ICIDA 2023

International Conference on Innovations in Data Analytics

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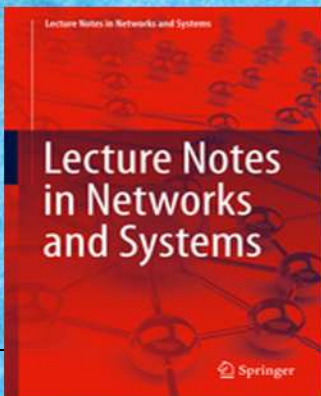
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ABOUT THE CONFERENCE

2nd International Conference on Innovations in Data Analytics (ICIDA 2023) will be organized by International Knowledge Research Foundation in collaboration with **Eminent College of Management and Technology (ECMT**), West Bengal, India on 29th and 30th November, 2023. It is technically sponsored by The **Sciences and Technologies of image and Telecommunications (SETIT)**, Sfax University, **Tunisia**, Scientific **Innovation Research Group (SIRG), Egypt**, **CI2S lab**, Buenos Aires, **Argentina and Scientific Research Group (SRG), Egypt**. The publication Partner is **Springer**. The Conference deliberations will be on the following themes are Data Mining, Data Analytics, Machine Learning, Smart Technology. The Conference is to bring together innovative academics and industrial experts in the field of Computing and Communication to a common forum.

Conference aims:

• Endow opportunities for academicians, scientists, and research scholars along-with professionals, decision makers, and industrial practitioners to deliver and confer their research contributions.

• Inspire young scholars to learn newly created avenues of research at an international academic forum.

• To churn out the hidden aspects of data science in the perspective of Make in India a successful project.

• The conference will provide opportunities for publishing research papers in different indexed journals.

ICIDA 2023 provided a platform to welcoming students, researchers, academics, research scholars and allied science and engineering professionals with interest in Data Mining, Data Analytics and beyond. The entire conference team are pleased to present an interesting and engaging schedule to inspire the participants and we commend this conference program to you. Throughout the two days of the conference, the researcher throughout the globe opted the opportunity to attend the keynote, plenary & invited talks and the special sessions or move freely among them.

ACKNOWLEDGEMENT

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FROM THE DESK OF EDITORS

In recent times, highly incremental nature of real time data opens up several opportunities for the industries and academia to meet numerous challenges. Thus, the data are processed to extract valuable information which method includes analysing and restructuring of data in order to maintain effective decision-making. To discover useful knowledge from the huge source of data intelligent data analysis techniques are required. While "Data Mining" evolves with innovative learning algorithms and knowledge discovery techniques, Computational Intelligence combines the results of data mining for becoming more intelligent than ever. ICIDA2023 is an international platform for the researchers from industries and academia to represent they're of research and development in the fields of Data Mining & Data Analytics. After a through double blind peer review process by experienced subject expert reviewers chosen from the country and abroad, editors have finally selected 19.35% papers. The ICIDA2023 proceedings are a collection of papers that the International Advisory, Program, and Technical Committee greatly appreciated. This International Conference ICIDA2023 aims at surrounding new breed of engineers, technologist making it a crest of global victory. All the papers are focused on the thematic areas of the conference and respective authors have provided many opportunities for presentation. The proceeding of ICIDA 2023 is to be released to mark this great day of ICIDA more exceptional. We hope the author's own research and opinions add value to it. First and foremost are the authors of papers, columns and editorials whose works have made the conference a great success. We had an immense pleasure to put together this proceeding. The conference and proceedings are a credit to a large group of people and everyone should be thanked for the outcome. We extend our deep sense of gratitude to all those for their warm encouragement, encouragement and continuous support for making it possible.

Hope all of us will appreciate the good assistance made and justify our efforts ICIDA 2023

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Rochester Institute of
Technology
Kosovo, Europe

Abstracts
of
Contributed Papers

Blood Share + - A Connecting Resource For Donor & Seeker

Sonal Jha, Siddharth Raghav, Kartik Kumar Chauhan , Ambuj kumar Agarwal and Vishal Jain
School of Engineering and Technology
Department of Computer Science and Engineering Sharda University Greater Noida, UP, India

Abstract: The Blood Bank System between Seekers and Donors is a platform that connects blood seekers in need of transfusions with potential blood donors. This system streamlines the process of finding and matching donors with the right blood type, reducing the time and effort involved in the search. It also provides a secure platform for donors to register, manage their information, and keep track of their donations. The system automates the process of matching blood types and matching donors with seekers and seekers with donors, and provides real-time updates on the availability of blood. This ensures that the right blood is available at the right time, reducing the waiting time for patients in need and improving the overall efficiency of the blood bank. The Blood Bank System between Seekers and Donors is an innovative solution that improves access to safe and screened blood, saving lives and improving the healthcare system.

Hybrid Cellular Automata with CNN for the Prediction of Secondary Structure of Protein

[1]Pokkuluri Kiran Sree, [2] Prasun Chakrabarti, [3] Martin Margala,
[4]Phaneendra Varma Chintalapati, [5]Gurujukota Ramesh Babu, [6] SSSN Usha Devi N

[1,4,5] Department of CSE, Shri Vishnu Engineering College for Women(A), Bhimavaram, West Godavari District, Andhra Pradesh, India
[2] ITM SLS Baroda University, INDIA
[3] University of Louisiana at Lafayette, USA
[6] University College of Engineering, JNTU Kakinada.
drkiransree@gmail.com

Abstract: Secondary Structure of Protein is the dynamic and real time problem in bioinformatics. Determining the secondary structure of protein consists of coil, beta-sheet, and alpha-helical regions which is crucial to comprehending their interactions and functions. Recent years have seen encouraging developments in the prediction of protein secondary structure from amino acid sequences using machine learning approaches. In order to improve secondary protein structure prediction accuracy, this work presents a unique method that combines the advantages of Convolutional Neural Networks (CNN) with Hybrid Cellular Automata (HCA). Benchmark protein datasets are used to train and assess the suggested hybrid model, which shows better prediction performance than more conventional techniques. An inventive method for capturing the local and global structural patterns in protein sequences is provided by the combination of CNN and HCA.

Drug Recommendations using Support Vector Machine

[1]Pokkuluri Kiran Sree, [2] Prasun Chakrabarti, [3] Martin Margala,
[4]Gurujukota Ramesh Babu, [5]Phaneendra Varma Chintalapati, [6] SSSN Usha Devi N
[1.4,5] Department of CSE, Shri Vishnu Engineering College for Women(A), Bhimavaram, West Godavari District, Andhra Pradesh, India, [2] ITM SLS Baroda University, INDIA, [3] University of Louisiana at Lafayette, USA, [6] University College of Engineering, JNTU Kakinada.

Abstract: As the online usability of health forums online has increased and user provided information, content is about the health is voluminous, we propose a unique hybrid approach for the recommendation of drug that considers the sentimental analysis and review score using vector based approach. The main objective of the approach is to provide fine-tuned decisions about various drug choices. We use natural language processing methods that convert the reviews into numerical vectors which capture sentiment and semantic information. We have used Support Vector Machine (SVM) to process the vectorised data. This is the first approach to cover the qualitative aspects of the user experience and emotional content. We have collected 2,00,000 datasets from UCI ML Drug Review dataset to implement the proposed classifier. Our results demonstrate that our vector-based approach to drug recommendations outperforms traditional methods in terms of accuracy and user satisfaction. SVM reports an accuracy of 96.98%, with precision and f1score of 0.926& 0.936 respectively.

E-waste Classification using Pre-trained Deep Learning CNN Model

Mirsad Al Hossain, Saiful Islam Akash, Sajid Faysal Fahim, Md. Arifin Zaman, Md. Motaharul Islam*
Dept. of Computer Science and Engineering, East West University, A/2, Jahurul Islam Avenue Jahurul Islam City, Aftabnagar, Dhaka-1212, Bangladesh, *Dept. of Computer Science and Engineering, United International University, United City, Madani Avenue, Dhaka-1212, Bangladesh, {mirsadalhossain5712, saifulakash1122, sajidfaysalfahim, arifinzaman1010}@gmail.com
*Corresponding Author's Email: motaharul@cse.uiu.ac.bd

Abstract: Electronic waste is one of the fastest-growing waste streams in the world, posing a threat to human health and the environment. E-waste classification is an essential step for adequately managing and recycling E-waste. In this research, we have proposed a method for E-waste classification using YOLOv7 as an E-waste detection model. After that, a pre-trained model is used as a classification model. First, we have used YOLOv7 to detect E-waste objects in images and crop them into separate regions. Then, we have used a pre-trained model to classify each part into one of the different categories of E-waste composition. Finally, we have got 93.5% mAP for the E-waste detection model and 99.7% accuracy for the classification of E-waste.

Explorative Data Analysis on COVID-19 Vaccine Hesitancy in United States

[1]Hemachandran K, AI Research Centre, School of Business,
Woxsen University, Hyderabad – India,
[2]Rajesh Kumar K V, AI Research Centre, School of Business,
Woxsen University, Hyderabad – India,
[3]Dr Zita Zoltay Paprika, Corvinus School of Business, Budapest – Hungary,
[4]Vineeth Reddy Guda, School of Business, Woxsen University, Hyderabad – India,
[5]A Naga Sai Purushotham, School of Business, Woxsen University, Hyderabad – India,

Abstract: In United States, as on 14th February 2022 around 201,679 new corona cases were confirmed, and cumulative cases crossed 76,649,700. Covid-19 is increases rapidly, as of now 905,957 deaths were confirmed in United States. More than 1 lakh of people have not vaccinated yet. In addition to concerns about its side effects, the Census survey also found that 45.3% of unvaccinated adults say they don't trust COVID-19 vaccines, 38% don't trust the government, and 33.7% believe they just don't need it[1]. Artificial intelligence (AI) is a cutting-edge technology that is assisting in the fight against the COVID-19 pandemic. This technology is useful for screening, monitoring, forecasting existing and future patients. The primary applications of this AI are infection detection and diagnosis. With no end in sight to the epidemic, vaccination is the only way to maintain control and to restore normalcy. In this research, we have extracted more insights for the vaccine hesitancy. For creating awareness among the people of United States, an analysis on "Why some of the peoples are not getting vaccinated" and even "if we offer vaccine why they are not ready to take the vaccine" is evidence on vaccine hesitancy. So, that government can educate people on the benefits of vaccine.

Osteosarcoma Cancer Detection using Machine Learning Techniques

[1]Payal Chhabra, [2] Rajat Kumar, [3] Roshni Prasad, [4]Arun Kumar Singh, [5]Arjun Singh
[1]G.L.Bajaj Institute of Technology & Management Greater Noida
[2] N.I.E.T Greater Noida, India, [3] N.I.E.T Greater Noida,I ndia
[4]Greater Noida Institute of Technology, Greater Noida, India
[5]G.L.Bajaj Institute of Technology & Management Greater Noida

Abstarct: Artificial intelligence (AI) and machine learning have emerged as very promising technological advancements in recent times, exhibiting extensive potential for application across a wide range of industries, including the healthcare sector. Cancer is a highly frequent non-communicable disease that is a leading cause of mortality on a global scale. Scientists have conducted extensive investigations in order to enhance the lethality and invasiveness of cancer. The application of artificial intelligence in cancer research has been extensively employed, yielding highly promising results thus far. Various strategies can substantially enhance the prognosis of individuals with cancer, with particular emphasis placed on timely detection and accurate diagnosis facilitated by a range of imaging modalities and scientific methodologies. One of the myriad applications of artificial intelligence (AI) in the field of medical research is to its utilization as a method for enhanced detection and diagnosis. The

primary objective of this study article is to comprehensively examine the existing literature and provide a comprehensive overview of the various applications of artificial intelligence (AI) in different commonly occurring cancers. Age-related skeletal disorders, such as cancer, infection, and osteoporosis, provide a substantial challenge within contemporary societies. Although there are existing professional interventions available for the treatment of these illnesses, it is important to note that several of these interventions include significant hazards. The presence of various pathogenic mutations and the aggregation of hereditary illnesses can contribute to the development of cancer and an elevated mortality rate. The proliferation of malignant cells, which can manifest in any bodily organ or tissue, poses a significant risk to an individual's overall well-being. Cancer, sometimes referred to as a tumor, necessitates accurate and expeditious early identification in order to identify viable therapeutic options. Bone cancer is a matter of considerable medical importance due to its frequent association with patient mortality. The utilization of pictures obtained from X-ray, MRI, or CT scans is employed in the diagnosis of bone malignancies. Osteosarcoma is a neoplastic condition characterized by the presence of a malignant tumor, typically occurring in the long bones of the limbs. The increasing incidence of cancer and the imperative for healthcare services have rendered the task of identifying and classifying this ailment more complex. Bone malignancy is an atypical pathological condition characterized by uncontrolled cellular proliferation within the skeletal system. The destruction of bone tissue that is in a state of good health occurs. A bone affected by malignancy will exhibit distinct tactile characteristics compared to an unaffected bone. The collection exhibits morphological similarities between multiple cancerous and healthy bone photographs. Hence, the classification of these entities poses a significant issue. To initiate the process of finding a resolution, we commence by identifying the most efficient method for edge detection and afterwards proceed to its construction. Machine learning algorithms are employed to assess the effectiveness of these sets of features.

Gradient Ridge Enhancer: A Robust Approach for Ridge Detection in Infant Retina Images

Akhilesh Kakade[1] and P.S. Metkewar[2], [1]Symbiosis International (Deemed University) (SIU) Lavale, Pune, Maharashtra, India, [2]Symbiosis Institute of Computer Studies and Research (SICSR), Symbiosis International (Deemed University) (SIU), Model Colony, Pune, Maharashtra, India

Abstarct: Retinopathy of Prematurity is a blindness disease found in premature infants having weight about 1250 gm and born before 31 weeks of gestation, causing abnormal growth of blood vessels leading to retinal detachment which results in permanent blindness. The ROP consists of various stages, the first stage consists of demarcation line which separates vascularized retina from peripheral retina. In the second stage the demarcation line increases in height and width known as ridge. Identification of demarcation line or ridge in the retinal images of premature infants is an intricate task because of the low contrast retina images. This research work proposes a novel approach where we extract the intensity channel from HSI Color space, applying gamma correction for contrast enhancement and median filter for

noise reduction. For further enhancement of ridge, we propose Gradient Ridge Enhancer (GRE) filter which improves the visibility of ridge structure by combining Sobel magnitude filter with median filtered image. Contrast enhancement and color correction are done using CLAHE and gamma correction to handle the low contrast and uneven illumination in retinal images. Lastly image segmentation is performed using OTSU method, followed by post-processing algorithm to obtain the ridge segmented mask. The proposed method achieved an accuracy of 0.9854 for ridge detection when tested on a dataset of 1103 retina images from premature infants with varying image quality, demonstrating potential of the proposed GRE filter for efficient diagnosis of ROP disease.

Virtual Environment Testbed For DSDN Network

Wed Kadhim Oleiwi[1], Alharith A. Abdullah [1*], [1] Department of Networking, Information Technology College, University of Babylon, Hilla Babylon

Abstract: Software-defined networks (SDN) centralized network control architecture, Distributed SDN (DSDN) operating systems and applications are being created to meet the demands of fault tolerance and scalability. However, reliably developing such systems and applications without an expensive testbed can be challenging. Full system virtualization or heavyweight containers remain commonplace in SDN development approaches, which adds complexity and costs at the expense of usability. We show how to use GNS3 as a lightweight container virtual testbed on a single computer, making the process much more straightforward and productive. Open daylight is a freely available, distributed network operating system that may be used to build a scalable, adaptable open-source development platform for software in software-defined networks.

Securing Real-Time Data Streams with Cloud-Enabled Lightweight Cryptography

Anaam Ghanim Hilal[1], Mehdi Ebady Manaa[1*]
[1]University of Babylon, College of IT, Department of Information Networks
, Al Hillah, Babylon, Iraq

Abstract: The Internet of Things (IoT) is growing quickly and creating a lot of data that needs to be stored safely. Cloud computing is an effective solution for storing IoT data, but a large amount of data is also vulnerable to security threats and high latency when transmitted from IoT devices to the cloud. To address these problems, we proposed using hybrid lightweight ciphers (PRINCE and SPECK) for encryption, which are well suited to limited-resource IoT gadgets. and the SHA-256 digital signature algorithm is used to help ensure the integrity and authenticity of the data. To securely exchange keys between IoT devices and the cloud, we used the Elliptic Curve Diffie-Hellman (ECDH) protocol. This protocol allows for the secure exchange of keys over an unsecured channel. To evaluate a proposed system, several main

parameters can be used so that one can understand the security and performance aspects of the system, such as Execution Time, and Entropy. The results in the last read with data size 36.7 KB show that the system increased the Entropy value to 7.996686285 and the execution time will be 0.955000162 second, which makes this algorithm more efficient and more secure.

Enactment of KNN in Brain Tumor Recognition: A Censorious Explication

Hayder Sabeeh Hadi [1], Alaa M. Iafta[2], Ahmed J. Obaid[2*]

[1] College of Nursing, University of Kufa, Najaf, Iraq ,[2] National University of Science and Technology, Thi-Qar, Iraq, [3] Faculty of Computer Science and Mathematics, University of Kufa, Iraq

Abstract: The accurate study of a brain tumor's morphology is truly a challenging process, and as a result, a computerized method for tumor detection is currently still being used. Unquestionably, this is more efficient than surveillance study and produces findings that are more reliable. The suggested strategy is innovative for both tumor identification and the capacity to determine the percentage of total brain cells that the tumor occupies. Brain tumors are characterized by the collection of aberrant cells in particular brain tissues. The patient's medication and prognosis are greatly influenced by the patient's past differentiating evidence of brain tumors. Finding and analyzing a brain tumor is frequently a difficult and time-consuming task. In this study, we have introduced a knowledge-based MRI brain tumor detection method for efficient categorization and grading of brain tumor images. Pre-screening, edge detection, identification, and fragmentation are the four components that make up the proposed framework. It is initially necessary to remove any noise from the source images using the Median Filter since noise could affect how accurately the identification process works. The images are instantly converted into three-dimensional blocks.

Fraud Detection on payment using Credit Card, Online Transactions and Banking

Fatima Adel Nama[1], Ahmed J. Obaid [1,2*]

[1]Faculty of Computer Science and Mathematics, University of Kufa, Iraq
[2] Department of Computer Technical Engineering, Technical Engineering College, Al-Ayen University, Thi-Qar, Iraq

Abstract: Financial fraud is brought on by a rise in the use of credit and debit cards for both ordinary transactions and online ones. Fraud operations in the digital currency market are consistently on the rise. In order to identify fraudulent activity, modern approaches that utilize data mining, evolutionary algorithm, etc. have been utilised. the process of employing a genetic algorithm to determine the best answer to a problem and indirectly produce the

outcomes. The goal is to create a technique for producing test results and use this engine to spot fraudulent activity. Using the concepts of adaptive search and optimisation, this program Algorithms used to address computing issues of great complexity include genetic and environmental selection. This study attempts to identify a mechanism for detecting fraud with credit cards and evaluates the findings in light of these computation basic principles. Both credit or debit card firms and their customers gain from the detection of fraud. The corporation must bear the monetary impact of the suspicious purchases because they cannot be stopped from clearing. This lowers the costs and expenses brought on by rising interest rates.

Examining the Consequences of Cyber Attacks on Businesses and Organizations

Kunal Bhakhri[1], Monika Sethi[2], Ishu Sharma[3] and Keshav Kaushik[4]
[1,2,3]Chitkara University Institute of Engineering & Technology, Chitkara University, India
[4]School of Computer Science, University of Petroleum and Energy Studies, Dehradun, India

Abstract. In this ever so digitized world as more and more business start offering up their services online and government entities also start shifting their database online, thus it becomes even more critical for businesses and the government organization to understand how a cyberattack can impact an organization. Cyberattacks can impact the company economically, also they would result in a blow to the company's reputation and not to mention the legal consequences awaiting a business post-cyber breach. Thus it becomes an absolute necessity for an organization to take the required steps to decrease the risk of suffering from a cyberattack and take necessary measures immediately if the company has suffered from a breach and damage control as much as possible.

Stress Detection while doing Exam using EEG with Machine Learning Techniques

Sima Das[1,*], Siddhartha Chatterjee[2], Altaf Ismail Karani[3], Anup Kumar Ghosh[2]
[1,*] Bengal College of Engineering and Technology, Durgapur-713212, West Bengal, India.
[2]NSHM Knowledge Campus, Durgapur-713212, West Bengal, India.
[3]KL University, Vaddeswaram - 522302, Andhra Pradesh, India

Abstract: This paper presents a comprehensive system design, architecture, and methodology for detecting the psychological states of individuals based on their emitted brainwaves while exam. The system utilizes the NeuroSky Mind wave Mobile device for EEG calibration and data acquisition. The obtained raw brainwave data is processed using Fast Fourier Transform

to convert it into EEG brain electrical signal frequencies. A convolutional neural network with three layers (input, hidden, and output) is employed for the classification task. The dataset consists of brainwave recordings from 7 individuals, split into training and testing sets. The system achieves rapid convergence and optimal results after approximately 20 iterations, with a mean squared error (MSE) loss of 0.096 and a validation accuracy of 95.23%. The F1-score analysis demonstrates superior performance in predicting class 1 (attention) compared to class 0 for low stressed. These findings highlight the system's ability to accurately detect the psychological states of individuals based on their brainwave patterns, particularly in predicting attention-related states.

Comparative Studies of Credit Efficient Techniques for Deploying Roadside Units

Fatima Tahseen[1], Fahad Ghalib Abdulkhadim[1*]

[1]Department of computer science, Faculty of computer science and Mathematics, University of Kufa, Najaf, Iraq

Abstract: Over time, the reliance on automobiles increased to facilitate everyday tasks. This increased the likelihood of accidents and traffic congestion. To guarantee a reduction in these problems, the development of a network that enables vehicles to communicate with each other and exchange information has become an imperative necessity. However, the rapid topological change of this network creates communication problems, loss of connection between vehicles, and communication gaps. Roadside units, which are regarded as a gateway between the traffic system and vehicles, are used to overcome that problem by providing a stable connection with the vehicles. Vehicles communicate with roadside units (RSUs) via on board units (OBUs), which are linked to RSUs via that network which is known as a vehicular ad-hoc network (VANET). These units are installed in automobiles as electronic transmitting and receiving devices, serving as the vehicle's method of communication and information exchange. Several installation issues have been raised since introducing these devices, including installation costs, coverage rates, and message delivery delays. This publication covers a significant number of algorithms used or may be used to solve these issues.

Twitter Sentiment Analysis using Stacking Machine Learning Approach

Medi Pavan Teja[1], Dr. Sagar Dhanraj Pande[2, *]

[1,2]School of Computer Science & Engineering (SCOPE), VIT-AP University, Andhra Pradesh, India

Abstract: In recent years, sentiment analysis - also known as opinion mining - Has gained popularity due to the abundance of data available on social media platforms. This analytical technique has an extensive variety of applications in different fields such as politics, customer

service, social media analysis, and marketing. It can help businesses and organizations understand how their customers perceive their products or services and make informed decisions based on that information. Moreover, sentiment analysis can also aid in tracking public opinion and sentiment about specific topics or issues, which can be valuable for policymakers and social scientists. In this work, we present an evaluation of various machine learning algorithms, like Logistic Regression, Multinomial Naive Bayes, Support Vector Machine (SVM), Decision Tree, and Ensemble techniques like Gradient Boosting, Random Forest, XG Boost, Ade Boost, Weighted Averaging and Stacking for the classification of sentiment in Twitter tweets. Our study includes visualizations such as confusion matrices and heatmaps, providing insights into the strengths and weaknesses of each algorithm. This research aims to assist practitioners and researchers in selecting the most appropriate machine learning algorithm for their particular application.

Player Performance Analysis Using Various Data Mining Approaches

Chandra Sekhar Reddy Guruguri[1], Dr. Sagar Dhanraj Pande[2, *]

[1,2]School of Computer Science & Engineering (SCOPE), VIT-AP University,
Andhra Pradesh, India

[1]sekhar.21bce9794@vitapstudent.ac.in, [2,*]sagarpande30@gmail.com

Abstract: The usage of machine learning in sports is increasing day by day. Cricket, as a sport cantered around statistics and performance metrics, presents an abundant repository of data that holds the potential to reveal valuable insights into players' skills and contributions during matches. Machine learning models analyze data produced from sports and provide game insights. Machine learning models are helpful in analyzing player performance and winner prediction. These models can also be used in players' injury management and prevention. The data evaluated by machine learning models can guide the recruiters at the time of selecting the best team. The results of this study provide a sizable contribution to the body of information expanding on the revolutionary potential of machine learning in cricket. The idea behind this is to be able to forecast future events such as, how many wickets a bowler will pick up and runs a batsman will accomplish.

Potato Leaf Disease Detection Using Deep Learning Algorithm

Dr. Ramkumar Devendiran, Madhumitha Kuduva, Dr. Sagar Dhanraj Pande

Abstract: Potato is a major crop across the world, but it is prone to a variety of illnesses that can impair productivity and quality. Early diagnosis of potato leaf diseases can assist farmers in taking the required steps to restrict the disease's spread. I have developed a deep learning-based potato plant leaf disease detection model, namely a convolutional neural network (CNN) developed in TensorFlow, Keras. We

trained and validated the model using a collection of potato leaf pictures that included healthy leaves as well as leaves damaged by early and late blight. To categorize the photos into these three groups, we design a CNN model and train it with the dataset. The suggested technique yields great accuracy, confirming the deep learning approach's efficacy in potato disease diagnosis.

Novel AI dependent Intrusion Detection system for IoT enabled smart city applications

Dr. M. Nalini , Sri Priyadharshini R , Keerthana C V , Devi Bharathi N P
[1]Sri Sairam Engineering College, Chennai

Abstract: The advancement of "SMART CITIES" is a result of the need to satisfy social and physical goals while improving the quality of life. The intention of smart cities is to effectively regulate rising urbanisation, energy consumption, environmental preservation, citizens successful standards, and increase the potential of the populace to effectively use and embrace contemporary knowledge and communication technologies (ICT). These are brought about by developments in information technology that, although they open up new economic and social possibilities, also put our security and privacy expectations in jeopardy. With the help of technology like smartphones, people are already linked. In many cities, smart appliances, security systems, and energy metres are in use. The quick development of technology not only makes life simpler but also raises several security concerns. The amount of online assaults has risen as the Internet has developed over the years. One of the supporting layers that may be used for information security is the intrusion detection system (IDS). The fast development of technology not only makes life simpler but also raises several security concerns. The amount of online assaults has risen as the Internet has developed over the years. One of the supporting layers that may be used for information security is the intrusions detection system (IDS). This system is used to protect our IoT enabled smart city environment from suspicious activities. This work was developed using the NSL KDD data and its competence was collected and compared using machine learning algorithms.

A Systematic Review of Wavelet Tree Compression Techniques

Utkarsh Dixit[1], Sonam Gupta[2], Arun Kumar Yadav[3], Divakar Yadav[4], [1, 2] Ajay Kumar Garg Engineering College, Ghaziabad, India,
[3] National Institute of Technology, Hamirpur (H,P), India
[4] IGNOU, New Delhi, India

Abstract: The wavelet tree is a proficient data structure utilized for compressing and indexing files, which in turn improves information retrieval for specific data. This research work explores the numerous applications of compression algorithms across various fields. Additionally, the research also addresses several research questions related to the use of compression algorithms. The wavelet tree is a powerful tool that can help compress large

datasets and facilitate faster information retrieval. Through our research, we have uncovered numerous practical applications of compression algorithms, such as in data mining, bioinformatics, and natural language processing. We have also discussed various research questions, such as how compression algorithms can be optimized for various data sets and their potential enhancements through utilization the accuracy of machine learning models. Overall, this research work highlights the significant benefits of using compression algorithms, particularly the wavelet tree, in a wide range of applications. It provides a deeper understanding of the potential of these algorithms and the important role they can play in improving data processing and analysis.

Applications and challenges of blockchain technology in image processing: A comparative review

Abhishek Agnihotri[1], Abhishek Prabhakar[2], Kapil Kumar Pandey[3]
Department of Information Technology,
Dr. Ambedkar institute of technology for handicapped, Kanpur[1,2,3], Kanpur, India

Abstract: With the increase in internet usage, Blockchain technology has risen in popularity in recent years as one of the hottest technologies. It uses decentralized architecture with distributed database and provides cryptography thus giving integrity of data without using a third party. It is used to increase security and privacy in various applications. There are an expanding variety of applications not only in finance, but are also important to image processing, even though they were initially developed for and most frequently used with cryptocurrencies. This paper provides examination of blockchain technology in image processing. It also discusses potential implementation difficulties as well as the ideas that underlie the technology and applications pertinent to image processing. This paper intensively analyses the existing research work and provides issues in Blockchain for image processing and provides refined observation of each problem so that future research can be conducted efficiently.

Construction of digital shared resources in vocational colleges based on the computer network security framework system of the credit bank

Shue Ma, Shandong Institute of Commerce and Technology, China

Abstract: The significance of educational resources at vocational colleges and universities, encompassing software teaching tools, faculty members, and hardware facilities, cannot be overstated. The act of resource sharing has the potential to yield significant time and cost savings in the field of education, while simultaneously enhancing the overall quality of instruction and educational outcomes. In the contemporary advancement of information technology, the use of digital resource sharing has become an essential approach, since

conventional techniques fail to address the issue of educational resource sharing in vocational institutions. This study presents a proposal for a digital sharing resource in higher vocational institutions, utilizing a computer network security framework system from the credit bank. The objective is to examine educational resources within this context. The computer is mostly employed for the analysis of educational resources that are shared among users. These resources are categorized based on the criteria specified for educational materials, with the aim of minimizing any factors that may impede the effectiveness of these resources. Subsequently, the computer does an analysis and dissemination of the outcomes derived from the compilation of vocational colleges and universities' resources, so establishing an educational shared resource program including a wide array of educational materials and assets. The findings were thoroughly examined. The findings from the MATLAB simulation indicate that, when considering certain assessment criteria, the digital shared resources of higher vocational colleges may be considered as instructional resources for these institutions. These resources are based on the computer network security framework system of the credit bank. The viability of resource sharing and the rationale behind sharing instructional materials beyond conventional approaches.

Research on the impact of computer information technology on urban performing arts tourism design

Jiaoyan Chen

Xiamen University of Technology, Xiamen City, Fujian Province, China

Abstract: In contemporary society, individuals have seen significant advancements and gratification in their material well-being. The inclination towards exploring spiritual dimensions has witnessed a progressive rise, with travel being one such avenue. The current demand of the public can no longer be satisfied by tourism alone. Consequently, the integration of tourism and the cultural economy has given rise to performing arts tourism, which not only enables individuals to appreciate diverse landscapes, but also facilitates their comprehension of distinct local cultures. The rise of performing arts tourism has generated little public awareness, underscoring the significance of designing effective strategies for this kind of tourism. Conventional design methodologies are insufficient in facilitating the submission of material by visitors on a bigger magnitude. Hence, this study presents a computer-based information technology framework aimed at facilitating the creation and analysis of performing arts tourism. Artificial intelligence (AI) plays a pivotal role in the collection, classification, and analysis of material related to performing arts tourism. It effectively partitions indicators based on the specific design needs of performing arts tourism, hence facilitating their reduction. Interference considerations provide challenges in the design of performing arts tourism. Subsequently, the artificial intelligence system formulates a design scheme for performing arts tourism, encompassing the design of the performing arts tourist experience and its corresponding outcomes. Perform an exhaustive analysis. The results of the MATLAB simulation demonstrate that, when specific assessment criteria are taken into

consideration, computer information technology has a logical impact on the design of urban performing arts tourism. The viability of implementing performing arts tourist design surpasses that of conventional design methodologies.

Analysis of credit bank construction mode of higher vocational colleges based on big data and cloud computing

Shue Ma, Shandong Institute of Commerce and Technology, China

Abstract: The Credit Bank serves as a facilitator and source of encouragement for learners, as it aids in the recognition, aggregation, and conversion of acquired knowledge and skills. Nevertheless, the efficacy of the sexual regression algorithm in addressing the challenges associated with the analysis of the credit bank building mode in linked schools is limited, resulting in suboptimal analysis outcomes. This research presents a clustering technique aimed at analyzing the building pattern of credit banks in vocational colleges. The construction data of the credit bank is categorized, and distinct learning indicators are established for various phases of learning. Next, the building mode of the credit bank is examined through the utilization of a clustering algorithm. This analysis process leads to the development of an analysis scheme, which is then used to thoroughly evaluate the outcomes of the credit bank construction mode analysis. The simulation findings demonstrate that the analytical outcomes of the algorithm presented in this study exhibit a relatively high level of accuracy. This algorithm effectively leverages the benefits of information technology and holds a certain degree of practical significance.

Formulation and Performance Assessment for Multiple Server Queuing Models

Shahriar Tanvir Alam[1][0000-1111-2222-3333], Fahima Akter Azrin[2][0000-0003-2539-9700] and Abu Saleh Md. Nakib Uddin[3][0000-0003-3340-8718]

[1] Military Institute of Science and Technology, Mirpur Cantonment, Dhaka-1216, Bangladesh
[2, 3] Military Institute of Science and Technology, Mirpur Cantonment, Dhaka-1216, Bangladesh

Abstract: Queueing theory has grown in prominence as it provides the numerical foundation for decision-making assessment. Queueing models with multiple servers provide extensive decision-making data, which is critical for evaluating a server's performance. The purpose of this study is to formulate multiple server queueing models and provides a performance assessment to evaluate the appropriate models. A three-phased structured approach has been used to model and analyze performance for multiple server queueing models. The "Multiple Server Finite Queue Length Infinite Queue Population Model" is most desirable for a customer who has to wait for less time (approximately 43.14%) in the system as well as in the queue (approximately 62.16%) and reduces the system length by approximately 47.02%

and the queue length by approximately 64.76%. However, the "Multiple Server Infinite Queue Length Infinite Queue Population Model" is preferable from a managerial perspective, as the "Multiple Server Finite Queue Length Infinite Queue Population Model" has fewer customers in the system, indicating a loss from a managerial standpoint. When the arrival rate of customers, service rate, and the number of servers are increased, length of the system and queue remain nearly constant, whereas the waiting time in the system nearly doubles for both queueing models. The paper develops a performance evaluation of the "Multiple Server Infinite Queue Length Infinite Queue Population Model" and "Multiple Server Finite Queue Length Infinite Queue Population Model", which are capable of adapting to an unpredictable decision in any service system. Furthermore, this study provides decision-makers with a perspective-based evaluation of the mentioned servers, with a focus on a manager and a customer.

Assessment of Smart Supply Chain Production Floor Based on the Inspection of Final Products: A Simulation-Based Study

Shahriar Tanvir Alam[1][0000-0002-0567-3381], Abu Saleh Md. Nakib Uddin [2][0000-0003-3340-8718], Fahima Akter Azrin[3][0000-0003-2539-9700]

[1]Military Institute of Science and Technology, Department of Industrial and Production Engineering, Mirpur Cantonment, Dhaka-1216, Bangladesh

[2, 3] Military Institute of Science and Technology, Department of Industrial and Production Engineering, Mirpur Cantonment, Dhaka-1216, Bangladesh

Abstract: Smart supply chain refers to the use of emerging technologies to enhance productivity and efficiency by lowering costs and delivering the product within a short time. In the healthcare industry, a smart supply chain improves the management of the flow of medicines, monitoring all operations of the production floor and other healthcare services from manufacturer to patient. Production of medicines is a very sensitive process as small mismanagement may result in the loss of many human lives. So, ensuring maximum inspection at the end of production is very important. The queue performance of any materials highly impacts the productivity of a production floor. This paper formulates the single server queuing models and provides a performance evaluation. The performance for the "Single Server Finite Queue Length Infinite Queue Population Model" is most desirable. Based on the findings of the queue performance, an ARENA-based simulation has been illustrated to visualize the productivity of the production floor considering the impact of the final products queue. The simulation result shows that the implementation of the finding from the assessment of the queue performance increases the output by 5.7 times compared to the present condition.

Review of Efficient Load Balancing Technique to Improve QoS Parameters Fog Computing

Arti Sharma[1,2 [0000-1111- 6540-1639]] Rajendra Prasad Mahapatra[1] and Vineet Kumar Sharma[2]
[1]Department of Computer Science and Engineering, SRM Institute of Science and Technology, Delhi- NCR Campus, Ghaziabad, India, 201204
[2]Department of Computer Science and Engineering, KIET Group of Institutions, Ghaziabad, India, 201206

Abstract: Fog networking is an aspect of the IoT (Internet of Things) idea, which sees most of the products used by humans on a daily basis connected to one another. Smart phones, smart health monitoring equipment, as well as other similar technologies are examples. The goal of fog computing (FC) is to lessen the burden on CC. Fog computing advances processing of data, communication, storing and analysis nearer to edge nodes and applications. To alleviate some of the drawbacks of cloud computing, a significant number of apps and services are shifting to fog computing. The main problem in fog computing is how to improve service quality. It is clear to observe that the SNNC and EBS has improved QoS to a great extent.

Electronic Voting System Using Blockchain

Gulshan kumar, Dr. Sudeept Yadav, Radhika Singh, Aman Mittal
Galgotias University, Greater Noida, India

Abstract: Blockchain technology is one of the innovations brought about by the rise of the digital age that has transformed how people live and how easily jobs can be completed. Blockchain is opening up new avenues for the development and exploration of various virtual services that may be applied to our everyday activities like voting, maintaining files, etc. Today, the government uses electronic voting technologies instead of the traditional voting process to cast ballots. As technology advances, voting practices also alter. Today, we vote online, and this practice is on the rise in modern society due to its many benefits, including a reduction in administrative costs and an increase in the number of voters. Additionally, it does away with the outdated idea of polling places and voting machines. It introduces new concepts and helps voters to cast votes whenever and from wherever there is an internet connection the voters want according to their preferences. Despite their number of benefits online voting systems have a number of cautions because they bring new threats. A single exposure can result in a large vote; therefore, online voting must be safe and legal when used in elections. The introduction of blockchain technology in online voting systems can lead to the reduction of these issues and offers decentralized nodes for electronic voting which help in end-to-end verification advantages. This technology is a stunning replacement for traditional electronic voting solutions with more privacy for the voters and security. The following paper provides an overview of electronic voting based on blockchain technology and aims to review the current literature on blockchain-based electronic voting systems and look

forward to improving thefuture. The blockchain-based technology is secure, reliable, efficient, anonymous, and faster and helps to increase the number of voters and people's confidence in the democracy of our country but on the other hand, it faces issues related to safety traits, privacy protection, and transaction speed. For proper development of this technology, it should be secure and its transaction speed must be fast.

Prediction of Cardiomegaly Disease Using Deep Learning

Dena Ahmed, Enas Hamood [*], College of Science for
Women, University of Babylon, Babylon, Iraq

Abstract: Cardiomegaly can be viewed as an indication of an underlying medical condition rather than being a separate ailment. Within the scope of diagnostic assessments, identifying an enlarged heart within a chest X-ray image signifies the presence of cardiomegaly. The etiology of cardiomegaly encompasses a spectrum of causative factors, including hypertension, coronary artery disease, infections, hereditary abnormalities, and cardiomyopathies. Timely identification and accurate diagnosis of cardiomegaly hold the utmost significance in facilitating efficacious treatment approaches and optimizing patient outcomes. The current study proposes a deep learning-based methodology that leverages medical imaging data to predict the occurrence of cardiomegaly. Specifically, this method employs a deep convolutional neural network (DCNN) architecture to autonomously classify and anticipate the presence of cardiomegaly in chest X-ray images. The training and evaluation of our proposed model are conducted using the National Institutes of Health chest X-ray dataset, which is available on the Kaggle platform. Our system demonstrates a notable level of accuracy, achieving an average accuracy rate of 97%, a precision accuracy rate of 97%, a recall accuracy rate of 96%, and an average F1-score accuracy rate of 97% for identifying cardiomegaly in CXR images

Detection of Fake News using Machine Intelligence for Societal Benefit

Deepali Goyal Dev[1], Vishal Bhatnagar[2]
[1]GGSIPU, AIACTR, Delhi and Assistant Professor, ABES Engineering College, Ghaziabad, UP, India
[2]NSUT East Campus (Formerly Ambedkar Institute of Advanced Communication Technologies and Research), New Delhi, India

Abstract: In today's world, it's become very important to be able to identify fake news as soon as it appears. This is especially important because news on the Internet spreads quickly and widely. The capacity to tell a story's credibility only by looking at its headline is equally important. In this paper, we propose an approach to news classification based only on title and no other parameters. The outcomes will be compared to the classification determined by reading the news article in its entirety. This work aims to propose a methodology for false news

prediction that creates a balance between the quality and amount of data analysis. We describe the news title and text using a variety of machine learning techniques. To apply effective classification to this intricate process, careful analysis is required. The employment of complex classifiers, in this case classical ensemble techniques, has been advocated in order to get a high classification grade. Using the suggested approach, combining an ensemble of classifiers and a single classifier, we analyze a real data set and give news classification findings in this study.

Android Malware Detection using Machine Learning

Rajeshwari Gundla[1], Dr. Sachin R Gengaje[2]

[1]Department of Computer Science & Engineering, Walchand Institute of Technology, Solapur, India,

[2]Department of Electronics Engineering, Walchand Institute of Technology, Solapur, India,

Abstract: Mobile phones play a crucial role in today's society given the prevalence of their use in routine activities, from basic ones like alarm clocks to sensitive ones like banking. These gadgets are among the top targets for hackers due of the sensitive and important information they hold. Android-based phones predominate in the phone market. Because of the widespread distribution of malware, Android's open-source nature has also given rise to a number of security concerns. For detecting Android malware, multiple classification techniques (individual and ensemble) have been used. In this paper, we propose an Android malware detection system, which uses 5 different types of classifiers for classifying Android apps as benign or malicious. With the proposed method, a comparative assessment is implemented on the performance of popular individual classifiers; experiments on two datasets of malicious and benign Android applications are conducted as well.

Advancements in Deep Learning Models for Epileptic Seizure Detection: Algorithms, Applications, and Future Perspectives

Sucheta[1] Amanpreet Kaur[2]

[1]Chitkara University Institute of Engineering &Technology, Chitkara University, Punjab, India

[2]Chitkara University Institute of Engineering &Technology, Chitkara University, Punjab, India

Abstract: Deep learning is increasingly in demand these days. It is a form of machine learning based on artificial intelligence in which higher level features are extracted from data using numerous computational layers. We do predictions using single layer but additional hidden layers can give more accurate and refined results. A computer trains to do classification tasks directly from images, text, or audio sound using deep learning and sometime gives more accurate results comparative to humans. This review covers the colossal information of deep learning under one article. We have also studied the different types of deep learning

algorithms, types of training, their challenges, and architecture applications. In this paper, deep learning algorithms are applied in medical field to detect the problem of epileptic patients in a very short time by reducing manual errors and improve the quality of life of patients. Epilepsy is a disorder of nervous system that are identified by EEG(electroencephalogram) signals and MRI(Magnetic Resonance image) scan that are analyzed by Deep learning neural networks for epilepsy detection.

Decision Tree based Network Intrusion Detection for Cyber Security Application

Jay Kumar Jain[1], Dipti Chauhan [2]
[1] Indian Institute of Information Technology, Bhopal
[2] Prestige Institute of Engineering Management & Research, Indore, M.P, India

Abstract: One of the most significant challenges facing cyber security professionals in the modern day is intrusion detection. There have been a substantial number of methods produced that are based on machine learning techniques that have been developed. So, to detect the breach, the machine learning techniques that we developed were used. When we use the method, not only are we able to detect an intrusion, but we can also identify the specifics of the attacker. IDS may be broken down into two primary categories: network-based and host-based. Installed at network points like routers and gateways, a Network-based Intrusion Detection System, or NIDS, monitors network traffic and searches for indications of intrusions. In this study, the classification decision tree method known as C4.5 is presented. When it comes to data mining, the C4.5 method is utilized as a Decision Tree Classifier. This means that it may be put to use to produce a judgment that is predicated on a particular data sample. The findings of the simulation indicate that the strategy being presented yields significantly excellent outcomes in terms of recall, precision, F1-Score, accuracy and Error Rate. The total accuracy that was reached is 96.3%, which is equivalent to around 97% when accounting for the error rate of 3%.

Epilepsy Disease Detection Using the Proposed Cnn-Fcm Approach

R. Srinath[1], R. Gayathri [2] . C. Shalini[3] , P.Maragathavalli[4]

Abstract: The Electroencephalogram (EEG) signals are categorized using Fuzzy C Means (FCM) based deep learning classification method. The internal structure of this conventional CNN architecture is in sequential order, whereas the interior structure of the projected CNN architecture is in parallel order. The signals are initially data augmented of EEG samples in both cases are decomposed using Empirical Mode Decomposition (EMD) transformation model in the existing methodology. The decomposed samples are given into the feature extraction process, where decomposed samples are trained. These computed IMF subbands and the intrinsic features are fed into the proposed CNN-FCM model to produce the trained

sequences for the training phase of the network. In the testing model of the proposed system, the data augmentation process is applied to the test EEG signal and then, EMD transformation model is applied to thedata-augmented EEG samples to obtain the IMF subbands. The same architecture proposed in this work is also used for diagnosing the severity of focal EEG signals.

An AI-based Integrated Framework for Motion-Activated Facial Recognition

Shiplu Das[1], Gargi Chakraborty [2], Romit Kumar Pal [2], Ayushman Banik 2 , Debarun Joardar [2]
[1]Computer Science and Engineering, Adamas
[3]Computer Science and Engineering, Brainware University

Abstract: The disclosure of sluggishness, alcohol use, and irregular improvements in drivers is an essential issue for road security. An AI-based joined framework for distinguishing sleepiness, alcohol consumption, and driver development is presented in this paper. The three modules of our proposed framework are as follows: a development location module, a sleepiness recognition module, and a liquor identification module. Using a Convolutional Neural Network (CNN) model, the sleepiness recognition module relies on facial milestones and eye following. A Supported Vector Machine (SVM) model is used for breath analysis in the liquor recognition module. Using a Deep Neural Networks (DNN) model, the development recognition module relies on information from a phone's accelerometer. Using a dataset of 5,000 drivers with varying degrees of sleepiness and alcohol consumption, we evaluated our proposed framework. Our consolidated framework is able to precisely identify sluggishness with an exactness of 97%, alcohol consumption with an exactness of 93%, and development with an exactness of 98%, as demonstrated by the results. The proposed system can be integrated into flow vehicles and PDAs to give progressing checking of drivers' conditions and prevent incidents achieved by drowsiness, alcohol use, and inconsistent turns of events.

Rice Leaves Disease Detection Mechanism using VGG16 Deep Learning Architecture

Santosh Kumar Upadhyay[1], Raghuraj Singh[2,], Ashish Kumar[3] and Neeraj Sagar[4]
[1, 3] Ajay Kumar Garg Engineering College Ghaziabad, India
[2] Sharda University Gr. Noida , India, [4] Delhi Technological University, Delhi

Abstract: In several nations, agriculture is the main economy as well as source of survival. There are various food crops, in which rice is one of the most favorite grains among people. But rice crop is affected by various diseases at different phases. A variety of diseases cause problems with the quality of the crop and its growth. Because certain diseases show the same symptoms, it can be difficult to diagnose the condition using standard methods or with the

naked eye at an early stage. Automation, on the other hand, is extremely useful in detecting diseases at the correct moment in crop production to protect their crops from loss in the initial phases. To develop such automation processes, researchers use various approaches such as image recognition, deep learning and machine learning. In present work, we applied VGG16 model to suggest a disease classifier to recognize and classify 5 kinds of rice diseases. Training and validation of proposed model is done on a dataset having 5 kinds of well-known rice diseases (Brown spot, Blight, Rice Blast, Sheath Blast and Tungro). 100% validation accuracy is achieved by the suggested model.

Leveraging Sentiment Analysis of Drugs Review-Based Drugs Recommender System

Rosul Ibrahim[*] , Enas Fadhil Abdullah, Department of Computer Science, College of Education, University of Kufa, Najaf, Iraq

Abstract: The goal in this research was to transform unstructured textual data for drug datasets into structured texts while integrating sentiment analysis and recommendation systems to deviate from conventional recommendation systems once the sentiment feature was extracted from the rating. The procedure used in the research consists of multiple stages: the first involves using natural language processing techniques to prepare the data, and the second involves using classification models logistic regression findings to make predictions with a 90% prediction accuracy. The last major problem is creating drug recommendation suggestion lists utilizing two different scenarios: the first one uses the K nearest neighbour, while the second one uses the cosine similarity.

Hiding Audio in Images Using Generative Adversarial Network

Ibtisam Hassoun Ali, Zeina Hassan Razaq[*]
Computer Science Department College of Education, Najaf, Iraq

Abstract: Steganography is the activity of covertly encoding information into another medium (which is referred to as a "cover medium") in such a way that its presence cannot be established. Steganography is the technique that is applied in order to do this assignment in a fruitful manner. One is possible to attain the capability of secure communication by making use of digital picture steganography, which is essential in the great majority of applications that are being built at current moment. The application of steganography can be useful in a broad range of different contexts, which is desirable. Its elevation to the forefront of today's security systems may be traced to a confluence of factors, including a remarkable development in processing power and a heightened awareness among individuals of the need

to secure their personal information. Both of these causes contributed to its ascent to the forefront of today's security systems. When it comes to the development of a steganographic approach, the most major obstacle that has to be conquered is locating the best balance between the amount and quality of the information to be steganographed. The capability of the technology to embed information, in addition to the fact that it is invisible to the naked eye, differentiates it from connected systems such as encryption and watermarking. These are two examples of linked systems. This article demonstrates how to Using the GAN algorithm to hide the sound inside the photos, without the appearance of a change in the shape of the images through the use of the least important bit approach, so that the sound may be incorporated in the image without unknown parties being aware of its presence.

A Comparative Assessment of Balanced Transportation Problems

Shahriar Tanvir Alam[1][0000-0002-0567-3381], Tanjeel Ahmed[2], Tabassum Haque[3], Md Shoaib Mahmud[4], Akter Mahmud Shihab Mahin[5], Syed Md Naieem[6], Samina Rahman Shuchi[7]

[1]Military Institute of Science and Technology, Department of Industrial and Production Engineering, Mirpur Cantonment, Dhaka-1216, Bangladesh, [2, 3, 4, 5, 6, 7] Military Institute of Science and Technology, Department of Industrial and Production Engineering, Mirpur Cantonment, Dhaka-1216, Bangladesh

Abstract: Transportation Problem corresponds with the product distribution between demand points and supply points. A balanced transportation problem signifies equal supply and demand in a certain scenario. A balanced transportation problem focuses on minimizing the total transportation cost. This paper focuses on a comparison between Vogel's Approximation Method and the Minimum Cost Method. Furthermore, an optimality test known as MODI Method has been conducted to transfer the feasible solution into an optimal solution. A simulation analysis of the transportation problem through the FlexSim software is illustrated. The computational outcomes suggested that Vogel's Approximation Method provides an optimal solution without conducting the optimality test whereas the Minimum Cost Method needs the MODI method to find the optimal solutions from feasible solutions.

Periodic Frequent Pattern Mining with Consideration ofPeriodic Improvements for Business Promotion

Atreyee Datta[1], KalyaniMali[2] and Subrata Datta[3][1], DAITM, Kolkata, West Bengal, India, [2]University of Kalyani, Kalyani, West Bengal, India, Netaji Subhash Engineering College, Kolkata, West Bengal, India

Abstract: Periodic frequent pattern mining (PFPM) is an emerging topic in data mining. Periodicity of a pattern expresses its regularity in the transactional database. Existing PFPM

approaches do not consider periodic improvements of the item sets .PFPM approaches require to set up maximum periodicity threshold (*maxPer*) based on domain knowledge. In reality, databases are available without domain knowledge. The fact leads to improper specification of *maxPer* threshold, which in return produce spurious patterns. Keeping view of these problems, this paper presents an efficient technique to extract qualified periodic frequent patterns with consideration of their periodic improvements. The technique also does not require setting up *maxPer* threshold that reduces burden of the users. The proposed algorithm is named as Progressive Periodic Frequent Pattern Mining (ProPFPM). The proposed approach introduces a new interestingness measure called progressive periodic ratio (PPR) to measure the periodic interestingness of the patterns. To minimize the pattern search space, an efficient pruning technique is also introduced in this paper. A number of experiments are performed to evaluate the performance of the proposed approach in terms of pattern generation and runtime.

Latent Dirichlet Allocation for Topic Modeling and Intelligent Document Classification

Rajdeep Chatterjee, Chandan Mukherjee, Siddhartha Chatterjee, Biswaroop Nath

Abstract: Document classification plays a pivotal role in facilitating faster and more intelligent information retrieval. This paper specifically focuses on document image classification, utilizing Optical Character Recognition (OCR) to transform it into a Natural Language Processing (NLP) problem. Our research aims to enhance the accuracy of popular models by incorporating Latent Dirichlet Allocation (LDA), a text mining and topic modeling technique based on probabilistic distributions. By integrating LDA, we aim to leverage its capabilities for filtering the OCR-generated textual data. This filtering process enables us to extract important features and improve the performance of our models. In our study, we employed several models, in which the LSTM (Long Short-Term Memory) model, a widely used deep learning architecture, to tackle the document image classification task achieved the most promising results, with the LSTM achieving a notable accuracy rate of 92%. To establish the robustness of our findings, we conduct extensive testing on a separate, larger test dataset, which further validates the accuracy and reliability of our proposed approach. Real-life test scenarios are also considered, wherein our LSTM model successfully identifies different types of documents. The successful application of our model in real-world scenarios highlights its potential for practical implementation.

Performance and Evaluation of Non-Fungible Tokens: A Review

[1]Karmendra Bahadur Srivastava, [2]Yash Gupta, [3]Rishabh K. Singh, [4]Dr. Sudeept Singh Yadav
[1,2,3,4] Galgotias University, Noida, India

Abstract: NFT (Non-Fungible Tokens), or immovable tokens, is a digital currency stored in a block chain that can track property ownership wherever it goes and can provide a

percentage of resale to previous owners by using the major crypto currencies (such as Ethereum) in the market. Which overall is a limiting factor if we want to spread the information and benefits of NFT's to someone who is not as familiar to the internet marketing and exchanging profits over something an individual made can be sold the ownership right online with a bag full of profit. Our Goal as a team is to make a way to teach how these NFT's works and how it can be profitable to those hard workers who really deserves it, keeping in mind that the Concept will be to make it as a tutorial with virtual money and assets created exclusively to teach the full potential and avoiding the misuse of someone's hard work. The mechanism behind NFT is a key factor which might be possible for the future market change involving Digital Assests by using Crypto currencies by adding a Tag to protect the ownership and copyright content to be used as someone's own idea with the proper permission from their respective owner.

Deep Learnıng Enhanced Intraday Stock Trade Prıce Predıctıon

K. Abinanda Vrishnaa [1], N. Sabiyath Fatima [1*], [1] Department of Computer Science and Engineering, B.S.A. Crescent Institute of Science and Technology, Chennai, Tamil Nadu.

Abstract: Investors have shown a lot of interest lately in cryptocurrencies due to their decentralization and irreversibility. Forecasting the worth of digital assets like Bitcoin is challenging because of their instability, therefore establishing an efficient investing plan requires accurate price predictions. With this in mind, the proposed system implemented a modern approach for forecasting Bitcoin prices, using change point detection to segregate time-series data and enable isolated normalization. Predicting stock market shares also involves foreseeing a company's future financial stocks, for which machine learning and its models are an emerging technology. Besides, this work included the Satoshi Sling Algorithm (SSA) Ensemble Models which rely on self-attention components to forecast stock values; date, entry, low_ value, high_value, exit, adj_exit, size and sentiment being relevant elements in such predictions. Tested with real BTC figures and different method set-ups showed promising outcomes regarding the Mean Absolute Error (MAE), Root Mean Squared Error (RMSE), Mean Squared Error (MSE), Mean Poisson Deviance (MPD) and Mean Gamma Deviance (MGD), surpassing K-Nearest Neighbor (KNN) and Random Forest Regressor (RFR).

A State-of-the-Art Analysis of Genetic Algorithm in Cryptography

[1]Priyanka Ghosh;[2]Dr. Debdutta paul; [3]Bhaskar Maity; [4]Mrinmay Nath; [5]Rambilas Ganguly
Department of CSE, Supreme Knowledge Foundation Group Of Institution, Mankundu, West Bengal, India, Department of CSE , Adamas University,Barasat, West Bengal, India, [3,4,5] Brainware University,Kolkata-700125,India

Abstract: Now a day's, generating cryptographic keys using genetic algorithms can be an essential approach in the field of network security. Network Security protects our network

and data from different types of attacks. It is a broad and all-encompassing phrase that refers to processes, policies, and configurations pertaining to network security, accessibility, overall threat protection, and hardware and software solutions. However, it's important to note that genetic algorithms are typically used for optimization problems. Nonetheless, I can provide you with a basic outline of how a genetic algorithm could be applied to crucial generations in a simplified scenario. Keys play an important role in network security and are essential for ensuring data confidentiality, integrity, and authenticity in various cryptographic Techniques. In this paper, we will work on Symmetric Key cryptography. Here only one Private Key is used for both side encryption and decryption Purpose.

A concept matrix-based approach for research paper clustering

Akshay Sharma, Prafulla Bafna*, Symbiosis Institute of Computer Studies and Research, Symbiosis International University, Pune, India

Abstract: The research papers facing similar challenges are grouped. The researchers studying the finance sector's challenges will be benefited by this approach by reducing the time and effort of reading multiple research papers.A concept matrix is for 47 research articles that represent the issues facing the field. Hierarchical Agglomerative Clustering (HAC) is used on the basis of 9 challenges. The HAC algorithm's lowest entropy value is 0.31, purity is 0.74, and. Entropy for the K-Mean method ranges from 0.41 to 0.44 with purity ranging from 0.51 to 0.54. As a consequence, HAC is more effective and accurate than K-mean clustering. The proposed study is useful to the researchers who are doing study related to the finance domain, the challenges specific research papers. The clusters are formed based on the challenges such as portfolio management, stock prediction, credit score analysis, foreign exchange rate etc.

Machine learning based Network Intrusion Detection System for IoT Environment

Paritosh Kumar Yadav, Sudhakar Pandey, Deepika Agrawal, Hemkant Sahu
Department of Information Technology, National institute of Technology Raipur, India

Abstract: Presently the world has so much advanced technology which is advancing every day. With the help of advancement and evolution in technology the world has a huge number of heterogeneous devices which are connected through the internet. The number of devices connected through the internet is also increasing day by day. Each device shares information, individuals share data with another individual and a large number of people use applications to share the information and in businesses, data exchange is happening all around the world. In a single day there are millions of information exchanges happening but with the advancement in technology there is an increase in threat in the security of the information exchange. With the increase in the number of connected devices there is also an increasing

security threat. To fight against malicious behavior and threats as a defense line in communication networks. NIDS (Network Intrusion Detection Systems) are extensively utilized intrusion detection systems but there is no standard methodology for the comparison of different NIDS. Several proposed papers do not mention the important steps for the validity of NIDS which makes comparison difficult, if not impossible. The paper focuses on the processes that must be followed in order to make a valid comparison and evolution for a NIDS. The paper performed a stepwise methodology to the UGR '16 data set to address the network attack detection problem. In this paper different machine learning techniques are applied to find the network threat and select the best performing machine learning technique for detection of threat, so as to increase in performance of the detection of security threats. In our research a very systematic experimentation is done in various steps. Firstly, processed and modified the dataset with feature engineering followed by feature selection. Further on, data preprocessing followed by hyper parameter tuning. After our data was processed and modified by previous steps, we finally used it to train our machine learning models. The efficiency of the proposed model came out to be better than other models based on similar approaches.

Real-Time Multi-Objects Detection using YOLOv7 for Advanced Driving Assistant Systems

Babruvan R. Solunke [1] , Sachin R. Gengaje [2]
[1] Computer Science and Engineering, Walchand Institute of Technology,
Solapur, India, [2] Electronics and Computer Engineering, Walchand Institute of
Technology, Solapur, India

Abstract: Accurate and efficient multi-object localization and categorization is one of the key needs for applications of robotic vision, intelligent military surveillance systems, security and ADAS. It is a significant and complex issue with computer vision that has received a lot of attention. Due to the development of self-driving cars, smart video monitoring, face recognition and several people tracking services, there is a great demand for quick and precise object detection systems. These methods locate each object by drawing bounding box around it in addition to identify and classify every object in an image or video frame. One of the basic needs for driverless vehicles and many modern driving aid technologies is the ability to recognize and interpret all stationary and moving objects surrounding a vehicle under varying driving and weather circumstances. Convolutional neural network (CNN) technology can provide safety in modern vehicles. This paper analyses the recent deep learning-based object detection methods, challenges and present an improved general framework for real time multi-object detections in ADAS based on YLOv7 and CNN. We compared the YOLOv7 approach with earlier versions in the YOLO family and it is found that YOLOv7 outperforms all earlier real-time object detectors to obtain a reliable speed between 5 and 160 frames per second and improved accuracy.

Identification of Bird Species through Audio Signal Processing using Neural Network

Singh Ajeet Kumar[1*] , Manish Verma[2] , Vishal Kumar[3], Golu Kumar[4]

SCSE, Galgotias University, Greater Noida (UP), India

Abstract: The identification of bird species plays a crucial role in avian research, monitoring, and conservation efforts. This research paper presents a novel approach for automated bird species identification using audio signal processing techniques and a neural network-based classification system. The proposed methodology starts by collecting audio recordings from diverse natural habitats to capture the distinct vocalizations of various bird species. Preprocessing techniques are applied to remove noise and normalize the audio data, ensuring high-quality input for subsequent analysis. Mel Frequency Cepstral Coefficients (MFCCs) are then computed from the preprocessed audio, transforming the raw acoustic data into compact representations that encapsulate the unique spectral characteristics of each bird's vocalization. For efficient species classification, deep neural network architecture is developed. The neural network is designed with multiple layers to learn intricate patterns and dependencies within the MFCC features. During the training phase, hyper parameters are optimized using cross-validation techniques to enhance the model's generalization capabilities. To evaluate the performance of the proposed system, extensive experiments are conducted on a diverse dataset comprising numerous bird species. Performance metrics, including accuracy, precision, recall, and F1-score, are used to assess the model's effectiveness. Comparative analyses against existing bird identification methods demonstrate the superiority of the neural network-based approach. The results showcase the system's remarkable ability to accurately identify bird species based on their vocalizations. The neural network achieves superior classification performance, surpassing traditional machine learning algorithms and state-of-the-art bird identification systems. Moreover, the system's real-world application is validated through a smartphone-based prototype, enabling real-time bird species recognition.

Identification of Plant Diseases Using Image Processing

M. DharmaTeja[1], R. SethuMadhavi[2], Vel Tech Rangarajan, Dr.Sagunthala R&D Institute of Science and Technology, Chennai. Reva University, Bangalore

Abstract: Identification of plant diseases is key in preventing crop damage and raising the quantity of agricultural products. Visually discernible patterns on the plant are taken into account in the research of plant diseases. The primary source of production loss in terms of quality and quantity is plant infection brought on by pests and insects. Since it is very challenging to physically keep track of every plant with the disease, image processing is used to identify specific characteristics that are more prevalent in plants with particular ailments. Image acquisition, image pre-processing, image segmentation, feature extraction, and

classification are steps in this process for diagnosing diseases. This method of image processing facilitates in examining the plant image and going through its phases to identify the disease.

Analyzing Reddit Users' Sentiments, Discussions, and Perceptions towards ChatGPT

Tolga Akcay[1] , Anuja Shukla[2], [1] Swiss School of Business and Management, Geneva, Switzerland, [2] Jaipuria Institute of Management, Noida, Uttar Pradesh, India

Abstract: Over the past few years, AI technologies have revolutionized scientific research, and changed the way human interacts with intelligent systems. The advancement has made Chatbot technology, powered by machine learning and AI the forefront of this transformation. For instance, ChatGPT, a language model developed by OpenAI is one of the most advanced GPT-based AI. It is a conversational AI, with the ability to generate responses and understand context. This paper shows a comprehensive analysis of Reddit users' sentiments, and perceptions regarding the chatbot, ChatGPT. The study begins by exploring the sentiment scores of the user comments scrapped from Reddit, providing valuable information and insights about the emotions of users towards ChatGPT. To conduct a successful analysis, user comments regarding ChatGPT were collected and stored in a database, then preprocessed and subjected to sentiment analysis. Lexicon-based, and dictionary-based techniques were used. In addition to sentiment analysis, the study also employed topic modeling, and text mining techniques to gain further insights into the Reddit user's discussions and perceptions regarding ChatGPT. Text mining involved preprocessing the comments, by cleaning them, then identifying key terms, frequent words, and word associations as used by Reddit users. Topic modeling was used to identify the hidden themes and subtopics in the Reddit discussions about ChatGPT. This was done by using Latent Dirichlet Allocation (LDA), which is a statistical technique that groups words based on their co-occurrence. This allowed us to identify the major discussion areas and dominant themes that emerged from Reddit users' conversations about ChatGPT.

Artificial Intelligence Based Smart Traffic Control System

Amit Kumar Tiwari, Raghvendra Kumar Pandey, Saharsh Singh, Gaurav Tiwari, Ambuj Kumar, and Prateek Mishra

Abstract: The fundamental aim of this research paper is to make Machine Learning Based Smart Traffic Control System. The traffic light timer timing changes on the traffic density count at each crossroad. Traffic congestion is most common problem in the major highly populated cities across the world and it has made travelling very tough from one place to other. Traditional traffic lights run on the fixed timer concept assigned to each side of the

road which can't be changed as per changing vehicles density. In some situation, lane with higher density demands longer green time as compared to the basic fixed time. The object or vehicles in the traffic signal is detected using cameras then processed into a simulator then its threshold is assumed on the basis of vehicle count in respect to each lane and compute the total number of vehicles present in the given area. After computing the total number of vehicles the system will acknowledge that which side the density of vehicles is high and based on the density the signals will be allotted for a particular side. Traffic mishaps or accidents are very common at overcast, rainy day, night when no street lights are available, foggy day and many others when there is minimum visibility. Traffic light control is one of the severe technical hazards of the Major cities in almost every country across the world. This is due to exponential rate of growth in the number of vehicles. In respect to minimize the time, a system has to be come up with the technology of artificial intelligence which makes a machine to think them. This modern developed technology will help the traffic light to switch the traffic signals from green to red based upon traffic density. This paper is related with the enhancement of traffic control system using machine learning which will be based on the different density on each lane.

An Intelligent Credit Card Fraud Detection Using a Classification Algorithm

Sandeep Bhatia[1], Gulame Ashraf [2,] Bharat Bhusan Naib[3], Devraj Gautam[4]

[1,2,3] School of Computing Science and Engineering Galgotias University Greater Noida, Uttar Pradesh, India, [4]Department of ECE ADGITM Delhi

Abstract: Extensive utilization of credit cards has led to an increase in fraudulent activities. The convenience of electronic payments and the growth of online commerce have been aided by the use of credit cards. Credit card users should be more aware of unauthorized credit card transactions for their convenience and to prevent them from being charged for items they haven't bought. It is crucial to address these issues because of the significance of machine learning and the application of data science. The purpose of this study is to concentrate on the use of modeling sets and machine learning algorithms to identify fraudulent credit card transactions. Key components of credit card transactions include patterns and data that thieves gather in order to identify unauthorized transactions. This technique is employed to evaluate the system's accuracy. To ascertain whether the most recent modification was fraudulent, this pattern is employed. Our objective is to minimize the number of fraudulent misclassifications while accurately detecting all fraudulent transactions. One of the best uses of classification is the identification of credit card fraud. Research during the operation concentrated on data analysis and prioritization, as well as the transfer of data from credit card transactions using different unauthorized detection algorithms, such as local outlier factor (LOF) and forest classification algorithm (IFA). The management and implementation of information systems, along with the provision of sophisticated algorithmic language, are the main areas of study.

E-mail Fraud Detection Using Deep Learning

Sandeep Bhatia[1], Bharat Bhushan Naib[2], Amit Kumar Goel[3], Arju Kumar[4], Saurav Kumar[5]
Kishan Kumar[6]

[1,2,4,5,6] School of Computing Science and Engineering, Galgotias University Greater Noida, Uttar Pradesh, India

[3] School of Engineering and Technology, Apeejay Stya University Sohna Gurugram, India

Abstract: The issue of spam on social media and applications has gotten worse with the growth of the Internet of Things. To address the issue, researchers have suggested a number of spam detection techniques. One of the reasons spam rates are still high is that most malicious emails still link to risky websites, despite the existence of anti-spam tools and tactics. Spam can cause servers to lag by consuming memory or storage. One important method for identifying and eliminating spam is email filtering. We evaluated several machine learning and deep learning methods, including Naive Bayes, decision trees, random forests, and support vector machines, in order to accomplish this goal. Machine learning is heavily used by email filters and Internet of Things spam filters, which fall under this category as well. Studies show that spam is still a major issue on social media sites and applications. Furthermore, spam has proliferated globally due to the increased use of mobile devices and the expansion of email services. This study suggests that the best way to address this issue is to employ various forms of machine learning to identify and eliminate spam. According to experimental findings, TF-IDF random forest classification performs more accurately than alternative algorithms. Accuracy is the only metric that can be used to evaluate performance because the data set is unequal. As a result, the algorithm needs to be accurate, have a strong recovery, and an F-measure.

Effective Street View Traffic Sign Detection and Recognition Using Deep Learning

T. Thilagam[1*], S. Gunanandhini[1], G. Belshia Jebamalar[1], G. Manisha[2], S.N. Ananthi[1]

[1]Assistant Professor, S.A. Engineering College, Chennai, India, [2] Assistant Professor, R.M.D Engineering college, Chennai, India

Abstract: In a perfect world, traffic sign detection is highly accurate, but when used with autonomous cars, the accuracy of the detection is decreased by the complicated traffic situations. In this work, aimed at detecting and recognizing the street view traffic signs(TSD-R) images from dataset using deep learning techniques, which is a complex problem that has been approached with different CNN models. The article discusses the evaluation of different CNN learning models for traffic sign detection systems. The models were trained and evaluated on the same dataset, ensuring consistency in data preparation and handling. All models were the same amount of epochs of training to guarantee fair comparison and give each model an equal opportunity to learn from the data. After evaluating various CNN

learning models, including AlexNet, ResNet50, 34, Vgg16_bn, Vgg19_bn and LeNet. The results showed that ResNet50 and LeNet outperformed the others for traffic sign detection. The result and comparison graph show the LeNet achieved highest accuracy 99.98% with 0.02 less error rate and minimum time taken for train the model.

A Novel Approach for Intelligent Hardware Utilization in CI/CD Pipeline

Agyaey Tiwari[1], Vanshika[2], Aditi[3],Alok Kumar[4] , Pramod Kumar Raghav[5]

[1,2,3,4,5] Adobe Systems, Noida, India, [2]Adobe Systems, Noida, India

Abstract: With the rise of agile development and DevOps practices, software teams are looking for ways to reduce the cycle time of build deliveries without sacrificing the quality of the product. The existing challenge to achieve these goals is to devise ways to improve the effectiveness of CI/CD which rely heavily on factors like availability, performance, and configuration of the underlying infrastructure. Round robin   CPU scheduling algorithm, parallelism, docker image and layer caching are some of the ways for effective hardware utilization. This paper aims to share a novel approach which can be used along with these ways to improve the efficiency of CI/CD by smartly utilizing the infrastructure. We quantify the quality of a resource as a quality factor to develop an intelligent hardware controller that dynamically allocates high-performance hardware from the pool to build, test, and deliver software. We discuss the existing solutions and their limitations. Experiments were conducted for a renowned product of a US-based product company. Experiments demonstrate that this proposed controller overcomes the limitations of the existing solutions and provides advantages such as improved build delivery cycle time, early defect discovery and reduced overall infrastructure cost.

Using OpenCV Space Detection System

Sandeep Bhatia[1], Bharat Bhushan Naib[2], Amit Kumar Goel[3], Khushboo Kumari[4], Ujjwal Harsh[5], Satyam Mishra[6] , [1,2,4,5,6] School of Computing Science and Engineering, Galgotias University Greater Noida, Uttar Pradesh, India, [3] School of Engineering and Technology, Apeejay Stya University Sohna Gurugram, India

Abstract: In python, OpenCV is the open- source library for image processing, machine learning and video capturing. It's an important part in real- time operation. With the use of the OpenCV, we can efficiently use the images as well as videos to identify the objects, faces and handwriting of an object. We'll only focus to object discovery from images utilizing OpenCV in this paper. It is especially a very useful library in python for image capturing and for all the other process. The growing number of vehicles and congestion in parking areas have led to significant difficulties for people in finding suitable parking spaces. To address this

issue, researchers have been drawn to the emerging field of automatic smart parking systems. These systems utilize technology to assist drivers in locating and reserving parking spots. Our team has developed a vision-based smart parking system that surpasses the accuracy of existing hardware solutions. We have named it Counting Available Parking Space using Image Processing (CAPSuIP). This low-cost system utilizes a modified Software Development Life Cycle (SDLC) to efficiently plan, analyze, and test its functionalities. The effective use of parking spots in urban settings is essential for reducing congestion and maximizing resource use. The Space Detection System (SDS) presented in this project was created using the OpenCV computer vision framework. The main goal of the system is to monitor and evaluate parking lots, automatically identifying and classifying each parking space's occupancy state. The primary elements and features of the SDS are described in this abstract.

Enhancement of Microscopic Images Using K-means Segmentation Based on Adaptive Histogram Equalisation

Hind A. majeed[1], Hazim G. Daway[2] , Ahlam M. Kadhim[3*], [1,2,3] Department of Physics, College of Science, Mustansiriyah University, Baghdad, Iraq,

Abstract: Micrograph is a technique of taking magnified light images of small objects, usually using a microscope. Microscopy is used to investigate the nature of matter in many branches of science, including biology, forensic science, stratigraphy, medicine, and mining. The enhancement of medical microscopic images is crucial to medical imaging branches. However, microscopic images sometimes suffer from a lack of contrast. This paper aimed to enhance microscopic images on the basis K-means Segmentation Adaptive Histogram Equalisation (KSAHE). Afterward, the k-means method was used to segment images into several areas. With the color compounds separated from achromatic ones based on the HSV color space, the proposed algorithm was compared with several other algorithms. Results illustrated that the proposed method has considerably good-quality metrics in terms of the mean of entropy (7.913), value of average gradient (14.473), and mean of standard deviation (61.049).

Revolutionizing Attendance Tracking: A Smart System Utilizing Face Recognition Technology

Shashank Dwivedi, Amit Kumar Tiwari, Uddeshy Jaiswa, Shivangi Tripathi, Utkarsh Saxena, Utkarsh Trivedi

Abstract: The Revolutionizing Attendance Tracking: A Smart System Utilizing Face Recognition Technology is a highly advanced and efficient solution to the traditional attendance-taking process. This system utilizes facial recognition technology to automatically identify and verify students or employees as they enter a classroom or workplace. The system eliminates the need for manual attendance taking and provides real-time updates to attendance records.

The system work by capturing a photo of the individual's face and comparing it to a database of previously recorded images. The technology uses various algorithms to identify the unique features of the individual's face and match them to a specific individual. The system is highly accurate and can quickly process a large number of individuals. Overall, the Revolutionizing Attendance Tracking: A Smart System Utilizing Face Recognition Technology is a highly advanced and efficient solution to the traditional attendance marking process. The system provides numerous beneficiary, Including saving time, improved accuracy, and security enhancement.

Deep Learning-Based Smart Surveillance System

Rishika Yadav[1], Anshika Gupta[2], Ms. Jojo Chauhan[3], Ruchira Rawat[4]
[1,2,3]Department of Computer Science & Engineering, Graphic Era Hill University, Uttarakhand, India, [4] Department of Computer Science & Engineering, Graphic Era Deemed To be University, Uttarakhand, India

Abstract: The growing usage of security cameras in smart cities to enable round-the-clock surveillance has allowed researchers to analyze a vast amount of data. A better security system is required in other monitoring industries to stop any casualties that can result in monetary, societal, and ecological loss. Automatic violence detection is crucial for prompt response and can effectively help the relevant authorities. Intelligent surveillance technologies are desperately needed to keep an eye on people and identify their aggressive behavior in public places like banks, hospitals, shopping malls, and train stations, among others. As a result, computer vision researchers are increasingly interested in the identification of violent behavior. For the sake of public safety, it is imperative that methods for spotting violence in films be successful and effective. For the identification of these actions, several handmade and deep learning feature-based algorithms have been developed during the last several years. This paper describes the emergency warning system we designed using deep learning. The suggested technique is solely appropriate for violence detection.

Design and Evaluation of a Customized CNN Architecture for Early Detection of Lung Cancer

Dhananjay Kumar Sharma [1*], Amit Kumar Tiwari [1*], Alok Mishra[1], Harshita Singh[1], Abhishek Tripathi[1], Abhishek Mishra[1], [1]Computer Science & Engineering , United Institute of Technology, Prayagraj, India.

Abstract: We have chosen to conduct research on a biological phrase, namely lung cancer detection, taking into ac-count the most recent trends and technological advancements. In recent years, image processing techniques have become widely employed in many medical

fields to enhance images at early stages of cancer identification and therapy. There are many different forms of cancer, including those of the lungs, breast, blood, throat, brain and mouth. Lung cancer is a condition in which aberrant cells proliferate and develop into tumours. The key to treating lung cancer is finding it when it is still in its early stages. Medical issues can arise in anyone. One of the most erratic illnesses a person may experience is cancer. In many regions of the world, extensive MRI screening is used is still unfeasible, keeping midsection radiology in the beginning and most fundamental method. It is important to note that due to CNN's superior performance and capability, these models are better able to identify illnesses like lung cancer. The accuracy gained with Convolutional Neural Network (CNN) is between 80 and 90 percent, which is superior than the accuracy of more established, conventional techniques. This is accomplished by using CT scan data series for lung cancer to use the convolutional neural network approach.

Retinal Vessel Segmentation Using Modify Matching Filter and Hessian Matrix

Nedaa Monther Salman[1] , Hazim G. Daway[2*] , Jamela Jouda [3]

[1,2,3] Department of Physics, College of Science, Mustansiriyah University, Baghdad, Iraq

Abstract: Blood vessel segmentation is a difficult assignment in medical image processing for illness diagnosis. It analyses vessels critical in automatic retinal vessel extraction using various methodologies, strategies, and algorithms to forecast diseases such as laryngology, neurosurgery, and ophthalmology. Several diseases are common causes of early vision loss and blindness, such as diabetic retinopathy, glaucoma, age-related macular edema, retinal detachment, retinal tears, retinal vascular occlusion, macular holes, etc. Therefore, early detection of such diseases is mainly important because it allows timely treatment to avoid loss of life. To overcome this problem, a novel approach is introduced to segment the vessels based on the stretching of the histogram, as well as a modified active contour method that uses a separate wavelet transform for energy minimization. To avoid destroying the evolutionary stability, we employed a process for optimizing the formula whose task is to retain the contour on the borders of the twenty images on the DRIVE dataset. This paper presents techniques for segmenting retinal vessels that go through three stages: stage before processing, stage during processing, and stage after processing. The proposed algorithm's effectiveness is tested with other studies and manually set data. The result of this method is better than other works,   and values were achieved (0.9416, 0.661158, and 0.983259) for accuracy (ACC), sensitivity (SE), and specificity (SP), respectively. This technique can also be modified and applied to help clinicians diagnose retinal diseases using image-processing techniques.

Increasing Contrast in X-ray Images Using Retinex- and CLAHE-based Region Segmentation

Alaa H. Sheer[1*], Hazim G. Daway[,2], [1,2] Department of Physics, College of Science, Mustansiriyah University, Baghdad, Iraq

Abstract: An X-ray image created with a flat panel detector (digital) in medical imaging often has low image quality, making it difficult to diagnose a patient successfully. The goal of image enhancement techniques is to make the information contained in the images easier to understand. Poor quality and low contrast are the major issues in medical images. Thus, noise reduction and contrast enhancement have become the two major goals of image enhancement research. In this research, the Otsu strategy was used in the segmentation step. Brightness was improved using the Retinex method, whereas contrast was enhanced using the contrast-limited adaptive histogram equation. Four quantitative metrics, i.e. entropy, average gradient, mean of the local standard deviation, and contrast enhancement measure, were used to evaluate the enhanced X-ray images. Results showed that the suggested method obtained the best averages for entropy (7.020), average gradient (6.020), mean of the local standard deviation (35.5001) and contrast enhancement measure (0.674).

Forecasting Bitcoin Prices using LSTM: A Comparative Evaluation with Future Prediction

Debottam Bhowmick [1], Debabrata Barik [2] , Dr. Debkumar Ghosh [3]
[1] Department of Computer Science, Eminent College of Management and Technology, West Bengal, India. [2, 3] Department of Computer Applications, Eminent College of Management and Technology, West Bengal, India.

Abstract. The decentralized nature and limited supply of Bitcoin have attracted global interest among investors and traders. However, due to its price volatility, accurate predictions of Bitcoin's future price have become crucial for informed investment decisions. This research aims to investigate the effectiveness of various models in predicting Bitcoin's future price, with a specific emphasis on Long Short-Term Memory (LSTM). Additionally, Classical Time Series models like- ARIMA and SARIMA, Random Forest (RF), and XGBoost models are employed for comparative analysis. The LSTM model, a recurrent neural network known for capturing long-term dependencies, is trained on historical Bitcoin price data to evaluate and compare its forecasting capabilities with other established models. Accuracy, robustness, and computational efficiency are assessed using relevant metrics such as mean absolute error (MAE) and root mean squared error (RMSE). Furthermore, the study extends to forecast Bitcoin's future price up to 30 days in advance using the LSTM model, providing valuable insights for investors to make informed decisions and optimize their portfolios.

Sonic Alert: GPS-Integrated Ultrasonic Spectacle for the Blind

[1] Debdutta Pal , [2] Abhishek Banerjee , [3]Sadmaan Warshi, [3] Rahul Dutta[3] Dibyendu Deb,
[3] Md Usmaan Ansari, [1]Adamas Universiy, Kolkata
[2] Supreme Knowledge Foundations, Howrah, [3] Brainware University,Kolkata

Abstract: Vision is a crucial and lovely gift from God to all of his creatures, but especially to humans. However, many people lack this beauty and are unable to experience the glories of the world firsthand. A project called "OUR DEVICE" brings together a variety of disciplines including software engineering, hardware design, and science to enable visually impaired people to confidently and independently see and explore the world by using ultrasonic waves to identify nearby objects and alert the user with a beep sound or vibration and also we have included calling feature as well as we are using GPS for security purpose. The WHO (World Health Organization) estimates that there are 285 million visually impaired individuals, 39 million blind individuals, and 246 million having low vision. They encounter challenges in their day-to-day lives. This technology is a breakthrough for blind people with several advantages. We are developing wearable eyewear with restricted price specifically for blind people to detect surrounding objects.

Real Time Smart Alert System for Prevention of Vehicle Accident and Fire: An IoT-Based Alarm System

Indrani Dalui[1]*, Debopriyo Jana[1], Papri Ghosh[1], Suman Patra[1], Aritra Kundu[1], Pubali Das Sarkar[1]

Abstract: There has been a significant increase in road and rail accidents owing to driver drowsiness, which results in massive deadly incidents. When the driver falls asleep, he loses control, resulting in an accident. People know that driving while drowsy is dangerous, but they may not know how to detect their own level of sleepiness. The proposed solution will provide you with information on how to look for signs of potential driver drowsiness and take appropriate action. The existing methods are classified into three primary categories: vehicular-based, behavioral-based, and physiological-based. The main aim of this research is to design a real time smart alert system for prevention of vehicle accidents and fire system for intelligent vehicles that spontaneously can avoid drowsy driver loss. The necessity of anti-sleep alarm system is increasing day by day to curb the misfortune. In this study, we have developed an anti –sleep alarm device through IoT. Here the alarm will be activated automatically if a driver feels asleep more than 2 seconds during the driving of a vehicle. The vehicle engine will stop automatically in the case of sleepiness of driver exceeds 5 sec. Moreover, an auto "fire alarm System" also established to prevent accidents due to fire in the vehicle. Here the fire alarm will be activated automatically in case of occurrence of fire. An emergency phone no is attached with the system for sending the message related to fire detection where the vehicle owner will be inform about the incidence and take the necessary steps in this regard.

Credit Card fraudulent transaction detection using Machine Learning Techniques

Krishnendu Mandal[1], Prianka Kundu[1*], Debraj Pal[1], Mita Howlader[1]

Eminent College of Management and Technology (ECMT), India

Abstract: With the increasing use of credit cards in a cashless society, there has been a spike in fraudulent activities, resulting in severe losses for financial institutions. The need for more secure measures to restrict credit card fraud has become paramount to continue promoting the use of digital transactions. This paper provides an in-depth analysis of different techniques utilized to identify fraudulent transactions in credit card transactions. The aim is to differentiate between fraudulent and non-fraudulent activities. This paper suggested a new fraud detection approach for Streaming Transaction Data that analyzes customer transaction histories to identify behavioral patterns. The goal is to develop a novel method that improves current fraud prevention techniques. Various existing methods have been reviewed comprehensively to understand their efficacy. The paper explores different machine learning techniques such as DT, LR, SVM, XGBoost, and K nearest Neighbor. A detailed analysis of the advantages and limitations of each method is provided, and the results are summarized. The suggested approach consists of two steps. combining four of the top six machine learning algorithms with resampling techniques. In both stages, the Area under Accuracy and Recall of each model is evaluated. The approach aims to enhance machine learning systems performance by incorporating resampling techniques. The paper concludes with recommendations on the best method to use depending on the specific application. The paper utilized the European credit card fraud dataset for its analysis and findings.

Comparative Analysis of Tomato Leaf Diseases in Relation to Soil Nutrition Data

Ramesh Babu Gurujukota , Gokuldhev M, [1,2] Vel Tech Rangarajan Dr. Sagunthala R D Institute of Science and Technology Avadi, Chennai, India

Abstract: This study presents a comparative analysis of various tomato leaf diseases in soil nutrition data, specifically focusing on phosphorus, nitrogen, potassium, pH values, temperature, and humidity. The research aims to identify the correlation between these soil parameters and the prevalence of specific leaf diseases in tomato plants. The study employs an efficient algorithm for pre-processing the noise data, which is crucial in ensuring the accuracy and reliability of the re- results. This algorithm is designed to filter out irrelevant or erroneous data, thereby enhancing the quality of the input data for further analysis. The research also explores different classification algorithms for preprocessing data, including Decision Trees, Random Forests, Support Vector Machines, and Neural Networks. These

algorithms are evaluated based on their efficiency in handling large datasets, their ability to deal with noise and outliers, and their performance in terms of speed and accuracy. The findings of this study are expected to provide valuable insights into the relationship between soil nutrition and tomato leaf diseases. This could potentially lead to the development of more effective disease prevention and management strategies in tomato cultivation. Furthermore, comparing different classification algorithms could contribute to advancing data preprocessing techniques in agricultural research.

An Advanced Artificial Intelligence DrivenSmart Home Towards Ontology Based Energy Efficiency Management System

[1]Gurujukota Ramesh Babu, [2]Phaneendra Varma Chintalapati, [3]Pokkuluri Kiran Sree, [4]G R L M Tayaru, [5]Pothuraju Raju, [6]Kode Satish Kumar, Department of CSE, Shri Vishnu Engineering College for Women (A), Bhimavaram, West Godavari District, Andhra Pradesh, India

Abstract: Due to rising household electricity consumption, the introduction of distributed new energy sources, the problem of making electricity more affordable for residential customers has received more attention. The research community and the industry have paid a lot of attention to Artificial Intelligence (AI), which has directed to its adoption in numerous real-world applications. Asmart home, also known as an intelligent home, it consists of smart technologies that are helped by AI. In this analysis, an advanced Artificial Intelligence driven smart home towards ontology based energy efficiency management system is presented. In this analysis, in order to increase user comfort and energy efficiency a conceptual model of an AI-driven smart home is also described. Depending on the Advanced Metering Infrastructure (AMI), a framework for SHEMS is developed. The foundation of home data storage and scheduling is a local information management terminal. According to the results of the simulation, the described approach is efficient at reducing consumer delays and power consumption while also making them feel more at improve. Future energy- efficiency research on smart homes will be significantly facilitated by the presented conceptual model.

Energy-Efficient CNN inferencing on GPUs with Dynamic Frequency Scaling

Rolf Drechsler, Christopher A. Metz, Christina Plump

Abstract: To ensure that emerging technologies such as autonomous driving and application-specific Internet of Things devices work correctly, fast and accurate calculations must be performed by algorithms like Machine Learning (ML). One essential algorithm in these systems is Convolutional Neural Network (CNN), which requires a lot of computational resources. Designers often use ML accelerators like General Purpose Graphic Processing Units

(GPGPUs) to keep up with design requirements, but choosing the right accelerator and accelerator configuration can be time-consuming and difficult. Our research analyses the power consumption and execution time of CNNs on GPGPUs with different frequency settings. We found that changing the frequency significantly impacted power consumption but only had a marginal effect on computation time. Furthermore, increasing the frequency beyond 1200 MHz shows no improvement in computation time anymore. Therefore, a lower frequency can help create an energy-efficient CNN inference system without sacrificing performance.

Detecting Common Diseases of Potato Leaf Applying Deep Learning Techniques

Surajit Goon[1*], Rahul Chakraborty[1], Indrani Dalui[1], Ahmed J. Obaid[2]

Abstract: Potatoes are a widely recognized vegetable that has been cultivated in India for several decades. However, diseases like early blight and late blight have negatively impacted potato production, increasing production costs. We intend to create an automated and effective disease diagnosis mechanism utilizing potato leaf images to overcome this issue and digitize the system. Our primary goal is to employ a Convolutional Neural Network (CNN) algorithm for diagnosing potato diseases. This research paper proposes a machine learning and image processing-based automated system for detecting and classifying potato leaf diseases. Image processing techniques provide an excellent approach for disease detection and analysis. In this analysis, we divide the pictures into categories: healthy and unhealthy potato leaves. We have collected over 2152 pictures from various sources, including Kaggle, and utilized pre-trained models for accurate recognition and classification of healthy and diseased leaves. The program achieves an impressive accuracy of 99.13%. By making use of advanced technology and machine learning algorithms, we can significantly improve potato production and combat the negative impact of diseases. This approach offers a scalable and efficient solution for disease detection in potato crops, ultimately leading to increased yields and productivity in the potato cultivation industry.

Workplace Incivility: Evidence-based Systematic Literature Review

Shikha Saloni[1], Research Scholar, University School of Business, Chandigarh University, Mohali
Dr. Neema Gupta[2], University School of Business, Chandigarh University, Mohali
Dr. Bhaskara Srinivas[3], University School of Business, Chandigarh University, Mohali

Abstract: Workplace incivility has a negative effect on the outcomes of the individuals within the organisation. To assess the contributions of the already-existing literature, the current review paper's methodology is a Systematic Literature Review. Twenty-six of the 250 articles that were selected from the Scopus database and published in A* journals (according to the

ABDC LIST 2022) were used for the thematic analysis. Workplace incivility antecedents, consequences, turnover intention, absenteeism rate, poor performance, workplace rudeness, counterproductive workplace behaviour and framework of workplace incivility are the key research issues in this area. Additionally, the study offers limitations, theoretical and practical implications, and research direction for future researchers in the area of workplace incivility.

A Guide Tour to Systematic Review and Research perspective on Movie Based Recommendation System

Rakesh Ahuja[1], Vikas Solanki[2], Sarthak Taneja[3], Deepali Gupta[4], Ravi Kumar Sachdeva[5]

[1,2,3,4,5]Chitkara University Institute of Engineering And Technology, Chitkara University, Rajpura, Punjab, India,

Abstract. A staggering amount of video content is being produced and consumed by both creators and consumers as a result of the quick growth and learning opportunities of online multimedia platforms. However, due to the abundance of available content, it's usual for consumers to have trouble locating films that are pertinent to their interests. To solve this issue, recommendation-based models were developed, which allow websites like YouTube to show movies to users based on their viewing interests, tastes, and other factors. This basic literacy provides a thorough analysis of YouTube video recommendation-based methods. The enrolment to the study gives a quick overview of exhortation systems and explains how they apply to YouTube. After that, it goes into the many features that may be gleaned from information, video and metadata provided by users as well as how these features are applied to the training of machine learning models. Convolutional neural network and recurrent neural networks are two examples of the deep learning algorithms that have been utilized to increase the precision and relevance of advocacy in the article. The article also examines data processing, modeling, and optimization problems associated with establishing advocated models for YouTube videos. Additionally, it reviews the existing research on suggestion-based models for YouTube videos and points up potential directions for further study. Overall, this study offers a thorough analysis of the most recent recommendation-based algorithms for YouTube videos. It emphasizes the value of advocated systems in enhancing user experience on online video platforms and offers insights into the difficulties and possibilities involved in putting these models into practice.

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