Clustering

Introduction

Wireless Sensor Networks (WSNs) have emerged as a critical technology in various applications such as environmental monitoring, healthcare, and industrial automation due to their ability to collect data from the physical world. Clustering is a fundamental technique employed in WSNs to enhance scalability, energy efficiency, and data aggregation. Traditional clustering algorithms, such as K-Means, provide efficient and deterministic cluster formation but may struggle with dynamic and uncertain environments. In contrast, Fuzzy Logic offers a more flexible approach by incorporating uncertainty, but it may lack the precision exhibited by traditional methods.

This research introduces a novel hybrid clustering algorithm that leverages the strengths of both K-Means and Fuzzy Logic to address the challenges posed by the dynamic and uncertain nature of WSNs. The primary goal is to develop a clustering mechanism that is robust, energy-efficient, and capable of adapting to changing network conditions.

1. Background

1.1 Wireless Sensor Networks

Wireless Sensor Networks consist of a large number of sensor nodes that collaborate to monitor physical phenomena, collect data, and transmit information to a central base station. The resource constraints, communication challenges, and the dynamic nature of these networks necessitate the development of efficient clustering algorithms.

1.2 Clustering in WSNs

Clustering algorithms organize sensor nodes into groups or clusters, where each cluster is typically represented by a cluster head responsible for aggregating and transmitting data to the sink. Clustering helps in reducing energy consumption, prolonging network lifetime, and improving overall network efficiency.

2. Motivation

While traditional clustering algorithms like K-Means are efficient in forming compact clusters based on explicit criteria, they may lack adaptability to the uncertainty inherent in WSN data. Fuzzy Logic, on the other hand, accommodates uncertainty through degrees of membership but might sacrifice precision. The motivation behind this research is to develop a hybrid clustering algorithm that combines the strengths of K-Means and Fuzzy Logic, aiming to achieve a balance between precision and flexibility in cluster formation. This hybrid approach is expected to outperform traditional methods in scenarios where the network exhibits dynamic behavior and uncertainty.

3. Objectives

The primary objectives of this research are as follows:

Develop a hybrid clustering algorithm integrating K-Means and Fuzzy Logic for WSNs.

Research Article

Developing A System For Visually Impaired Persons

Sachin[1]*

Abstract

In order to help visually impaired, an emolyzer called emotion analyzer can be used to detect the emotion of the person opposite to them and helps them for an effective interaction with other people. In this proposed method, visually challenged people use spectacles in which a camera is inserted for capturing the video of person who is communicating with them and earphones are used so that the detected emotion by the device, can be communicated to blind people who is using the device. This device can identify some basic emotions like happiness, sadness, a neutral face and an angry face so this makes emolyzer a helpful and an effective tool which can be used by visually impaired. The emolyzer is made using Raspberry Pi and is made portable for ease of use. Here emolyzer is trained using FER-2013 dataset which contains more than 35,000 gray scale images. A free source Open CV python library is used for detection of faces. The detected emotion is finally transformed into speech by installing python libraries like play sound.

Keywords— visually challenged, emotion analyzer, video, capturing, earphones, an effective tool, basic emotions, Raspberrypi, FER-2013, Open CV, Play sound.

I. INTRODUCTION

In this modern era, we can overcome visual impairment by using computer vision technologies. Computer can even be trained so that it can obtain the features of natural human eyes. It can give appropriate results by taking a video or an image as an input and is pretended to work like an artificial human eye. We have already used this computer vision technology to create many face recognition applications so far. Now-a-days face detection system is already in use in modern applications like face authentication to unlock a mobile phone and in security systems. In the same way facialemotion detection is one of the part of computer vision technology. We are generally using emotion recognition in various applications like police enquires, interviews and shopping applications. In this paper emolyzer is used as anemotion detection tool by visually impaired. Emolyzer can detect the emotion of the person opposite to it. Emolyzer can easily identify all the basic emotions like happiness, neutral face, sadness and an angry face. The emolyzer comes handy using Raspberry Pi so that the visually challenged can just wear it like spectacles in which the Raspberry pi camera is fixed inside Spectacles. The visually challenged people can wear these spectacles and go where ever they want so that the emolyzer inserted inside the spectacles can easily detect the emotion of the person straight opposite to them and conveys it using a voice note. Working of Emolyzer is explained in a detailed manner in the up coming sections. Section3 explains the proposed method and a detailed explanation of modules of Raspberry Pi and section 4 contains the conclusion.

II. LITERATUREREVIEW

An over view of literature which helped in the evolution of this current concept is mentioned in this section Douglas Astler[1], used Computer Vision Technology and developed a model of facial

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Multiband and Wideband MIMO Radio Wires for Versatile Applications

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Abstract

An MIMO antenna based on meander lines with an L-shaped metallic strip for multiband operation is shown in this study. A monopole antenna with numerous sections of short-circuited transmission line works as an inductor and changes the antenna's impedance characteristics; this configuration is called a meander line. By using a line slot DGS (Defective Ground Structure) to decrease the mutual coupling between the antenna components and inserting two U slots on the ground plane, a 69% reduction in antenna size miniaturisation was accomplished. Well below the stated limit, we get the values of the envelope correlation coefficient (ECC) and specific absorption rate (SAR).

Keywords: MIMO; mobile antenna; multiband antenna; wireless communications; high isolation; miniaturization

Introduction

Wireless service-based communication technologies are experiencing their pinnacle of expansion. Because of this meteoric rise, not only have the fundamental needs of the wireless sectors, but it also raised the bar for antenna makers. Currently, there is a need for a small antenna that can operate over a broad range of frequencies. When more than one electromagnetic band has to be covered in a single application, a wideband antenna is a great choice. An ultra-wideband (UWB) antenna may connect to any and all major communication applications, including WLAN, WiMAX, satellite, radar, and more [1]. The typical operating frequency range for a UWB antenna is between 3.1 and 10.6 GHz. Numerous publications from the past and present have proposed wideband monopole antennas. Researchers mostly use the introduction of slots or faults in the resonating surface or with the bottom plane as a means to enhance the antenna's effective or fractional BW [2-3]. Antenna features such as a smaller operating frequency area, an expanded operating band, and a patch that is coupled to a finite impedance via slots cut into the ground plane are described in references [4-5]. Using asymmetric slots or several patches with varying forms is another way to increase the bandwidth

Antennas with wide bandwidths have also been obtained by several researchers using CSRR or EBG structures.

One potential issue with these methods is that they might cause fading when dealing with multipath circumstances. Antenna arrays are used to address this issue. Another option is to use a multiple-input multiple-output (MIMO) antenna, which may significantly increase the antenna's bandwidth but isn't always a solution to the issue. In addition to being very efficient, these antennas are also superior in terms of directivity.

In order to demonstrate multi-band operability and enhance the antenna fractional bandwidth, this study proposes a MIMO antenna configuration. The antenna is capable of functioning across many bands within the electromagnetic spectrum. Antennas in the X, Ku, K, and Ka bands are covered by it. I have submitted the results of the simulation of the suggested design that was conducted using the hfss v15 software to this document.

Proposed Geometry of MIMO Antenna

Based on its relative dielectric constant, the 2×2 compact multi-band MIMO resonator is built on an inexpensive and readily accessible FR-4 epoxy glass substrate has a loss-tangent of 0.02 and a thickness of 1.6 mm, with a period of 4.4.

Two patches with a hexagonal form and 50Ω impedance microstrip lines make up the structure. To minimise spurious emission as much as possible, the antenna patches are arranged to match the impedance with the microstrip lines. To achieve maximum efficiency and expanded bandwidth with lowest effective ground area, the antenna's ground plane is constructed in a certain way.

PERFORMANCE IMPROVEMENTS IN SNR OF A MULTIPATH CHANNEL USING OFDM-MIMO

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Abstract: When using the 2-11 GHz frequency range, the Non Line of Sight (NLOS) broadband wireless access offered by Worldwide Interoperability for Microwave Access (WiMAX) is vulnerabledue to the impacts of factors such as multipath propagation, diffraction fading, vegetation attenuation, shadowing loss, and more effects. To get around these impacts, you need to put fade mitigation strategies into action. An effective strategy for fighting fading and increasing the WiMAX system's signal-to-noise ratio (SNR) is Orthogonal Frequency Division Multiplexing with Multiple Inputs and Outputs (OFDM-MIMO). The IEEE 802.16 standard states that in order for the connection to function, a minimum signal-to-noise ratio (SNR) of 6 dB is necessary for QPSK modulation. This study uses OFDM-MIMO to obtain a signal-to-noise ratio (SNR) higher than the operational threshold.

Keywords: —WiMAX, fade mitigation, OFDM, MIMO, cyclic prefix, guard time

Introduction

Combining multiple-input multiple-output (MIMO) with orthogonal frequency-division multiplexing (OFDM) modulation creates a wireless communication system known as a MIMO-OFDM. Modern technology makes use of several antennas at the sender and receiver ends of a system to boost its capacity, enhance its performance, and decrease interference while simultaneously increasing the signal quality.However, orthogonal frequency division multiplexing (OFDM) modulation separates the data stream into several subcarriers. This enhances the system's spectral efficiency and helps to reduce the impact of channel fading. By combining the two, MIMOOFDM systems provide dependable, high-speed wireless communication across long distances.Digital broadcasting, cellular networks, and wireless local area networks are just a few of the many popular uses for multiple-input multiple-output (MIMO-OFDM) wireless communication systems. Greater data speeds, more extensive coverage, and enhanced resilience to interference and fading are just a few of the benefits they provide over more conventional wireless communication methods.Distributed orthogonal frequency division multiplexing (MIMO-OFDM) is based on the idea of using OFDM modulation toconvey information via these subcarriers. In order to make the most efficient use of the available spectrum, the data is dispersed among all of the subcarriers, and each subcarrier carries a tiny percentage of the total data.

A multiple-input multiple-output (MIMO-OFDM) system takes use of the spatial diversity of the wireless channel by using several antennas at the transmitter and reception ends. By

Research Using Judgmental Sampling to Choose Samples From Ghaziabad City Internet Shoppers

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Abstract

Looking at the factors impacting shopper web based shopping conduct is the objective. Plan, strategy, and approach: An expressive sort of study utilizing critical inspecting to pick tests from Ghaziabad city's web customers. The data was accumulated utilizing a poll. The nonparametric test has been utilized for speculation testing after the variable investigation, which is performed to distinguish the elements.

Findings: The study's findings suggest that a variety of factors, such as demographics, social factors, consumer online shopping experience, website design, social media, situational factors, enabling conditions, product characteristics, sales promotional scheme, payment option, delivery of goods, and after-sale services, play a significant role in influencing consumers' online shopping behavior. Research limitations/implications: The study's findings cannot be generalized to all online shopping users due to the small sample size and geographic location from which the data are Future examinations may likewise apply a few additional measurable methods to build the decisiveness of the responses revealed in this review.

Down to earth suggestions - The outcomes ought to bear some significance with the web-based retailers in concluding their promoting program.

Value and originality: The paper is based on original work, and the questionnaire was found to be reliable after KMO values were checked, which shows that a large sample size is possible. It will assist the academicians and researchers in their exploration with working in the construction of a writing on web based shopping. Additionally, it will provide online retailers with guidelines for developing their marketing strategy.

INTRODUCTION

In India, web based buying has been growing rapidly. The quantity of web customers has expanded, as has the size of their wallets. By 2024, it is assessed that Indian customers' yearly spending power would have expanded to more than $1.5 trillion, moved by the nation's developing working class, whose size is projected to arrive at 580 million by then. As per a Bank of America Merrill Lynch (BofA ML) examination from October 2021, internet providers are the groundwork of online business in India, where there will be 95 million supporters toward the finish of 2023. On sites like Flipkart, online purchasers might track down north of 35 million items across in excess of 75 classifications, including books, ordinary things, buyer hardware, and way of life. Amazon has additionally better its range of items from 18 million to 35 million and Snapdeals has been commitment north of 15 million novel items, SBI Exploration. There are in excess of 160 web based shopping sites accessible in India giving labor and products directly to the purchasers. These e-retailers give an electronic items. The shopper select the items from their index and buy the item by contrast it and different items. It enjoys many benefits like worldwide reach, scope of items with required data, As per Taylor Nelson Sofres Intuitive's "Worldwide web based business Report," the overall raise in web based business action is generally clear for specific item

A STUDY ON DIGITAL MARKETING AND IT'S IMPACTS ON TRADITIONAL MARKETING

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ABSTRACT - Marketing is not an exception to the general world's transition from analog to digital. The use of digital marketing, social media marketing, and search engine marketing is growing along with the advancement of technology. Due to its reliance on the internet, digital marketing has benefited the most from the rapid increase in internet users. The purchasing habits of consumers are evolving, and they are increasingly drawn to digital marketing over traditional marketing. This review paper's goal is to examine the effects of digital marketing and highlight its significance for both advertisers and consumers. This essay starts with an overview of digital marketing before highlighting its various channels, contrasting it with traditional marketing, and discussing its benefits, drawbacks, and significance.

Keywords—digital marketing, internet, online advertising, internet marketing

I. INTRODUCTION

Marketing refers to the steps that the company takes to promote the buying of any products or services. The company seeks customers or consumers for their products or services via the help of marketing. Digital Marketing refers to the marketing of any product or service in digital form. For example, marketing using smartphones, computers, laptops, tablets, or any other digital devices. Digital marketing is a form of direct marketing that links consumers with sellers electronically using interactive technologies like emails, websites, online forums and newsgroups, interactive television, mobile communications etcetera [12].

'Digital marketing' term was first coined in the 1990s. Digital marketing is also known as 'online marketing', 'internet marketing', or 'web marketing'. It is known as 'internet marketing' because with the rise of the internet there is also high growth of digital marketing. The major advantage of digital marketing is that marketers can sell their products or services 24 hours and 365 days, lower cost, efficiency gain, to motivate the customer for more purchase and improve customer services [13]. It helps many-to-many communications because of its excessive degree of connectivity and is generally completed to sell services or products in a timely, relevant, non-public, and cost-powerful manner.

In 2005, there were around 1.1 billion internet users which consist of 16.6 percent of the population at that time [8]. In 2020, the number of internet users is around 4.8 billion and the percentage population has increased to 62 percentage [8]. And there is a direct connection

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The Significance of Mobile Augmentation in the Development of Mobile Applications

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Abstract

The widespread use of mobile smartphones and applications has significantly enhanced human productivity and has revolutionized everyday activities in both personal and business settings. Most business and personal applications have now shifted to mobile platforms due to the numerous benefits that mobile applications offer compared to traditional desktop applications, which present endless opportunities for new ventures. Mobile applications are now an integral part of various devices with different operating systems such as Android, iOS, Windows, BlackBerry, Symbian, etc. However, it has become increasingly challenging for development and quality assurance teams to ensure error-free mobile applications that work seamlessly on end-users' mobile devices.

In mobile application development, Android and iOS are the most commonly used operating systems for this purpose. The software can be either preinstalled on the device, downloaded from a mobile app store or accessed through a mobile web browser. Programming and markup languages like Java, Swift, C# and HTML5 are commonly used for this kind of software development.

Smartphones have introduced a new market in mobile communication known as Mobile Application development. With smartphones, developers can create numerous applications that can run on the given application environment. These Mobile Applications provide custom or user-defined functionality in Mobile Phones. Nowadays, Mobile Applications have become increasingly advanced, integrating various fields of mobile computing, such as wireless networks, Mobile Web Technology, GSM, GPRS, and more. However, as the capabilities of smartphones increase, previous users of smartphones also desire to use similar applications on their devices. The Mobile Augmentation Architecture offers a technique in which mobile application developers can create applications that can function on a platform or network that is not supported by the mobile device.

The focus of this paper is to describe the role of Mobile Augmentation in the field of Mobile Technology. It also suggests various mobile computing technologies that can be integrated to develop Mobile Augmentation technology. With the rapid advancements in mobile computing technology, Mobile Applications have become more advanced, and there is a need for robust functionality that can increase the performance and features of mobile devices. Mobile Augmentation offers an integrated technology architecture that can address this need. Additionally, the paper explains how to implement Mobile Augmentation Application and the Layered Architecture of a Mobile Augmentation Application.

Introduction

Creating software applications that run on mobile devices is known as mobile application development. The past decade has seen a revolution with the advent of mobile devices and applications in various fields. Initially, they were used in advertising, marketing, and various service sectors, but now they have expanded to healthcare and insurance, impacting every industry and organization. With the rapid pace of application development, the research community has taken an interest in understanding all aspects of this niche. The utilization of mobile application technology is increasing rapidly compared to traditional desktop technology, resulting in the regular development of a large number of applications. Among the most widely used applications are social media apps. These applications typically use a network connection to access remote computing resources. As a result, the development process for mobile applications involves creating installable software bundles, which include code, binaries, assets, etc. It also involves implementing backend services such as data access with an API and testing the application on target devices.

Wireless devices like cell phones have revolutionized the way people stay connected to the world around them, offering unparalleled connectivity from virtually anywhere at any time.

Streamlining Warm Way Of Behaving Of Conservative Intensity Exchanger

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Abstract

One of the most important aspects of machines, devices, and industrial processes that keeps their functionality and improves product quality is heat transfer. In order to maintain the desired operating temperatures and dissipate additional heat from the process or device, heat exchangers of various types and sizes are utilized in these applications. However, because it determines the space (i.e. the size) of the machine, device, or treatment plant, the size of a heat exchanger is an essential consideration for any kind of process or device. The motivation behind this study is, most importantly, to hypothetically look at the plan cycle of an intensity exchanger, then to break down and upgrade its presentation utilizing PC helped liquid elements. A counter-current intensity exchanger was considered for configuration purposes and its length was hypothetically determined utilizing the LMTD strategy, while the strain drop and energy utilization were likewise determined with the Kern technique. The behavior of heat transfer, mass flow rates, pressure drops, flow velocities, and vortices of the bundle flows in the heat exchanger was analyzed using the three-case model in the CFD analysis in this study. Hypothetical and CFD results showed just a 1.15% distinction in the cooling execution of hot liquids. The hub pressure drops showed positive connections with the absolute intensity move coefficient and the required siphoning power. Generally speaking, the consequences of this review affirm that CFD displaying can be promising for the plan and advancement of intensity exchangers and that it can test many plan choices without creating actual models.

Keywords: CFD, Heat Exchanger, LMTD, ANSYS.

INTRODUCTION

Heat exchangers are among the most regularly involved gadgets in the process business. Heat is transferred between two process flows through heat exchangers. Their utilization shows that any interaction including cooling, warming, buildup, bubbling, or vanishing requires an intensity exchanger for this reason. Prior to undergoing a phase change in the processor, process liquids are typically heated or cooled. Different intensity exchangers are named by their application. For instance, the intensity exchangers utilized for buildup are called condensers, similarly the intensity exchangers for cooking are called boilers. The presentation and productivity of intensity exchangers are estimated utilizing how much intensity move utilizing the more modest intensity move region and the tension drop [1]-[2]. Effectiveness can best be addressed by working out the complete intensity move coefficient. An overview of a heat exchanger's

Comparative Analysis Of Energy Matrices And Environ-Economics For N-Pvt-Cpc Active Single And Double Inclined Solar Distiller

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Abstract

The compound illustrative concentrator (CPC) photovoltaic warm (PVT) connected to sun based photographs (N) of water gatherers called PVT-CPC Dynamic sun powered filtration framework examination is finished for a sun oriented channel framework for a given molecule size under weather patterns of New Delhi. We survey effectiveness, framework efficiency, and life cycle cost examination. The warm model transformation productivity of life cycle (LCCE), is thought of and solo and double compound explanatory concentrator with photovoltaic framework for separating sun powered distiller for the water profundity of 0.14 m, with yield on yearly premise, component of energy compensation, and proficiency of life cycle cost change investigation of 5.0%, 12.63%. Also, 22.21% is higher than the performance slanted framework. Additionally, the energy payback time (EPT) has a 5% interest rate. The sun based channel framework is 10.89% and 17.99% higher than the performance slanted photovoltaic warm compound illustrative concentrator actuated sun oriented channel framework, individually. The above investigation finished up, we can affirm that the twofold disposed are superior to the dynamic single PVT-CPC procedure for sifting. The overhauled framework endures longer and can meet consumable water and DC power on radiant business days. For a long period of 50 years, with a financing cost of 5%, the water bowl region for a profundity of 0.14 m, the twofold disposed surpasses farming and efficiency, 16.09%, 21.48%, and 8.41%, individually.

Keywords - energy payback time, energy payback factor, LCCE, yield, distiller

INTRODUCTION

The solar distillation system in the remote area is the best choice to overcome the drinking water supply crisis economically, it does not create several adverse outcome on the surroundings, it is simple to keep up, with even for the period of the day, it provides D.C power supply, it is really simple and ease to design and manufacture. This is a role in the response circle that is differing from hydrological cycle or else, it is called a scanned view of hydrological cycle. This technology is provided water to a deserted area by clearing the brine; for the purpose, it can be still use as a solar device. Through a study of our literature, I have found that many researchers in solar distillation are researching active solar filtration system there. The above shortcomings can be overcome by solar distillation [1]. Various researchers reviewed numerous aspects such as energy matrices, design, and with or without smart materials. [2 – 9]. The traditional distiller represents simple design, performance. But the production of water was low

Research Article

Execution Investigation OF C.I. Motor Utilizing Biodiesel Fuel By Adjusting Infusion Timing And Infusion Tension

Chirag Sharma[1], Dharamveer Singh[2]*

Abstract-

The essential focal point of this paper is the improving of infusion tension and timing in pressure start motors. At the point when these two basic variables were changed, the motor's presentation was followed, and data was acquired to assess the results. The objective of the review was to improve the motor's presentation, eco-friendliness, and discharges attributes by deciding the fitting infusion tension and time. Various diagrams including pressure start motor burden and different execution qualities, including showed power, brake power, and explicit fuel utilization (I.P., B.P., and S.F.C.), have been made in light of information.

Then again, the course of fuel adjustment was utilized to blend biodiesel with petroleum product or different sorts of fuel. I decided to use jatropha seed since it can prosper in parched conditions or with negligible water. Diesel and the biodiesel created from jatropha are mixed for CI motors. Since B100 biodiesel is 100% biodiesel, testing a motor's presentation under fluctuating loads is utilized. The 2-stroke single-chamber C.I. motor has been tried utilizing B100 blended petroleum. In the first place, the motor works for 30 minutes with no heap applied to test the motor's genuine working state. On the one hand, certain blends have elevated degrees of SOx and NOx fumes gas discharges alongside high B.P. readings, while on the other, a few mixes have low degrees of SOx and NOx fumes gas emanations alongside low B.P. readings. Now that it is being grown economically, jatropha oil will turn out to be more affordable than diesel. Also, remember that customary fuel's stock is obliged for years to come as its expense will diminish.

1. Introduction

When a country faces a significant disruption or shortfall in its energy supply, which is typically accompanied by dramatically rising energy prices, it enters an energy crisis. This issue could substantially hinder a nation's economic and security components. The economy may suffer from the energy crisis in a number of ways. The energy crisis may also result in job losses and higher unemployment since enterprises may need to scale back or close due to higher energy expenses. Furthermore, since importing energy resources costs more money, a country that imports a lot of its energy may have a significant trade imbalance.

The International Energy Agency project research states that by 2030, demand must climb by at least 50%. Despite a 3% increase in consumption in 2011, a 1.6% annual growth will lead to a 51% increase in consumption by 2030. The consumption of vintage is rapidly rising in both China and India. The rapidly growing prices of crude oil and petroleum products on a global scale are having an effect on the economies of a number of nations since the supply cannot keep up with the demand. To respond to the dwindling oil supply, it is essential to transition to an alternative energy source.

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Research Article

Modelling, Design And Analysis Of Crankshaft

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Abstract:

Crankshaft is a rotating shaftwhich is connected with other rods change reciprocating motion of mainly pistons into rotational motion. Main Application of crankshaft is its use in internal combustion engines.Crankshaft is mainly consist of a series of cranks and crankpins.

This proselytes the responding relocation of the cylinder in to a rotational movement of the wrench. Endeavor is made in this paper to examine the Static investigation on a crankshaft from a solitary chamber Four-stroke internal combustion enginesEngine. The displaying of the crankshaft is made utilizing latest version of CATIA Application. Limited component examination is performed to acquire the variety of stress at basic areas of the driving rod utilizing the ANSYS programming and applying the limit conditions. The calculated Total deformation, strain and stress is 2.06e-7, 4.67e-6 and 3.20e5 respectively for aluminum alloy. Similarly, for Titanium alloy, 1.50e-7, 3.32e-6 and 3.17e5. and for magnesium alloy, they are, 3.22 e-7, 7.18 e-6 and 3.1815e5.

Keywords: Ansys; catia; crankshaft; engine; Modelling and Analysis; IC Engines; Static Analysis;

Introduction:

Crank with shaft is an enormous part with a perplexing geometry in the I.C engine, which changes over the responding relocation of the cylinder to a revolving movement with a four-bar interface system. [1] Crankshaft comprising of shaft parts, two diary orientation and one crankpin bearing. [2] The Shaft parts which rotate in the primary orientation, the crank pins to which the large finish of associating bar are associated, the crank arms or networks which interface the crank pins and shaft parts.

[3] Likewise, the straight removal of an engine isn't smooth; as the uprooting is brought about by the ignition chamber in this way the dislodging has abrupt stuns. [4]The idea of utilizing crankshaft is change of these abrupt removals to as smooth turning yield, which is the contribution to numerous gadgets, for example, generators, siphons and blowers. It ought to likewise be expressed that the utilization of a flywheel which helps in the smoothing of the stuns. [5]

Crankwith shaft encounters huge powers from gases in ignition. power is applied to the top head in system of the cylinder and since the associating bar interfaces the cylinder to the crank with shaft, the power will be transmitted to the crankshaft. [6] The size of the powers relies upon numerous variables which comprise of crank range, associating bar measurements, weight of the interfacing pole, cylinder, cylinder rings, and pin. Burning and inactivity powers follow up on the crankwthshaft. 1. Torsional load 2. [7] Bowing burden. Crankshaft must be sufficiently able to take the descending power of the force stroke without inordinate twisting so the dependability and life of the inward ignition engine rely upon the quality of the crankshaft to a great extent. [8]

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E- Commerce Website by Using Frontend WebDevelopment

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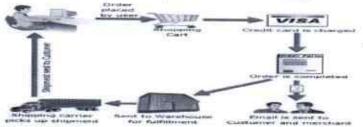
ABSTRACT

We reside within the generation where everyone want to try and do any add easy way, so our generation is more passionate about internet, internet makes our life easier. The majority of individuals depend on technology to guide their lives and meet their everyday demands. Most folks in our generation buy clothes, groceries, and electronics via E-commerce websites. E-Commerce isn't only the website where you'll sell your products and buy someone's product. I've got developed an E-Commerce website by using Front-end Technologies like HTML, CSS, JavaScript. Some tabs on this site are responsive. There are several areas on the website, such as "Home", "Category", "Blog", "Contact" and so on, that when you click on these buttons or sections, you will be taken to the content. We havesubsections in the Category Section wit h products organized by category. We have a shopping cart, a search bar, and a log-In page. Some tabs on this site are responsive. Here on the website we made a separate section of "Add In Cart", "Product Information tabs ". Andwe use smooth animations for making our website more attractive and our website is user- friendly, and surely the website will enhance the user experience And I used more CSS , JavaScript , PNG of product and a few images of background for make rather more user-friendly UI. We may buy numerous styles of Phones and choose different sorts of phones supported consumer interests by using this website. We will add different goods to the present project and delete them moreover. They are able to easily add products to their cart. Supported the things within the cart, then we've payment button this may responsive after Back-end will hook up with the website.

KEYWORDS --- Application development, HTML, CSS, Javascript, E-commerce, and front-end development are some of the keywords

INTRODUCTION

We all know that in today's world, technology has become an indispensable instrument for online marketing. We can tell that most individuals throughout the world are interested in purchasing items via the internet. Furthermore, Wecan see, however, that many small shops and supermarket stores sell their products offline. Most of us will have a terrible experience with this style ofselling.Mightnotrememberofit, orthecustomermayrequirethemerchandisequickly, within which case he will attend the shop, but the merchandise are out of stock, leading to a negative experience. Furthermore, clients may select from an oversized choice of products supported their interests and costs, and that they can compare prices from one store to a different via internetshopping. Creating an E-commerce internet utility is required for looking outand buying in each shop, after going through all the challenges and weaknesses of the offline buying device. These days, several e-commercewebsites have been launched, such as Flipkart, Amazon, and Myntra, where people can quickly purchase their required things. These websites allow people to buy their products while remaining at home. Finally, we are able to see a difference in product prices, like after we see that the value of aproduct is slightly more in offline buying compared to online purchasing because it can help us create the foremost effective and powerful web applications, front-end are going to be the simplest option for building these styles of E-commerce web apps. E-commerce is described as the purchasing and promoting of items and services over a digital network, mostmany times the internet, as nicely as cash and facts transfers (electronic commerce).

2^A

Research Article

Millimeter Wave Filter For 5g Appliations

Manish Kumar[1]*

Abstract

This venture shows the plan, recreation, and creation of a pass band channel with a recurrence scope of 26 to 28 GHz. This channel can be utilized as the front finish of a millimeter wave recurrence down converter to change over millimeter wave signs to microwave frequencies going from 2 to 18 GHz. Size and effectiveness are two significant variables to consider when planning a channel for arising portable correspondence applications. Channels with a little impression and superior are ideal for millimeter wave applications, like 5G.

Keywords: Band pass filter, Millimeter wave, Micro wave, Frequency, Channel.

I. INTRODUCTION

In 5G mm-Wave front-closes, channels are generally expected to stifle the undesirable picture recurrence range, LO spillage and sounds. Notwithstanding, smaller on-chip channels include the inferior quality (Q)- factor, bringing about a high inclusion misfortune which is for the most part over 2.5 dB. Also, the high-Q channels are difficult to be coordinated in 5 Gmm-Wave framework because of the enormous size. Millimeter waves open up more ranges and are more costly. They possess recurrence range from 30GHz to 300GHz and are in range between microwaves (1-30GHz) and infrared(IR) waves. Frequency (λ) of millimeter waves is in scope of 1-10mm. Because of little frequency, mm-wave gadgets work with huge receiving wire clusters to be stuffed in scaled down actual dimension. As 5G media transmission frameworks are conveyed to adapt to the expanding request, past ages of broadcast communications will keep on working. A significant justification this is the high recurrence of 5G signs which can't go similarly as lower recurrence signals. To guarantee signal inclusion in all spaces, broadcast communications transporters will consolidate high and low-recurrence framework. Particularly for little cell front-end modules where disengagement on recurrence groups from close by obstruction is fundamental. This paper shows an ovel, straight forward plan construction of a wide band pass channel with focus recurrence of 24 - 26 GHz and fragmentary transfer speed (FBW) of 22% for 5G mm-wave applications. The proposed separating receiving wire has a smaller size, which is appropriate for 5Gmm-Wave gigantic MIMO applications.

II. METHODOLOGY

The underlying construction of the WHEMS channelis appeared in Fig., where the filled region is made out of a metal channel. The essential WHEMS comprises of two balanced polygonal openings, and the feed point is situated in the middle hole (as demonstrated in Fig. s3). The regular current conveyance is appeared by the strong line with a bolt, and the specked line demonstrates the current deteriorated by the angled current,. It tends to be seen that the flows drop each other the level way and that various flows are superimposed the upward way. Consequently, the receiving wire has a uniform gap dispersion in the H-plane.

The middle distance between the getting and communicating radio wires D0 is 27 mm (as per the

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Research Article

Bridging The Gap Of The Implemented Modular Learing Modality In The New Normal

Devender Singh[1]*

Abstract

The qualitative research design with content analysis was employed to twenty (20) teachers during the interview. Data were thematically interpreted. The study revealed that challenges of remote learning will be greater for vulnerable or disadvantaged students, who are most at risk of disrupted learning continuity and of other potential harms while out of school. To bridge the learning gap in the new trends of educational system. Teacher engagement and contact with these students will therefore be critically important.Effective remote teaching is neither teacher-led nor student-directed. Teaching activities should be maximized in order to promote metacognitive strategies. Likewise, teachers' must flexible in using different platforms such as dialogue, centralized radio, and TV broadcasting. Hence, to continue achieving the benchmark of teaching, (1) teacher's must priority students' who are vulnerable and (2) enhance remote instruction for cognitive engagement.

Keywords: Teaching Pedagogy, Instructional Materials And Modular Instruction.

I. INTRODUCTION

If one has to look closely at the contemporary problem of how to raise the quality of education amidst COVID- 19, no matter what the discipline is, it would clear that concrete evaluation, effective instructional model lies on the right objectives in the teaching and learning process (Macarandang, 2009). Evaluation of students' is very essential in the attainment of educational objectives, it is done in a gradual manner where the instructional materials are always the subject for evaluation.

The Department of Education (DepEd) concerted efforts to develop a better framework to continue learningand serves as a guiding principle of the whole Educational System. The framework is composed of four pillarsin education such: Transition program, Infrastructure readiness, School Readiness, and Human Resource.School Readiness engrosses the teaching learning modalities to help learners to develop skills and to continue the learning amidst the crisis face. One of these learning modalities is the distance learning modality ormodular learning modality wherein majority of the public and private institutions of the Philippines adapt.

More so, the act of teaching in this pandemic time is so complex that it cannot be said that a specific way of teaching is superior to other ways for all times and circumstances.

The inclination of the Primary and Secondary Schools around the Philippines continues even in the hardest time. The use of modular teaching modality as teaching platform is not easy in attaining the benchmarks, curriculum standards, activity standards and evaluation standards in each of the subjects. In fact, Aloran Trade High School is still looking for the best educational instructional mode to provide the best method of teaching that will encourage independent study, critical thinking, resourcefulness, and cooperation among students in recent time.

For this reason, the researchers conducted a study to bridge the gap of the implemented modular

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Research of Self-Workout Trainer System Using Ai and Ml

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Abstract

Exercises for fitness are quite good for one's health and fitness. If used improperly by the user, they may also be ineffectual and even harmful. When the user does not adopt the appropriate stance, exercise errors are made. In our work, we provide a software program that recognizes the user's exercise stance and offers customized, in-depth suggestions on how the user can correct their form. People now more often exercise by themselves and without supervision as self-management for the treatment of musculoskeletal ailments becomes more popular. Without feedback, it might be challenging to identify when an exercise is being done properly, hence it is unsafe to try certain exercises. This might result in further harm. We draw attention to these issues and work to provide the best possible solution using an application that detects the user's stance using the most advanced pose estimation technology, then assesses the vector geometry of the pose using an exercise to deliver helpful feedback.

I. INTRODUCTION

As we get closer to the future, we are observing numerous firms' strategies in the fields of artificial intelligence, machine learning, the Internet of things, data analytics, etc. The use of artificial intelligence and machine learning algorithms makes it possible to quickly and simply handle numerous problems that arise in daily life. One of these issues is estimating posture during exercise, which was brought to light during the lockdown among those who exercised at home without the guidance of a professional trainer. It became extremely difficult for them, and it can also be challenging to recognize when one is performing an exercise incorrectly.

When compared to people who are not physically active, those who engage in moderate to vigorous levels of exercise have a lower death risk. By lowering the possibility of inflammation, moderate amounts of exercise have been linked to delaying the aging process.

- **Existing Technologies/Tools/Software**

    1.2.1 Open pose: It is the first multi-person real-time system that jointly identifies key places on the human body, hands, facial expressions, and feet on a single image. Researchers from Carnegie Mellon University made the suggestion. They have made their work available in the form of Unity, C++, and Python code.

    1.2.2 Open CV: OpenCV (Open-Source Computer Vision Library) is an open-source computer vision and machine learning software library. A standard infrastructure for computer vision applications was created with OpenCV to speed up the incorporation of artificial intelligence into products. OpenCV makes it simple for businesses to consume and alter the code because it is a BSD-licensed product. More than 2500 optimized algorithms are available in the collection, including a wide range of both traditional and cutting-edge computer vision and machine learning techniques. These algorithms can be applied to a variety of tasks, including the detection and recognition of faces, the identification of objects, the classification of human actions in videos, the tracking of camera movements, the tracking of moving objects, the extraction of 3D models of objects, the production of 3D point clouds from stereo cameras, and the stitching together of images to create high-resolution scenes.

Features of OpenCV:

1. Cross-platform: Allows installation for different environments (operating systems)
2. Portable: Transferable to any machine that can run C.
3. Open source: OpenCV is free for use under the open-source Apache 2 License.
4. Fast: OpenCV is highly optimized and makes use of NumPy functions.
5. Vast algorithms: OpenCV packages contain more than 2500 algorithms.
6. Fast prototyping: Implemented in the development of real-time applications.
7. Extensive use: Used across various organizations and companies.

Intelligent Chatbot: Review Paper

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Abstract

A chatbot is a computer program that can communicate with people in a human-like manner. You have two options to talk: you can either write or use software that turns your spoken words into written messages. A chatbot is a computer program that tries to talk to people like a human does. Lots of companies use it to respond to customer questions and assist them on the internet. This new system uses a computer program called a chatbot that can find and give helpful answers from the internet. It helps people learn how to solve problems using a computer. The plan is to show the chatbot how to know what people mean and answer back in various ways using instructions. After reading many documents, we found that chatbots are helpful for everyday tasks. Chatbots can act more like humans when we talk to them because Artificial Intelligence is improving. The aim of this project is to create chatbots that understand your requests and provide helpful responses. Doing things this way will mean we need less people to do them quickly and with more quality. We want to try different things to see how we can get what we want.

INTRODUCTION

Computers can now think and learn like people thanks to a technology called artificial intelligence. This technology is becoming increasingly popular on mobile devices. One thing we can do with this technology is make computer programs that can talk to humans, called chatbots. Chatbots have different uses - they can be practical or entertaining. However, we are unsure if they are truly helpful. Sometimes, people make chatbots without a good reason for why they need them. At first, some people might Rephrase be curious about chatbots and feel like talking to them. To keep people engaged, it's important to have a chatbot that serves a specific purpose and provides useful information. Some people struggle to describe chatbots and use them well.

Chatbots can chat or send messages to people, but their level of assistance depends on the context. To understand how someone wants to share information, you must know their purpose and their surroundings. To know how people use chatbots every day, we need to look at it from the person's point of view who is using the chatbot and not just the one who created it.

To know if chatbots are good and people like them, we can look at how they perform compared to other choices. This helps us figure out if they are helpful. Chatbots on phones make using technology easier. Nowadays, there are lots of phone apps called chatbots. They can do lots of stuff on apps like Facebook Messenger, Slack, Telegram, websites, and Skype.

RELATED WORKS

Chatbots are programs that allow people to talk to computers in a more natural way. Chatbots allow individuals to ask questions as if they were speaking to another person. Alexa and Siri are well-known robots that interact with people using voice commands. Now, computer chat systems are also using robots that can chat.

Chatbots are becoming more popular because computers are getting better at understanding how humans talk. Chatbots are being used more now because machines have gotten better at understanding language. This means they can understand what people say more accurately, making them more effective. NLP is improving, which is leading to an increase in research. People believe that this will improve chatbots in the coming years. In the coming years, websites will have more chatbots that people can use easily and they won't cost much.

Researchers are looking for ways to make chatbots better by creating more advanced computer programs. As lots of people use chatbots, they want to make them work even better. These studies require experienced workers and various computer programs. Chatbots are like robots that can talk to people on messaging apps. They might be better at it than humans. These things might become really good at gathering information soon. Scientists are trying to

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Analysis and Design of Visualization of Sales Data Using Power Bi Tool

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Abstract

All businesses want growth, and this can be achieved by identifying new opportunities and potential areas for growth in addition to the areas in which the business is lagging. Data analytics is the process by which the data is processed and various important insights are extracted from it that are crucial for the growth of an organization.

To fulfil this requirement, Microsoft Power BI can play a vital role. It is a powerful business intelligence tool that allows its users to visualize and analyze business data that can even have multiple sources. The tool has a clean and user-friendly interface. And the final output generated is presented in the form of interactive and beautiful dashboards. At first, the raw data is to be processed through several steps of cleaning and making it compatible to be used. After that, it's processed in Power BI and finally converted into beautiful interactive and informative dashboards used for business decision-making. This paper deals with the visualization of data from a sales store in Power BI by first importing the dataset, processing and cleaning it to make it ready for visualization, establishing appropriate relationships between various tables in the dataset, and finally visualizing the information to extract meaningful insights from it. These insights can be used to forecast various future events and help the organization take control of them to the maximum possible extent.

KEYWORDS: Data Analysis, Data Visualization, Power BI, Business Intelligence

Introduction: In today's fast-paced business world, organisations need to have the capacity to analyse sales data and get insights into client behaviour. However, manually analysing substantial amounts of sales data can be a difficult undertaking. Companies can now use the power of data analytics to better understand their sales data thanks to sophisticated data analytics solutions like Power BI.

In this research study, we will examine the possibilities of using Power BI for sales data analytics. In this lesson, we'll look at how Power BI can be used to connect to various data sources, transform, and clean data, as well as produce interactive visualizations and reports that offer insightful data on sales success. The advantages of utilising Power BI will also be covered i.e., depth analysis, easy data integration, interactive visualizations, and cost-effectiveness.

In addition, a case study of a business that effectively used Power BI for sales data analytics will be presented in this research paper. We'll look at the difficulties the company encountered before deploying Power BI and how it overcame them. We'll also review the outcomes that the organisation saw after deploying Power BI, including enhancements to sales performance, client retention, and overall business expansion.

This study paper's major goal is to show the possibilities of using Power BI for sales data analytics to offer insights for business intelligence.

WHAT IS DATA ANALYSIS?

Data analysis entails establishing a dataset, studying it, cleaning it by removing any Na values or outliers and converting it to generate a useful result.

Power BI is a cloud-based data analysis tool that extracts, visualizes, and provides real-time insight. Power BI brings together data from a range of sources to provide you with a complete picture of your company's data assets. It also takes a 'big picture' approach, using current knowledge to analyze what has happened in the past to help you make better decisions in the future.

PROBLEM STATEMENT

The customer company is a sales company dealing in 47 products comprising majorly housewares, with a few general electronic appliances and sporting items. The company has 367 stores across all the states of the United States of America, which are categorized into four geographic regions with 28 sales team members who cover the different regions. The company has 50 customers who

Research Article

Research On Load Balancing Of Cloud Computing Platform

Manas Tripathi[1]*, Anurag Gupta[2]

Abstract:

Since the launch of this new cloud computing technology, its development momentum is unstoppable, and it has had a huge impact on the application service model: from concept to development to practice, cloud computing framework technicians put forward one by one, covering all aspects, and even strive for perfection. computer development, It has always been a research hotspot for enterprises and scholars. This paper first analyzes the current state of cloud computing, cloud resource planning and management, and then examines existing resource planning strategy and load balancing algorithm, combining the resource planning strategy with the load balancing algorithm, a cloud resource planning strategy based on load balancing is proposed, and the implementation capabilities of this strategy on the cloud platform and cloud simulation platform are analyzed, and finally the research content and shortcomings in the research process of this paper are summarized. Hope to benefit the development of related industries.

Keywords: Cloud computing technology, load balancing, Hadoop technology

Introduction:

With the development of cloud computing technology, user needs tend to be diversified, Application types become more complex. In this paper, resource allocation, load balancing the specific requirements of balance, planning and control are introduced in more detail. Introduction, such as resource grouping and division, selection of task submission methods, resource Source planning strategies and algorithms, etc. The goal of cloud computing resource planning is to Under the premise of the total throughput of the platform system, the optimal planning of system resources is realized. Plan, and balance the load within the system according to user needs. From the quality of service From the perspective of quality of service (QoS), the implementation of optimal planning, optimal completion time, Economic principles and load balancing are considered in four aspects. Now we can do more things on the Internet, such as online learning, online shopping, check email from anywhere, organize or attend online meetings, and more.It is undeniable that the Internet has brought a lot of convenience to our life and work. Benefits, such as auto-complete keywords or similar products when shopping online recommendation. These services make our selection easier and based on each different personal situations are optimized to achieve the effect of precise push. Exist while working and studying, we quickly and easily generate large Quantitative data. These data need to be stored and processed on the network, and the amount of data is increasing. In addition, an increasing number of smart devices such as the emergence and popularization of iPhone, iPad and smart watch have increased the comfort and efficiency of senders and receivers can be taken anytime, anywhere Video recording and other activities, online social networking and online shopping) load balancing. It is very important in Hadoop cluster system, reasonable load balancing strategy performance and usability can be improved. Task Planning Strategies for Hadoop Clusters and planning mode have a great impact on load balancing, but the current

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E-learning (Programming & Engineering)

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Abstract

The focus of study is to provide a leveraging learning portal in order to get effective knowledge acquisition. As technology continues to evolve, the era of modern education has witnessed a powerful transformation with the emergence of e- learning. E-learning, also known as online learning or distance learning, has become an increasingly popular alternative to traditional classroom-based education. This abstract explores the concept of e-learning, its benefits, challenges, and potential implications for learners.

Our E-learning portal is a ground-breaking platform for fresher students , IT students as well as an individual who is determined towards learning that makes it easy and effective to learn tools and technologies online as a running web application quite simple to use our e- learning resources . From programming concepts to their core implementation, our learning platform is designed to simplify the learning process for the potential learners and students alike. Students can take the virtual courses available on the web portal from any location at any time thanks to our learning platform's user-friendly and secure interface. Students are provided with a clear understanding of their learning performance thanks to the instant guidelines and feedback it provides to the users time to time.

The most recent web technologies, such as Angular framework, HTML, CSS, JavaScript , C#, .net core and cloud services like AWS, are used and utilized in the design and development of our E-learning platform build using mongoDB integration of database. User management, management of different courses management of authentication, feedback management, result management, security, and accessibility of web portal are just a few of the platform robust features that guarantee the safety and privacy of user data.

It is considered to be true that the educational institutions and other academic organizations are not more than enough for a dependable and effective method of teaching the core concepts to students. The platform's adaptability and intuitive user interface make it an ideal tool for both studentss and administrator that manage and maintain the abstract features of portal . Students can start learning with our learning platform by diving into virtual available courses from any location at any time, and administrators can easily manage the entire learning process. Overall, our E-learning platform is an essential platform for the contemporary educational landscape because it is a powerful tool that can revolutionize the way learning is adopted.
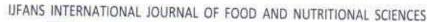
Keywords: ▢ Angular , C# , .net core ,MongoDB , Hypertext Markup Language (HTML), Cascading Style Sheets (CSS) .

INTRODUCTION

The traditional classroom-based education system is a way of providing education and assessing students' performance in learning, but it is very time-consuming and prone to mistakes. Online platforms, like our platform, offer a more convenient and effective way

E-learning (Programming & Engineering)

STOCK MARKET PREDICTION USING TWITTER SENTIMENT ANALYSIS

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Abstract-*Recent outrageous posts on social media have taken the globe by storm and have led to diverse views and views of the general public. Social media plays a significant act for or against a government or a corporation that simply can't decide the movement of market but to grasp the sentiment of twitter data that are posted on social media with good method could be a supreme necessity. It will analyse some twitter postings to grasp human semantic. In any tweet intended posting there are some downgraded keyword. At last, a data-set is ready that consists of unique words collected from twitter posts or comments and so the data-set is trained using Naive Bayes algorithm supported with applied mathematics to spot the sentiment given during a new call and comment . They are going to extract each word of the posting and so it'll be matched by virtue with the data-set words for dilution. Finally, it will be tested to their algorithm using numerous post from twitter that can deliver the result with good accuracy.*

I. INTRODUCTION

Systems for predicting the stock market have long been a crucial resource for stock traders. In general, a variety of factors, including the price of gold, the price of oil, significant events, and last but not least news about stock market businesses, influence the direction in which stocks move. While the majority of parameters taken into account by stock market prediction algorithms are quantitative values, a sizable number of researchers have employed financial news to increase the accuracy of stock direction predictions. Although the overall accuracy of stock price prediction using historical quantitative data is

relatively high [1-3], these approaches are insufficient since they cannot adjust to the price fluctuations brought on by a number of significant events can affect investors' trust since human intuition is lacking. To make up for this deficiency, a number of prediction techniques that take into account both stock market prices and financial news have been improved [4-5]. The findings from many of these investigations, however, do not demonstrate high accuracy. For instance, Schumaker and Chen's [4] suggested method, which relies on noun phrases and proper nouns, only manages to attain accuracy levels of 58% and 58.2%, respectively. Therefore, a superior stock market prediction system needs to be thoroughly researched.

We created a new prediction method called Probabilistic Lexicon Based Stock Market Prediction (PLSP) in order to increase prediction accuracy. The suggested PLSP algorithm forecasts a certain direction for stock price from By calculating the overall probability for each event term from the test data set and applying it to news stories, the likelihood that the stock price will increase or decrease. This report focuses on the closing prices of stocks on the Stock Exchange of Thailand (SET100) and online financial news articles because the study was carried out in Thailand. The experimental data are split into two sets in order to assess the effectiveness of the suggested PLSP algorithm. Financial news stories from March 2015 to February 2016 make up the first data set utilized to create the suggested probabilistic lexicon. The predictive model was tested, analyzed, and evaluated using news articles from March 2016 to February 2017 from the second data set. The findings show that the suggested model produces superior performance results to alternative models. traditional

HEALTHCARE MANAGEMENT SYSTEM

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Abstract :

The Hospital's Operations Are Managed And Automated By The Abstract Hospital Management System, Which Is A Sustaining System. It Deals With Gathering Patient Data, Including Diagnosis Specifics, Etc. The System's Primary Purpose Is To Register, Store, And Retrieve Patient And Doctor Information As Needed, As Well As To Change This Information In A Useful Way. While System Output Is To Display These Details On The Screen, System Input Contains Patient And Diagnosis-Specific Information. With The Use Of A Login And Password, One Can Access The Hospital Management System. A Receptionist Or An Administrator Can Access It. They Alone Are Able To Add Data To The Database. The Information Is Simple To Retrieve. The Processing Of Personal Data Is Made Possible By The Data's High Level Of Security.A Hospital Or Healthcare Facility's Internal Healthcare Operations Can Be Streamlined And Automated With The Use Of Hospital Management Systems (Hms), Which Are Computer-Based Information Management Systems. An Outline Of Hms's Advantages, Difficulties, And Potential Solutions Is Given In This Study.Patient Registration, Admission, Discharge, Billing, Inventory Management, Medical Records Management, And Appointment Scheduling Are Just A Few Of The Features Integrated Within The Comprehensive Hms System. The Technology Increases Hospital Operations' Efficiency, Lessens Paperwork, And Eliminates Errors, Resulting In Better Patient Care.Hms Offers Patients And Healthcare Professionals A Number Of Advantages. It Makes It Easier For Doctors To Quickly And Accurately Retrieve Patient Information So They Can Decide How Best To Treat Their Patients. Additionally, The System Optimises Patient Safety, Fosters Collaboration Among Healthcare Professionals, And Provides A Platform For Data Analysis.

Keywords- Hospital Management, Healthcare Facility, Dealing Patients

Introduction :

A Hospital's Everyday Operations Are Managed And Maintained By A Software Programme Called A Hospital Management System (Hms). In Order To Provide Effective And Efficient Management Of The Hospital's Resources, The System Assists In Managing The Medical, Administrative, Financial, And Legal Aspects Of A Hospital.The Hms Has A Number Of Modules, Including Ones For Staff Management, Pharmacy Management, Appointment Scheduling, Medical Billing And Coding, Patient Records Management, Employee Management, Inventory Management, And Many Others.The Centralization Of Information, Which Makes Patient Data Easier To Access And Administer, Is One Of The Main Advantages Of An Hms. This Guarantees That All Medical Records, Diagnoses, Prescriptions, And Other Pertinent Data Are Kept In A Safe, Orderly Manner, And Are Only Available To Authorised Staff.

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IMAGE2SPEECH– TEXT RECOGNITION IN IMAGES AND CONVERTING RECOGNIZED TEXT TO SPEECH

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Abstract :

Around 285 million people worldwide are visually impaired, including close to 39 million blind people.Thishasasignificantimpactonthelivesofpersons who are blind or visually impaired. Even though numerous attempts have been Made to assist those who are blind in seeing objects through alternate senses like touch and sound, text-reading technology is still in its infancy. The system in use right now is either constrained in its application or expensive to maintain. Therefore, we require a system that can automatically recognize and read aloud text to a user base of visually impaired people that is both affordableandtrulyefficient.Themaingoalofthisresearch is to develop a program that can identify text characters from turn any natural image into a voice signal. The programme need to carry out the identical action for any uploaded image and PDF file. The application should also havetoolsforpacemodulation, voicechoosingoptions,and storage capability for image to text output. The target audience for this programme can be expanded to include people with special needs who also have learning impairments, young children, and several other societal groups. The text is extracted fromthe image using optical character recognition (OCR), and the Windows API is utilised to turn the text into speech. The programming language for digital image processing is MATLAB.

Keywords: Digital image processing, optical character recognition, speech modulation, MSER Regions, stroke width algorithm, and image character recognition

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Introduction :

A popular area of computer technology is image-to- speech conversion. It establishes a crucial factor in how we engage with the system and interfaces on many platforms. It has long been a goal to replicate human abilities like reading throughmachines. Machine reading, however, has developed from a pipedream toarealityduringthe past 50years. Themost effective form of human communication is most likely speech. Oneofthemostpopularuses oftechnologiesinthe fields of pattern recognition and artificial intelligence is optical character recognition.

The tool assists in converting textual information that is embedded in an image or scene into speech. This is not the only use it may be put to. It is beneficial to take text from PDF files and turn it into speech. All of the collected text can be stored as a text file in any location on the computer. While the text is being read aloud, it also offers the option to look up synonyms for words. Different paces maybe comfortable for users to comprehend the language. As a result, a clause is added that allows for speech tempo modulation. Additionally, users can select from a variety of male and female speakers' voices as well as accents.

OCR, or optical character recognition, is a technique we use to extract text from

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INDUSTRIAL SAFETY

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Abstract :

There are more than 2.2 million major road accidents in the United States every year. Which is the highest in the world. But the surprising thing is that road accidents in India are about four times less than in the US, but the number of deaths is more than one and a half lakh a year. At the same time, the number of people who die in more than 22 lakh road accidents in America is only 34 thousand. According to the comparative report, the number of deaths in 2.2 million road accidents in the US is close to 37 thousand in a year. In India, about 30 percent of the 480,000 road accidents i.e. 1.5 lakh people lose their lives. This figure is number one in the whole world. Japan has the second-highest number of road accidents in the world. There are 500,000 small and big road accidents in Japan and the number of people who die from road accidents here is only 4,500 a year.

Keywords : Industry, safety

Introduction :

Overall, this paper highlights the challenges that arise when applying predictive modeling techniques to industrial problems and proposes a novel approach for addressing these challenges using a general conceptual architecture that incorporates parameter cross-validation, ensemble techniques, and meta-learning. The proposed instance of this architecture is shown to be effective and robust when applied to real-life data sets. In this way, the data is transformed in favor of the modeling techniques (see [1] for a review of such case studies). However, the drawback of this approach is that because the data can dramatically change from case to case, each new case requires new time-consuming manual pre-processing. Furthermore, once the data is pre-processed the correct predictive method must be selected. This selection is critical for the performance of the whole model since different techniques have different strengths and weaknesses. Very often one cannot see a-priori which technique fits best the data and different methods and their parameters have to be tried. Even more critically, in an industrial environment, the model developers often have their favorite techniques and focus only on these without taking any other approaches into account which is not of advantage for the final performance of the model. The most applied techniques to industrial mod Elling problems are ranging from statistically based Principal Petr Kadlec and Bogdan Garbs are with the Computational Intelli Jgene Research Group, Bournemouth University, Bournemouth, BH12 5BB, United Kingdom. Component Regression [2], Partial Least Squares Regression [3] and Support Vector Machines

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Virtual Online Educational Marketplace

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Abstract

Virtual Online Educational marketplaces are online platforms that provide a wealth of information and resources to assist learners in their studies. These websites offer a wide range of learning opportunities, including online courses, tutorials, videos, e-books, and interactive activities. They cover various subjects, from science, mathematics, and history to language learning, creative writing, and professional development.

→**Understandable Benefits -**

The benefit of these websites is that they allow learners to access high-quality educational resources from anywhere and at any time. They also offer personalized learning experiences and allow students to learn at their own pace. Moreover, educational websites can help bridge the gap between traditional classroom learning and modern-day digital learning, thus providing a more engaging and enriching educational experience.

In addition to creating a visually appealing and interactive design, the front-end of educational websites also needs to be optimized for performance and accessibility. This means ensuring that the website loads quickly, works seamlessly on different devices, and is accessible to users with disabilities.

Introduction -

In addition to providing access to a wealth of information and resources, educational websites also foster collaboration and community building This creates an opportunity for learners to interact with peers from different parts of the world, learn about different cultures, and exchange ideas.

Furthermore, educational websites are often free or low-cost, making them accessible to learners of all ages and backgrounds. They also provide a more sustainable alternative to traditional paper-based resources, reducing the impact on the environment.

As such, educational websites have become an indispensable tool for learners looking to enhance their knowledge and skills in the 21st century.

Keywords: Virtual Online Marketplace, EducationalDocumentation

Materials And Methods / Engineering Principles -

The engineering behind educational websites involves a combination of various technologies and programming languages. First, the user interface (UI) and user experience (UX) design are essential components of any educational website, as they determine the ease of use and interactivity of the platform.

1)Frontend Engineering Principles -

The website's layout and functionality are usually designed using HTML, CSS, and JavaScript. These languages provide the building blocks for creating responsive and intuitive designs that work on different devices.

In addition to the database, the backend of educational websites also typically involves the use of APIs (Application Programming Interfaces) that allow the website to interact with external services and applications. APIs are used for a wide range of purposes, such as processing payments, integrating with learning management systems, and accessing social media platforms.

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Building a Music Streaming Application with React and Firebase

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Abstract

The popularity of music streaming services has grown exponentially in recent years. With the advent of new technologies and the ease of access to music through mobile devices, it has become increasingly important for developers to create reliable and user-friendly music streaming applications. In this research paper, we will discuss the development of a music streaming application using the React framework and Firebase as the backend. We will explore the various features and components of the application, including authentication, database management, and music playback.In this paper, we explore the benefits and challenges of using React and Firebase to develop a music website. We conduct a comparative analysis of various tools, libraries, and frameworks available for React and Firebase, highlighting their strengths and weaknesses. We also discuss the technical aspects of implementing a music website, including user authentication, database management, and real-time updates. Through this analysis, we aim to provide a comprehensive guide for developers who want to build a music website using React and Firebase.

Key Words: React, Firebase, UI, Music Website

1 .Introduction

Experiments can reinforce students' ability to understand ,concept, knowledge, which combine theory frombooks and experimental practice together, especially inengineering education [1]. In recent years, the music industry has experienced a significant shift towards digital streaming services. Consumers are now more likely to stream music online rather than purchase physical copies. This shift has led to the development of numerous music streaming applications, each with its own set of features and functionalities. However, creating a reliable and user-friendly music streaming application requires a comprehensive understanding of web development frameworks and backend technologies.

React is a popular JavaScript library that is widely used for building user interfaces. It is known for its ability to create interactive and dynamic web applications. Firebase, on the other hand, is a Backend-as-a-Service (BaaS) platform that provides developers with tools for building and managing web applications. It offers a range of features, including authentication, database management, and cloud storage.

In this research paper, we will explore the development of a music streaming application using React and Firebase. We will discuss the various features and components of the application and how they were implemented.

React Native is an framework that enables web developers to create robust mobile applications
using their existing JavaScript knowledge. It offers faster mobile development, and more efficient code sharing across iOS, Android, and the Web, without.

The music industry has experienced a significant shift towards digital platforms, with the rise of music streaming services such as Spotify, Apple Music, and Tidal. These platforms have changed the way people consume and discover music. As a result, many music enthusiasts have started creating their own music websites to share their favorite music with others. Developing a music website requires a lot of technical expertise, including database management, user authentication, and real-time updates. React and Firebase are two popular tools that can be used to build a music website. React is a JavaScript library used for building user interfaces, while Firebase is a cloud-based platform for developing and hosting web applications. In this paper, we explore the benefits and challenges of using React and Firebase to build a music website.

The Firebase Realtime Database collaborative applications by allowing secure access to the database directly from client-side code. Data is persisted locally, and even while offline, realtime events continue to fire, giving the end user a responsive experience.

Load Balancing Of Cloud Computing Platform

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Abstract

Since the launch of this new cloud computing technology, its development momentum is unstoppable, and it has had a huge impact on the application service model: from concept to development to practice, cloud computing framework technicians put forward one by one, covering all aspects, and even strive for perfection. computer development, It has always been a research hotspot for enterprises and scholars. This paper first analyzes the current state of cloud computing, cloud resource planning and management, and then examines existing resource planning strategy and load balancing algorithm. combining the resource planning strategy with the load balancing algorithm, a cloud resource planning strategy based on load balancing is proposed, and the implementation capabilities of this strategy on the cloud platform and cloud simulation platform are analyzed, and finally the research content and shortcomings in the research process of this paper are summarized.Hope to benefit the development of related industries.

Keywords : Cloud computing technology, load balancing , Hadoop technology

Introduction:

With the development of cloud computing technology. user needs tend to be diversified, Application types become more complex. In this paper, resource allocation, load balancing the specific requirements of balance, planning and control are introduced in more detail. Introduction, such as resource grouping and division, selection of task submission methods, resource Source planning strategies and algorithms, etc. The goal of cloud computing resource planning is to Under the premise of the total throughput of the platform system, the optimal planning of system resources is realized. Plan, and balance the load within the system according to user needs. From the quality of service From the perspective of quality of service (QoS) , the implementation of optimal planning, optimal completion time, Economic principles and load balancing are considered in four aspects. Now we can do more things on the Internet, such as online learning, online shopping , check email from anywhere, organize or attend online meetings, and more.It is undeniable that the Internet has brought a lot of convenience to our life and work. Benefits, such as auto-complete keywords or similar products when shopping online recommendation. These services make our selection easier and based on each different personal situations are optimized to achieve the effect of precise push. Exist while working and studying, we quickly and easily generate large Quantitative data. These data need to be stored and processed on the network, and the amount of data is increasing. In addition, an increasing number of smart devices such as the emergence and popularization of iPhone, iPad and smart watch have increased the comfort and efficiency of senders and receivers can be taken anytime, anywhere Video recording and other activities, online social networking and online shopping) load balancing. It is very important in Hadoop cluster system, reasonable load balancing strategy performance and usability can be improved. Task Planning Strategies for Hadoop Clusters and planning mode have a great impact on load balancing, but the current Schadoop set Swarm's Hayulink mode does not favor loads when using digital libraries balance technology. One of the problems is that in a cloud computing environment, cloud computing nodes tasks are more important than their tasks. To achieve different geographic locations due to the heterogeneity of cloud computing platforms, some computing tasks must be performed by other heterogeneous the node is complete. Optimized allocation of computer programs and hardware resources, transferable Input to the heterogeneous cloud node [1].

In the cloud computing environment, every cloud computing provider is in different geographical locations, it is not possible to create a standard cloud computing domain. if cloud the number of users and the load of the computing platform remain unchanged, then the cloud service the demand will change dynamically with the change of time and capacity. When SQL Server cloud adds a large number of new nodes on the server, it will directly lead to the following questions:

Automatic Vehicle License Plate Recognition System Based On Image Processing and Template Matchingapproach

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Abstract

Using a newly developed localization method that is adjusted to account for the local environment, this study proposes a vehicle licence plate recognition system. It also includes a A hybrid classifier capable of recognising text on licence plates. This approach to licence plate detection is based on a modified template matching method that uses target colour pixel analysis. Several European nations and Iran use a common color-geometric template, which may be located using a modified strip search.This method determines the colour of each pixel dynamically by use of periodic strip search. Also, when a cluster of target pixels is found, it is examined to make sure its proportions and form are identical to a regular licence plate. This approach not only remains unchanged when rotated or scaled, but it also skips over the tedious process of scaling and applying picture algorithms like Hough, Fourier, and wavelet transforms to each every pixel, which significantly reduces the time it takes to identify changes. Using a homogeneous fifth-degree polynomial kernel, a hybrid classifier combining decision trees and support vector machines can identify licence plate characters.

Keywords:—Color template matching, image recognition, license plate detection, license plate localization, license plate number identification, license plate recognition (LPR).

Introduction

Recent years have seen a surge in funding and focus on developing ALPR systems, or automatic licence plate readers. The licence plate serves as a vehicle's unique identifier, hence it'sidentify has several applications. For instance, smart toll booths and parking lots may utilise licence plate recognition (LPR) systems to let in authorised cars, or to determine the average speed of a vehicle between two stations by reading its licence plate at both locations. Another way to keep tabs on banned cars is to place licence plate readers on roadways, especially in high-traffic areas and at intersections where police presence is required. These days, highway speed traps capture colour photographs of speeders captured on film.

Because they are not linked to a central database, these control stations often employ local memory on Iranian roadways [1]. Sooner or later, the majority of the stations have a low-disk-space issue due to the high-resolution images captured by the speed control cameras. The automatic licence plate reader (ALPR) technology can decompress massive amounts of picture data into a string of bits, thereby solving this issue. At speed control stations, an ALPR system can detect licence plates using high-resolution photos. Following detection, the photographs are reduced in size and quality before being sent over low-band connectivity devices like a GSM board or regular messaging apps. It would be more beneficial to penalise offenders at the scene of the crime rather than after the fact in order to avoid accidents and discourage future offences, rather than just identifying and issuing traffic tickets to them. Because of this, an ALPR system that uses colour photos captured by regular, high-resolution security cameras is fantastic. For this reason, a number of studies have used colour attributes to pinpoint number plate locations. The majority of their algorithms are country-specific and use colour characteristics for licence plate localization [2]. To discover the background or foreground colour using tiling and hue histogram, they often transform all of the picture pixels to another colour space, such hue, saturation, and value (HSV) or hue, saturation, and intensity (HSI)[3]. This is done for localization purposes. To pinpoint licence plates, several systems use colour characteristics and fuzzy sets [4], [5]. Licence plate detection using colour edge detection is common practice; it has also been employed as an assisted feature in Persian licence plate detection [2, 4, 6]. Since most Iranian licence plate LPR systems rely on infrared photographs, specialised photographic equipment is needed for this kind of photography [1]. Building on recent advances in image processing and optimised template-matching approaches, the suggested system demonstrates the feasibility and practicality of a

A Study of the Impact of AI on the Job Market More Opportunities & More Threats

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Abstract

The research paper "A Study of the Impact of Artificial Intelligence on the Job Market" aims to analyze the effects of artificial intelligence (AI) on the job market. The study examines the various ways in which AI is being used in different industries and the implications of this for the job market. The paper looks at the impact of AI on different types of jobs and the potential for job displacement due to automation. Additionally, the study investigates the potential for the creation of new job opportunities as a result of AI. Finally, the paper explores strategies for individuals and organizations to adapt to the changing job market and the role of education and training in preparing for the future of work in the age of AI.

Keywords: Employment, Artificial intelligence, Productivity, AI adoption, Dependence on technology

I. Introduction:

Artificial Intelligence (AI) is rapidly transforming industries and revolutionizing the way we live and work. From self-driving cars to intelligent chatbots, AI is changing the way businesses operate and creating new opportunities for innovation. However, the rise of AI has also raised concerns about its impact on the job market. As AI becomes more prevalent, there is a growing fear that it will lead to job displacement and unemployment.

This research paper aims to examine the impact of AI on the job market. The study analyzes the various ways in which AI is being used in different industries and the implications of this for the job market. The paper looks at the potential for job displacement due to automation and the impact on different types of jobs. Additionally, the study investigates the potential for the creation of new job opportunities as a result of AI.

It also explores strategies for individuals and organizations to adapt to the changing job market. This includes the role of education and training in preparing for the future of work in the age of AI. By understanding the impact of AI on the job market and developing strategies for adaptation, individuals and organizations can better prepare for the future and thrive in a rapidly changing world.

In summary, this research paper provides a comprehensive analysis of the impact of AI on the job market. The paper examines the potential benefits and drawbacks of AI for the job market and provides strategies for individuals and organizations to adapt to the changing landscape. Ultimately, the study aims to provide insights and recommendations for navigating the future of work in the age of AI.

II. Literature Review:

Artificial Intelligence (AI) has been a topic of interest in the academic and business communities for many years. Scholars have explored the potential applications of AI in different industries and its impact on the job market. In recent years, there has been a growing concern about the potential for job displacement due to automation and the rise of AI.

Many studies have examined the potential impact of AI on the job market. For example, a study by McKinsey & Company (2017) analyzed the potential impact of automation on different occupations and found that up to 800 million jobs could be displaced by automation by 2030. The study also found that new job opportunities could be created as a result of automation, but that individuals and organizations would need to adapt to the changing landscape.

Another study by Frey and Osborne (2017) analyzed the susceptibility of different occupations to automation and found that jobs in transportation, manufacturing, and administrative support were at high risk of being automated. The study also found that jobs requiring creativity, social intelligence, and manual dexterity were less susceptible to automation.

In addition to these studies, scholars have also explored the potential benefits and drawbacks of AI for the job market. For example, a study by Arntz, Gregory, and Zierahn (2016) found

Balancing Progress and Preservation: Exploring the Impact of Infrastructural Development on Biodiversity

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Abstract

Infrastructure is becoming an increasingly important part of animal habitats. However, it is not yet known how infrastructure will affect the quality of habitat for animals that have evolved to survive natural disruptions. Although infrastructure facilitates access to early successional forests and other appropriate habitats, it also alters animal migration, especially for hunting species. To investigate the effects of infrastructure on animals, we used a model that included annual movement rates and circadian distances relative to the animal's proximity to roads, houses, and power lines in a variety of Swedenian landscapes that have been altered by humans. The animals studied were 138 in number, and they belonged to the alcesalces species, which is subject to heavy hunting (57–67 latitude). Highways and animals were spaced apart in a circadian rhythm. Animals were more likely to congregate near roadways between the hours of 6:00 in the morning and 18:00 in the evening, when traffic is often less. Any time an animal was moving at a faster pace or was more active, it was within 125 metres of a road. No evidence of these links between animals and human homes or electrical lines was found. The results suggest that animals could change their behaviour in regard to roadways based on the passage of time. When individuals aren't actively searching, they could come into ecosystems along roadsides. We recommend considering different resolutions in order to study the impact of different infrastructure types. To get a better understanding of the long-term usage of environments that humans have altered, future studies should investigate animal migration and behaviour in connection to infrastructure. Wildlife management and conservation efforts will benefit greatly from this information, particularly for species that have adapted to altered habitats.

Keywords: Infrastructure development, wildlife, biodiversity, habitats

Introduction

The aforementioned impacts of infrastructure on biodiversity are especially acute in India because of the country's large rural population (more than 75%) and its status as an industrialising nation. A few thousand km of new or improved roads are in the works, with a focus on border states that are geographically isolated and hard to access (Planning Commission, 2013). More people would be able to acquire wild foods, and communities would be able to flourish as a result. Those that engage in illicit poaching in or near wilderness regions or protected areas stand to gain, and so do the local populations who rely on these resources for their food supply. Also, according to UN DESA (2017), India's population is predicted to remain high for the next many decades, at 1.2%. There will likely be an increase in the number of vehicles on the road alongside this population boom, which will have a negative impact on wildlife (Singh, 2005; R. D. Sharma, Jain, & Singh, 2011).

Research by Venter et al. (2016) shows that human activity has left a big mark on the nation, therefore we should look at the consequences of socioeconomic progress a little more attentively. Instead than constructing brand-new roads, much of India's road network growth has concentrated on widening and repairing older ones (Gubbi, Poornesha, & Madhusudan, 2012). Still, more and more protected areas are being developed, which can have serious consequences for the animals living there. Species diversity is still high in low-disturbance locations with demanding terrain, according to current study in India (Roy & Behera, 2005). More than others, these areas will certainly feel the effects of infrastructural development. Also, road networks may be to blame for the Great Indian Bustard's declining habitat (S. Dutta, Rahmani, &Jhala, 2011).

The Bengal Tiger faces the same threat of habitat fragmentation as other natural landscapes caused by road networks (Gubbi et al., 2017). This research aims to examine the extent to which highways and other infrastructure have negatively impacted biodiversity. The study also looked at how it might affect a few of national protected areas to get there. Conservation efforts rely heavily on protected areas, both domestically and abroad. Wildlife in some Protected Areas may be at a higher risk of death due to seasonal traffic surges, which lead to substantial faunal

Check And Manage – Multipurpose Robot

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ABSTRACT

Design & Construction of multipurpose Robot is discussed in this work. The proposed robot can be mainly used in civil field. The design & placement of various sensors, wheel system as well as wireless controlling mechanism are discussed In detail:-

The co-ordination of its various part to perform different job is also discussed. The movement of the robot can be controlled wirelessly from mobile for civil use, it can be used in labour work by line follower feature, coolie work by human follower feature. It can also perform military surveillance like spying enemy base , exploring unknown territory. The structure and design of robot is adaptive and can be modified to enhance its capability to further level. The robot uses arrays of optical sensors to identify the line, thus assisting the robot to stay on the track. The array of two sensor makes its movement precise and flexible. The robot is driven by DC gear motors to control the movement of the wheels. The dc gear motor is driven by the motor driven circuit. This project aims to implement the algorithm and control the movement of the robot by proper tuning of the control parameters and thus achieve better performance.. It can be used industrial automated equipment carriers, small household applications, tour guides in museums and other similar applications, etc. The proposed developed model can perform multiple operations such as human following, obstacle detection, line-following, and voice controlled. All these operations are operated or managed through the smartphone.

Keywords:- Robot, Sensors, Robotics, Wirelessly, Adaptive, Arrays, DC Motor, Algorithm, Automated

INTRODUCTION:-

In the past, generally, robotics mainly used for an automated production process in the factory. Presently, robotics finds its application in many fields such as medical science, mining, surveillance, autopilots, etc. Initially, robotics was understood to be a job eater and was seen as a destructive replacement technology. With time, robotics has emerged as a safe and viable technology in complex and unstructured conditions such as automating the number of human activities, automated driving, caring for a sick person, military sector and in the car industry, etc. In robotics design, there is mainly two points in which the designers are focusing the first one is to build a model that can act autonomously in complex and unstructured environmental conditions. Second, the developed model has the capability of making moral decisions.

[1]. At present, robotics has emerged as a potential technology that can ease human life and enable mankind to tackle several social and ethical issues. Learning, Ambiguous understanding about the problems, Creativity for solving the problems, Reasoning and Deduction, Classification, Ability to build analogies and many more are the common features of intelligent system.

[2]. In fact, multipurpose systems are the need of the hour and are well accepted in tech-savvy populations.

OBJECTIVE:-

This Robot named "MULTI-PURPOSE ROBOT" is a robot which is used as a :-

Ahashva: Where Evrything Ends For a New Start

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ABSTRACT

Shiva is something where everything ends not to end but to a new start.Shiva means nothing(zero) but also everything(Infinite). He is considered as zero because he is completely in a systematic as well as ideal state. Shiva is shine also as dark, Shiva is coolest, Shiva is hottest, Shiva is horrible as well as handsome. If something is beautiful is considered to be shiva. If someone is living he is Shiva and If someone is dead, he is in Shiva. Shiva has been a very mysterious, gullible and charismatic god in Hindu religion; he is considered the destroyer of evil and very well known for his soft hearted nature. Amish in his novel 'Immortals of Meluha' presented him as a common human being who encounters very strange happening in his life and he suddenly becomes the centre of attraction. The present paper tries to explore his qualities like foresightedness, loyalty, team spirit and empathy which ultimately make him an extraordinary leaderwho sets an example before everyone.It throws light on his journey from an ordinary tribal leader to the Neelkanth who faces lots of personal and worldly problems, overcomes them and finally destroys them.

KEY WORDS: Charismatic, Religion, Foresightedness, Empathy, Leader, Destroyer, Evil

INTRODUCTION:

According to Shiva Purana, Shiva or Maheshwar is the creator of Maya. That is, the Supreme Lord Shiva is beyond everything. He is immaculate, omniscient, above the three modes of nature and the ultimate Supreme Brahman. He is unborn and he is the origin of all. He is worthy of all the praise and is the guardian of his subjects, the god of the gods and worshipped by the entire world. According to Shiva Purana, Shiva is the sustainer and destroyer of the universe, he is the saguna-nirguna and the nirvikarParabrahmam Paramatma in the form of true and divine nature.

According to Shiv Puran, Shiva himself tells **Lord Vishnu,** "O Vishnu, I am the source of creation, protection and destruction of the universe. I am the cosmic work divided into Trimurti and I am present in three forms and hold together Brahma and Vishnu." According to Shiv Purana, Shiva is anywhere and everywhere, so there is no point in asking who is Shiva? Or what is Shiva? All this is just the result of limited thinking of our narrow thoughts. Shiva has just taken a form to be accessible to humans. Indeed, Shiva is omnipresent, omniscient and omnipotent.

Nothing in this world is left out of Shiva's life. He is so complex and so complete.

That was the first act of Zen. Nothing in this world is left out of Shiva's life. He is so complex and so complete. And he did not have a teaching, he only had methods, and these methods are one hundred percent scientific in nature. He gave 112 ways in which a human being can attain because there are **114 chakras** in the human system, but two of them are outside the physical body, so he said, "That realm is only for those who are beyond. For human beings, there are only 112 ways." And he showed clear methods as to how you can exploit these 112 dimensions of how this life is made. Through each one of them, you can realize.

What Shiva was talking is the mechanics of life, no philosophy, no teaching, no social relevance – simply science. From this science, individual masters make technology. He gave the science of it. Behind the technologies that you are enjoying today, either in the form of a smartphone or a computer or some other gadget, there is a science. That science is not relevant to you. You are only using the technology. But if someone had not grasped the science, you would not have the technology.

So what Shiva said is simply pure science. He left it to the Saptarishis to make the technology as it would suit the people who would sit in front of them on that day. Technology can be made up. Depending upon what we need, we produce a particular gadget, but the fundamental science is the same. Gadgets that are relevant today may be irrelevant tomorrow. So many gadgets that we once thought were very valuable are no more valuable because new gadgets have come – but the science is the same.

Development Of Payment System For Institute

Minakshi Puniya[1*]

Abstract

In this paper we will maintaining the Student data, administration data, accountant data and also generating invoice. Associated Institutes has totally different branches at different locations need to regulate and maintain the regular payments and students personal details. Software provides facility for reporting, new student details, payment details, and modify details of student and salary of the accountant and regular payment of the controller. This paper solve the problem of standing in queues. From this System not only administrator but also a student and accountant are able to get their personal and payment details.

Keywords: System Security, Authentication, Payment, Student, Administration, Accountant.

I. INTRODUCTION

This a application which is handle by anyone from any where it means any student can access their personal and payment details related to the institute. For payment it required the internet banking and cash is also accepted. This system provide the facilities that create new student and new accountant, delete old student and old accountant details, and modify old student and old accountant details and also retrieve the data of any student and accountant and take payment and generate invoice after login process. This makes the payment easy and fast and Increase System availability. System makes the payment using internet banking and through bank and cash after payment it creates a receipt. The paper analysis the importance of internet banking. From this any student can pay their fees through internet after login process and also it makes a salary payment for accountant and get receipt of payment. The cost incurring is low.

Problem addressed from this project idea:

➢ Students wait for paying the fees in queue sand it is time consuming.
➢ The students can pay fees using internet.
➢ The accountant get their payments directly through internet banking.
➢ Time wastage in manual work.

II. METHODOLOGY

This project is system where we will manage the all kind of payment make by the institute and generate a invoice. This makes the payment easy and fast all students can retrieve their payment details and personal details. Accountant retrieve the payment and personal details of student whenever they required. Student who doesn't how much their fees is and how much they have already paid can see their payment and personal details very easily.

The access of data is easy and fully secure admin can create the students and accountant very easily and access their payment and personal details from any branch. Admin add accountant branch wise. Followingarethebasicmodulesinvolveinproject:

1. Admin–add accountant branch wise after login, add students and make all payments and modify and delete student and accountants and generate invoice.
2. Accountant–add students and make payments and delete and modify students and generate in

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Machine Learning Based Framework for Drug Prediction of Cancerous Genomic Profiles

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Abstract

One of the growing approaches to clinical research and patient treatment is known as precision medicine. This method focuses on understanding and treating illness by combining multi-modal or multi-omics data from an individual in order to make choices that are suited to the specific needs of the patient. The huge and complicated datasets that were produced by the diagnostic methods used in precision medicine necessitated the development of innovative methodological approaches that could handle and comprehend this intricate data. While this is going on, the field of computer science has made tremendous strides in the development of methods that allow the storage, processing, and analysis of these complicated datasets. This is a feat that conventional statistics and early computing technologies were not able to achieve. In the field of computer science, machine learning is a process that seeks to uncover complicated patterns in data. These patterns may be used to generate predictions or classifications on fresh data that has not been seen before, or they can be used for sophisticated exploratory data analysis. Machine learning is a subfield of artificial intelligence. The use of machine learning to the study of multi-modal data in precision medicine enables the comprehensive examination of big datasets, which eventually leads to a deeper comprehension of human health and its associated diseases. The purpose of this study is to examine the use of machine learning to the "big data" of precision medicine, namely in the context of genetics, genomics, and other related fields.

Keywords:precision medicine,computer science, machine learning,big data

Introduction

Precision medicine, which is also frequently referred to as precision health, is an innovative method of understanding health and disease that is based on patient-individual data. This data includes medical diagnoses, clinical phenotype (such as the severity of the disease or the amount of functional impairment), biologic investigations (such as laboratory studies and imaging), as well as environmental, demographic, and lifestyle factors. When viewed as a whole, these data are referred to as multi-modal since they include information from a variety of different domains. The exponential growth in the amount of biologic data that can now be collected for each individual patient has had a significant impact on the development of precision medicine. This occurrence is largely attributable to the introduction of new technologies in the fields of medicine, genetics, metabolics, and imaging, amongst others. Because of the vast number and diversity of diagnostic tests that may be carried out, an enormous quantity of data is generated. This data is difficult to comprehend and analyse for a single patient, and it is considerably more complicated to do so for a dataset that contains information from numerous patients. Thankfully, while more advanced diagnostic tests were being created, the area of computer science also saw an evolution. This development made it possible to store and analyse these vast amounts of data in a more effective manner than have ever been possible before. The progress of precision medicine diagnoses and therapies is made possible by the use of computer science approaches that make use of the vast amounts of deep data generated by the health care system. These two advances go hand in hand with one another.

There is a lack of clarity on the beginnings of precision medicine, which may be attributed, in part, to the fact that the phrase has developed from time to time (Phillips 2020). However, one of the first fields to use a precision medicine approach to treat human disease was transfusion medicine, where the discovery of blood types in the early 1900s revolutionised blood transfusions, allowing for matching of donor and recipient blood types, and avoiding complications associated with mismatched donor and recipient blood (Dance 2016; Giangrande 2000; Hodson 2016). Since that time, precision medicine has seen significant development, which has resulted in the incorporation of innovative techniques to therapy, intervention, diagnosis, and prevention. These developments are all contributing to a shift in

Machine Learning Approach Via an Ensemble of Classifiers for Computer Aided Lung Nodule Diagnosis

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Abstract: The objective is to foretell methods for lung cancer prediction that are based on machine learning. Using supervised machine learning to analyse datasets(SMLT) to analyse the full dataset, validate the data, clean and prepare it, and visualise the results, as well as to conduct uni-, bi-, and multivariate analyses, missing value treatments, and variable identification. Using supervised classification machine learning techniques, we aim to provide a machine learning-based approach for accurate lung cancer prediction.In addition, we will evaluate the user interface of a GUI for lung cancer prediction by characteristics and compare and contrast the performance of several machine learning algorithms using the dataset provided by the transportation traffic department.

Keywords: Dataset, Machine Learning Classification method, Python, Prediction of accuracy result

Introduction

A devastating disease, cancer affects many people's lives. During vital functions, the lungs' primary function is to draw oxygen into the bloodstream and exhale carbon dioxide. Lung cancer develops when cells and tissues proliferate uncontrollably. Cancer, which is the first malignancy, which is the leading cause of cancer-related mortality in men and the second leading cause of cancer-related mortality in women. Nearly one million elderly people die each year because of cancer worldwide [1].Tumours may only be classified as either benign or malignant. Cancer comes in many forms, including colon cancer, leukaemia, melanoma, and

many more [2]. Since the early eighteenth century, the incidence of cancer has significantly increased. Many other things may cause carcinoma, including smoking, secondhand smoke, exposure to gases like radon, asbestos, and many more.There are two subtypes of lung cancer, small cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC).At partner diplomas in higher degrees, the radiologists may use computerised tomography (CT) and opportunity scanning techniques to find the harmful nodules [3]. Their origin is in the bronchi, which are located in the chest's midsection. Malignant neoplasm symptoms includesymptoms such as difficulty breathing when moving, lethargy, speech impediment, dysphasia, blood in the cough, lack of appetite, and pain in the shoulder, chest, or arm [4].Considering the symptoms, the crucial task of detecting cancer in its early stages may be quite challenging.carcinoma has the highest death rate of any cancer kind because its symptoms are most severe in the latter stages. Doctors rely on correct designations for different types of carcinoma to help them determine and choose the best therapy [5]. While physician recommendations remain the most important part of any designation process, current data suggests that various AI class methodologies might assist physicians in improving their procedures. Misuse class tactics are a common way to lessen the likelihood of errors caused by inexperienced physicians [6].

One use of artificial intelligence is machine learning (ML), which allows computers to learn and improve themselves via experience rather than

Analysis of Physico-Chemical Parameters of Underground Drinking Water

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ABSTRACT

Water is one of the precious natural resources that exist on our planet Earth. Without water, survival is not possible. In rural areas, water is an integral part of human life specially in agricultural field. Potable safe water is totally essential for healthy living. Adequate supply of fresh and clean water may be a basic requirement for all person on the planet. Due to over exploitation and poor management, the matter of beverage pollution and water quality management has assumed an awfully advanced form. Attention on pollution and its management has become a requirement of

hour due to way reaching impact of it on human health. Moradabad is an industrial town, globally identified for its brass business. due to completely different varieties of human activities and speedy industry, the underground water quality is additionally badly affected. Underground beverage samples at IM2 hand pumps at fourteen completely different sites at Moradabad were collected and analyzed quantitatively following commonplace strategies and procedure to estimate the extent of contamination. Water quality physico-chemical parameters were elite as per the rules of W.H.O. Underground beverage was found to be contaminated with references to most of the parameters studied, whereas it absolutely was moderately contaminated for alternative water quality parameters studied. The studies recommend that individuals hooked in to this water are liable to health hazards of contaminated beverage and a few effective measures are desperately required for water quality management.

Kew words: Water pollution, physico-chemical parameter, chemical contamination

Introduction

Water is completely essential for healthy living. It plays an essential role within the lifetime of each species that survive during this world and is needed by all living organisms for his or her existence. Improper management and reckless use of water system area unit inflicting serious threats to the supply and quality of water 1-3. This study is aimed to assess the groundwater quality of IM2 hand pumps of district Moradabad.

Experimental

Underground water samples of fourteen India Mark-II(IM2) hand pump were collected and analysed quantitatively following standard methodology of sampling and estimation[4-6]. Three samples of each site were collected, estimated and the arithmetic mean of three values is reported. A blank was also run for all volumetric titration. All the chemicals of anal R grade were used. The specification of used instruments are– Century CP 901 pH meter, RI Conductivity meter and Hach 2010 (version 6.4) spectrophotometer. The estimated water quality physico-chemical parameters are- pH, conductivity, turbidity, total solids, total dissolved solids alkalinity, dissolved oxygen, biological oxygen demand, chemical oxygen demand, hardness, calcium, magnesium, chloride, sulphate and zinc A brief description of sampling site is given in Table 1.

Results and Discussion

Site-wise estimated values of different physico-chemical parameters with their prescribed W.H.O. [7] standards are listed in Table 2. A critical analysis of the data revealed following facts regarding ground water quality at Moradabad.

Groundwater is found to be alkaline with higher values of pH and very high values of alkalinity. The observed range of conductivity is 0.44 -1.5 µS/cm and it is much higher than the desirable limit. The estimated range of hardness is140 - 408 mg/lit and the water of all the sites of study is very hard and unfit for usage. The concentration of calcium at all the sites is higher than that of magnesium, therefore, it may be suggested that hardness of water is mainly due to salts of calcium.

The amount of dissolved oxygen in groundwater is irrelevant for the assessment of water quality, however, water samples are found to be deficient of dissolved oxygen. The

Surveillance Based Hostel Security Measurement Using Data Analytics and Machine Learning technique RFID

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Abstract

It is completely free to take part in any of the activities. The typical method is to register for the service to be attended in order to keep track of each student individually. Another method of determining attendance is the biometric system. Biometric recognition systems are used to recognise physical or behavioural traits such as the iris, voice, face, and fingerprints. Nonetheless, these procedures have proven to be time-consuming and boring. This marks the end of the counting procedure by making substantial progress in the stands. The proposed method is intended for the students present at the moment, but it can also be used for verification by other teachers. In this article, CCTV cameras are used to catch entering pupils in the hostel.

Keywords: RFID, Image processing, Data Analytics, Machine Learning, Surveillance, Segmentation

INTRODUCTION

The first step in a long flow procedure is to recognize what art can detect input from the front to the pilot diameter. They are beneficial to kids in today's environment engaged in the type that is shown when it is only effective in the kind that is displayed in the hostel. Our civilization and the appearance of detection are nothing. The ability to recognize the human mind is the most important human capacity. And it's amazing how the human mind may persist even among people who are in close proximity to the human being and others, depositing the form of minor modifications. The positive image of human face recognition has garnered significant interest from researchers to replicate the commitment in time to researching and effective algorithms for facial recognition to electronic devices for human use.

Face detection is a process used to find faces with different expressions and sizes.

The method is supposed to locate the face of facial recognition. Face to face with the study into the detection of various expressions, and he is the desired corner backdrop image in various sizes reports, the parameters' face. By evaluating the patterns in an image, the look detects either of those objects that are formed. Here, algorithms that are known to the process make use of the extract, as well as a database that matches.

This project has been highlighted by the use of Selections, which are normally made known that it is such, and that the readings service. We used clickers, swiping their identity cards, and scribbling down names manually on paper allowed students to keep track of the project and inspired them to ask to run it. It appeared as if God's knowledge of a birth control method to detect the presence of the very creature formed with the

Research Article

Analysis Of Physico-Chemical Parameters Of Underground Drinking Water

Harshvardhan Bisht[1]*

Abstract-

Water is one of the precious natural resources that exist on our planet Earth. Without water, survival is not possible. In rural areas, water is an integral part of human life specially in agricultural field. Potable safe water is totally essential for healthy living. Adequate supply of fresh and clean water may be a basic requirement for all person on the planet. Due to over exploitation and poor management, the matter of beverage pollution and water quality management has assumed an awfully advanced form. Attention on pollution and its management has become a requirement of hour due to way reaching impact of it on human health. Moradabad is an industrial town, globally identified for its brass business. due to completely different varieties of human activities and speedy industry, the underground water quality is additionally badly affected. Underground beverage samples at IM2 hand pumps at fourteen completely different sites at Moradabad were collected and analyzed quantitatively following commonplace strategies and procedure to estimate the extent of contamination. Water quality physico-chemical parameters were elite as per the rules of W.H.O. Underground beverage was found to be contaminated with references to most of the parameters studied, whereas it absolutely was moderately contaminated for alternative water quality parameters studied. The studies recommend that individuals hooked in to this water are liable to health hazards of contaminated beverage and a few effective measures are desperately required for water quality management.

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An Adaptive Image Dehazing Algorithm Based On Dark Channel Prior

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Abstract

In this study, we provide a novel rapid alternative method for simultaneous dehaze and denoise. The suggested method begins by estimating a transmission map using a home windows adaptive strategy that is built on the renowned dark channel prior. By using this transmission map, the threshold artefact in the final image may be significantly reduced, and the estimate accuracy can be improved. Next, the transmission map is converted to an intensity map. This will be used to build the new version model, which will seek for the final picture free of haze and noise. Similarly, it is highlighted that the suggested variant model has a minimiser and that it is a strong feature. We guarantee convergence of the set of laws and design a numerical procedure based on the Chambolle-Pock set of rules. Extensive results from real-world experiments show that our technology can effectively recover high-quality, contrast-free images free of haze and noise.

Keywords: Dehaze, Denoise, Adapative, Chambolle–Pock algorithm

Introduction

The weather is terrible, and the external scenery is deteriorating due to haze, mist, fog, and smoke. It alters the tones and decreases the contrast of regular photos, it makes scenes less visible, and it poses a serious threat to the dependability of numerous applications, such as outdoor surveillance and object detection. It also reduces the clarity of satellite TV for laptop photos and underwater snapshots. Photographers find this a frustrating and annoying problem. Eliminating haze from images is therefore a highly sought-after and critical area of image processing. Light is scattered before it reaches the camera due to the vast amounts of these particles in the environment, which distorts the outside picture. As it mixes with additional light in the surroundings, haze weakens the meditated light from the scenes. This imagined light (i.e., scene colours) is often enhanced from mixed light by haze reduction procedures. Using this efficient haze removal of picture may also advance the visual system's consistency and power. Polarisation independent problem analysis and dark channel earlier are only two of the many methods available for removing image noise. It is common for ambient light to disperse before reaching the camera lens, and for any digital camera lens to mix with ambient light, all because of the existence of the surroundings. Picture quality deterioration, such as increased noise, reduced intensity contrast, and inconsistent colour, is unavoidable as a consequence. This kind of deterioration becomes much worse under unfavourable weather conditions, such as when there are aerosols together with haze, fog, rain, dirt, or odours. For example, fog is a common climatic phenomena that may also cause noise and ambiguity via the albedo effect. The ability to understand and extract information from the images is somewhat hindered by these occurrences. Consequently, there is an immediate need for denoising and haze removal techniques in practical applications. There is a lot of interest in imaging technology right now for dehazing and denoising images of natural scenes. The benefits of these procedures are pure. For starters, photo fusion, feature extraction, and segmentation are just a few of the many important applications that benefit greatly from haze-and noise-free photos. Secondly, the images themselves are more aesthetically pleasing and vibrant. Photo dehazing is a lot of work, nevertheless, since the haze usually depends heavily on unknown intensity data. Input