



# St. Vincent Pallotti College of Engineering and Technology

(Accredited by NACC with grade 'A')

(An Autonomous Institution affiliated to RTM Nagpur University)

## **National Conference**

**on**

## **Applied Sciences &**

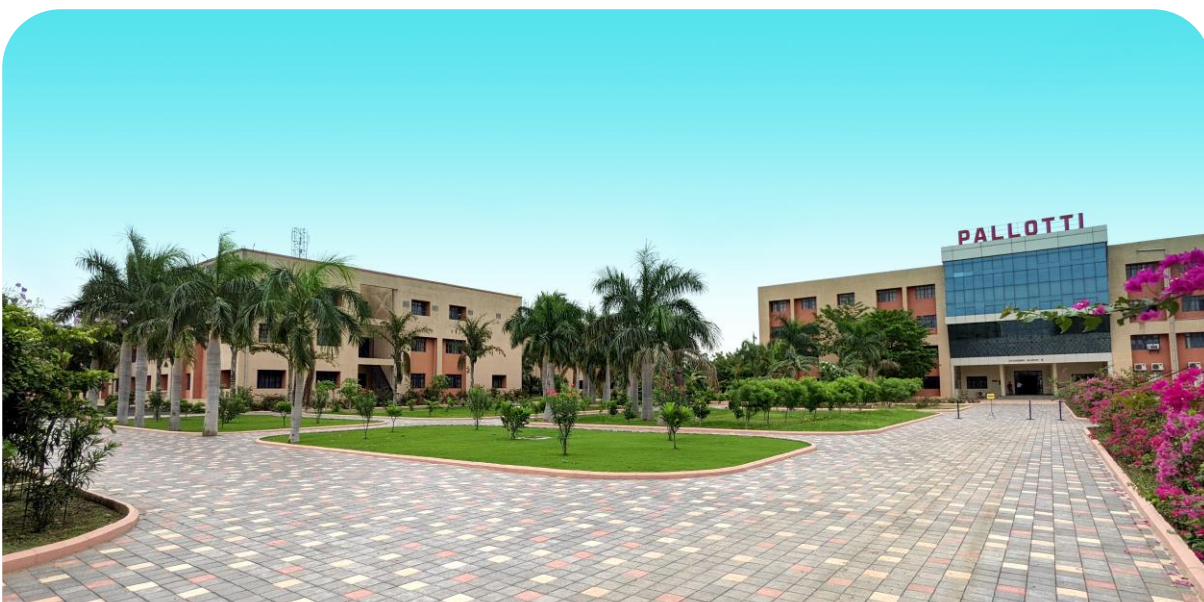
## **Information Technology -2022**

## **NCASIT-2022**

## **18<sup>th</sup> April, 2022**

Organized by

Department of Computer Engineering



**National Conference**  
**on**  
**Applied Sciences & Information**  
**Technology -2022**

**NCASIT-2022**

**18<sup>th</sup> April, 2022**

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Organized by  
Department of Computer Engineering

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**Engineering and Technology**

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## About Institution

Established in 2004, by Nagpur Pallottine Society, St. Vincent Pallotti College of Engineering and Technology is one of the most reputed Engineering Institution in Nagpur, Maharashtra accredited grade 'A' by NAAC and well known for its excellent record in academics and placements. The College offers Bachelor's Degree course in Computer Engineering, Information Technology, Mechanical Engineering, Electronics and Communication Engineering, and Master's degree in CSE and CAD/CAM.

- **VISION**

“To develop a knowledge-based society with clarity of thoughts and charity at hearts to serve humanity with integrity.”

- **MISSION**

“To empower youth to be technocrats of tomorrow with absolute discipline, quest for knowledge and strong ethos to uphold the spirit of professionalism.

## About Conference

National Conference on Conference on Applied Sciences and Information Technology is an Multidisciplinary Conference. This conference will bring together accomplished academicians, scientists, researchers, scholars and students to exchange and share their knowledge, experiences and research results on the aspects of advancements in Applied Sciences and Information Technology. This conference aims at providing an ambience that will be instrumental in taking our delegates and participants to the next level of their expertise in their profession. All the submitted research articles will be peer-reviewed by the program and technical committees of the conference. Proceeding of the conference will be published in reputed UGC care Journal



### **MESSAGE FROM DIRECTOR**

Science, from its beginnings, took upon itself the task of unraveling the mysteries of nature and the systems and process that are at work therein. We may affirm with reasonable certainty today that the present-day focus of scientific research is not just about understanding reality, but on “transforming” it. Information Technology, on the other hand, gathers, stores, evaluates and analyzes data. Information Technology, aided by Artificial Intelligence, enables the application of scientific knowledge into various technologies.

This national conference and the many position papers, will certainly provoke further discussion and debate on the need for technological applications. It’s through creative encounter and interaction with divergent and even contradictory viewpoints that researchers will certainly arrive at a synthesis.

**Dr. Fr. Paul Chandrankunnel**

St. Vincent Pallotti College of Engineering &  
Technology, Nagpur.



### MESSAGE FROM PRINCIPAL

Research activities across all the engineering fields pave the way for the industrial sector to make significant strides forward. Conferences are mainly utilized as a platform for networking research community. With this objective, "National Conference on Applied Sciences and Information Technology - 2022," is organized, and objective seems to be achieved with respect to great response of researchers presenting research papers. The proceeding of the conference has been documented with utmost care and I believe strongly that, this proceeding will be a great source of knowledge for researchers..

**Dr. Surendra V. Gole**

Principal,

St. Vincent Pallotti College of Engineering &

Technology, Nagpur.



### **MESSAGE FROM CONVENER**

On behalf of Department of Computer Engineering, St. Vincent Pallotti College of Engineering and Technology, Nagpur, I welcome all the participants to our National Conference on Applied Sciences and Information Technology-2022 (NCASIT-2022) with immense pleasure and pride. Our conference brings budding researchers in the field of Computer science, Electronics, Mechanical, Civil, Electrical and serves as a forum for exploring the current trends in this Area.

**“Never stop learning at any situation in life, for that is where knowledge lies!”**

This COVID-19 Pandemic has hit not only the economic sector, but has also left the education sector in dilemma. As a convener of this Conference, I congratulate the entire team for the hard work they have put forth to give this Hybrid Research Conference it's much needed color and vigor in spite of the many challenges due to COVID-19 pandemic. I sincerely hope this mission will be carried out with even more dynamism in the years ahead.

**Dr. Sunil M. Wanjari**

Associate Professor and Head,  
Department of Computer Engineering,  
St. Vincent Pallotti College of Engineering &  
Technology, Nagpur.



## Conference Committee

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Dr. Fr. Joy Palachuvattil SAC, Chairman

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Fr. James Thomas, Asst. Director

Fr. Siju Jose, Financial Administrator

Dr. Surendra V. Gole, Principal

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Prof. Dipak Wajgi

Prof. Komal Jaisinghani

Prof. Pallavi Wankhede

Prof. Reema Roychaudhary

Prof. Yogesh Golhar

Prof. Roshan Kotkondawar

Dr. Kapil Gupta

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**Paper Id:**    **Title:**  
Monitoring Users' Activity Using Keylogger Application

8

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**Abstract**

Keyloggers are a subtype of PC malware that records keystroke developments on the keyboard and saves them to a log document, permitting it to gather touchy data, for example, usernames, PINs, and passwords, which it then, at that point, ships off an antagonistic aggressor without causing to notice itself. Keyloggers are a genuine risk to corporate and individual exchanges, including web based business, web based banking, email visiting, and framework information bases. As opposed to different types of unsafe software like infections and worms, keyloggers partner with or share framework assets like CPU and memory with substantial applications, permitting them to work undetected on the framework however long they need to without drawing the consideration of clients. Keyloggers arrive in an assortment of shapes and sizes, yet they all address a genuine risk to client security and protection. Indeed, even while leading a registry posting of stowed away documents, it's hard to differentiate them from working framework records. Besides, they can unscramble data communicated over the web and give it to the aggressor. Keylogger is broadly utilized in the space of network protection, explicitly for satisfying the reason for severe checking and observation in enormous associations. This paper grandstands the working of a keylogger alongside its many highlights, for example, gathering targets' PC data, assembling the substance that are duplicated in the clipboard, gathering sound documents which are identified from the objective's receiver, taking screen captures, etc.

**Keywords:**

Keylogger, Software, Keystrokes, API

**Paper Id:** **Title:**  
11 Birds And Animals Damage to Agricultural Yield, Current Repelling  
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### Abstract

Domestic birds are a huge hazard to agriculture all around the world, causing damage to valuable field crops, storage facilities, and even contaminating human living places. House crows (*Corvus*), Abundant myna, Jungle myna, Brahminy starling, Whitecheeked bulbul, *Acridotterestritis*, and other pest birds are common in many regions. These birds are kept in check through a variety of antiquated methods. However, as technology advances, different electronic repellents are being used for bird control in agricultural fields. An efficient bird and animal repellent technique is discussed in this study. Different noises that discourage different types of birds were also identified and investigated. Our most crucial finding was that the scarer's success that mostly determined by the predator sound type, volume, quality, and repetition. Automatic scarecrow technique is a simple and effective approach to keep birds and other animals out of avian crops. By distributing birds in a safe and humane manner, this Scarecrow reduces crop damage.

### Keywords:

Agriculture yield, pest bird, bird repeller, repelling techniques, environmentally friendly

**Paper Id:** **Title:**  
13 Birds And Animals Damage to Agricultural Yield, Current Repelling Techniques, and Their Impacts

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### **Abstract**

Implementation and analysis of Monte Carlo Tree Search and Minimax algorithm for computers to play Dots and Boxes is the online version of the pen and paper game, Dots and Boxes which is the most widely played game. We have made the Dots and Boxes game Convenient, Fast to Play, & of course pleasing to the eye (with our UI). The Rules of the game are simple: Players take turns joining two horizontally or vertically adjacent dots by a line. A player/Computer that completes the fourth side of a square (a box) colours that box and must play again. When all boxes have been colored, the game ends, and the player/Computer who has colored more boxes wins. Easy Right? Well not that easy when you play, it challenges your critical thinking as the game progresses. Keeping that in mind we also have scores counted by computer and shown as the boxes get colored to make sure the player knows. We have used Artificial Intelligence Algorithms Monte Carlo Tree Search for searching the game tree. Monte-Carlo Tree Search (MCTS) and other algorithms like MiniMax or Alpha-Beta pruning are used to play against human players and also against themselves, The process of Monte Carlo Tree Search can be broken down into four distinct steps, i.e. selection, expansion, simulation, and backpropagation. Minimax algorithm plays a critical role in selecting moves that will try to find moves that give fewer points to the opponent and more to the computer making it tough on an opponent.

### **Keywords:**

Monte Carlo Tree Search Algorithm, Minimax Algorithm, Game Tree

**Paper Id:**    **Title:**  
                    Sign Language Detection: A Review

14

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### **Abstract**

Sign Language is a derived language for communication between deaf and dumb community people. It is the most significant and reliable way of communication between normal people and hard of hearing and speech impaired people without the need of interpreter. Every country has introduced its own sign language. The sign language developed in India is known as Indian Sign Language. In this paper, we present a literature of the latest advancements in the area of sign language(recognition). First, we review the techniques of gesture recognition and highlight some critical and important methods in recent developments. Next, we focus on the analysis and discussions about the challenges and any other possible solutions for the sign language recognition

### **Keywords:**

SLR (Sign Language Recognition), Gesture Recognition, ISL (Indian Sign Language)

**Paper Id:** **Title:**  
A Survey Paper on Heart Disease Prediction Using Multiple Models

16

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### Abstract

Heart Disease prediction is one of the most complicated tasks in medical field. For medical purposes, the diagnosis of heart sickness is the difficult ventures. Heart diseases or cardio vessel Diseases (CVDs) unit the foremost reason for an enormous style of death among the global. The latest statistics of World Health Organization anticipated that cardiovascular diseases including Vascular disease, Heart attack, Coronary Heart Disease, In the world as the biggest pandemic. on monthly basis huge amount of patient related data is maintained. the occurrence of future disease the stored data can be useful for source of predicting. This paper is presenting a comprehensive survey on heart disease prediction models.

### Keywords:

Naïve Bayes, Decision Trees (DT), Random Forest (RF) and Logistic regression Heart disease Machine learning, Prediction, Heart disease prediction, Classification Technique.



**Paper Id:**     **Title:**  
                    Face Recognition Based Attendance System

**17**

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**Abstract**

In the traditional system, it is hard to be handle the attendance of huge students in a classroom. As it is time-consuming and has a high probability of error during the process of inputting data into the computer. Real-Time Face Recognition is a real-world solution which comes with day-to-day activities of handling a bulk of student's attendance. Face Recognition is a process of recognizing the students face for taking attendance by using face biometrics. In this project, a computer system will be able to find and recognize human faces fast that are being captured through a surveillance camera. Numerous algorithms and techniques have been developed for improving the performance of face recognition but our proposed system uses Haar cascade classifier to find the positive and negative of the face and LBPH (Local binary pattern histogram) algorithm for face recognition by using python programming and OpenCV library. Here we use the tkinter GUI interface for user interface purpose.

**Keywords:**

Face Detection, Face Recognition, Haar Cascade Classifier, Binary Pattern Histogram(LBPH), python

**Paper Id:**     **Title:**  
Fake News Detection

19

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### **Abstract**

Social media is a double-edged sword which gives information as well as false information, false information which led to the massive disturbance which is intentionally spread. We are also not able to differentiate the news which is fake and which is real. People immediately start expressing their concern as they came across the post without verifying the authenticity. Now the technology is in growing phase where “internet” plays the main role which separates the “print media” (i.e. television, radio, news channel) and “social media” (i.e. What’s App, Facebook, twitter, Instagram.) The reach and the potential of social media is more for e.g. In a house we have television while mobile everyone having so it makes the extra impact and help for various people for spreading fake news.

**Keywords:**

EDA, TFIDF Vectorizer, IDF

**Paper Id:** **Title:**  
22 Sentiment Analysis on e-commerce product reviews using Machine Learning and Natural Language Processing

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**Abstract**

Reputation-predicated trust models are widely utilized in e-commerce applications, and feedback ratings are aggregated to compute sellers' reputation trust scores. The "all good reputation" quandary however is prevalent in current reputation systems – reputation scores are ecumenically high for sellers and it is difficult for potential buyers to cull trustworthy sellers. Predicated on the optical discernment that buyers often express opinions openly in free text feedback comments, we have proposed Comm Trust, a multi-dimensional trust evaluation model, for computing comprehensive trust problems for sellers in e-commerce applications. Different from subsisting multidimensional trust models, we compute dimension trust scores and dimension weights automatically via extracting dimension ratings from feedback comments using Natural Language Processing (NLP).

**Keywords:**

NLP, Natural Language Processing, Sentiments, Product reviews, E-commerce, Machine learning

**Paper Id:**    **Title:**  
Green Corridor For Ambulance

24

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**Abstract**

Here in the city where there lot of traffic, ambulances face a lot of problems reaching to the hospital. The patient on the way might die if does not proper treatment if stuck in the traffic and not given proper way. This application is now only for organ transplant because whenever there is no patient in the ambulance, the driver cannot blow the siren, which might create a problem as he will not get way and someone in need might not get the desired organ on time and die. To reduce the death tolls, we have decided to develop a module which will provide green corridor to the ambulance. As soon as the ambulance will reach at a certain distance from the traffic signal, RFID which will be installed in the ambulance will get scanned by the scanner located on the road at a certain distance from the road and after scanning the RFID one buzzer will start at the signal side alerting all the pedestrians and other vehicle that the ambulance is coming and the signal of the lane in which ambulance is coming it will turn green and rest all the signal will be red and it will provide a Green Corridor to Ambulance.

**Keywords:**

RFID, Ambulance, IoT, Traffic Signal

**Paper Id:**    **Title:**  
25                Currency Recognition for Visually Impaired people

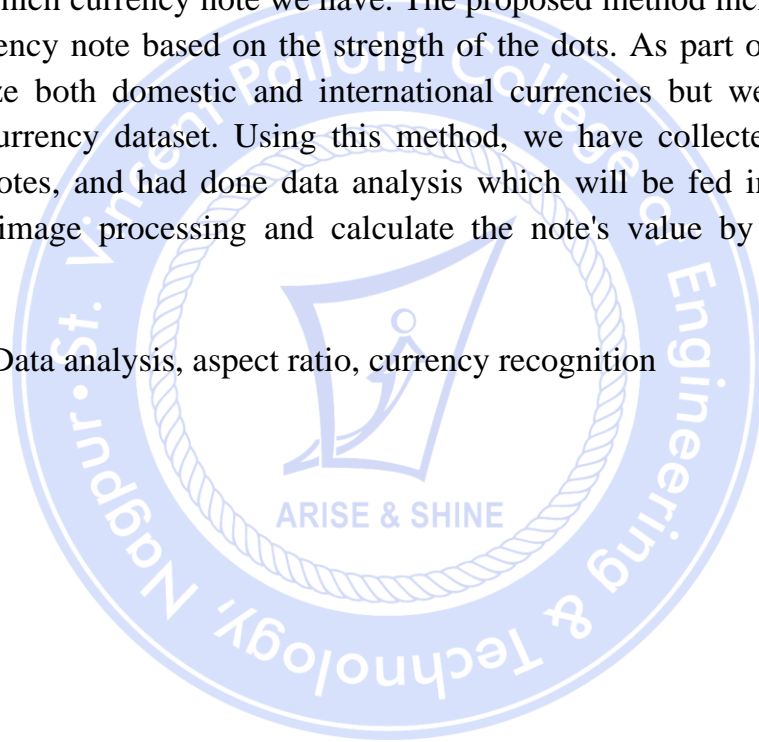
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**Abstract**

This paper talks about a Real-time currency recognition system for visually impaired people in India. We know that we don't have braille dots in India, so we can't touch the dots to recognize which currency note we have. The proposed method includes detecting the value of a currency note based on the strength of the dots. As part of the proposed method, we analyze both domestic and international currencies but we are currently using the Indian currency dataset. Using this method, we have collected a dataset of various currency notes, and had done data analysis which will be fed into our model, then we will use image processing and calculate the note's value by generating an automated voice.

**Keywords:**

Image processing, Data analysis, aspect ratio, currency recognition



**Paper Id:**    **Title:**  
Cloud based College ERP System for educational institutions.

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**Abstract**

This Paper represents the work related to the Design & Development of Cloud based College ERP System. ERP system provides a simple interface for management of different departments and facilities. All the colleges usually have a number of departments and educational modules such as Training & Placement Department, Academic Monitoring, etc. Dealing with this multitude of divisions and different modules physically is an undeniably challenging and hard, inadequate and costly assignment. In this paper we propose an ERP system for college. This college ERP system contains all relevant information regarding students, teachers, exams, departments, and other relevant data. The framework permits the administrator to add understudies, resources and some other occasions. Our framework permits personnel to enter or include understudy's participation into the information base which can later be seen by understudies and resources. The understudies can see his/her participation through a different understudy login. The Faculty can upload the timetables for various departments for exam preparation. The time table is then available to be viewed by students on the web portal. These frameworks have simple UI and have strong information; the executive's framework makes this framework exceptionally helpful.

**Keywords:**

Cloud Computing, Cloud ERP Web Development, HTML, CSS, JavaScript, MySQL, PHP



**Paper Id:**    **Title:**

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A Study of Types of Noise and De-Noising Techniques in Digital Image Processing

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### **Abstract**

Digital image processing is playing a key role in variety of application areas like medical image processing, pattern recognition, image restoration etc. Captured image quality may vary with factors like noise, light, temperature etc. Removing noise is one important step in image processing. Without knowing the types of noise and different noise removal techniques in digital image processing it is difficult to proceed further for any researcher. The objective of the paper is to study and represent conceptual study of various types of noise in brief. The study also aims to represent different noise removal techniques in a brief manner. Paper also provides a comparative study of few noise removal techniques.

**Keywords:**

Noise, De-Noising, Filters, CT, MRI

**Paper Id:** **Title:**  
29 Implementation on Skin Disease on Detection Model Based on Various Parameter using Machine Learning Technique

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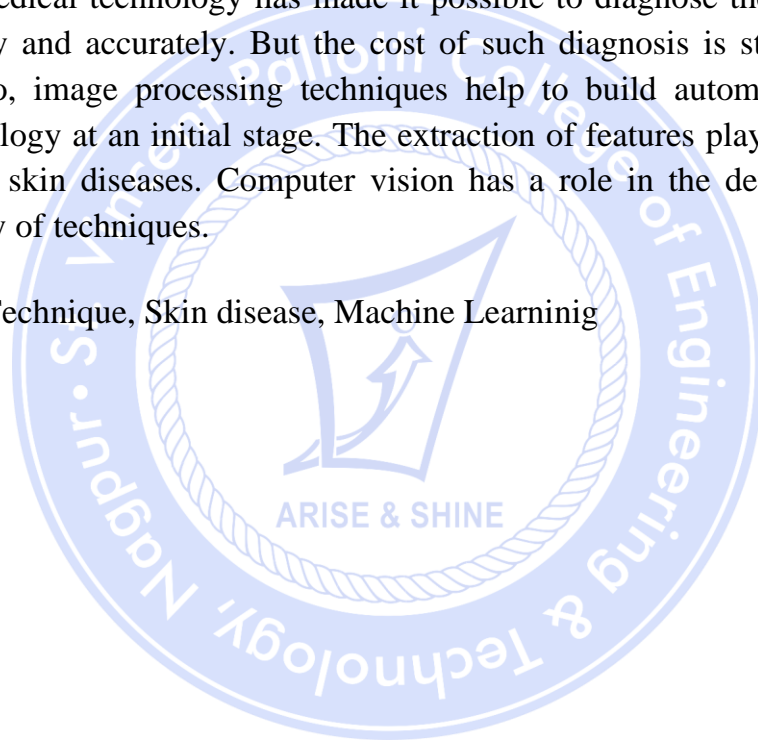
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**Abstract**

Skin diseases are more common than other diseases. Skin diseases may be caused by fungal infection, bacteria, allergy, or viruses, etc. The advancement of lasers and Photonics based medical technology has made it possible to diagnose the skin diseases much more quickly and accurately. But the cost of such diagnosis is still limited and very expensive. So, image processing techniques help to build automated screening system for dermatology at an initial stage. The extraction of features plays a key role in helping to classify skin diseases. Computer vision has a role in the detection of skin diseases in a variety of techniques.

**Keywords:**

Image Processing Technique, Skin disease, Machine Learning



**Paper Id:**

**30**

**Title:**

Review Paper on Implementation of Credibility Assessment Algorithm On The Basis of Various Categories For Improving Accuracy In Web-Based Question Answering System.

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**Abstract**

Web-based question answering systems are effective in corroborating answers from multiple Web sources. However, Web also contains false, fabricated, and biased information that can have adverse effects on the accuracy of answers in Web-based Question and Answering systems. Existing, solutions focus primarily on finding relevant Web pages but either do not evaluate Web pages' credibility or evaluate two to three out of seven credibility categories. This research proposed a credibility assessment algorithm that uses seven categories, including correctness, authority, currency, professionalism, popularity, impartiality, quality, for scoring credibility, where each credibility category consists of multiple factors. The credibility assessment module is added on top of an existing Question and Answering system to score answers based on the credibility of Web pages.

**Keywords:**

Credibility assessment, information processing, Natural language processing, web credibility, question answering

**Paper Id:**     **Title:**  
                  NewsRec System using NLP for revolution 4.0 secured by blockchain

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**Abstract**

News is the strongest conversation device for this present-day time. It can unfold the information all throughout the world in a couple of minutes. It is a satisfactory medium to get related with the whole world. We can research the whole thing from it. It is one of the exceptional sources to get understanding and analyze higher skills. We can get entry to the information on the net for free. All throughout the world and each vicinity have to get admission to to the news. The web is a very robust medium to broadcast news. Nowadays everybody examines information because of technology, humans are studying them on their cell or computer, however, it is nevertheless equal news. News let us study so many things, specifically tradition, culture, modern-day world news. It supports awareness. Awareness is an important thing for farmers' related agricultural updates. The farmers get the exact information that they require for their field. NewsRec system help farmers to find the news of their choices based on their own news experience in an efficient and effective manner without wasting time in purposeless browsing.

**Keywords:**

AI, NLP, Recommendation system

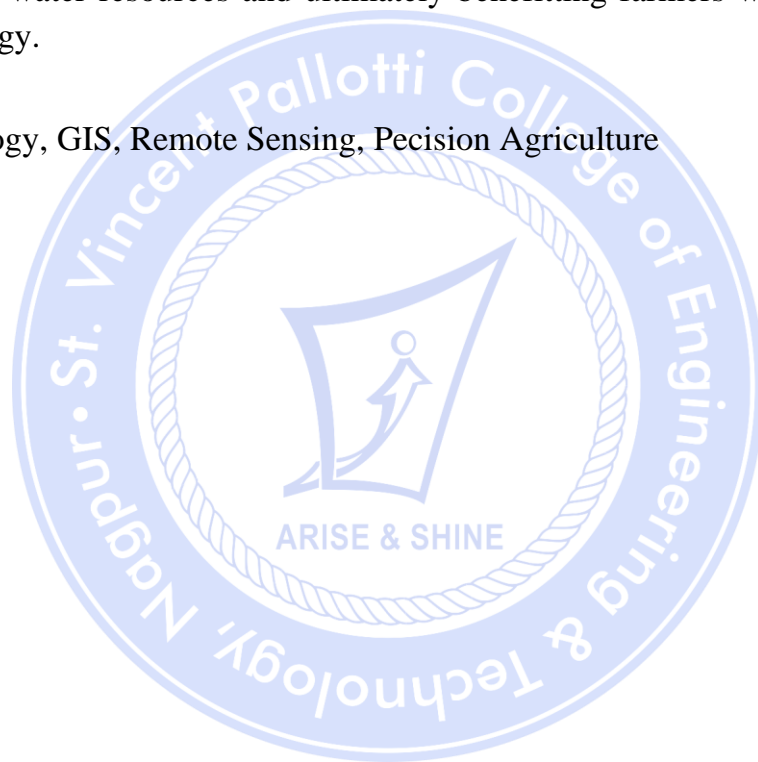
**Paper Id:** **Title:**  
37 Research Paper on Sensing Agriculture from Space through Geospatial Technology  
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**Abstract**

The use of Technology in development of Agriculture is growing tremendously. In this paper the emphasis on providing the solution in agribusiness, farm productivity, improving soil and water resources and ultimately benefitting farmers with the help of geospatial technology.

**Keywords:**

Geospatial technology, GIS, Remote Sensing, Precision Agriculture



**Paper Id:**    **Title:**  
Smart Hearing Mechanism for Physically challenged individuals

38

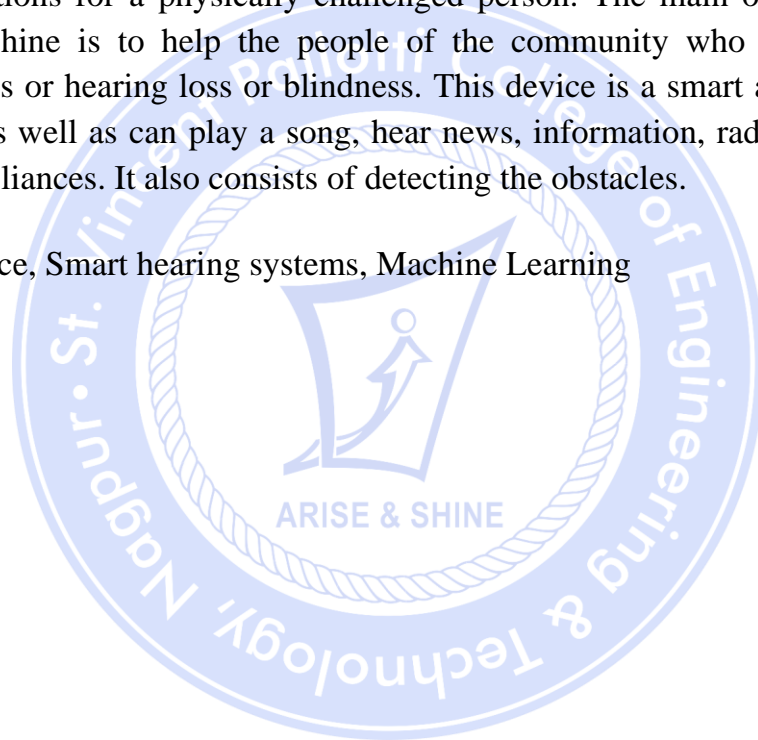
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**Abstract**

The growing techniques in the field of Artificial Intelligence (AI) and Machine Learning (ML) are providing the best solutions to the demands and challenges of smart devices. In this paper, the emphasis is on the methods and application in the field of AI & ML with respect to the solutions for a physically challenged person. The main objective of the smart hearing machine is to help the people of the community who are facing the problem of deafness or hearing loss or blindness. This device is a smart assistant which can assist people as well as can play a song, hear news, information, radio, and control the smart home appliances. It also consists of detecting the obstacles.

**Keywords:**

Artificial Intelligence, Smart hearing systems, Machine Learning





**Paper Id:**     **Title:**  
                  A survey on Non-Fungible Token (NFT's)

39

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**Abstract**

Non-fungible tokens (NFT) became the first application of blockchain technology to achieve clear public prominence. The Non-Fungible Token (NFT) market is mushrooming in the recent couple of years. NFTs are tradable rights to digital assets (images, music, videos, virtual creations) where ownership is recorded in smart contracts on a blockchain. can be bound with virtual/digital properties as their unique identifications. With NFTs, all marked properties can be freely traded with customized values according to their ages, rarity, liquidity, etc. Like physical money, cryptocurrencies are fungible, meaning that they can be traded or exchanged, one for another. For example, one bitcoin is always equal in value to another bitcoin. Similarly, a single unit of ether is always equal to another unit. This fungibility characteristic makes cryptocurrencies suitable as a secure medium of transaction in the digital economy.

**Keywords:**

Cryptocurrency, Non-fungible tokens, Blockchain, Metaverse, Latency, Throughput

**Paper Id:**     **Title:**  
                  A Video Conference System

**41**

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**Abstract**

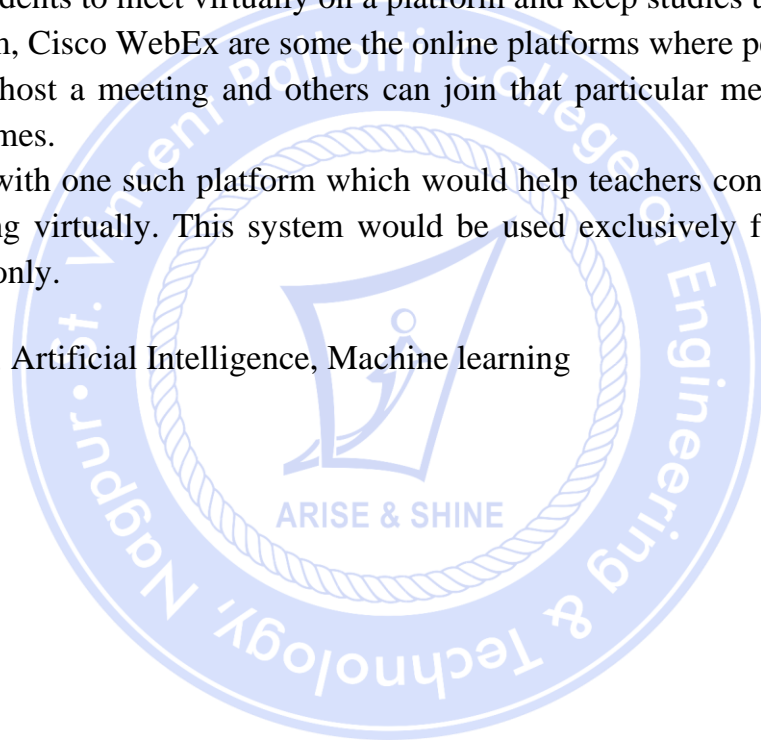
Due to covid 19 pandemic, entire world came to standstill. Academics suffered a lot in the past two years. The education system moved to online mode for conduction of classes. Hence, video conferencing became valuable during these times. It became easy for teachers and students to meet virtually on a platform and keep studies upto-date.

Google Meet, Zoom, Cisco WebEx are some the online platforms where people can meet virtually. One can host a meeting and others can join that particular meeting from the comfort of their homes.

This project deals with one such platform which would help teachers connect with their students for meeting virtually. This system would be used exclusively for college and education purpose only.

**Keywords:**

Conference system, Artificial Intelligence, Machine learning



**Paper Id:**    **Title:**  
Order Management System

43

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**Abstract**

Software and IT industry professionals agree that cloud computing has become a global trend. Salesforce Order Management assists retailers across the spectrum in fulfilling, managing, and servicing orders. We created it from the bottom up to accommodate a robust workflow that includes real-time inventory, payment, and invoicing, as well as order allocation and fulfilment. Salesforce Order Management includes customized objects, actions and APIs, platform events, and Lightning components to help you manage orders received from your storefront. In addition, the Order Management Lightning console app provides Salesforce UI default functionality. A platform for tracking sales, orders, inventory, and fulfilment is known as an order management system. Salesforce Platform allows users to save and maintain data records.

**Keywords:**

Cloud Computing, Order Management System, E-commerce, Customer Relationship, Management, Objects in Salesforce

**Paper Id:**    **Title:**  
                  Impact of Python, Java and R on Data Science

44

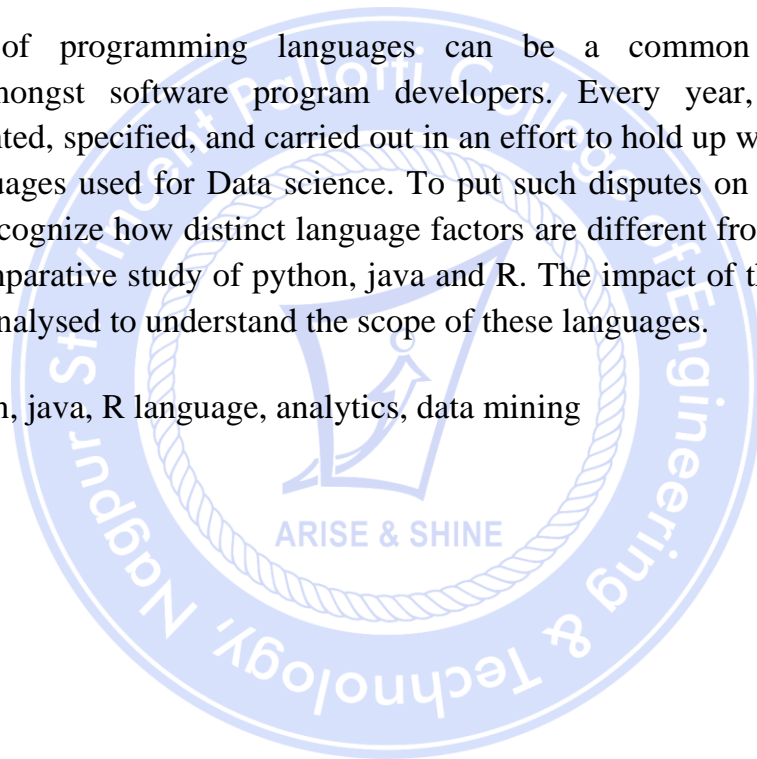
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**Abstract**

The comparison of programming languages can be a common difficulty of communication amongst software program developers. Every year, programming languages are invented, specified, and carried out in an effort to hold up with the existing programming languages used for Data science. To put such disputes on strong ground, we ought to first recognize how distinct language factors are different from one another. This paper is a comparative study of python, java and R. The impact of these languages on data science is analysed to understand the scope of these languages.

**Keywords:**

data science, python, java, R language, analytics, data mining



**Paper Id:** **Title:**  
Dynamic Web Development with ASP.Net

45

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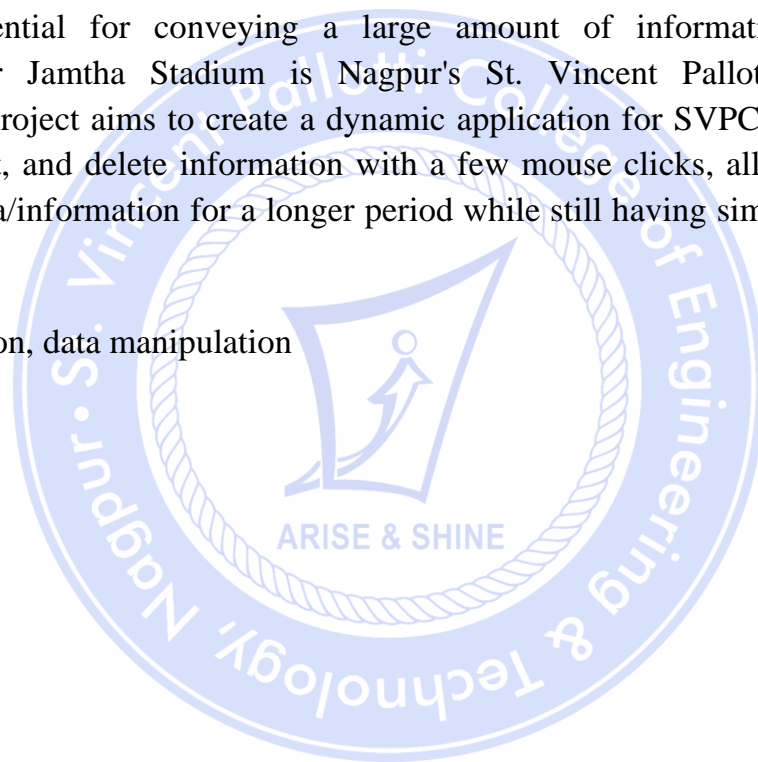
St. Vincent Pallotti College of Engineering and Technology, Nagpur

**Abstract**

Websites are essential for conveying a large amount of information about the organization. Near Jamtha Stadium is Nagpur's St. Vincent Pallotti College of Engineering. Our project aims to create a dynamic application for SVP CET that allows users to edit, insert, and delete information with a few mouse clicks, allowing them to keep important data/information for a longer period while still having simple access and manipulation.

**Keywords:**

Website, Information, data manipulation



**Paper Id: Title:**

Fidroo: A Food Delivery App

46

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**Abstract**

Fidroo a food delivery application which will be used to take orders from the users and deliver food to their respective places. We are using an open source framework Flutter for the development of this application and the programming language used is Dart. In this for the backend of the application we are using Firebase which is a software which provides us the services for the backend. For the database we are using Cloud Fire store for storing all the data of the app. This is a hybrid application which can be installed in both android as well as IOS devices. It is a food delivery app which only focuses on Cloud Kitchens and Cloud Chefs this differentiates it from other food delivery applications in the market.

**Keywords:**

Food Delivery, Cloud Fire store, Cloud Kitchens, Cloud Chefs



**Paper Id: Title:**

47

Lung Disease Detection From X-Rays using CNN

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**Abstract**

Lung diseases are becoming more commonplace throughout the world. Some of the major diseases include chronic obstructive pulmonary disease, pneumonia, asthma, tuberculosis, fibrosis, etc. A multitude of distinct image processing and machine learning models have been developed for this cause. Various types of deep learning methods including convolutional neural network (CNN), vanilla neural network, capsule network and visual geometry group based neural network (VGG) have been implemented for lung disease diagnosis. For implementation of the research, Jupyter Notebook, Tensorflow, OpenCV, and Keras are utilized. The model is applied to NIH chest x-ray image dataset obtained from the Kaggle repository. Complete and sample editions of the dataset are kept in view. For the use of full dataset, CNN exhibits a validation accuracy of 90%. Whereas the use of sample dataset yields a much lower training time at the cost of a slightly less validation accuracy. Thus, the proposed CNN framework will make the diagnosis of lung diseases an easy task for medical practitioners as well as for experts.

**Keywords:**

CNN, X-Ray, Lung DISEASE

**Paper Id:** **Title:**  
Comparing Different Colour Models used for Analysis of Radar Data

48

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### **Abstract**

Researchers have been working for decades to develop a model that can predict the weather with maximum accuracy using unstructured datasets. People are facing a slew of issues relating to farming, business, and property damage, among many other things, as a result of substantial weather swings. Because of the unpredictability of climatic and atmospheric circumstances, weather forecasting is becoming an increasingly important subject of research. New technology is being developed by scientists. Accurate weather forecasting aids in the avoidance of disasters, the picking of high-yield crops for a given year by farmers, and the preparation of businesses for changing circumstances. With the arrival of the AI and machine learning era, there has been a huge increase in weather research, as well as many models based on these technologies. With the coming of the Artificial Intelligence and Machine Learning era, there is significant growth in weather research. Also many models based on the Artificial Neural Network are developed to predict the accurate weather. These models required a few perplexing mathematical equations. These models study the weather from various aspects and help to get nearly accurate results. In this research we showed the comparison between different models which helps to predict the weather and we tried to figure out which is the best approach to achieve maximum efficiency and compare various parameters of the model like which one will give maximum efficiency, accuracy and data-loss.

### **Keywords:**

Weather forecasting, LSTM, AI, ANN, Weather, Elements, Accuracy, color models.

**Paper Id:** **Title:**  
Hybrid honey pot system for malware analysis using python

49

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**Abstract**

The growing smartphone technology and emerging mobile cloud technology are the latest wireless technology. Mobile cloud computing has many advantages that look forward to the future and it's also simple for hackers to take complete control of many other users' Privacy of Data. While data security is expected to be secured, the main drawback for users is that when the computer is connected to the internet it's not that difficult for an intruder to engage in a data theft on the required target. So, for providing better security the combination of Hybrid Intrusion Detection System (HyInt) and Honeypot networks is thus implemented into Mobile Cloud Environment with the significant purpose of mitigating unidentified and known attacks in order to provide security. Execution of the research work provides a pure perspective of the security and quality products of the algorithm that was not included in the previous research work. As part of the research work, intensive statistical analysis was performed to prove the consistency of the proposed algorithm. The implementation and evaluation outcome offers clear potential for any further research work in the cloud-based Intrusion Detection System. The implemented algorithm can be used for a high-security cloud environment that is developed for army and banking purposes to monitor the network's activities effectively.

**Keywords:**

Hybrid Intrusion Detection System, Honeypot Networks, Signature Anomaly-based detection

**Paper Id:** **Title:**  
A Survey on AI and ML Techniques

**50**

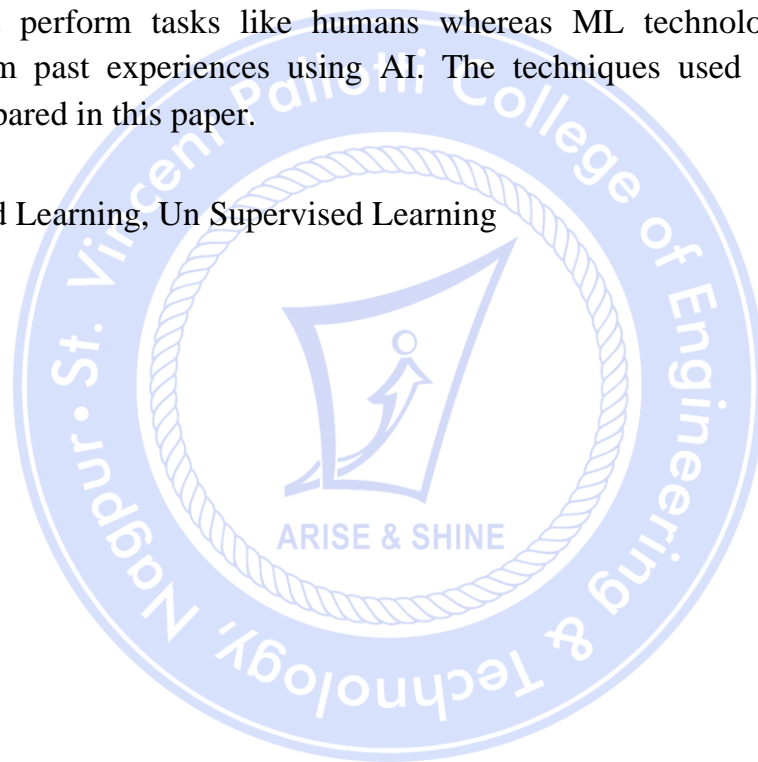
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**Abstract**

Nowadays due to the exploitation of a large amount of data, there is a need to manage and store this data. AI/ML are the technologies used to do so. These methodologies use some techniques to perform operations on the data. AI technology helps a machine to get self-intelligent and perform tasks like humans whereas ML technology makes the machine learn from past experiences using AI. The techniques used by AI/ML are explained and compared in this paper.

**Keywords:**

AI/ ML, Supervised Learning, Un Supervised Learning



**Paper Id:** **Title:**  
Cryptocurrency Trading Bots vs Buy and Hold trading strategy

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### **Abstract**

In recent years, the tendency of various financial experts has accelerated towards cryptocurrencies. Cryptocurrencies are also included as pure digital assets by asset managers. Even though they have their separate nature, their behavior as an asset and trading strategies are still in process of being understood. The most common strategy is to buy and hold, but due to the high volatility of the market the Sharpe Ratio (which represents the risk-adjusted return of the investment) is often low. Therefore the process of implementing more favorable trading strategies and algorithms can be automated using programming. This paper proposes automating the trading process with trading strategies and then Backtesting the trading strategy with historical data and implementing it in python, by using Binance API to get real-time market data and TwelveData API to get the historical market data of the cryptocurrency. This trading bot uses algorithms that follow a trend and refer to a predefined set of instructions to perform favorable trades. A well-timed trade can generate revenue at an inhuman speed. Our objective through this project is to take this revolution in the market by providing an efficient and effective solution that can overcome the limitations that are being faced due to manual trading by applying various available algorithms for day trading based on market conditions and user approach.

### **Keywords:**

Trading, Cryptocurrency, Automation, Backtesting, Python, Programming, Algorithms

**Paper Id:** **Title:**  
Review of Driver Drowsiness System

52

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**Abstract**

India is one of those countries where automobiles are used in large numbers for transportation. Since vehicles are used by a large population, the country also contributes to an increasing number of road accidents. Road accidents mostly occur due to drivers' drowsiness or lack of concentration on the road while driving a vehicle. Due to slight ignorance of the driver, mishaps occur and an individual might have to pay in terms of injuries and sometimes life. The paper puts a study on driver drowsiness detection systems that can be installed in cars and depending upon the eye aspect ratio the system throws an alert with the help of a buzzer, which helps the driver to remain active and avoid drowsiness during driving. This system takes input as video recording and detects the eyes for fatigue. And depending upon the detection of the eyes the system determines the eye aspect ratio. Eye Aspect Ratio (EAR) is the Euclidean distance of the corresponding eye coordinates. When the eyes are open the ratio value remains constant but when the ratio approaches zero it indicates that the eyes are closed. The system works efficiently when a sufficient amount of light falls on the face of the driver. Some studies reveal that when the energy of the body is low the first sense organ to indicate that the body needs to take rest or sleep are eyes hence considering the eye aspect ratio is the key feature. In a road accident, individuals involved in the collision suffer damage. To replenish the fatality rate in the country a design and implementation of a driver drowsiness detection system using IoT have been studied.

**Keywords:**

Drowsiness, Driver, IOT, Eye Aspect Ratio, Raspberry Pi



**Paper Id:** **Title:**  
Proposed System for Driver Drowsiness Detection using IoT

53

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**Abstract**

Every year, many people die in road accidents around the world, and driver fatigue is a major cause of it. Short sleep and fatigue while driving are often the main causes of accidents. However, detecting and alarming the driver is an ongoing research work because it can only detect early signs of drowsiness before a serious mishap. Most traditional methods of detecting drowsiness are based on behavioral aspects. Some are disturbing and distracting to the driver, while others require various algorithms to be followed. Therefore, in this article, we analyze various systems developed to detect a driver's drowsiness and their drawbacks and suggest a feasible system that would help detect the driver's drowsiness. The system, accordingly, uses various facial images, analyses them using sensors, and helps alert the driver with good accuracy

**Keywords:**

Drowsiness Detection, Eye Aspect Ratio, Python, Raspberry pi



**Paper Id:** **Title:**  
Non-Fungible Token Environment using Blockchain

54

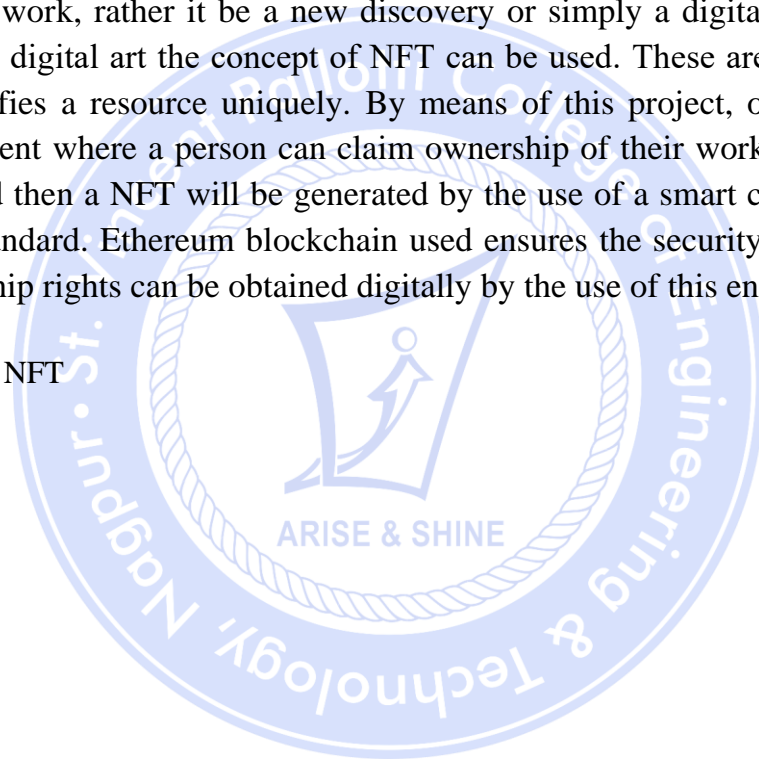
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### Abstract

In today's world, everything is digitalized and people continue to rely more on the technology. Due to this the need to minimize the manual work continue to arise. After the covid pandemic this need has increased tremendously. Everyone wishes to claim ownership of their work, rather it be a new discovery or simply a digital art. To claim ownership of one's digital art the concept of NFT can be used. These are exchangeable token which identifies a resource uniquely. By means of this project, our aim was to create an environment where a person can claim ownership of their work. The user can add these work and then a NFT will be generated by the use of a smart contract drafted in the ERC 720 standard. Ethereum blockchain used ensures the security for the digital assets. The ownership rights can be obtained digitally by the use of this environment.

### Keywords:

Block chain, Digital, NFT



**Paper Id:** **Title:**  
Packet Sniffer Cyber Security Tool

61

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Swapnil Thawale,  
ShrinidheePande

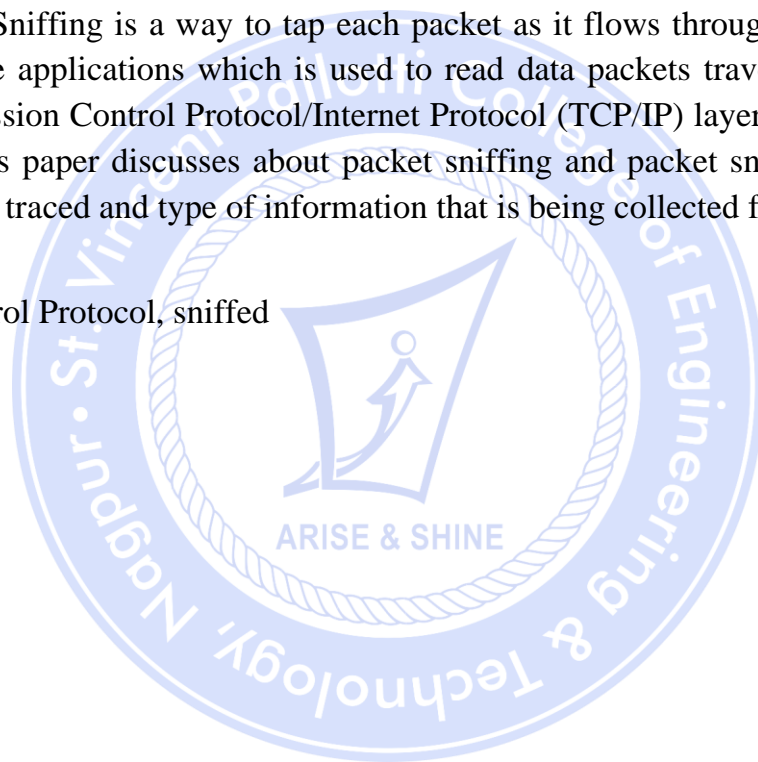
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**Abstract**

Abstract – Packet Sniffing is a way to tap each packet as it flows through the network. Packet sniffers are applications which are used to read data packets traversing network inside the Transmission Control Protocol/Internet Protocol (TCP/IP) layer and OSI layer of networking. This paper discusses about packet sniffing and packet sniffer tool, how packets are sniffed, traced and type of information that is being collected from packet

**Keywords:**

Transmission Control Protocol, sniffed



**Paper Id:**     **Title:**  
                    A Review on Video Co-Streaming Application

**62**

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**Abstract**

Recently, the entire world experienced a period of lockdown that the people of India had never seen before, for such an extended period of time. In such a situation, in this day and age of technology and the Internet, everyone spends their free time in front of a digital screen, where they have a lot of options to see and choose from. People prefer online entertainment to offline entertainment in this age of digitization and long-distance communication. This document investigates cloud-based video streaming methods, with a focus on mobile devices. It is a tool that allows users to enjoy the company of their friends in an "online cinema" setting by synchronizing a video file over the internet. It will benefit those who enjoy watching television series or movies with family and friends.

**Keywords:**

cloud, OTT, video streaming

**Paper Id: Title:**

63

Stratigraphic creation of Landscape-A Review Finite element modelling in MATLAB

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**Abstract**

Stratigraphic simulation is a modelling methodology that can be used for the purpose of exploration of geological areas. It helps to understand the details of sedimentation rocks, foreland basins, changes in sea – level, aquifer, elevated areas, country rock, crest etc. In this system we have concentrated on stratigraphic creation of landscape of elevated areas. The stratigraphic view that gets generated through various resources are not very precise with respect to the 3D modelling. The View lags certain area depth, elevation and resolution. The Stratigraphic view of landscape that our system generates uses Finite Element Modelling. Finite element modelling serves as an aid for the creation of high-resolution landscape view of elevated areas. The system generates a model that describes the geological aspects of areas which are of major use to geologist.

**Keywords:**

Stratigraphic, Finite Element Modelling, Landscape, Latitude, longitude, altitude, 3d modelling, 2d modelling, photogrammetry

**Paper Id:** **Title:**  
Pathfinding Visualizer of Shortest Path Algorithms

64

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### **Abstract**

The visibility of algorithms contributes to the development of computer science education. The process of teaching and learning algorithms is often complex and difficult to understand. Visualization is a useful way to learn in any computer science course. In this paper an e-learning tool for short algorithms presentation techniques is described. The advanced e-learning tool allows you to create, edit and maintain graph formats and visualize action algorithm steps. It is intended to be used as a face-to-face supplement or as a stand-alone application. The intellectual functionality of the defined e-learning tool is demonstrated through the use of the path finding algorithms. Preliminary test results demonstrate the usefulness of the e-learning tool and its ability to assist students in developing effective mental models related to short-term algorithms. This electronic learning tool is intended to combine different algorithms to get the shortest route.

### **Keywords:**

Visualization, algorithm, elearning, shortest route, pathfinding.

**Paper Id:**    **Title:**  
                    Digital Forensics

**65**

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**Abstract**

The World is now on the verge of moving to a fully digitalized ecosystem. The present digital system has evolved a lot over the period of time which eventually has led to more and more dependency of humans on machines. This dependency has naturally many pros but with pros come the cons. The entire data and privacy of an individual or an organization are on the reality of the machines. Every day malicious tools, methods, software, and techniques are developed and designed to create harm to public and personal networks and simultaneously exploit data hubs for valuable information. This change has developed in the emergence of security breaches, cybercrimes, internet frauds, and cyber espionage which has eventually resulted in the use of digital forensics in fighting cybercrimes which has been an important development in the world of cybersecurity. Digital Forensics is a division of Forensic Science majorly based on its five pillars which are identification, preservation, analysis, documentation, and the most important presentation. It has been traditionally associated with criminal law. It requires accurate ideology to stand up to cross-examination in court. The prime aim of digital forensics is to extract data from the evidence and convert it into actionable intelligence and present the findings in front of the court. All the techniques used to extract the findings must ensure that they are admissible in the court

**Keywords:**

Digital Forensics, cybercrimes, criminal law

**Paper Id:** 66      **Title:** Investigating the COVID-19 pandemic using Power BI

66

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### **Abstract**

In this investigation, data presented of COVID-19 occurrences are analysed and visualized. Power BI being a highly strong tool for very simple visualization of massive data sets, it plays a vital role. Our outcomes are as follows. The COVID-19 deadly virus was initially detected in Wuhan, China. Power BI will be utilized in this study to create the large data analytics that it deals with. Performance in visualization technique, i.e., more comprehensible and presentable data mixing, real-time, monitoring, and data collaboration are among its features. This study essentially paints a clear picture of growing COVID-19 data and resources that can assist in a more effective, reliable, and efficient manner.

### **Keywords:**

Power BI, real-time, monitoring, data mixing



**Paper Id:**    **Title:**  
E-Learning Website-A Review

67

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**Abstract**

Abstract—In these tough times of COVID, the entire world has witnessed something that was far from anyone’s imagination. COVID-19 had wreaked havoc across the world. Even the Indian Railways which never went off rail in the history, had to face closure. Like any critical sector, education also went through its impacts. Students, schools, colleges and universities have been deeply impacted. This study is in quest of the eLearning platform designed by Confiance Group, in order to solve the above-mentioned issues. According to the United Nations Educational, Scientific and Cultural Organisation (UNESCO), over 800 million learners from around the world have been affected by the virus. This was the time when various professors and teachers realized the importance of online education. Even if the students could not reach out to their institutes, they could still access multiple educational resources at the comfort of their home. The digitization of study material changed the entire scenario of classroom learning. This document investigates the use of interactive features of eLearning which increases the motivation of the students for the learning process.

**Keywords:**

E-learning Website, Learning, Students, Technologies, Interactive.

**Paper Id: Title:**

68

Comparative Analysis of Machine Learning Algorithms: Random Forest algorithm, Naive Bayes Classifier and KNN - A survey

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**Abstract**

Machine learning is a branch of computer science in which a computer predicts the next task to be performed by analysing the data that is provided to it. The computer can access data in the form of digitised training sets or through interaction with the environment. The primary goal of this paper is to provide a general comparison of the Random Forest algorithm, the Naive Bayes Classifier, and the KNN algorithm all aspects. "Random Forest Classifier" is made up of many decision trees. To promote uncorrelated forests, the algorithm leverages randomization to form each individual tree, which then uses the forest's predictive powers to make accurate decisions. The Naive Bayes Classifier is a simple and effective classification method that aids in the development of fast machine learning models capable of making quick predictions. "K-Nearest Neighbour". The algorithm can be used to handle problems involving classification and regression. These algorithms are surveyed on the basis of aim, methodology, advantages and disadvantages

**Keywords:**

Naive Bayes Classifier, Random Forest algorithm, classification, methodology

**Paper Id:**     **Title:**  
Automatic Pesticides Spraying Machine

69

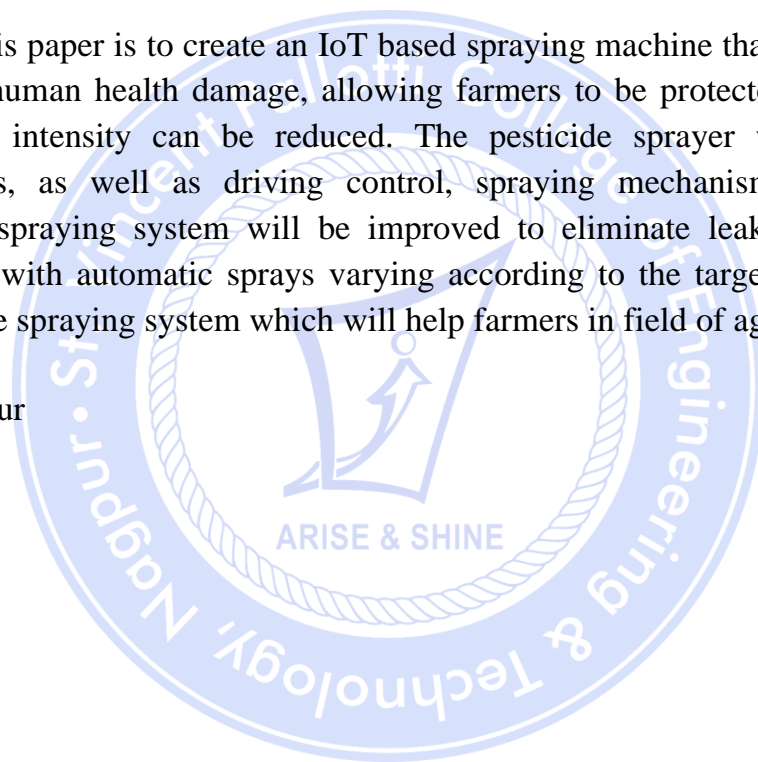
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**Abstract**

The objective of this paper is to create an IoT based spraying machine that will decrease pesticide use and human health damage, allowing farmers to be protected from health issues and labour intensity can be reduced. The pesticide sprayer will have and navigation systems, as well as driving control, spraying mechanism and system construction. The spraying system will be improved to eliminate leaks and prevent repeated spraying, with automatic sprays varying according to the target. This project proposes a pesticide spraying system which will help farmers in field of agriculture.

**Keywords:**

IoT, pesticide, labour



**Paper Id:**    **Title:**

**70**

Femtechworld

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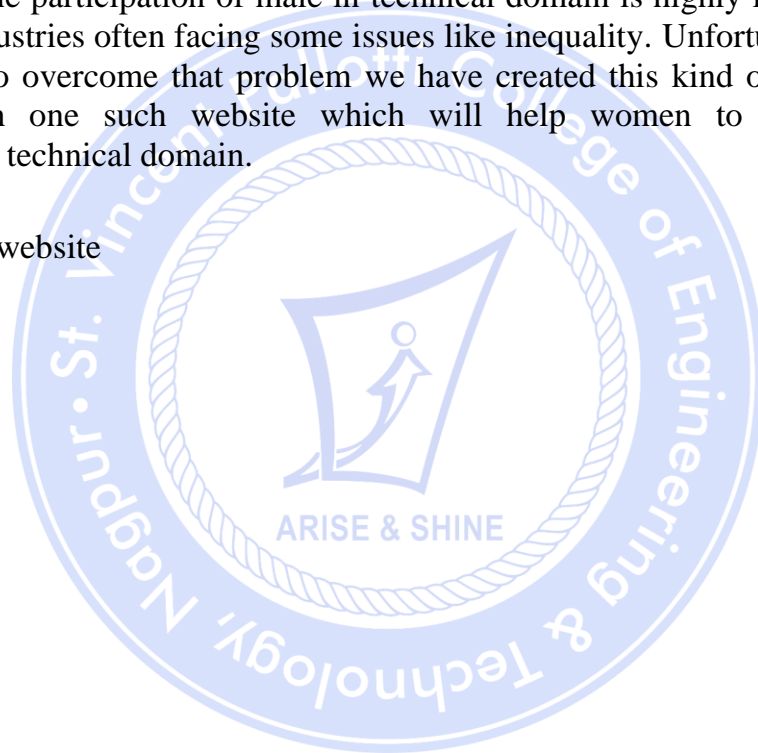
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**Abstract**

As we know that the participation of male in technical domain is highly increasing with women in stem industries often facing some issues like inequality. Unfortunately, it is an age-old problem, to overcome that problem we have created this kind of project. This project deals with one such website which will help women to increase their participation in this technical domain.

**Keywords:**

Technical domain, website



**Paper Id:**    **Title:**  
Automated Visitor Authentication System

71

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**Abstract**

This Technical paper presents the Automated Visitor Authentication System (AVAS) to its readers. AVAS is intended to ease the workload of the staff premises (mainly associated with visitor paperwork) at Airport Authority of India (AAI), Nagpur. The System mentioned here tracks the Entry and Exit details of the Visitor at the AAI premises, stores that data on the cloud database and provides the stored data by retrieving it from the cloud whenever required. The System can reduce staff workload significantly since now they need to maintain lesser paperwork and also the storage and retrieving of this data would be much faster. The System also features a module for an admin panel which could help to retrieve the information from the cloud database and display it in a proper and simply understandable format. It will also store the login credentials of the Officers employed at AAI, so that they will login easily to their own account present in this system. Another benefit of the admin module is that it will be easy for the System Administrator to include new Officer details, in case someone new joins, or delete any Officer details in case someone leaves the Organization. The System also gives an option of Live video communication between the Officer and the Visitor waiting at the entrance gate of the premises, it includes sending the video feed and voice to each other. The live video communication can only be initiated from the Officer side, the Visitor has not been given this privilege in this System.

**Keywords:**

Automated Visitor Authentication, Live Video Feed, Admin panel for AVAS, image processing, cloud database.

**Paper Id:** **Title:**  
72 Website Development for Pharmaceuticals Equipment's

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**Abstract**

The research paper consists of website designed for pharmaceuticals equipment. the main reason to build website would be to help in large growth in website visitation, increase the business growth. The User will visit the website and will be able to see the product pictures along with the specification and additional features such as flow rate, bolus rate, and material used and so on. Here the user can write a business enquiry for solving doubts or directly can continue pay for the product which they want to purchase. Technology used in this website is HTML, CSS, JavaScript, NoSQL(Firebase). Making the website available on the digital platform helps users to see the variety of products offered to them making their buying easy and comfortable. It also help company to store data of the customers and details of the products efficiently.it helps in affordable marketing of the products of the company. It helps in reaching customer all over the globe. websites help sellers to understand more about the needs of the clients and improvise in future products.

**Keywords:**

HTML, CSS, JavaScript, NoSQL, business enquiry

**Paper Id:**    **Title:**  
Real-time Age, Gender and Emotion Detection using Caffe Models

73

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**Abstract**

Age and gender classification has become applicable to an extending measure of applications, particularly resulting in the ascent of social platforms and social media. Regardless, execution of existing strategies on real-world images is still fundamentally missing, especially when considering the immense bounce in execution starting late reported for the related task of face acknowledgment. In this paper we exhibit that by learning representations through the use of significant Convolutional Neural Network (CNN) and Extreme Learning Machine (ELM). CNN is used to extract the features from the input images while ELM defines the intermediate results. We experiment our architecture on the recent Audience benchmark for age and gender estimation and demonstrate it to radically outflank current state-of-the-art methods. Experimental results show that our architecture outperforms other studies by exhibiting significant performance improvement in terms of accuracy and efficiency.

**Keywords:**

significant Convolutional Neural Network, Extreme Learning Machine