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1ST INTERNATIONAL CONFERENCE ON

COMPUTING TECHNOLOGIES FOR TRANSFORMING THE AUTOMATED WORLD

Organised By

Department of Computer Engineering

22nd-23rd April 2020

ATHARVA
COLLEGE OF ENGINEERING

ATHARVA COLLEGE OF ENGINEERING

(APPROVED BY AICTE, RECOGNIZED BY DTE AND AFFILIATED TO UNIVERSITY OF MUMBAI, ISO CERTIFIED, NAAC ACCREDITED)

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ICCTAW – 2020

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Message from Executive President

Hon. Shri Sunil Rane

In the era of technological advancements and ever-increasing generation of the humongous amount of insightful data, the industry calls for designing methodologies, strategies, and algorithms for staying at a reliable rate. And to maintain this ever-growing pace, We, at Atharva College of Engineering, have been consistently promoting skill enhancement beyond the realms of university syllabus.

It gives us utmost pleasure to introduce you to **The International Conference on Computing Technologies for Transforming the Automated World - (ICCTAW-2020),** which aims to bring together leading academicians, researchers, research scholars, and industrialists to trade and share their experiences and research results on aspects of Science, Engineering, and Technology. The conference also makes an attempt to conceptualize the newer innovations and the newer advancements in the building division.I am sure, the students, engineers and researchers from various places will get benefited from this conference deliberation.I express my special appreciation to the coordinators and members of this conference and expect that their endeavors bring achievement.

Executive President
Atharva Group of Institutes
Mumbai

Message from Conference Chair

Dr. P. N. Nemade

Today, we are living in a world where traditional ideologies have been substituted with magnificent advancements, resulting in a better environment for data-driven, research-minded and tech-savvy know-how minds.

To dwell in the globalization in our day-to-day applications, we at Atharva College of Engineering coin the chance to introduce you to **The International Conference on Computing Technologies for Transforming the Automated World - (ICCTAW-2020)**, which aims to bring together leading academicians, researchers, research scholars, and industrialists to trade and share their experiences and research results on aspects research in Engineering, and Technology.

I would like to give my best wishes to the organizers and participants of this conference and hope that their efforts bring success.

Director
Atharva College of Engineering
Mumbai

Message from Conference Chair

Dr. Shrikant Kallurkar

The urge to get in pace with the technological advancements has tremendously favored the emerging technocrats to outgrow research and innovation exponentially.

The International Conference on Computing Technologies for Transforming the Automated World - (ICCTAW-2020) by Department of Computer Engineering aims to bring together leading academicians, researchers, research scholars, and industrialists to exchange and share their experiences and research results on aspects of Science, Engineering, and Technology.

This conference will foster us to inculcate the newer innovations, newer advances and the pedagogies behind them.

This conference will provide opportunities for the delegates to exchange new ideas and their experiences to establish research relations for future collaborations.

On behalf of Atharva College of Engineering, I welcome you all for this conference and hope to promote exchange of ideas, knowledge and research.

Principal
Atharva College of Engineering
Mumbai

Message from Conference Organizing Chair

Ms. Suvarna Pansambal

On behalf of the organizing committee, it is my pleasure to welcome you all for International Conference on Computing Technologies for Transforming the Automated World - (ICCTAW-2020) in Collaboration with SERSC Journals and Labtech Innovations .ICCTAW is a platform which is going to provide an opportunity to all research scholars, scientists, academicians, young researchers, business delegates and students to exchange their views and share experiences with other high level professors, colleagues and friends, representing many well-known Universities and Research Institutes together with members of relevant international organizations.

Our Conference could not exist without the generous and unrestricted support from the researcher, academia, and industry experts as well as all our partners and sponsors. We thank them immensely and encourage all to interact with them throughout the Conference.

Most of all, I thank you, the participants, for enriching the annual conference by your presence. In ICCTAW-2020 conference – I hope you will involve in the technical sessions, gather new ideas and develop your skills, and above all, have a good time.

We hope that you will find ICCTAW-2020 both enjoyable and valuable, and also enjoy the architectural, cultural and natural beauty of our own City, Mumbai.

The Organizing Committee looks forward to seeing you around.

Ms. Suvarna Pansambal
HOD, Computer Department
Atharva College of Engineering

Message from Keynote Speaker

Mr. Nikhil Katre

It is a pleasure to note that Computer Department of Atharva College of Engineering, Mumbai is organizing the International Conference on Computing Technologies for Transforming the Automated World. I understand there is very enthusiastic response to the Call for Papers both from within and outside the country. Conferences of this nature provide a platform to young researchers, faculty members and industry professionals to present their research and development work and get feedback and suggestions to improve their quality of work. In the present era, topics such as Artificial Intelligence, Internet of Things, Machine Learning, Big Data, AR, VR, Blockchain have been witnessing fast developments both in the research and technology development directions.

This Conference will provide an opportunity to exchange ideas on latest algorithms, standards, technologies, and applications pertaining to above topics and thus serve very useful to students, teachers, and practicing industry professionals. I take this opportunity to express my sincere appreciation to Ms. Suvarna Pansambal and her team, Department of Computer Engineering, for their maiden attempt in holding International conference.

I am sure the delegates will carry with them pleasant memories.

Mr. Nikhil Katre
Software Engineer
Yahoo

CONTENTS

ABSTRACTS

Sr. No.	Paper ID.	Title and Authors
1.	1	**Promoting Renewable Energy Technologies For ICT Development In Rural Nigeria** *Kabir Muhammad, Bashir Danzomo and Abubakar Ahmed*

Abstract:
Information and Communications Technology facilities are largely dependent on energy and currently a high proportion of the world's total energy output is generated from fossil fuels such as oil and coal. In general, the quest for an option to conventional power schemes for ICT development in remote and rural locations of developing countries like Nigeria arises from the high costs associated with extension as well as maintenance, of the power grid system to rural areas. It is universally accepted that fossil fuels are finite and it is only a matter of time before their reserves become exhausted. The need for supplementary or even alternatives that ideally will be non-depletable energy sources have since been recognized. These non-depletable energy sources are replenishable and are also referred to as renewable energy sources as they are available in cyclic or periodic basis. These include: Solar Energy which has estimated worldwide average power potentials of 24 W /m2 of the earth's surface; Hydropower, major sources which are still under developed, has an estimated potential of the range of 2-3 TW. Available also in limited areas of the world are Wind energy and Biomass. This paper reviews the availability of renewable energies and their current level of usage in rural communities of Nigeria with a view to put forward necessary policy measures that are essential in order to promote the use of these technologies for the development of Information and Communications Technology.

Sr. No.	Paper ID.	Title and Authors
2.	2	**FireFighter Drone** *Kajal Jewani, Mehak Katra, Gaurav Jethwani, Dhiren Motwani and Karan Bulani*

Abstract:
In a world where fire accidents are increasingly common and the brave first responders always risk their lives to save the lives of others. Unfortunately, history tells that these brave first responders (firefighting men) do not survive most of the time because of lack of resources and inability to analyse the accident spot for rescue action. To save as many lives as possible, it is important to leave dangerous tasks to machines. One such device is a drone; it provides great manoeuvrability and doesn't risk any personnel. Drones can also gather information at greater speed and reliability, thus making the proposed solution help us solve this problem.

Sr. No.	Paper ID.	Title and Authors
3.	3	**Unified Ecosystem for Smartphone's as Mobile Mini-Cloud Computing** *Mamta Meena, Priti Rumao, Shweta Sharma, Samidha Kurle and Nikita Patil*

Abstract:
In a research environment or a system environment where a large amount of computationally exhaustive task is required to be done, the company or organization demands a high expensive system or hosts a private cloud and pay for it. Imagine a set of people/employees in your organization or research locality who uses an organization's resources such as hotspots. Now if you could turn this into using mobiles as a mini cloud for your system using their resources to get your task done. This enables an environment for bringing live mobile mini clouds and using them as IaaS (Infrastructure as a Service).The proposed method has more advantages over storage based method like easy setup, relatively good accuracy, low cost and high speed.

Sr. No.	Paper ID.	Title and Authors
4.	5	**Fauna Image Classification using Convolutional Neural Network** *Kavish Sanghvi, Adwait Aralkar, Saurabh Sanghvi and Ishani Saha*

Abstract:
Today, with the increasing volatility, necessity and applications of Artificial Intelligence, fields like Neural Networks, and its subsets, Machine Learning, and Deep Learning have gained immense momentum. It has become a data centric model where neural network developers are "training" the network to be "intelligent" and "independent". The training needs softwares and tools like classifiers, which feed huge amounts of data, analyse them and extract useful features. These features are then used to observe a pattern and train the network to use similar data again the next time it is fed data. Convolutional Neural Network remains to be the most sought-after choice for computer scientists for image recognition, processing and classification and is a type of Artificial Neural Network (ANN). This paper proposes a fauna image classifier using convolutional neural network which can be used to classify images of different species and animals captured in dense forest environments to achieve desired accuracy, and aid ecologists and researchers in neural network, Artificial Intelligence & zoological domains to further study and/or improve habitat, environmental and extinction patterns. A convolutional neural network is trained and developed for efficiently classifying these images with accurate results. Complimentary technologies like VGG16, TensorFlow, Leaky ReLU, etc. have been used in training the model.

Sr. No.	Paper ID.	Title and Authors
5.	7	**Leveraging Tree Data Structure for Finding Influential Users in Online Social Networks** *Niyaz Wani and Rana Hashmy*

Abstract:
In complex networks, identifying influential nodes is an essential task. A small fraction of influential nodes can greatly affect the dynamics of networks, such as disease spreading, information propagation, election, and cascading failures. Moreover, the identification of the influential nodes plays an important role in controlling rumor spreading, defining new marketing strategies, spreading ideas and practices, and even predicting the total sale. All of these practical applications contribute to the importance of identifying influential nodes in complex networks. There can be many different ways to find influential users in social networks. Here we propose a novel method based upon tree data structure to determine the influential users in online social network. We identify influential nodes based on their positions in the network and assume that the nodes are homogeneous. This approach identifies the specific users who most influence others' activity and does so considerably better than other methods.

Sr. No.	Paper ID.	Title and Authors
6.	8	**D2F: Description to face synthesis using GAN** *Chintan Kotian, Samiksha Lokhande, Mohit Jain and Aruna Pavate*

Abstract:
All the recent breakthroughs in the field of deep learning have enabled us to extract lower dimension knowledge from higher dimension data, this has led to state of the art utilization of tremendous data. At the same time, the generative aspect of deep learning models are rapidly emerging, out of all the generative models Generative Adversarial Networks (GANs) are immensely popular due to its ease of implementation and enhanced performance. Tasks like mapping textual data to visual data (i.e lower dimension to higher dimension) is a feat which is still not easily achievable even by experts. The challenge here is extracting every possible information from lower dimension data to generate comparatively higher dimension data. This work collaborates GANs and Natural Language Processing (NLP) to come up with a model which will effectively translate human facial feature from characters to pixels. In other words the model will generate realistic human faces given the description of the faces. This paper compares different architectures of GANs trained on different datasets. It also specifies dataset collection method using crowd intelligence and also proposes a deep learning model for description to face synthesis

Sr. No.	Paper ID.	Title and Authors
7.	9	**IPL Win Prediction System To Improve Team Performance using SVM** *Siddharth Sinha, Aakash Vishwakarma, Prakash Tripathi and Amruta Sankhe*

Abstract:
Machine learning and data analytics are trending field currently with rise in huge amount of data generated and sophisticated algorithms developed. One of the fields of machine learning is predictive analytics, where probability of a particular outcome in the future is predicted, based on their historical data. Cricket is one of the most popular sports globally, especially in India. Huge amount of resources, effort, and time is spent to organize cricket matches and leagues, such as IPL (Indian Premier League). Thus, with large stakes involved, it creates enormous pressure on players, coaches and team management to perform well. Hence, in this paper, we worked on creating a win prediction system, which predicts the probability of a team winning in a particular match, through various parameters (features), based on their historical matches. The input parameters are changed, so that the highest probability of winning can be obtained, in that particular match. Thus, it helps team captain, coaches, and management to choose those parameters (players), in that match, to increase their win probability. Also, the strengths and weaknesses of the order of the bowling and batting of the team are obtained to improve team performance.

Sr. No.	Paper ID.	Title and Authors
8.	10	**Artificial Intelligence Digital Assistant for Visually Impaired People** *Vishal Patil, Yogesh Jadhav, Deepa Parasar and Ajay Sirsat*

Abstract:
The World Health Organization states that, in 2017, 253 million people face vision impairment: 36 million are blind and 217 million have moderate to severe problem for vision impairment .In India currently around 12 million blind people are there, which puts India home to one-third of the world's blind population which is not a good number. We want to assist visually impaired people living in India by using the camera of an Android phone to capture images, identify them and provide information related to its which would improve their day-to-day routine. The application includes currency detection, product recognition using barcode and text reader. The application is trained using Convolutional Neural Network (CNN) to recognize the currency and by applying transfer learning over the model VGG 16 and Keras framework (Python). Barcode is detected using Mobile Vision API provided by Google and the information about the product is fetched using other public API's. Similarly, Mobile Vision API is used to read text from an image clicked by a user. The app is gesture-based, and the detected results are converted to speech, thus making it easier for the unsighted person to use.

Sr. No.	Paper ID.	Title and Authors
9.	11	**Eazy Diary** *Rutuparn Awaghad, Rohan Patel, Swapnil Gawad and Suvarna Pansambal*

Abstract:
In the traditional milk delivery system, the milkman deliver the milk door to door. In this paper, we have proposed an Easy Diary system. This system is especially for all the information and delivery of the milk which is entered and we can keep track of all transactions. This system is web and android based application that helps people who want to manage milk activities and places like milk booth, milk shops, dairy farms. E-commerce is booming very much and is projected to grow even further with increasing number of people relying on mobiles apps for day to day needs and the convenience it provides. our aim is to delivery milk to the customers via the delivery application through the delivery boys. The proposed system is evaluated and compared with the existing system.

Sr. No.	Paper ID.	Title and Authors
10.	12	**A Comparative Study of Messaging protocols** *Shefali Mahadik, Pragya Maurya, Aditi Jadhav and Suvarna Pansambal*

Abstract:
Messaging Protocols are fundamentally configurations and rules characterized for trading messages between various pieces of a messaging framework. Message passing is a sort of correspondence between processes. Message passing is a type of correspondence utilized in parallel programming and object oriented programming. Interchanges are processed by the sending of messages through signals, packets of data and functions to beneficiaries. This work targets examining messaging protocols like MQTT (Message Queuing Telemetry Transport), AMQP (Advanced Message Queuing Protocol) and XMPP (Extensible Messaging and Presence Protocol) with respect to their features, application, security angles, confinements and their use in well known Social Media and informing applications.

Sr. No.	Paper ID.	Title and Authors
11.	13	**Literature Review : Milk Diary Systems** *Rutuparn Awaghad, Rohan Patel, Swapnil Gawad and Suvarna Pansambal*

Abstract:
On a daily basis, thousands of milk delivery boys deliver milk door-to-door to the customers. The records of supply and transactions are either memorized or noted down on paper by the vendors and delivery boys, which is inefficient in case of loss of records. In this paper, we have proposed a Milk Dairy System which joins the three important entities such as vendors, milk-delivery boys and customers. This proposed system will connect the entities via a web-based application or an android app and will automate all the traditional on-going methods. In this paper we aim to revolutionize the existing method by giving the comfort to the customers of paying the bill from their mobile phones, maintaining transaction of supply and delivery records, making vendors sell variety of milk and assign delivery boys according to the needs, allowing customers to download bill from the app, and many more.

Sr. No.	Paper ID.	Title and Authors
12.	14	**Financial Website with digital signage and stock market predction** *Kaushal Lakkavajjala, Mayank Vandra, Siddharth Doshi and Bhavna Arora*

Abstract:
In a rapidly growing digital age, organizations expect more from a website. So, it is important to include a variety of features in the organizations interest. Here we have included web-based digital signage and stock market prediction. In web-based digital signage, the proposed method uses standard web technologies to display content. For stock market prediction we have used machine learning algorithms such as ANN with different feature selection also the capital asset pricing model (CAPM) is a model that describes the relationship between systematic risk and expected return for assets, particularly stocks. CAPM is widely used throughout finance for the pricing of risky securities, generating expected returns for assets given therisk of those assets and calculating costs of capital.The proposed model is a overall cost saving model for the organization. It also ensures less man power is required for operating.

Sr. No.	Paper ID.	Title and Authors
13.	15	**IoT Based Gas Leakage Detection and Alert Generation Using Raspberry Pi** *Dharmi Sheth, Namrata Kamble, Laxman Rathod and Bhavna Arora*

Abstract:
This paper deals with the improvement of an advancement development gas sensor for distinguishing proof, checking and control course of action of LPG spillage. Nowadays the use of the gas is extended the gas spillage has been a famous issue. The gas spillage causes the wastage of the gas and mainly as its combustible veritableit it can harm to the living thing and other property. To beat such a scene, we are developing a system by using raspberry pi. This will prompt the customer about the spillage and take the security measures in a brief moment. The chance of the system is that the gas sensor is used which recognizes the closeness on the gas in the including atmosphere and if the estimation of the gas in air is extended, by then the breaking point regard alert is made by the structure and the structure can be watched and controlled remotely. A Web page is worked to demonstrate the status to the client observing it.

Sr. No.	Paper ID.	Title and Authors
14.	16	**Decentralized Domain Registry Using Blockchain** *Kavita Poojary, Shefali Sawardekar and Bhavna Arora*

Abstract:
We present Decentralized Domain Registry (DDR), a framework that replaces current top-level DNS framework and authentication specialists, which will offer adaptable, secure and strong DNS framework DDR utilize an area name possession scheme base on Blockchain. DDR evacuates existing DNS quality, for example, DDOS assaults, DNS ridiculing and restriction via government. DDR gives decentralized validated record area name possession which will wipe out the requirement for endorsement specialists. DDR is turn around good with DNS. The system will reduce latency using Interplanetary File System (IPFS) through end to end content delivery.

Sr. No.	Paper ID.	Title and Authors
15.	17	**Analysis of flexible robotic manipulator using fuzzy and SNC controller** *Namrata Lade and Om Prakash*

Abstract:
This work presents a study of two different control strategies for a flexible single-link manipulator. We are going to present two type of controller: 1) Sliding Mode Controller and 2) Neuro Fuzzy Controller. The trajectory tracking control using Sliding Mode Control (SMC) strategies for a flexible link robot manipulator have been presented SMC controller mostly used for flexible-link manipulator control. Tackling uncertain nonlinear systems is powerful method. Also, another strategy used to eliminate connection vibrations and get good trajectory tracking output is the Neuro Fuzzy logic control system. In this system we are going to implement a Hybrid Neural Network (HNN) based optimization to optimize the controllers. Here we will optimize two controllers first, Sliding Mode Controller (SMC) and Fuzzy logic Controller by which problem of energy consumption, error, vibration suppression and trajectory tracking will be eliminated. The contribution of our proposed system is to improving the performance of SMC by implementing the Fast Terminal Sliding Mode Controller. This simulation can be done by using Matlab Simulink.

Sr. No.	Paper ID.	Title and Authors
16.	18	**Potholes and hump detection system using IoT** *Shyam Achary, Sachit Agarwal, Deepak Das, Niraj Bhora and Pragya Jain*

Abstract:
Abstract Road Accidents are severe in developing countries as compared to the developed countries, especially in India where the number of vehicles has increased far more than road lengths. Potholes are one of the factors contributing to road accidents. This paper discusses various previous and ongoing methods on identifying the potholes and humps, and also proposes a method which is comparatively cost effective, easy to implement, robust and can be used widely. Use of Ultrasonic sensor is used for detection of depth and height. System is structured to capture geographic location via GPS along with the dimensions of potholes. The sensed data is produced over cloud via open source application which can be retrieved via mail or Government server and can be used.

Sr. No.	Paper ID.	Title and Authors
17.	19	**A Survey Of Human Detection Drones** *Akash Sangle, Hrushikesh Bhanaji, Rutuja Wade and Suvarna Pansambal*

Abstract:
As of due to the many natural calamitis like tornados, earthquakes, floods and collapsing of the buildings many peoples loses their lives. In these situations, the rescue team was not able to locate the survivors under the debris as early as possible and they face many problems while finding the human under the rubble. To solve these problems we introduced a smart human detecting rescue system. The system equipped with drone has sensors like passive infrared sensor and the ultrasonic sensor. Wi-Fi module is for the communication between firebase and mobile.

Sr. No.	Paper ID.	Title and Authors
18.	20	**A Smart Human Detection Drone For Rescue** *Hrushikesh Bhanaji, Akash Sangle, Rutuja Wade and Suvarna Pansambal*

Abstract:
Now a days, the people's faces many natural calamities which occur due to the environmental changes like cyclones, underground eruption, collapsing of the buildings happened and due to these lot of peoples losing their lives. In such situations the rescue teams was not able to show up on time. To overcome such problems, we developed a human detection rescue system. The system is equipped with drone, sensors and controlling module. The system has PIR sensor, ultrasonic sensor and radio telemetry wave to communicate between android application and drone.

Sr. No.	Paper ID.	Title and Authors
19.	21	**Review on Rights for Person with Disabilities and Difficulties Faced in Finding Scribes/Readers** *Kunal Kasa, Ajit Goud, Akash Mishra and Shweta Sharma*

Abstract:
Person with Disabilities or PWDs are an integral part of society and should be provided with equal rights and opportunities in this competitive world. The continuous efforts and endless struggle by Person with Disabilities, Social activists and Institutes in order to get equal rights for Persons with Disability was recognized and we got the "The Persons with Disabilities Act, 1995", after long protests and demands. This Act marked the beginning of equal participation of PWDs in all fields. Many policies and guidelines established and several provisions were made available to person with disabilities yet the expected results were not achieved. What policies have been implemented, the guidelines for examinations, facilities available for PWDs, the different opportunities which PWDs can avail for, the current system for allocating Scribes/Readers for PWDs, the process of finding Scribes/Readers by one self, the methods and platforms that are being used, efficiency and drawbacks of the used techniques and methods, what are the different difficulties are faced by PWDs when opting for own Scribes/Readers, lack of Organizational facilities and the major reasons for the grievance of PWDs are discussed in this paper.

Sr. No.	Paper ID.	Title and Authors
20.	22	**Vernin – Android Platform for PWDs to connect with voluntary Scribes & Readers** *Kunal Kasa, Ajit Goud, Akash Mishra and Shweta Sharma*

Abstract:
Physically challenged Students do not have it easy when finding suitable Scribes and Readers for their examinations. The reasons are evident as there is no one particular platform for them to post their requirements where they can get quick responses, unlike the traditional means which are not efficient and take a lot of time and effort. Availability, Compatibility, Eligibility of Scribes/Readers are few of the major concerns for PWDs while finding a suitable Scribe/Reader. For this problem, a single platform which will help to connect PWDs with Scribes/Readers who are voluntarily interested in helping PWDs with their examinations is necessary. Vernin is an Android platform for PWDs and voluntary Scribes both, to create a better community for PWDs and Scribes where effective communication can be carried out. On this platform, PWDs can post their requirements and on the other hand, interested Scribes can accept those requests, connect with the PWD and ultimately help them with their examinations. Resulting in reducing the gap between PWDs and Scribes. The purpose of this paper is to discuss the existing solutions, their drawbacks, proposed solution, methodologies implemented and techniques used to achieve the required result.

Sr. No.	Paper ID.	Title and Authors
21.	23	**Smart Measurement of Marketing Activities Using Machine Learning Algorithms** *Vinay Addagatla, Makarand Dongare, Pankaj Chaurasia and Samidha Kurle*

Abstract:
The effectiveness of marketing activities of the company's product can be measured by its sale's report. When you measure key performance for your marketing activities, you can easily figure out what works and what does not. You can then direct your marketing resources toward the most effective activity to achieve success. Till now, the effectiveness of advertisement has been measured in terms of sales. So measurement of each activity is basic task by using techniques and algorithms like PCA (Principal component Analysis), DA (Dominant Analysis) and machine learning Algorithms like Random forest regression, to analyses the data related to marketing activities and build a prediction model that will predict the effectiveness of the activity.

Sr. No.	Paper ID.	Title and Authors
22.	24	**Measuring the Impact of marketing activities on Organizations performance** *Vinay Addagatla, Makarand Dongare, Pankaj Chaurasia and Samidha Kurle*

Abstract:
In order to succeed in today's competitive business environment, a firm should have a clear marketing strategy. This paper will give a review of different researches made to measure the impact of current marketing activities and what all things should be considered while measuring the effectiveness of the marketing activity. This paper has also identified some of the key metrics that are to be considered in the measuring process. Reworking to dynamic market variations and choosing the optimum development approach based on the results of marketing activities today become a vital problem for industrial enterprises. Hence it is important to know the importance of the right combination of marketing instruments (products, prices, promotions, and distribution) that affect the business performance. The goal is to investigate the features of evaluating the effectiveness of marketing activities based on the overall growth of the company or enterprise.

Sr. No.	Paper ID.	Title and Authors
23.	25	**Avoid Crop Loss using various Technologies: A literature review paper** *Sanket Birwatkar, Aviraj Chindarkar, Reeya Nand and Dr. Mamta Meena*

Abstract:
Maintainability in agriculture relates to the capacity of an agroecosystem to typically keep up generation through time. A key concept of maintainability, hence, is soundness beneath a given set of natural and financial circumstances that can as it was be overseen on a site-specific premise. On the off chance that the point of view of maintainability is one of bias against the utilize of natural and chemical innovation, and upholds a completely normal environment, at that point farming as a hone is as of now prohibited. In case, on the other hand, the viewpoint of maintainability is one of conservation of non-renewable assets inside the scope of the agrarian undertaking, at that point the objective isn't as it were achievable, but great commerce refines and great natural management.

Sr. No.	Paper ID.	Title and Authors
24.	26	**Avoid Cash Crop Loss Using Machine Learning** *Sanket Birwatkar, Aviraj Chindarkar, Reeya Nand and Dr. Mamta Meena*

Abstract:
The disease affecting the crops can be predicted with the help of previous data and can be identified by using Faster Region-based Convolutional Neural Network (Faster R-CNN) detectors combined deep feature extractors such as VGG net and Residual Network (ResNet) to diagnose plant diseases by the image processing of plant leaves. Using various algorithms like SVM, Naive Bayes, ID3(iterative dichotomiser3) we can predict and do weather forecasting over a certain period of time and for a particular region. One of the most important factors to be considered while implementing a solution based on avoiding cash crop loss is detecting pests attack on the crops on an immediate basis. The solution uses deep learning and image recognition processing which will help predict the pest's attacks if they are likely to happen.

Sr. No.	Paper ID.	Title and Authors
25.	27	**Secured Online Voting System using Blockchain Technology** *Tanvi Shah, Sneha Kadam, Ankita Mane and Tanvi Kapdi*

Abstract:
Social Life is one of the most benefited area by technology. Advancement in technology has provided humans access to a variety of resources and services through a 24 hour globally connected architecture. Technology such as the Internet has proved to be a boon for innovations and crafting resources beneficial to mankind. One such groundbreaking innovation is Blockchain-an exciting technological advancement prominently. Known for its application in cryptocurrency. Blockchain offers an infinite range of applications which benefit from the concept of shared economy. With properties such as immutability, decentralized architecture, Blockchain presents itself as a potential solution in bridging the current parity between common man and its government. Public Elections are one of the basis upon which the democracy is built. Thus carrying out transparent elections and preventing electoral fraud is of utmost importance. This paper aims to evaluate the application of Blockchain as a service to implement online electronic voting. This paper analyzes the requirements of building an Electoral portal using the Blockchain technology and identifying the legal and technical challenges that may be faced while designing the system.

Sr. No.	Paper ID.	Title and Authors
26.	28	**Smart Toll Pay:An android based application for hardware-less Toll Payment** *Shubham Palkar, Aniket Kadam, Shashank Padma and Nikita Patil*

Abstract:
The growth in the population of cars has increased a lot and is predicted to burst through in the coming years . All of this introduces more traffic , more pollution and more cost to people. We cannot control the growth in the population of cars but can do a thing or two by tweaking some functionalities in some of the systems used by these cars. One such system is a Toll system and we could change the traditional way of a Toll system working into a modern way by utilizing the technology available to us. Here we introduce a new way of functioning of Toll System

Sr. No.	Paper ID.	Title and Authors
27.	29	**Fractal Image Compression: A Review** *Ranjita Asati*

Abstract:
Image compression is a significant technology in the transmission and storage of digital images. The significance of image compression is that to preserve the visual feature of the image. Fractal image is self-similar in nature whose basic structure is repeated at all levels of scaling. Fractal image compression is used to minimize the image size in byte format without degradation of the quality of image. Fractal image compression (FIC) is a new compression technology in the spatial domain. It is based on block based image compression technique which detects and codes the existing similarities between different regions in the image. The major drawback of fractal image compression is that it requires high encoding time. In this paper we comprehensively reviewed various available fractal image compression techniques and approaches to reduce the encoding time of FIC and to get improved quality of reconstructed image.

Sr. No.	Paper ID.	Title and Authors
28.	30	**Real-time Surveillance system in video** *Ketki Salunkhe, Priyanka Rajaram, Samidha Raut and Samidha Kurle*

Abstract:
Real-object recognition and detection is the ability to automatically analyze object to recognize and assess temporal events which do not rely on a single image. It is the mechanism by which a video is stored, data gathered and data evaluated for the purpose of collecting domain specific knowledge. Object Identification is the method of identifying instances of real-objects. It enables several objects to be identified, focused, and detected within an image, picture, or in real time. The identification of anomalous events and artifacts through video becomes quite difficult owing to the uncertain existence of the phenomena, the background under which the incident took place, the absence of sufficient amount of anomalous ground truth testing data and other considerations correlated with weather variability, lighting conditions and the operating state of the cameras recorded. This paper aims to research and evaluate different anomalous behavior detection and event tracking strategies based on film. Various activity and object detection systems were provided the emphasis. The methods are contrasted from both precision driven activity detection viewpoints and real-time computation driven activity detection. This paper further focuses on work problems and obstacles, technology contexts, reviewed databases and potential operation and object detection directions.

Sr. No.	Paper ID.	Title and Authors
29.	31	**Real time Activity Detection & Recognition in Video** *Ketki Salunkhe, Priyanka Rajaram, Samidha Raut and Samidha Kurle*

Abstract:
Real-time video recognition and detection is the ability to analyze video automatically to identify and evaluate temporal events that are not dependent on a single image. It is the process by which a video is processed, data gathered and data analyzed to obtain domain-specific information. Object Detection is the process of finding real-world object instances. It allows for the recognition, localization, and detection of multiple objects within an image, video or in real time. This paper is about a security monitoring system that uses identification of activity of the human body to build protection of surveillance and also detects the suspicious objects. Nevertheless, no unusual circumstances are detected by people, rather computers that analyze the recorded pictures and identify suspicious behavior or incidents. We used the OpenPose Python API for our conceptual development.

Sr. No.	Paper ID.	Title and Authors
30.	32	**Deep Learning Model Development to Classify Technology from Social Media** *Yesha Mehta and Dr. Kalpesh Lad*

Abstract:
The trends shaping economies, societies and the world of work have a direct impact on the person's profession. Due to world-wide contribution in open-source technologies, new technologies are released frequently. The technology and tools learned by people becomes obsolete in short period of time. As I.T. industry required frequent upgrades in skills and new technologies are being released, it is essential to track and know new upcoming technology trend of the field. To achieve this aim deep learning model is developed to identify upcoming technologies from social media threads. This paper presents technology classifier model to categorize unstructured text content in to relevant technologies. To develop technology classifier, classification algorithms Support Vector Machine, Decision Tree, k-Nearest Neighbour, Artificial Neural Network and Deep Feed Forward Neural Network are trained and experimented to predict technology terms from unstructured content of social posts. The results of experiment shows that Feed-Forward deep neural network outperforms other classification models and provide better accuracy and technology term prediction.

Sr. No.	Paper ID.	Title and Authors
31.	33	**Gas Spillage Detection and Quick Alert System Using IoT** *Dharmi Sheth, Namrata Kamble, Laxman Rathod and Bhavna Arora*

Abstract:
This paper manages the improvement of a development innovation gas sensor for identification, checking and control arrangement of LPG spillage. These days the utilization of the gas is expanded the gas spillage has been an eminent issue. The gas spillage causes the wastage of the gas and principally as its flammable genuine damage should be possible to the living thing and other property. To beat such an episode, we are building up an IoT based Gas Leakage Detection and Alert Generating framework by utilizing raspberry pi. This will advise the client about the spillage and take the security quantifies in a split second. The possibility of the framework is that the gas sensor is utilized which distinguishes the nearness on the gas in the encompassing climate and in the event that the estimation of the gas in air is expanded, at that point the limit esteem alert is created by the framework and the framework can be observed and controlled remotely.A Web page is built to show the status to the user monitoring it.

Sr. No.	Paper ID.	Title and Authors
32.	34	**Smart Security System: A surveillance system based on OpenCV and Android platform** *Nishant Ghanate, Kartik Bhagat and Sandeep Gamot*

Abstract:
The use of image processing and computer vision techniques can now be realised using computer processing. And with readily available libraries like OpenCV, it has become easier than ever to use such technologies to improve upon the traditional security systems for our benefit. By creation of this project, we aim to make it a very easy process to secure the homes and workplaces at a relatively cheaper cost. Traditional CCTVs, in addition to being expensive, don't offer much in terms of control over devices. Our proposed system consists of developing a smart tool by which a computer or raspberry Pi attached with a camera can be converted into a smart surveillance system. Further modules can be connected like temperature module, PIR sensor, etc. The aim of this project is to develop a smart and cost efficient smart system and as a result provide a cheap and manageable option to small business owners and households.

Sr. No.	Paper ID.	Title and Authors
33.	35	**LI-Fi Technology-Cryptographic Data Transmission** *Harshad Dhikar, Bhavesh Sawant, Tanuja Sakpal, Priyanka Shinde and Santosh Dodamani*

Abstract:
As Wi-Fi hotspot and cloud computing are rapidly increasing signle is sure to suffer. Speed and security are also major concerns. They are vulnerable to hackers as it penetrates through walls easily. Li-Fi is said to overcomes this. This new technology is like infrared remote control that data send thorough an LED light bulb that varies in intensity faster than the human eyes can see. In the near future, we will see the data for laptops, smart phones and tablets transmitted thorough the sunshine during a room. Li-Fi may be a fast and cheap optical version of Wi-Fi, the technology of which is predicated on light communication(VLC).

Sr. No.	Paper ID.	Title and Authors
34.	36	**WYCH Debater: A modular System for Argument Mining, Speech Formation and Debate rebuttals based on Artificial Neural Networks** *Rishabh Yadav, Anujay Ghosh, Vidit Gholam, Shweta Sharma and Deepali Maste*

Abstract:
AI Debater the first cognitive system able to debate humans on complex topics. It relies on three pioneering capabilities. The first is data-driven speech writing and delivery, or the ability to automatically generate a whole speech, reminiscent of an opinion article, and deliver it persuasively. The second is listening comprehension, which is the ability to understand a long spontaneous speech made by the human opponent in order to construct a meaningful rebuttal. The third is the system's ability to model human dilemmas and form principled arguments made by humans in different debates based to determine what constitutes an effective negation, then a statistical approach to determine when an automatically generated negation can plausibly be used on a unique knowledge graph. By combining these core capabilities, it can conduct a meaningful debate with human debaters.

Sr. No.	Paper ID.	Title and Authors
35.	37	**Review on WYCH Debater: A modular System for Argument Mining, Speech Formation and Debate rebuttals based on Artificial Neural Networks** *Rishabh Yadav, Anujay Ghosh, Vidit Gholam, Shweta Sharma and Deepali Maste*

Abstract:
Great public debates have sparked our imagination since the days of ancient times. This intellectual tradition will take on new life if this AI worked. AI Debater is aimed to be the first AI system that can debate humans on complex topics. It's able to debate topics it never trained on. With just a few minutes of prep, AI Debater is ready to deliver an opening speech. First, it searches for short pieces of text, drawing from around billions of sentences taken from newspapers and journals. This process can result in a few hundred relevant text segments. The AI system removes redundant text, Selects the strongest remaining claims and evidence, and arranges these by themes to create a narrative. AI debater pieces all the selected arguments together to create and deliver a persuasive speech. The next step is to listen to the opponent's response, digest it and build a rebuttal. The core technology breaks new ground in AI including Data-driven speech writing and delivery, Listening comprehension modeling human dilemmas.

Sr. No.	Paper ID.	Title and Authors
36.	38	**6G Network Access and Edge-Assisted Congestion Rule Mechanism using Software-Defined Networking** *Prajakta Borole, Dr. Yogesh Kumar Sharma and Dr. Santosh Nivrutti Nemade*

Abstract:
Now-a-days there is a wide usage of internet ongoing due to which the users face internet traffic and low speed surfing resulting in traffic congestion. The analysts are now looking at the potential 6G technology after 5G network becomes a major commercial success. To cope up with the internet traffic we have introduced network congestion avoiding mechanism and avoiding jamming of congestion in communication. The system will take Real time data for avoiding buffering of traffic flow. The results of the evaluation of this proposed mechanism suggest that it can improve the efficiency of network. Another concern is network security as there is need for unified security architecture protecting the authenticity of the data over the network. There is a need for security as the users send and communicate so there is higher risk of data malign or piracy. Network Slicing is another mechanism where there is virtual slicing of network to avoid slow broadband speed, where individual should not be hampered due to broadband speed. The system propose slice admission control scheme for network slicing. The proposed system also compares the internet speed using transmission technique for understanding the 6G network functioning.

Sr. No.	Paper ID.	Title and Authors
37.	39	**Leveraging Augmented Reality in E-Commerce** *Premkumar Raval, Saurabh Soparkar, Rutuja Pawar and Priti Rumao*

Abstract:
The effect of leveraging AR & VR in the retail and advertising sector can be transformative. Retailers and businesses can utilize AR as an expansion of the brand experience to engage clients using immersive tech and drive profits. By 2020, 100 Million clients will shop using AR, VR & MR. Our AR web based business framework is created as an Internet module, which can be broadcasted to people via various means. Study results show that the AR internet business framework can give more data and more straightforward encounters to online clientele, by joining physical condition data with virtual item models. Online customers can "test use" items while shopping online and gain more information about the items. In this way, clients can settle on better obtaining choices and have a superior opportunity to buy the "right" items at the right price.

Sr. No.	Paper ID.	Title and Authors
38.	40	**A review on Deep Learning Strategies for detecting Malware Diffusion in IoT Networks** *Akanksha Bhargava and Prerna Goswami*

Abstract:
The Internet of things is the term coined for all the devices that are connected and can exchange data. With the advent of technology, the growth of the IoT industry has become extensive.The IoT universe has made it possible for users to monitor their network connected devices remotely. Physical devices integrated with web based domain services has made Internet of Things susceptible to threats like intrusions,DoS attacks,DDoS attacks,jamming and malwares[7],[8].Many IOT devices are personal to the individuals requiring high security and cannot afford to get compromised. For instance, Smart pacemaker can be lethal if attacked. Hence, the need for more secure infrastructure to protect data privacy has become a priority. Another issue with having IOT devices is to schedule burgeoning mobile network traffic. This ever growing traffic needs to be scheduled in real time and should be reliable.

Sr. No.	Paper ID.	Title and Authors
39.	41	**Recommendation System Aiming To Solve General Accommodation Problems** *Adarsh Totla, Rajat Bucha and Manjitsing Valvi*

Abstract:
Recommendation systems are one of the newest trends pioneering in enhancing the user experience across the internet. These are mainly used by e-commerce portals like Amazon, Flipkart or commercial industries like Netflix, Amazon prime video etc. One of the factors in the success of these brands is Recommendation Systems. Recommendation systems influence the customers behaviour to look at and purchase products or services, by providing them a customised experience. These systems largely depend on the analysis of user ratings and preferences and then predicting and recommending the user with similar products or services. Recommendation systems find their application in almost every industry that provides services to the users. The paper describes a similar recommendation system implemented; that works in compliance with matching algorithms like stable marriage problem, collaborative filtering and helps in finding compatible roommates, recommends rooms and daily chores service providers for those in need in a user friendly manner.

Sr. No.	Paper ID.	Title and Authors
40.	43	**Smart Water Level Management System Using Arduino** *Amit Yadav, Mitali Patil and Princia Koli*

Abstract:
Nowadays all communications are done using the internet; this concept is called Internet of things (IoT). Things in IoT can be anything or everything that we use in our daily lives. And in this project, the thing & quota; is a water tank. So why water tank? Basically water level in the tank gets reduced and it needs to be filled again before the tank gets completely empty. In the process of filling the water again we usually forget to close the valve of the pump, due to which the water can be over flown and get wasted. This is the reason we proposed the smart system for water level management. Our concept utilizes an Arduino that can provide monitoring level of the water tank. That Arduino will open and close the pump or valve automatically so that the water is not overflown and wasted. We are using the float sensors which will sense the level of the water.

Sr. No.	Paper ID.	Title and Authors
41.	44	**Enhanced Media Player using Face Recognition, Hand Gestures and Voice Detection** *Ruchita Paithankar, Aditi Pusalkar, Jayshree Saindane and Sinu Mathew*

Abstract:
When watching a video on a computer, many interruptions can distract the user away from the system, e.g., a laptop or a desktop. This causes an important part of the video to be missed. We are developing an advanced media player which plays and pauses the video by detecting the user's face, using a web camera. If the user is looking at the screen, then the video is not interrupted. In case if the user is not looking, and the system couldn't detect the user's face, then it immediately stops the video. We are adding an additional functionality to control other features of our enhanced media player, such as increasing and decreasing the volume, forwarding and backwarding the video, using hand gestures and voice detection.

Sr. No.	Paper ID.	Title and Authors
42.	46	**Indoor Navigation Using Augmented Reality** *Rahul Gupta, Umesh Patel, Siraj Ansari and Neha Kunte*

Abstract:
Whenever People visit some places like hospitals, museums, and colleges they find difficult to navigate to a particular location. Using GPS for indoor navigation is not possible because GPS-enabled smartphones are typically accurate to within a 4.9 m (16 ft.) radius in an outdoor environment. Their accuracy reduces near buildings, bridges, and trees. Sometimes these places provide a 2D static map for navigation but it is difficult to interpret. Augmented reality is a technology that superimposes a computer-generated image on user view in the real-world. The basic idea is to improve indoor navigation using Augmented Reality. The proposed application used to locate a particular room in an indoor location. The application shows directions using a 3D model and 2D map and it also provides instruction to reach the particular room on the website. The product provides a more accurate result than paper-based but less accurate than Wi-Fi-based. It is a stable and more convenient way for indoor navigation.

Sr. No.	Paper ID.	Title and Authors
43.	47	**A Review Paper on Health Alert Wristband using VoIP Calls** *Aishwarya Jadhav, Abhidnya Khobragade, Divya Mane and Tanvi Kapdi*

Abstract:
The majority of the senior residents are regularly disregarded and are powerless in the midst of health related crises. The current frameworks can help in keeping track of the condition yet don't have an automated alerting framework which can alert the concerned clinical specialists over long distances. Likewise, they are wired which can meddle with the patient's movements. Wearable and wireless gadgets are present in the market yet again their major drawbacks are being significantly expensive and an absence of automated alerting framework. The gadgets that have both wellbeing checking and alerting frameworks are simply exorbitant for the ordinary people. To deal with this issue, we have thought of a prospective Health Alert System. The framework comprises of a heartbeat sensor which will continuously monitor the pulse of the user. If the pulse rate deviates from the normal range, it will be detected by the Node MCU. In order to avoid a false alarm for healthcare services, the Node MCU will send an alert to the user using a buzzer in order to get confirmation from the user. The user will respond using the user input buttons and the system will act accordingly. The location will be fetched from the GPS sensor and healthcare services and relatives would be alerted about the user's condition and his location using VoIP Calls.

Sr. No.	Paper ID.	Title and Authors
44.	48	**Health Monitoring and Alert System Using Voice over Internet Protocol** *Aishwarya Jadhav, Abhidnya Khobragade, Divya Mane and Tanvi Kapdi*

Abstract:
The majority of the senior residents are regularly disregarded and are powerless in the midst of health related crises. The current frameworks can help in keeping track of the condition yet don't have an automated alerting framework which can alert the concerned clinical specialists over long distances. Likewise, they are wired which can meddle with the patient's movements. Wearable and wireless gadgets are present in the market yet again their major drawbacks are being significantly expensive and an absence of automated alerting framework. The gadgets that have both wellbeing checking and alerting frameworks are simply exorbitant for the ordinary people. To deal with this issue, we have thought of a prospective Health Alert System. The framework comprises of a heartbeat sensor which will continuously monitor the pulse of the user. If the pulse rate deviates from the normal range, it will be detected by the Node MCU. In order to avoid a false alarm for healthcare services, the Node MCU will send an alert to the user using a buzzer in order to get confirmation from the user. The user will respond using the user input buttons and the system will act accordingly. The location will be fetched from the GPS sensor and healthcare services and relatives would be alerted about the user's condition and his location using VoIP Calls.

Sr. No.	Paper ID.	Title and Authors
45.	49	**An Effort to reduce the CO2 emission in Computation for Green Computation** *Pratik Kanani*

Abstract:
This paper analyzes the emission rates of carbon dioxide in the computing field by identifying the sources of emission in the field. This study is done in order to highlight the breakdown of the carbon footprint of computing devices and thus suggest tips to reduce the emission rate. Emission rates are calculated for devices such as PC and Laptops, Mobile Network Infrastructures, Google Search Engine, in Cloud and Fog Computing, wireless access points for Wi-Fi, Raspberry Pi, Air-Conditioners and Solar Panels. In the process of analyzing emission rates, the paper also explores how eco-friendly Solar Panels are. It also mentions the side effects of the emissions which affect the user unknowingly. The aim is to make the reader aware of the emission rates and suggest ways to reduce their carbon footprint.

Sr. No.	Paper ID.	Title and Authors
46.	50	**Smart Glasses and Applications** *Chintan Jethva, Parijat Verma, Vaibhav Desai and Akshata Bhagavath*

Abstract:
As technology is growing rapidly and integrating itself to all aspects of people's lives, a more decent approach is to be dispensed. One of the trendy technology which aims to make life easier is wearable technology. Certain factors are implemented which are essential in today's world to deal with problems and use technology effortlessly. Smart Glasses are products that are used as an extension to the wearer's spectacles. It gives users a feel of both real and digital worlds simultaneously, providing a much more natural experience. The problem of taking out our phone from the pocket each time we receive a call or text message and unlocking it takes around 20 seconds and it can be troublesome for the user most of the time, so by providing all the required information on the glass itself adds ease to human life. Using Smart Glasses, the user can make use of applications like Google Assistant, Google Maps,etc. while on the move without actually removing the phone from their pocket thus avoiding the disturbing process. The Smart Glass App can act as a medium between the Smartphone and the Smart Glass. It sends out information like Date, Time, Current location, Caller's number, Incoming messages and messenger's number,etc. The earphones and mic helps to pick up the calls and communicate hands-free. The camera installed on the Glasses can find its application in many sectors.

Sr. No.	Paper ID.	Title and Authors
47.	51	**IoT Based Smart Parking System** *Kunj Oza, Raj Mehta, Yash Sayani and Sinu Mathew*

Abstract:
With the expansion in vehicle creation and total populace, increasingly parking spots and offices are required. Right now new leaving framework called Smart Parking System ; is proposed to help drivers to discover empty spaces in a vehicle leave in a shorter time. The new framework utilizes ultrasonic (ultrasound) sensors to recognizes either vehicle leave inhabitance or ill-advised leaving activities. Diverse recognition advances are evaluated and contrasted with decide the best innovation for creating SPS. Highlights of SPS incorporate empty parking spot discovery, identification of ill-advised stopping, show of accessible parking spots, and directional pointers toward empty parking spots, instalment offices and various sorts of parking spots (empty, involved, saved and impaired) using explicit LED's. This paper likewise portrays the utilization of a SPS framework from the passageway into a parking garage until the finding of an empty parking spot. The framework is intended for a four-level parking garage with 100 parking spots and five passageways on each floor. The framework engineering characterises the fundamental plan highlights, for example, area of sensors, required number of sensors and LED's for each level, and indoor and outside showcase sheets.

Sr. No.	Paper ID.	Title and Authors
48.	52	**A Fundamental study of Digital Image Watermarking** *Shubham Godhar and Vyom Kulshreshtha*

Abstract:
As the use of internet is at peak now a days, with which people do communicate and interact with the things easily. Such kind of use of internet creates a huge demand of safety and protection of data. For such safety and security purpose, techniques like water making, cryptography etc introduced. With the help of these techniques we can protect the digital data. This survey will represents various aspects of digital watermarking like characteristics of watermarking, types of water marking technique, merits and demerits, applications, kinds , embedded and extraction process. Different algorithms will be considered while performing digital watermarking like DWT, SVD etc. For securing e-governance applications, this survey will be useful for the further researches and studies in implementing water marking technique.

Sr. No.	Paper ID.	Title and Authors
49.	53	**Multilingual Chatbot With Human Conversational Ability** *Aradhana Bisht, Gopan Doshi, Bhavna Arora and Suvarna Pansambal*

Abstract:
Chatbots - The chatbot technology has become very fascinating to people around the globe because of its ability to communicate with humans. They respond to the user query and are sometimes capable of executing sundry tasks. Its implementation is easier because of wide availability of development platforms and language libraries. Most of the chatbots support English language only and very few have the skill to communicate in multiple languages. In this paper we are proposing an idea to build a chatbot that can communicate in as many languages as google translator supports and also the chatbot will be capable of doing humanly conversation. This can be done by using various technologies such as Natural Language Processing (NLP) techniques, Sequence To Sequence Modeling with encoder decoder architecture[12]. We aim to build a chatbot which will be like virtual assistant and will have the ability to have conversations more like human to human rather than human to bot and will also be able to communicate in multiple languages.

Sr. No.	Paper ID.	Title and Authors
50.	54	**Criminal Identification in Mumbai using DBSCAN** *Akshay Rathod, Rushikesh Sawant, Ashish Choudhary and Neha Singh*

Abstract:
In today's world, security is an aspect which is given higher priority by all political and government worldwide and aiming to reduce crime instances. So, in this paper crime analysis is done by performing DBSCAN clustering on crime dataset, synthetically developed using make-blobs, to help clients in selecting a better, safer route from their current location to a desired location.

Sr. No.	Paper ID.	Title and Authors
51.	56	**Analyzing Video to Find Particular Object Timestamp** *Sufiyan Sayyed, Sayali Patkar, Atharva Patil and Mahendra Patil*

Abstract:
We all are surrounded by huge data. People upload, download, send and update video, audio, images, and documents from a variety of devices. We often need to find one particular item of data among these hundreds, thousands, millions or more of these data objects. In documents or on-web page we've all gotten the little magnifying glass to bring up the search field. So we type the keyword in the search field and immediately get a list of every time that word shows up. Nowadays we can also search in images by using object detection. But searching in videos is currently not feasible. As more and more information gets in a large amount of which is left unprocessed. Video by itself is really hard to search. We can't find videos we want or browse for what we might like. That's a loss. So in our project, we provide a basic solution for it, so that we are able to find a particular object in videos and return the timestamp, where that object-related image was encountered. In the proposed system user will provide video as well as tag or image for the object to search. Then we process the video frame by frame and keep track of continuity of tag in frames. After the parsing of the entire video, we will provide a timestamp when particular tag related object encountered in the entire video.

Sr. No.	Paper ID.	Title and Authors
52.	57	**EduXR – Education Of The Future Powered By Extended Reality** *Krunal Gediya, Kashmira Golatkar, Abhishek Bandivadekar and Mahendra Patil*

Abstract:
It is imperative to consciously use technology to make teaching and learning effective in our education system. EduXR allows us to see real world with virtual elements. The objective of this research is "Betterment of Practical education delivered to engineering students". We are implementing it in such way that it can be accepted worldwide and can be implemented in engineering colleges at reasonable cost. EduXR is an all in one Mixed Reality platform application for various education fields. It is based on the mobile collaborative ARVR system powered by 'Vuforia' Library. EduXR has an easy to interact UI, backed by powerful technologies such as 'Unity, Computer Vision, 3D computation'.

Sr. No.	Paper ID.	Title and Authors
53.	58	**Non-Invasive Blood Glucose Monitoring** *Priyank Sondagar, Ruturaj Chavan, Prathamesh Mestry and Neha Kunte*

Abstract:
In those days, the blood sugar monitoring (BGM) techniques are invasive which require a blood sample of the diabetic patient that makes the danger of infection. But it is essential to avoid complications arising due to abnormal blood glucose levels in diabetic patients. This paved the proposed system to develop a non-invasive monitoring technique. In our model we are using the method which does not include the process of taking blood samples instead of that we are using NIR sensor. By using the sensor output value and it compares with the BMI level of a person it generates insulin and glucose level. Difference between existing system and the sensor generated output varies from 15 to 20 percent.

Sr. No.	Paper ID.	Title and Authors
54.	59	**TalkAR: Language Learning in Augmented Reality** *Annette Menon, Milly Francis, Rajesh Nair and Sonali Vaidya*

Abstract:
In recent times, learning a foreign language proves to be useful in terms of career growth opportunities. In addition to this, with the advancement in mobile technology, learning using a mobile application opens the path to better results and a better learning experience as compared to the traditional classroom environment. In this paper, we present a mobile application that helps the language-independent people to learn the basics of the German language in the Augmented Reality environment. Based on the several studies that are conducted it was found that for career growth, Germany is one has turned out to be one of the budding countries which requires learning at least the basics of the language, this application was implemented to initiate interactive language learning with the help of a virtual tutor in Augmented Reality.

Sr. No.	Paper ID.	Title and Authors
55.	60	**Automated Traffic Signal Controlling Using Deep Learning Techniques** *Chirag Rohit, Mayank Shah, Kartik Sonaghela and Jyoti Wadmare*

Abstract:
The present Traffic Control Systems (TCS) in the metro urban communities of India is inefficient due to arbitrariness in the rush hour at crossroads throughout the day. A run of the mill day in India would take a gander at peak hour timings when the traffic thickness is high in the streets and peak hour timings when the traffic thickness isn't so high. The traffic flags at all the intersections in India are hardcoded which means the signals have fixed memories and switch traffic between statically. Because of this, the vehicles need to wait for prolonged amount of time even though the traffic density is less. The solution to this issue is by building up a framework which distinguishes traffic densities on each lane of the junction switch the signal lights dynamically along with synchronization of the adjacent lane's traffic signal. This process will be divided into two modules. The first module will comprise of building a model which will detect and count the number of vehicles in a particular lane. All these lane's density will be added in a dynamic queue on which pre-emptive and dynamic scheduling algorithm will be applied.

Sr. No.	Paper ID.	Title and Authors
56.	61	**Recognition of Human Mental Stress Using Machine Learning Paradigms** *Megha Gupta and Shubhangi Vaikole*

Abstract:
Nowadays it is very normal for humans to experience mild or moderate mental stress in a variety of situations. A manageable amount of stress is good for an individual, however, too much of stress affects person's mental health and is a guarantor for suicidal risks if left unnoticed over a longer period. It has been proven that long term stress correlates with physical health problems. With the increasing number of people undergoing stress, it is crucial to be able to detect it at an early stage and help people realize and resolve it before much damage is done. The traditional methods of assessing stress levels are by interviewing the individual and by observing the facial gestures. In the interview, stress related questions are asked to have a better understanding of individual's condition. People under stress react by giving different facial expressions i.e. the eyebrows shape differently, their pupils dilate, or the blinking rate might differ. These methods are limited as they may miss stress episodes. Research in the stress detection domain has become quite popular. There is a scope of improvement in enhancing the accuracy of the results obtained using various methods. The use of non-invasive techniques for stress detection are quite promising. This research work proposes a system to detect human mental stress using electroencephalogram (EEG) signals, speech signals, and audio-visual data. Stress is a mental condition that affects the brain electrical activity to be different from the normal state. Neurological signals are important to measure mental stress. Various sorts of electrical exercises relate to various conditions of the mind. These signs can be used to get the helpful data that can be utilized in early location of some psychological state. Speech of human beings is the reflection of the state of mind. The proposed research shall analyze speech signal to recognize human mental stress using machine learning techniques. The system shall also be able to recognize stress from the audio-visual data.

Sr. No.	Paper ID.	Title and Authors
57.	62	**Comparison of WiFi ,Bluetooth and Redtacton** *Saurabh Pokharkar, Gaurav Vanjara, Yash Bansode and Jignesh Patel*

Abstract:
Human Area Network (HAN) technology is in the early stage of development, and several research challenges have to be overcome for it to be widely accepted. The transmission media in HAN is the human body which has the potential to support Redtacton half-duplex communication at 10 Mbit/s. In the age of Internet of Things (IoT), wearable devices are becoming commonplace. HAN can be considered to provide ubiquitous services in IoT environment that shall enable communication between wearable devices in close proximity. Due to the capability of HAN to avoid costly network setups, it could be an alternative to popular wireless transmission protocols such as wifi and Bluetooth

Sr. No.	Paper ID.	Title and Authors
58.	63	**ShopNdrop using Smart trolley** *Harshil Panchal, Amir Khan, Kshitija Naik and Prof. Neha Kunte*

Abstract:
Today's world is accelerating in various technologies and have a rapid growing population with a wide range of demand for a variety of products. Customers need to coordinate among themself to purchase different products in Walmart or supermarkets, It needs lot of time and patience, for a successful shopping as Grocery Shopping in supermarkets is becoming more tedious as there are many people who still rely on shopping in person.We need to address such problem by efficiently using our technologies. Finding the products in our shopping list is quite difficult in a large supermarket. The advancement in Internet of Things (IoT) brings the assurance of a wide range of new recommendation systems.In this paper, We are proposing iot based smart shopping system. As a smart shopping system is necessary for shopping in supermarkets or grocery store for easy shopping. Hence an IoT enabled shopping trolley with a recommending system is proposed. A portable system is installed under the trolley to lead the users to the items location that they plan to purchase in the supermarket and based on that it can recommend the recipe & can predict the item and the ingredients required to make the recipe.. The main technologies used in this proposed system is Internet of things, thus ensures that the customers to have the best shopping experience, is all discussed in this paper.

Sr. No.	Paper ID.	Title and Authors
59.	64	**Seamless Shopping using QR code** *Harshil Panchal, Amir Khan, Kshitija Naik and Prof. Neha Kunte*

Abstract:
Quite often, when shopping in a supermarket, shoppers are frustrated at locating the items on the shopping list and no assistance is available. On the other hand, retailers also lose a large volume of sales as a result. In this paper, we present a feasibility study that leverages the Internet of Things (IoT) technology to make store items "smart" in which it will recommend the recipe by scanning the items QR code with the help of camera module and also provides the facility to user input ,it also recommends the recipe for the item and the ingredients required to make the recipe. Further, it also provides the facility to customer to locate the place of the desired item Thus, allowing the shoppers to search the item and map them on the store floor plan using raspberry pi. ,In addition to that the system will provide the cost of the item as well as the total cost of the scanned item. A Smart system has been developed to demonstrate the promise of this preliminary work. Continuous development of this research could lead to a complete change in our day-to-day shopping experience.

Sr. No.	Paper ID.	Title and Authors
60.	65	**Happy Gramps: Senior Citizens Safety App - using Fall Detection Mechanism and Miscellaneous Functionalities** *Yashashri Gharat, Jatin Jawale, Shubham Bhagat and Varsha Salunkhe*

Abstract:
With the ever-growing population of senior citizens in the world, it is becoming more and more necessary to build solutions for the problems they regularly face. Even though many problems have been cleverly addressed and smart solutions are technically available in the market, they don't seem to have much impact on the life of an average senior citizen. Most of the available solutions focus on solving one problem, without addressing the other common ones. Moreover, only a small subset of these solutions is readily available to everyone. The problem is that, these solutions are rarely affordable and accessible. Even with the booming IT sector, there are very few application software that address the need of the elderly. For this very reason, we are introducing a way in which smartphone- a device has become are everyday companion- can be used to address the needs of the senior citizens. We propose a smartphone application, which can provide precautionary measures in case of emergency, and also aid senior citizens in their day-to-day activities by providing different functionalities such as fall detection, emergency alert, reminder alert, as well as ability to store important information and contacts.

Sr. No.	Paper ID.	Title and Authors
61.	66	**Review on Fall-Detection and Miscellaneous Functionalities Strategies for Senior Citizen Mobile Application** *Yashashri Gharat, Jatin Jawale, Shubham Bhagat and Varsha Salunkhe*

Abstract:
With the ever-growing demand and use of smartphones, the industry has found senior citizens as a prime demographic for their products. However, many of the applications developed for smartphones are not very intuitive for the elderly. Most applications have complex functionalities that the elderly does not understand, and so they abstain from using such useful applications, or seek help of others for it. The growing stack of technology, and the advances in mobile phones can help solve this problem. However, very few applications exist that focus for aid of the elderly. We aim to create an application that can help senior citizens in their day-to-day activities and also provide emergency services, such as sending location information when fall is detected. This paper discusses the present state of application development for senior citizens, as well as some fall detection algorithms. The papers we studied focus on the points that need to be kept in mind while developing applications for such demographic. With the help of fall detection algorithms, we aim to provide a safety feature, which would inform the user's emergency contacts when a fall is detected. We also aim to provide miscellaneous functionalities, such as medicine reminder, notebook, to-do lists and emergency SOS button within the application.

Sr. No.	Paper ID.	Title and Authors
62.	67	**Advance Online Payment Security Using Qubits Integrated Blockchain** *Bhavin Gajjar and Jishant Acharya*

Abstract:
In this leading era of technology where cutting-edge computing power is evolving day by day. It is important to think whether the existing security methods are enough to actually protect us against the threat lying ahead of us? By using the leading and most secured online transaction platform known as blockchain and furthermore enhancing it by integrating it with the most promising future technology Qubits, we may can actually overcome the existing security threats. While talking in terms of computer nothing is actually random, everything is algorithm based and predictable, by introducing Qubits we can overcome this loophole.

Sr. No.	Paper ID.	Title and Authors
63.	68	**Automated Traffic Signal Penalty System using IoT and Machine Learning** *Gauri Shenoy, Mahendra Patel, Shantanu Patil and Nida Parkar*

Abstract:
In the current developing nation with increase in population there is increase in the number of traffic rule violations. Maintaining these traffic rule violations has always been a tedious and time-consuming task. Although the current traffic management system is automated, the increasing population and use of vehicles and the diversity of number plates makes this task more difficult. The main objective of this paper is to control these traffic rule violations accurately and cost effectively. The proposed paper includes an automated system which uses ultrasonic sensors and camera connected to Arduino to capture video. The paper presents automatic recognition of number plates of vehicles that mainly cross the pedestrian crossing when the signal is red. This can be done by using various machine learning techniques and image processing techniques for number plate detection and character recognition which makes this task much faster and easier to identify number plates. Once the vehicle number is recognized from the number plate, a SMS will be generated on the registered mobile number on the number plate stating the details of the traffic rule violation that has occurred. This paper proposes a more cost effective and efficient automatic system to ensure more safety on roads especially near the pedestrian crossing.

Sr. No.	Paper ID.	Title and Authors
64.	69	**Review Paper on Automation of Traffic Signal Monitoring System using Machine Learning and IoT** *Gauri Shenoy, Mahendra Patel, Shantanu Patil and Nida Parkar*

Abstract:
In the new advancing world, traffic rule infringement has become a focal issue for most of the creating nations. The quantity of vehicles is expanding quickly just as the quantity of traffic rule infringement is expanding exponentially. Overseeing traffic rule infringement has consistently been a dull and bargaining task. Despite the fact that the procedure of traffic the board has gotten computerized, it's a difficult issue, because of the fast increment in populace thus relate increment of their vehicles and the assorted variety of the number plates additionally makes the errand progressively troublesome. The chief target of this paper is to control the traffic rule infringement precisely and cost-viably. The proposed model incorporates a computerized framework that utilizes closeness sensors and is camera-dependent on Arduino to catch video. The project presents automatic recognition of number plates of vehicles that mainly cross the pedestrian crossing. This should be possible utilizing AI methods and other image processing systems for plate confinement and character recognition which makes it quicker and simpler to distinguish the quantity of plates. In the wake of perceiving the vehicle number from the number plate the SMS based module is utilized to inform the vehicle proprietors about their traffic rule infringement. Through this paper, we can propose a financially savvy and increasingly effective programmed framework to decrease the quantity of mishaps that occur close to the pedestrian crossing.

Sr. No.	Paper ID.	Title and Authors
65.	70	**Barcode Scanner for Visually Impaired** *Karan Patel, Ashish Lad and Divya Kumavat*

Abstract:
This paper aims to develop an application that will improve the daily life of a visually impaired shopper or user in general by assisting them with text-to-speech and audio cues. For a visually impaired (VI) person, shopping itself is a monumental task. They also face social scrutiny from the masses that may not understand their plights and consider them an inconvenience. This may lead to a negative impact on a visually impaired person. This application can also be used by shops/companies for assisting a visually impaired employee working at the transaction counter doing check-out of products. So, this application is beneficial for a visually impaired person on both sides of the transaction, as a shopper or as an employee who processes transaction. This application has a framework for barcode detection and for extraction of information related to product.

Sr. No.	Paper ID.	Title and Authors
66.	71	**Redtacton - A Human Area Network** *Saurabh Pokharkar, Gaurav Vanjara, Yash Bansode and Jignesh Patel*

Abstract:
All the user-friendly services needs technologies that provide communication between people and objects in close proximity. Our Project describes a model of human area networking technology that enables communication by means of touch. We implemented Redtacton technology for transferring of data between two computing devices. Redtacton Technology includes the use of the human body as a signal path for communication. A transmission path is created directly when a person comes into contact with a terminal device and communication between computer terminals is begun. Here, the human body serves as a transmission channel providing half duplex communication at 10Mbit/s.

Sr. No.	Paper ID.	Title and Authors
67.	72	**Wildfire Prediction System** *Vidya Zope, Tarun Dadlani, Ashutosh Matai, Pranjali Tembhurnikar and Richa Kalani*

Abstract:
Forests are considered as one of the most valuable and necessary resources and protect earth's ecological balance. Forests are a natural habitat to animals and forest products are vital in our lives in many direct and indirect ways. But forest fires can cause damage to land and many other resources in copious amounts. Wildfires burn acres of land and consume everything in their paths in mere minutes. Wildfire destroys homes, animals, trees and plants, wildlife as well as vegetation. The effects of wildfires are numerous and wide ranging. They have significant impacts on the economy, environment, heritage and social fabric of rural areas. Naturally caused wildfires can be predicted using factors[3] like temperature, humidity, soil moisture, pressure and many more. In this paper, prediction of forest fires by machine learning using some operational monitoring over a region and encountering changes in climate using different sensors is proposed. The proposed system monitors and records changes in climatic parameters and predicts the intensity of forest fire based on real-time data, thus avoiding the massive loss due to forest fires.

Sr. No.	Paper ID.	Title and Authors
68.	73	**Automatic Object Tracking using Deep Learning Technique** *Aditi Ushir, Ketaki Warke, Fenil Desai and Jyoti Wadmare*

Abstract:
Due to the rapid increase of necessity in security and military applications, surveillance systems have become a necessary area of study. Asking human operators to keep watch for long hours is not only a cumbersome task but it also increases the chance of error. Thus, to assist human operators identify events which are important, Automatic Object Tracking is proposed. An object is tracked by, firstly, detecting the object using any of the various object detection methods in frames present in the input video. These methods make use of the spatial domain, temporal changes, presence etc. of the objects present. Every object is then tracked using any of the various methods. This can be used for monitoring traffic, animation, robot vision and video surveillance. In the proposed system, YOLO v2 is being used for Object Detection and Kalman Filter along with Non-Maximum Suppression will be used for Automatic Object Tracking.

Sr. No.	Paper ID.	Title and Authors
69.	74	**Analysis of Barcode Scanning and Management** *Aaditya Damle, Monish Bangera, Susmita Tripathi and Mamta Meena*

Abstract:
In today's fast-paced world, people like things in shortcut – quickest, fastest, easiest, least effort path paradigm – and obtaining information is no exception. A trend can be observed in the market, of scanning codes of whatever project details they want to look at. These include details of products, phone numbers, address, features of the product and other facts. Many people would prefer to scan a code and get all relevant data about the product / website or object they need information about. What such users need, is an application that will run on their smart phones and quickly and accurately get them the data they want about a product / website / any related object or article. This is an easy way of data transmission that does not require internet or network connectivity. Such an application would increase the efficiency and effectiveness of work. The ability to instantly scan and get data required on one's own device is a huge advantage as they can use it for future references.

Sr. No.	Paper ID.	Title and Authors
70.	75	**Food Safety Inspection and Control Using Hyperspectral Imaging** *Samir Sawant, Yash Patole and Chinmay Sawant*

Abstract:
Food safety is an important public concern, and if not taken seriously it can lead to major outbreaks of food related illness which can turn out to be very serious cause of disturbance to the society. There is a major requirement in food and agricultural applications to have a fast and mobile technique to increase safety in production of food items. In such case hyperspectral imaging has turned out to be an effective major in such situation which is fast as well as reliable and can help in food safety inspection and control. Similar to other spectral imaging, hyperspectral imaging collects and processes information from across the electromagnetic spectrum. The main goal of Hyperspectral image is to obtain information of the spectrum for each pixel in the image captured of any random scene. This helps in detecting, identifying various objects, processes and materials. With the above speculation, it can be illustrated that various HSI techniques including near-infrared hyperspectral imaging, fluorescence hyperspectral imaging, etc., or their combinations can be used as some effective tools for food inspection and safety surveillance. In this paper, we are going to present a hyperspectral imaging technique which will help to differentiate between a fresh food product and a rotten food product by comparing their wavelengths.

Sr. No.	Paper ID.	Title and Authors
71.	76	**AR based Tourist Guide** *Raseeka Khavnekar, Vivek Maskar, Akash Dubey and Suvarna Pansambal*

Abstract:
We are on the verge of ubiquitously adopting Augmented Reality (AR)technologies to enhance our perception and help us see, hear and feel our environments in new and enriched ways. AR will support us in fields such as education, maintenance, design and reconnaissance to name but a few. This paper describes the field of AR, including a brief definition, development history, the enabling technologies and an AR based Tourist Guide System, which uses AR to help tourists in new places without the help of an external guide.

Sr. No.	Paper ID.	Title and Authors
72.	77	**AR based Indoor Navigation for Parking** *Sahil Narkar, Mrityunjai Mishra and Mamta Meena*

Abstract:
In today's world where time is money, people spend a lot of time finding the right parking spot at a big parking lot. Also, people tend to forget where they have parked their vehicles. Hence it is important to design an application that makes it easier for motorists to find a parking spot and make it a stress-free experience. Users will not be able to utilize GPS service inside or at the underground parking lot as It's influenced by huge buildings and structures. To overcome this shortcoming we use Augmented Reality (AR). Unlike Virtual Reality(VR), AR does not alter the whole real world with the virtual one. AR is projected on top of the real world to add more local information to it in the form of graphics, audio, and videos

Sr. No.	Paper ID.	Title and Authors
73.	78	**AugmentedReality(AR)andVirtalReality(VR)technologies for Tourism** *Raseeka Khavnekar, Vivek Maskar, Akash Dubey and Suvarna Pansambal*

Abstract:
We are on the verge of ubiquitously adopting Augmented Reality (AR) technologies to enhance our perception and help us see, hear, and feel our environments in new and enriched ways. AR will support us in fields such as education, maintenance, design and reconnaissance, to name but a few. This paper describes the field of AR, including a brief definition, development history, the enabling technologies and an AR based Tourist Guide System which uses AR to help tourists in new places without the help of an external guide.

Sr. No.	Paper ID.	Title and Authors
74.	79	**Self-Harm Prediction Model Using Machine Learning Technology** *Trishala Ahalpara, Kalyani Deore, Prathamesh Desai and Nida Parkar*

Abstract:
Psychological Disorders like self-harm and depression are very common among the people in the age range of 15-30 years. The host category of this age range is mainly the institute going students as it affects their lifestyle and the efficiency of the students to perform well on academic front. Machine learning is a powerful tool for predicting such medical situations. Hence the research focuses on predicting whether an institute going student shows any self-harm tendencies. The dataset of 353 students were collected from institute and analyzed for predicting the performance of the techniques used. This research has considered seven machine learning algorithms and has compared their results on the dataset collected. Out of the seven, the best working algorithm considered on the dataset is Random Forest Algorithm and hence the model was trained on it. In the model the research have considered twenty-five attributes out of which it has been reduced to thirteen attributes using random forest classifier feature importance method. Further using Stratified K Fold on the dataset the research has sampled the training data. In the end, fine tuning the hyper parameters using Grid Search

Sr. No.	Paper ID.	Title and Authors
75.	80	**Survey on : Smart Toll Tax Collection** *Shubham Palkar, Aniket Kadam, Shashank Padma and Nikita Patil*

Abstract:
The growth in the population of cars has increased a lot and is predicted to burst through in the coming years . All of this introduces more traffic , more pollution and more cost to people . We cannot control the growth in the population of cars but can do a thing or two by tweaking some functionalities in some of the systems used by these cars . One such system is a Toll system and we could change the traditional way of a Toll system working into a modern way by utilizing the technology available to us. Here we introduce a new way of functioning of Toll System making use of Geofencing and real time database which greatly reduces the efforts taken at the Toll and helps both the human and the nature.

Sr. No.	Paper ID.	Title and Authors
76.	81	**Football Prognosis using Machine Learning Algorithm XGBoost** *Mallika Vengarai, Wasim Gourh, Keshav Poojary and Nida Parkar*

Abstract:
Sport is among the most popular activities of all time. About half of the populace were interested in different activities, football or soccer, as it is popularly called. Football is now an activity with massive venture resources and sales in milliards yearly, not just in terms of sports. In the last year, the Premier League itself has given rise to more than 1 billion dollars. Because betting in most European countries is now allowed, citizens continue to participate week after week. Betting companies have their predictors that are the foundation for betting scores. If people seek to conquer these challenges, they also take a tremendous deal away from them. Even though there may be three outcomes: win, loss, or draw results in a football match, it can be difficult to predict these results. The goal of our paper is therefore to create a model that tries to overcome these odds by utilizing limited data.

Sr. No.	Paper ID.	Title and Authors
77.	82	**Football Prediction using XGBoost Algorithm: A Literature Review** *Mallika Vengarai, Wasim Gourh, Nida Parkar and Keshav Poojary*

Abstract:
Sports is one of the most prevalent activities of all time. About half of the world has been interested in different activities, soccer or soccer, as it is commonly known. Football is now an activity with massive venture resources and annual sales of billions, not just in terms of sports. In the last year, the Premier League itself has raised more than $1 billion. Because betting is now permitted in most European nations, citizens continue to participate week after week. Betting companies have their predictors that are the basis for betting scores. If people are willing to resolve these challenges, they will indeed help take a huge deal. Although there may be three outcomes to win, lose, or draw results in a soccer match, it may be difficult to predict these outcomes. The objective of this paper is therefore to create a model that aims to overcome these odds utilizing limited data.

Sr. No.	Paper ID.	Title and Authors
78.	83	**Supply Chain Visibility Using Blockchain** *Rushabh Timbadia, Suraj Pawar, Riken Shah and Bhavna Arora*

Abstract:
A supply network is a very intricate chain of numerous exchanges between different organizations involved and has developed over a very long period of time. And the introduction of e-commerce has also increased the demands of the supply chain in the past few years. There are many malpractices in this industry such as shipping of fake or used products, tampering with MRP. In the food and beverage industry, regulations, labeling standards, and audits make trace-ability amendatory objective. But in some industries due to the nature of its products and customer consumption patterns, supply chain product traceability is a low priority, for example, the apparel industry. To tackle this problem, we propose a system where the information regarding the supplier, product, and customer will be collected using the blockchain technology. Blockchain technology will be used for this system to record the entity(s) involved in the supply of products from the supplier to the customer into an immutable ledger so as to keep a permanent record of the transaction. For this system, a virtual Ethereum blockchain will be used using the software Ganache, and the interaction with the blockchain will be done using the web3.js library and Truffle framework. A smart contract will validate and carry out all the transactions that take place between the entities.

Sr. No.	Paper ID.	Title and Authors
79.	84	**Speech to ISL Translator** *Swati Sangya, Juilee Sonalkar and Kritika Shahi*

Abstract:
Communication plays an important role for human beings. Our work helps in improving the communication with the deaf and dumb. Sign language uses visually transmitted sign patterns to convey meaning. It is the combination of hand shapes, orientation and movement of hands, arms or body, and facial expressions. Our System is capable of recognizing sign-language symbols can be used as a means of communication with hard of hearing people. Our paper proposes a system to help normal people can easily communicate with hard of hearing people.

Sr. No.	Paper ID.	Title and Authors
80.	85	**Argument Mining for Medical Reviews** *Abhiruchi Bhattacharya, Kasturi Kumbhar, Padmaja Borwankar, Ariscia Mendes and Sujata Khedkar*

Abstract:
Argument mining is the process of extracting opinions and reasons from dialectical text and drawing conclusions to illuminate the author's viewpoint concisely. Hence, argument mining becomes highly useful in the medical domain, especially for pharmacists and analysts in analysing the effects of drugs on people and their varying opinions on the effectiveness of the drugs in question. In this paper, we propose a system that uses argument mining and machine learning to extract supporting and attacking relationships between sentences from drug reviews, in an effort to build an application that can provide deeper insight into people's opinions on various drugs. We identify argumentative content based on the presence of discourse indicators, which then undergoes pre-processing and feature extraction to form a meaningful representation of the text. We consider seven feature sets consisting of structural features, TF-IDF scores for unigrams and bigrams and their combinations. The feature vectors are given to a machine learning classifier for predicting support/attack relations between sentence pairs. We evaluate three classification algorithms, namely support vector machine, random forest classifier and AdaBoost classifier, using precision, recall, F1 scores and 10-fold cross validation accuracy as evaluation parameters. The application can then give a detailed analysis of the given medical review.

Sr. No.	Paper ID.	Title and Authors
81.	86	**Leveraging Quantum Computing for Supervised Classification** *Aditya Shah, Maulik Shah and Pratik Kanani*

Abstract:
Enhancing quantum computing for supervised machine learning is an innovative application in the field of smart computing. With recent advancements in quantum computing, and its rising coalesce with Artificial Intelligence, quantum computers can revolutionize the way to address previously untenable problems. As quantum computers can succeed in producing various intuitive patterns that are strenuous for a classical system to implement, it is reasonable to presume that these quantum machines can outperform a classical computer in various tasks. They can excel at solving problems which involve data crunching with a huge amount of inputs such as machine learning tasks, complex optimization problems, communication system analysis, etc. which require complex parallel computations for an efficient result. This paper attempts to analyze one such aspect of machine learning known as supervised classification with the help of a real Quantum hardware.

Sr. No.	Paper ID.	Title and Authors
82.	87	**Digital Watermarking Technique using DWT, SVD, and AES** *Shubham Godhar and Vyom Kulshreshtha*

Abstract:
As we are competing in advanced era, where the advancement and upgradation in technology takes place at every parameter (i.e. digitization, education) on daily basis. Such kind of use of internet involved in business environment, banking, hospitals etc seeking security, protection, concern towards illegal use of digital data. Internet is termed as the collection of various data in terms of audio, videos, images, text etc. Basically, while considering internet, the ownership identity needs to be protected. The suggested work will help in protecting the data from illegal use. In this manuscript we will present a technique named Water marking which will based on different algorithms like Singular Value Decomposition, Discrete Wavelet Transform & Advanced Encryption Standard. The term Watermarking is the way of securing data from copying, considering unauthorized access. The data availability can be either online or offline.

Sr. No.	Paper ID.	Title and Authors
83.	89	**Classification of Cardiac Arrhythmia** *Shefali Athavale, Yogita Bhatia, Akanksha Mittal, Tanya Mohanani and Dr. Mrs. Gresha Bhatia*

Abstract:
Cardiovascular diseases are one of the major causes of deaths in the world. These diseases include the abnormalities in the smooth functioning of the heart causing cardiac arrest, blockages and other related problems. One such ailment is the irregularities in the heartbeat of the person. Due to this, the movements of the heart are not operating at the normal pace causing palpitations and cardiac arrest. Though Electrocardiogram (ECG) is one of the most popular and widely used method for monitoring heart's electrical activity, it becomes quite strenuous for understanding the ECG reports which is a manual approach. So, there is a need to develop a system which could determine the condition a prior and classify them according to its severity. This paper focuses on the ECG deflections , cardiac arrhythmia and its types. The paper further dwells into the development of an automated system to detect and classify arrhythmia. Various algorithms are identified that lead to identification of the optimized machine learning algorithm for classification of cardiac arrhythmia with the aim to distinguish the patient with arrhythmia.

Sr. No.	Paper ID.	Title and Authors
84.	90	**CRYPT'AD: Privacy Focused Reward Based Ad System** *Tamanna Rohra, Heena Jeswani, Chirag Wadhwa, Amit Bhagchandani and Lifna C.S*

Abstract:
Ad networks are an essential monetization element for the advertising ecosystem. They act as an intermediary between advertisers and publishers. This paper illustrates a system that contains an ad server that incorporates bidding between many selected advertisers for a particular visitor. The selection process of advertisers includes a recommender system that is based on surveys taken when the user visits the publisher's website. Whenever a visiting user takes a survey publisher will be rewarded with digital currency. With these rewards, publishers can start their own ad campaign.

Sr. No.	Paper ID.	Title and Authors
85.	91	**A Survey on Data Privacy Protection methods in Big Data** *Mihir Sircar and Lalita Takle*

Abstract:
Magnificent amounts of Data are being generated by e-commerce, various applications, banks, schools, etc. by virtue of digital technology. Almost every industry is trying to cope with this huge data. Big data phenomenon has begun to gain importance. However, it is not only very difficult to store big data and analyse them with traditional applications, but also it has challenging privacy and security problems. An overview of the rapidly thriving field of Big Data, Data Mining, Data Acquisition and Analysis and the problems prevailing due to these is provided in this paper. Privacy preservation methods are becoming more important due to the increasing amount of data. For this reason, the paper explores various privacy threats and thus states the methods for their prevention. An overall perspective for privacy protection has been suggested.

Sr. No.	Paper ID.	Title and Authors
86.	92	**Machine Learning In Finance** *Vihaan Sharma, Harpreet Singh Dhoot and Bhavna Arora*

Abstract:
Data science includes algorithms and processes to extract useful knowledge. Machine learning is the scientific study of algorithms which allows the system the ability to automatically learn and improve from experience without explicitly programmed or without human intervention. This paper illustrates what is data science, machine learning. Other sections of this paper explains how can we apply these two different disciplines in the finance sector. This document also sheds light on possible applications of data science and machine learning models in finance and to automate the tasks.

Sr. No.	Paper ID.	Title and Authors
87.	93	**Patient Health Monitoring and Heart Disease Prediction System** *Sagar Madutha, Swapnil More, Ravi Mourya and Neha Singh*

Abstract:
Nowadays, applications of IoT is everywhere and it is making our life much easier because of its sensor technology, interconnected devices which can collect necessary information and process it. In the past decades, it is seen that many patients die due to heart related diseases due to lack of medical facilities. Due to these applications of IoT, it is having huge applications in medical sector also and with the help of IoT we can get the health parameters of patient using different sensors like temperature sensor, heart rate, blood pressure and SPo2 sensor. So, this paper proposes an idea which can collect all these health parameters from patient and creating a machine learning model using the random forest algorithm which can predict the different types of heart diseases like Coronary artery disease, Angina, Myocardial infraction and Silent Ischemia. Now, patient can come in contact with all these sensors and sensed data will sent to cloud and feed these inputs to machine learning model. This model will predict whether the patient is having any heart disease or not.

Sr. No.	Paper ID.	Title and Authors
88.	95	**An Overview Of Google File System And Hadoop Distributed File System** *Snehsudha Dhage, Renuka Tanpure, Rutuja Kotkar, Prachi Varpe and Sonali Pardeshi*

Abstract:
Each day huge amount of data is generated in the form of text, audio, image, and video format via many sources like social media, YouTube, websites and so on. The most important part is storing this generated data in the file system. To store this intensive data cluster-based storage systems are required. The Google File System and the Hadoop Distributed File System are the two major file system which are used to store the data. This paper gives an overview of Google File System and the Hadoop Distributed file system. Comparison of these file system is also discussed.

Sr. No.	Paper ID.	Title and Authors
89.	96	**Aid for Children with Learning Disability** *Jatin Bhagchandani, Manasee Palsule, Sneha Lalwani, Jayesh Samtani and Sharmila Sengupta*

Abstract:
With rapid and fast development in AI, E-learning and distributed learning provides an excellent platform for children to learn at their own pace without much intervention from parents. Also, parents should keep in mind that early intervention will not only help an individual(child) in academics but can also create a positive impact in the workplace and relations with family and friends. Thus computer-based systems would help them to overcome their learning difficulties.

Sr. No.	Paper ID.	Title and Authors
90.	97	**A Literature Survey on Question classification** *Prashant Niranjan, Vijay Rajpurohit and Arshia Sait*

Abstract:
Automatic question-answering systems have gained a lot of significance with a gradual increase in the number of questions and answers. A Question answering system allows the users to pose questions in the natural language and get precise answers to their questions within a short span. Question classification is a part of the question analysis module of the question answering system. Question classification helps in finding and constructing accurate answers to the questions and thus helps in improving the quality of the question answering system. In recent decades question classification has received significant attention from the researchers with renewed interest in recent times. In this paper, we present a survey that aims to summarize the developmental trends in question classification. Consequently, an attempt is made to get a more concise picture of the current state of research in question classification.

Sr. No.	Paper ID.	Title and Authors
91.	98	**Standard Healthcare Record For Disease: Cancer** *Prashant Kanade, Marisha Talreja, Rahul Lalchandani, Disha Rajani and Nikhil Tilwani*

Abstract:
The medical records of the cancer patient disease occurrence, development, examination, diagnosis, and treatment are an important part of medical care, prevention, research, and development. These records are the basic support conditions for hospital management. Nowadays, it is difficult to keep and query the traditional paper medical records. With the development of information technology, it is possible to realize medical record management in a centralized way. It has greatly improved the hospital's management efficiency. Consider two doctors A and B who work in hospitals X and Y respectively. Hospitals X and Y have their unique standard formats for storing medical records. In this case, Dr. A may experience difficulty in understanding the report of a patient stored in the database of Hospital Y. Likewise, B would experience the same problem w.r.t Hospital X. This problem gets even worse when a patient's case is to be transferred to an international doctor who may find it difficult to understand a local doctor's report schema. Our project works on the electronic versions of patients' healthcare records which gathers, creates, and stores the health record of cancer patients electronically in a centralized format. The HL7 is the standard communication protocol technology that allows record sharing globally.

Sr. No.	Paper ID.	Title and Authors
92.	99	**A Study of Object Detection in Image Processing** *Sufiyan Sayyed, Sayali Patkar, Atharva Patil and Mahendra Patil*

Abstract:
We live in an information-centric world; where the one having the information have the power. And while it may seem advantageous to constantly have your finger or the pulse of data flowing about your business and the industry. It quickly becomes a challenge to make something out of all those data. Image is also one type of data by processing it we get an enhanced image or to extract some useful information from it. In computer science, Image processing is the use of computers to process a digital image through an algorithm and gain some sort of analytical output. Digital image processing has a wide range of applications for transmission in business applications such as remote sensing, image and data storage, medical imaging and industrial automation, etc. Object detection is a computer technology which is linked to computer vision and image processing that deals with recognition of instances of semantic objects. It helps us to understand and analyze the scene in image or video. And in recent years, deep learning has been used in object detection. So this paper discusses and analyzed different methods for image classification and optimized the best algorithm from them for object detection.

Sr. No.	Paper ID.	Title and Authors
93.	100	**Two-way Sign Language Interpreter** *Maqsood Ahemed Khan, Harsh Shah, Mukund Shivpuje and Santosh Dodamani*

Abstract:
A sign language translator is an important milestone in facilitating communication between the deaf community and the public. Sign language has a notable advance that has grown in recent years. Unfortunately, there are some drawbacks that come with this language. Not everyone knows how to interpret sign language when they have a conversation with a deaf and dumb person. It is always necessary to communicate using sign language. It is difficult for one to communicate without an interpreter. To solve this, we need a product that is versatile and robust. We need to convert sign language so that ordinary people understand it and help them communicate without barriers. We hereby present the development and implementation of an Indian Sign Language (ISL) finger spelling translator based on a convolutional neural network. We will divide our implementation into two modules. The first module will handle user input that will take the camera from the device. Now the second module contains the pre-processing of the input images, the different image signs will be identified with the help of CNN and then ANN will be applied internally on the processed image. The identified signed image will be compared against the thousands of stored gesture data sets and their associated results, which are already stored. The corresponding word will be displayed to the user. In the same way, if the User will give voice input, the corresponding gesture will be shown to the User. The main objective of this project is to eliminate the barrier between the deaf and dumb.

Sr. No.	Paper ID.	Title and Authors
94.	101	**Iot Based Smart Mirror using Raspberry Pi** *Rohan Puthran, Archit Patil, Mihir Kadam and Nikita Patil*

Abstract:
A simple basic mirror is one of the most used object in a household, people tend to spend a lot of time in front of it. But the only functionality it provides is that, it shows the reflection of the person and people use it mostly for checking their appearance. Since, the mirror is used so often, why not add more functionalities to it and make it more efficient and useful. Though IOT has vast and diverse set of applications. This system uses IOT with the help of raspberry pi to make the basic mirror more efficient. Nowadays, most of the devices are becoming smart, so this system here enhances the utility of mirror and makes it smart mirror. This system not only provides the basic functionalities of the smart mirror, but it also offers additional features like a voice-controlled assistant. The goal of smart mirror is to increase user's productivity by saving their time. The smart mirror displays widgets like date, time, weather and latest news and headlines. It also displays the user's notifications when connected to the mobile device. So, this mirror could be used as a normal mirror and at the same time be used as a smart mirror with all the additional functionalities, which makes it a perfect device for a smart home with modern utilities.

Sr. No.	Paper ID.	Title and Authors
95.	102	**Web based Voting Framework using Blockchain Technology** *Tanvi Shah, Sneha Kadam, Ankita Mane and Tanvi Kapdi*

Abstract:
Public activity is one of the most profited zones by technology. Advancement in innovation has given people access to an assortment of assets and administrations through a 24 hour all around associated design. Innovation, for example, the Internet has end up being a help for developments and creating assets advantageous to mankind. One such earth-shattering advancement is Blockchain-an energizing mechanical progression conspicuously known for its application in cryptographic money. Blockchain offers an unending scope of uses which profit by the idea of shared economy. With properties, for example, unchanging nature and decentralized architecture, Blockchain introduces itself as a potential arrangement in crossing over the present equality between basic man and its government. Public Elections are one of the premises whereupon the popular government is built. Thus, doing security races and forestalling appointive extortion is of most extreme significance of security. This paper separates the necessities of building an Electoral portal using the Blockchain advancement and perceiving the authentic and particular troubles that may be stood up to while arranging the structure and give security to the framework.

Sr. No.	Paper ID.	Title and Authors
96.	103	**Review on Mentoring Chatbot** *Sanchi Satam, Tejal Nimje, Shreya Shetty and Samidha Kurle*

Abstract:
Mentoring can provide valuable support for students at critical points in their academic as well as personal life. Students need mentors to assist them in the areas where they need to improve, to stimulate their personal and professional growth. Conventional forms of academic mentoring require students to schedule appointments with their designated mentor, who is typically a professor that is familiar with the curriculum and potential trajectories a student goes through. However, college professors are required to participate in many other roles and responsibilities that rank higher than student mentoring in their personal performance evaluation. Thus, automation has been proposed as a beneficial means of mitigating the issue of student mentoring. The appropriate technological solutions can support both students' mentoring processes, as well as prioritize the efficiency of professors' time toward more significant issues and other important responsibilities. According to our research, we found the following Bots that provide approximate answers to the existing problem. One of them is Chatbot for College Student Programme Advisement. The chatbot for College Student Programme Advisement is capable of giving accurate responses to users asking for official course information and student opinions. Another available answer in the market is 'An Intelligent Career Counseling Bot'. It proposes an intelligent chatbot system for career counseling, which will help the user in selecting the right career by giving a proper response to the user's query. By analyzing these bots we concluded that there exists no system that can act as a virtual mentor and help students whenever needed. This paper presents a literature review that describes the uniqueness of this Mentoring Chatbot.

Sr. No.	Paper ID.	Title and Authors
97.	104	**Mentoring Chatbot using Artificial Intelligence Framework** *Sanchi Satam, Tejal Nimje, Shreya Shetty and Samidha Kurle*

Abstract:
Mentors know only what the most vocal students willingly say, they are unaware of many questions and struggles that are faced by the majority of their students who hesitate to talk directly, so to come up with solution combining new technology, we came up with AI Mentoring Chatbot that can easily communicate with students and help them to solve their academic as well as personal problems where students can feel completely comfortable and anonymous, as well as confident that they will get the information they seek. The proposed system uses an open source Conversational AI framework. The student will type his/her query in the text box of the Chatbot. The chatbot will then answer the question according to the database. A weekly report will be sent to the respective mentor. The mentor can then evaluate the student's problem, if any, accordingly. The proposed system can provide an alternative for one to one mentoring sessions.

Sr. No.	Paper ID.	Title and Authors
98.	105	**Intelligent Personal Assistant** *Kavita Poojary, Shefali Sawardekar and Bhavna Arora*

Abstract:
Intelligent Assistant has become an important need for technologically ahead society. In such a motive, we propose IPA , a software agent that can perform tasks and services based on verbal commands. The basic idea is to provide accurate support for various daily aspects of living through a simple but powerful system. The system ensures complete security for personal likes and dislikes against other important details like credentials. The system uses classification and regression Machine Learning algorithms to gather results and basic chatterbot system which will act as a perfect companion for humans. The system aims at providing assistance for travel, sports and statistical analysis, basic knowledge from web.

Sr. No.	Paper ID.	Title and Authors
99.	106	**Literature Review on Self-Harm and Suicidal Tendencies using Machine Learning Technology** *Trishala Ahalpara, Kalyani Deore, Prathamesh Desai and Nida Parkar*

Abstract:
According to the World Health Organization (WHO), nearly 800 000 individuals pass away due to Self-Harm and Suicidal Tendencies yearly, which is one individual every 40 seconds. Self-Harm and Suicidal Tendencies is a global phenomenon and occurs throughout the lifespan. Evidence-based and Effective interferences can be executed at populace, sub-population and personal levels to avoid suicide and self-harm attempts. There are suggestions that for every adult who was deceased by suicide there might have been more than 20 others attempting suicide. Although effective treatment is known for Self-Harm and Suicidal Tendencies, it is not accessible to the majority of sufferers in both wealthy and poor nations. In this aspect, many scientific discipline and researchers have been working on Machine Learning models to determine the stage of Self-Harm and Suicidal Tendencies. This paper presents contextual knowledge on Self-Harm and Suicidal Tendencies and practice of machine learning and also evaluation of past studies that apply machine learning to determine Self-Harm and Suicidal Tendencies with their features.

Sr. No.	Paper ID.	Title and Authors
100.	107	**Developing a Parking Monitoring System Based on the Analysis of Images from an Outdoor Surveillance Camera using MaskRCNN** *Siddharth Majgaonkar, Karan Waghela, Raj Shah, Aruna Pavate and Priti Mishra*

Abstract:
In this paper, we present a method for monitoring parking availability in unorganized parking spaces and organised parking spaces based on computer vision. It allows us to detect and track vehicles in a parking lot or in any unorganized parking space, while collected historical data helps us to predict real time availability status of parking during the day and helps us determine which areas can be converted to organized and legal parking lots based on data mining techniques. Parking Monitoring System determines availability of parking space based on an analysis of images obtained from an outdoor surveillance camera and analyzes in real time the state of the parking lots. The system is developed to determine the number and location of accessible parking zones and to inform the drivers. We provide a system based on Mask RCNN for recording and analyzing to recognize a car in a parking lot and to define parking spaces as either reserved or free.

Sr. No.	Paper ID.	Title and Authors
101.	108	**Autonomous Vehicle Simulation Using Deep Reinforcement Learning** *Rishikesh Kadam, Vishakha Vidhani, Bhavika Valecha, Anushree Bane and Nupur Giri*

Abstract:
The reinforcement learning algorithms have been proven to be extremely accurate in performing a variety of tasks. These algorithms have outperformed humans in traditional games. This paper proposes a reinforcement learning based approach to autonomous driving. The autonomous vehicles must be able to deal with all external situations to ensure safety and to avoid undesired circumstances such as collisions. Thus, we propose the use of the deep deterministic policy gradient (DDPG) algorithm which is able to work in a complex and continuous domain. To avoid physical damage and reduce costs, we choose to use a simulator to test the proposed approach. The CARLA simulator would be used as the environment. To fit the DDPG algorithm to the CARLA environment, our network architecture consists of critic and actor networks. The performance would be evaluated based on rewards generated by the agent while driving in the simulated environment.

Sr. No.	Paper ID.	Title and Authors
102.	109	**Smart Employment System - An HR Recruiter** *Anupreet Bhuyar, Kajal Jewani, Anisha Kaul, Chinmay Mahale and Trupti Kamat*

Abstract:
The traditional HR recruitment process is long and time-consuming. The talent search process is restricted due to human limitations. To optimise the HR interviews, Video analysis is used to screen candidates. In order to help the recruiter in the process of making his decision, a candidate's emotion is extracted from his speech using Mel-Frequency Cepstral Coefficients (MFCCs) as a major classification feature in ANN. Deceptive impression management (IM) that is an applicant trying to exaggerate his suitability to a job by overestimating his prowess is also taken into consideration. Thus an NLP approach using Linguistic Inquiry and Word Count (LIWC) and Latent Dirichlet Allocation (LDA) is used for text-based measurement of deceptive IM which may help by informing organisations to take a second, more critical review of applicants when high deceptive IM is detected. Finally, the Big 5 personalities index (OCEAN) is implemented using Convoluted Neural Networks (CNN) and a personality graph generated giving a more comprehensive view of the candidate's personality and fit with the company.The results are finally presented in a report format.

Sr. No.	Paper ID.	Title and Authors
103.	110	**Survey on Indoor Navigation Systems** *Rahul Gupta, Umesh Patel, Siraj Ansari and Neha Kunte*

Abstract:
Whenever People visit some places like hospitals, museums, and colleges they find difficult to navigate to a particular location. Using GPS for indoor navigation is not possible because GPS-enabled smartphones are typically accurate to within a 4.9 m (16 ft.) radius in an outdoor environment. Their accuracy reduces near buildings, bridges, and trees. Sometimes these places provide a 2D static map for navigation but it is difficult to interpret. This paper surveys on indoor navigation techniques. There are different are techniques available such as Wi-Fi-based, Bluetooth Beacon and Augmented reality-based techniques. This paper provides a study of different indoor navigation techniques.

Sr. No.	Paper ID.	Title and Authors
104.	111	**Edge Detection Methods in Image Segmentation** *Shefali Mahadik, Pragya Maurya, Aditi Jadhav and Suvarna Pansambal*

Abstract:
Image Segmentation is a significant preprocessing activity in picture acknowledgment and Computer vision. It refers to the division of a picture into various important regions which do not overlap, with similar properties. Thinking about its intricacy and difficulty, the current segmentation algorithms have gained certain accomplishments to varying degrees. Image segmentation has a wide range of applications, some of which are Satellite and Medical Imagery, Texture Recognition, Facial Recognition systems, etc. In this paper, we aim to study different types of Edge detection techniques for Image Segmentation, namely, Sobel, Prewitt, and Laplacian edge detection techniques in a comparative way. The aim of this work is to provide clarity of thought and information with this regard.

Sr. No.	Paper ID.	Title and Authors
105.	112	**Sentiment Analysis of Textual Data using various ML Techniques: A comparative study** *Hemil Shah, Heyt Gala, Naman Shah and Ishani Saha*

Abstract:
Sentiment analysis is a type of opinion mining which is used to determine the person's opinion, feelings, thoughts and judgement expressed on the text. Sentiment analysis main concern deals with classifying what the person expresses in its text and analyzing these text helps to know whether the person is angry, sad, happy etc. So, in this paper we have classified the text in 3 parts positive, negative and neutral. The positive text means the person is happy, or supporting a good cause etc., negative text means either the person is angry, sad, upset etc. and neutral text deals with the person giving facts or information about something. This paper deals with how we have used three models for classification of text naïve bayes, random forest and support vector machine.

Sr. No.	Paper ID.	Title and Authors
106.	113	**Skin Disease Detection and Classification using Image Processing Algorithm** *Rahul Lamge, Vinay Karmaran, Ganesh Hakke and Suvarna Pansambal*

Abstract:
Skin diseases are most common form of infections occurring in people of all ages. As the costs of dermatologists to monitor every patient is very high, there is a need for a computerized system to evaluate patient's risk of skin disease using images of their skin lesions. We will be constructing a diagnosis system based on the techniques of image processing and Neural Network. The procedure would be of great advantage to the dermatologists as a pre-screening system for early diagnosis in situations where the dermatologists are not accessible. The proposed system will capture image through smart-phone camera. Pre-processing and segmentation will be performed on each image. Then Feature extraction is done on skin lesion Feature Extraction is very important for Predictive modelling applications. Feature extraction in image Processing is a method of capturing visual content of images for indexing and retrieval. Primitive image features can be either General features, such as extraction of colour, shape or Domain specific features. After feature extraction, feature classification can be done. If there is disease, then the system will give medical advice through MATLAB application.

Sr. No.	Paper ID.	Title and Authors
107.	114	**AR Educator** *Hrishikesh Kotwalkar, Supreeth Kunder, Siddhant Chogle and Shweta Sharma*

Abstract:
Augmented reality is an interactive experience of a real-world environment where the objects that dwell in the real world are enhanced by computer-generated perceptual information, sometimes over various tactile modalities, including visual, auditory, haptic, somatosensory and olfactory. AR in education will soon affect the conventional learning process. AR can possibly change the area and timing of examining, to present new and extra ways and strategies. Abilities of Augmented Reality innovation may make classes additionally captivating and data more capture capable. The capability of joining mobile phones and Augmented Reality for education is enormous, though it still has to be fully discovered. Educators know that the learning process should be all about creativity and interaction. While teachers do not necessarily need to recruit all students into science, their goal is to get them interested in a subject. That's where AR could come in handy.

Sr. No.	Paper ID.	Title and Authors
108.	115	**Literature Survey on Criminal Identification in Mumbai using DBSCAN** *Akshay Rathod, Rushikesh Sawant, Ashish Choudhary and Neha Singh*

Abstract:
Crime rates are increasing every day in India, with Mumbai being the third among the 19 cities for 3 consecutive years; security against crime needs to be given increased priority by the government as well as individuals. In this paper, literature survey of crime analysis using DBSCAN clustering on crime dataset is done. The clustering helps clients in selecting a better, safer route from their current location to a desired location. The literature study focusses primarily on the algorithms used previously for similar systems, and comparing them with DBSCAN.

Sr. No.	Paper ID.	Title and Authors
109.	116	**Review of Non-Invasive Blood Glucose Monitoring** *Priyank Sondagar, Ruturaj Chavan, Prathamesh Mestry and Neha Kunte*

Abstract:
Now a day, the broadly used glucose size methods are invasive which generally involves finger puncturing. These strategies show painful and frequent pricking reasons calluses at the skin and have chance of spreading infectious diseases. The occasion of noninvasive technique would considerably enhance the colitis of existence for diabetic patients, facilitate their compliance for glucose monitoring, and decrease trouble and mortality related to the disease. This painting is targeting improvement of non – invasive blood glucose size sensor device the usage of Near – Infrared (NIR) technique. Non – invasive approach which consist of near infrared (NIR) gives preferred result. This sensor is used to degree the glucose level of someone and depending on the persons BMI degree, it will show diabetic stage of person. The goal of this test is to bring back mild the troubles the prevailing one 1/3 populations are going through and to deliver an effective technique to the humanity.

Sr. No.	Paper ID.	Title and Authors
110.	117	**Rainfall Prediction with Agricultural Soil Analysis** *Nidhi Kamble, Darshan Ganeshpure, Aditya Katte and Aruna Pavate*

Abstract:
In India, the final drawback baby-faced by the farmers is the choice of correct yield for farming. There are several factors that influence the yield of crop like rain, temperature humidness, soil, etc. Crop prediction helps farmers in choosing correct crop for plantation to maximize their earning. Prediction of crops may be accurately through with the assistance of data mining techniques and considering the environmental parameters. During this work, the classifiers used area unit support vector machine and data processing. Prediction of crop is completed by considering parameters like quantity of rain, minimum and most temperature, soil type, humidity, and soil, pH, scale price. The info is collected from the agricultural website of geographical area. The info is split into 9 agricultural zones. Associate interface is been designed through that farmers will enter the specified info to predict the crop. Data processing provides eightieth of prediction accuracy. Classification of soil is required in order that farmer will recognize the sort of soil and may plow the crops counting on the sort of soil.

Sr. No.	Paper ID.	Title and Authors
111.	118	**Evaluation of an LMS with Social Networking: A Case Study** *Divya Kumawat, Mahendra Patil and Swapna Patil*

Abstract:
Teaching learning process has evolved from traditional to online learning because of changing requirement of the learner. Now teaching learning process is more learner centric. Learners can select any courses of their interest and attend them according to their availability. These online courses are offered by different universities, organization for the benefit of learner. Many institutes have started using the combination of traditional and online learning known as blended learning. In blended learning face to face interaction is used for discussion, lectures and solving the doubts of students while e-learning technologies are used for online lectures, quizzes, notes etc. Today in this period of globalization, it is exceptionally easy to share and scatter information. Different types of Learning Management Systems (LMS) are available free of cost for teaching, managing and assessing students. In this paper, we have investigated and evaluated e-learning based LMS used in our institute.

Sr. No.	Paper ID.	Title and Authors
112.	119	**Review Paper on Garbage Monitoring System using IOT** *Dhanashree Dhuri, Komal Chaudhari and Nikita Ahire*

Abstract:
In many of the cities the overflowing garbage bins are creating an unhygienic environment. This further leads to arise of different types of diseases. To cope up with the situation, Shree Narendra Modi, PM of India has presented a unique example of a way to achieve cleanliness by launching a campaign popularly known as SWACCHHA BHARAT ABHIYAN (Clean India Mission) in which every individual irrespective posts and authority, has to maintain clean surrounding. In this contemporary busy world, it is almost impossible to maintain the clean and hygienic environment. To overcome these situations, we need to implement a smart garbage level monitoring system, which will alert the municipal corporation or higher authorities about the current level of garbage in different zones of cities. As level reaches its threshold level the alert is send to corporation. As the notification is received by the municipal corporation, the rag picking truck will reach to that dustbin and will empty the bin. Hence the bins are emptied before the garbage starts overflowing.

Sr. No.	Paper ID.	Title and Authors
113.	120	**Garbage Monitoring System using IOT** *Dhanashree Dhuri, Komal Chaudhari and Nikita Ahire*

Abstract:
In many of the cities the overflowing garbage bins are creating an unhygienic environment. This further leads to arise of different types of diseases. To cope up with the situation, Shree Narendra Modi, PM of India has presented a unique example of a way to achieve cleanliness by launching a campaign popularly known as SWACCHHA BHARAT ABHIYAN (Clean India Mission) in which every individual irrespective posts and authority, has to maintain clean surrounding. In this contemporary busy world, it is almost impossible to maintain the clean and hygienic environment. To overcome these situations, we need to implement a smart garbage level monitoring system, which will alert the municipal corporation or higher authorities about the current level of garbage in different zones of cities. As level reaches its threshold level the alert is send to corporation. As the notification is received by the municipal corporation, the rag picking truck will reach to that dustbin and will empty the bin. Hence the bins are emptied before the garbage starts overflowing.

Sr. No.	Paper ID.	Title and Authors
114.	121	**Advance Street Light System using IoT** *Khusboo Patel, Lalit Makar, Vrushali Patil and Priti Rumao*

Abstract:
The main objective of the system is to reduce energy consumption. This is achieved by minimizing the unwanted use of energy consumed by street lights. This project incorporates LED lights, ultrasonic sensors and Wi-Fi based microcontroller NodeMCU. It is an automated system which detects presence of sunlight and acts accordingly. When the ultrasonic sensor detects movement on the road during the night, the lights glow up to their maximum intensity. Moreover as the object moves forward the trailing lights will reduce to 25-30% of their intensity i.e they go in the power saving mode. Unlike the traditional system which turns OFF the lights completely. Also, this system uses built-in Wi-Fi module which notifies the authorities about faulty lights.

Sr. No.	Paper ID.	Title and Authors
115.	123	**Digital Jewelry** *Yukta Thakre, Priyanshu Tawde, Prit Vinerkar and Nida Parkar*

Abstract:
Gems have been an interest for individuals of any age since the beginning of development. In spite of the fact that it serves a moderate motivation behind simply enhancing ourselves, we've generally been attached to it. In the advanced age, as long as we can remember is included by and totally exemplified under the impact of PCs, tablets and other electronic devices. In a long time, scientists have attempted to conquer any hindrance among style and innovation thus in the following time of registering, there will be a blast of PC parts over our bodies, as opposed to over our work areas. The most recent PC obsession has been to have the option to wear remote PCs. The blend of microcomputer gadgets and waxing PC power has permitted a few organizations to start delivering design gems with inserted insight i.e., Digital Jewelry. The entirety of the idea driving it is to have the option to impart to others by methods for remote machines. The other key factor of this idea is to remain in vogue simultaneously. This paper uncovers the idea and the thought behind the advanced adornments by exhibiting other little gadgets that could be worn. These small gadgets are classified "Wearable Computers". The definitions, history, favorable circumstances, and impediment of these versatile gadgets are additionally referenced.

Sr. No.	Paper ID.	Title and Authors
116.	124	**Literature Two-way Sign Language Interpreter** *Maqsood Ahemed Khan, Harsh Shah, Mukund Shivpuje and Santosh Dodamani*

Abstract:
A gesture based communication interpreter is a significant achievement in encouraging correspondence between the hard of hearing network and general society. Sign language has a notable advance that has increased in past few years. Tragically, there are a few disadvantages that accompany this language. Everybody doesn't realize how to decipher communication through sign language when they have a discussion with a physically challenged people. It is constantly important to convey utilizing gesture based communication. To comprehend this, there is need of an product that is adaptable and strong. We have to change over gesture based communication so that ordinary people understand it and help them communicate without barriers We therefore present the advancement and execution of an Indian Sign Language (ISL) finger spelling interpreter dependent on a convolutional neural system. We will divide our implementation into two modules. The first module will handle user input that will take the camera from the device. Now the second module contains the pre-processing of the input images, the different image signs will be identified with the help of CNN and then ANN will be applied internally on the processed image. The identified signed image will be compared against the thousands of stored gesture data sets and their associated results, which are already stored. The corresponding word will be displayed to the user. In the same way, if the User will give voice input, the corresponding gesture will be shown to the User The primary goal of this task is to wipe out the hindrance between the physically challenged people and common people.

Sr. No.	Paper ID.	Title and Authors
117.	125	**LI-FI Technology- Cryptographic Data Transmission** *Harshad Dhikar, Bhavesh Sawant, Tanuja Sakpal, Priyanka Shinde and Santosh Dodamani*

Abstract:
The technology is very new, that's call the Li-Fi (Light-Fidelity) technology. Li-Fi provides transmission of date through illumination by sending data through an LED light bulb that varies in intensity faster than human eye can follow. In this paper, the author will discuss the technology in details and also how Wi-Fi can be replaced by Li-Fi. Li-Fi provides better efficiency, bandwidth and security than Wi-Fi(Wireless-Fidelity). In this present paper the authors will give a detailed study on Li-Fi technology.

Sr. No.	Paper ID.	Title and Authors
118.	126	**Review on Advance Street Light System using IoT** *Khusboo Patel, Lalit Makar, Vrushali Patil and Priti Rumao*

Abstract:
The existing system is manually controlled and has flaws such as high energy consumption, high maintenance, high cost and lack of efficient monitoring system. The system proposed in this paper helps in cutting down the unnecessary energy that is consumed by street lights. This goal is achieved by changing the intensity of street lights as per external environment. When an object is detected on the road by the ultrasonic sensor the lights will glow at maximum intensity and will get back to 25-30% intensity otherwise. Also this system includes Wi-Fi based micro-controller NodeMCU to send alert notification to the authorities in case of faulty street lights.

Sr. No.	Paper ID.	Title and Authors
119.	127	**Student Crowdfunding and Recommendation System** *Ishan Unnarkar, Abhishek Yadav and Chirag Patil*

Abstract:
There has consistently been a need for a stage where understudies can share their projects and popularize it. This paper focuses at not only providing this platform but also help publishing projects developed by students. This project will allow students to put their projects up and get recommended with similar kinds of projects from other students to reduce duplication of efforts. As it will enable understudies and industry work force to coincide on one platform, the project will get exposure and contributions from the industry. Functionality of financing a project will be given which will help in deployment and ubiquity of the venture. Considering the various trends in the Machine learning branch, Item-based Collaborative system, and Content-Based Collaborative system can be used to build a recommendation system.

Sr. No.	Paper ID.	Title and Authors
120.	128	**A Study of Machine Learning in Healthcare** *Mayank Vandra, Kaushal Lakkavajjala, Siddharth Doshi and Bhavna Arora*

Abstract:
Machine Intelligence is in vogue & similarly refined mechanical bundles turned into an outsized style among the undertaking. Machine Intelligence is a blessing & is wide used in an exceedingly incredible arrangement of different applications. inside the ongoing years, there has been critical improvements in anyway Machine Intelligence are frequently used in various businesses and moreover in investigation. it's participating in a horrendously significant and a significant job in different fields like Economics, life science, Security, arrangement and a lot of a great deal of. inside the human services segment Machine Intelligence is utilized to look out various examples from clinical or clinical information sources and supply fabulous abilities to foresee maladies and sickness. During this paper, we will in general comment the capability of misuse Machine Intelligence advances in medicinal services area and formats various business activities abuse AI innovation inside the social insurance segment. During this paper we will in general moreover audit various AI calculations utilized for creating efficient call support for social insurance applications.

Sr. No.	Paper ID.	Title and Authors
121.	130	**Barcode Scanner for Visually Impaired: A review** *Karan Patel, Ashish Lad and Divya Kumawat*

Abstract:
This paper has the goal of creating an application that will improve the daily life of visually impaired shoppers or users in general by assisting them with text-to-speech and audio cues. For a visually impaired (VI) person, shopping itself is a monumental task. They also face social scrutiny from the masses that may not understand their plights and consider them an inconvenience. This may lead to a negative impact on a visually impaired person. This application can also be used by shops/companies for assisting a visually impaired employee working at the transaction counter doing check-out of products. So, this application is beneficial for the visually impaired person on both sides of the transaction, as a shopper or as an employee who processes the transaction. This application has a framework for barcode detection and extraction of information related to the product.

Sr. No.	Paper ID.	Title and Authors
122.	131	**Movie Success Prediction using Machine Learning** *Krishnan Iyer and Nikita Patil*

Abstract:
The number of movies produced throughout the world is growing at an exponential rate and success rate of movie is of high importance since billions of dollars are invested in the making of each of these movies. In this scenario, prior knowledge about the success of a particular movie and what factors affect the movie success will benefit the movie industry since these predictions will give them a fair idea of how to deal with the advertising and campaigning, which itself is a highly expensive affair altogether. So, the prediction of the success of a movie is very important to the film industry. In this research, we give our detailed analysis of the Internet Movie Database (IMDb) and predict the IMDb rating of a movie.

Sr. No.	Paper ID.	Title and Authors
123.	132	**Nidāna - A system for detection of genetic disorders with prominent facial features using AI** *Nikhil Ghind, Sharmila Sengupta, Jatin Sumai, Akshay Navani and Varun Jethanandani*

Abstract:
Artificial Intelligence along with facial analysis techniques have lately been at par with the capabilities of medical experts in the identification of various genetic syndromes. So far, these techniques could identify some of the diseases by extracting the facial features of an individual, restricting their role in the medical field where a lot of diagnoses should be considered. We've developed a portal that would help in early detection of genetic disorders or at least reach a strong hypothesis if not an exact diagnosis using AI, computer vision and CNN, that gauges similarities of genetic syndromes on the basis of unconstrained 2D facial images. The results predicted by the portal can be used in cohesion with other medical diagnoses, behavioral and growth analysis for precision in the diagnosis of genetic syndromes.

Sr. No.	Paper ID.	Title and Authors
124.	133	**Food Safety Inspection and Control Using Hyperspectral Imaging: A Review** *Samir Sawant, Yash Patole, Chinmay Sawant and Divya Kumawat*

Abstract:
Food health is a huge public concern, and if not taken seriously, it can lead to major outbreaks of food-related diseases that can turn out to be a very severe cause of social disruption. In food and agricultural applications, there is a major necessity to have a fast and mobile technique to increase the safety of foodstuffs production. In these situations, hyperspectral imaging has proven to be an efficient major in such a situation that is both quick and reliable and can assist in inspection and monitoring of food health. Including the identification of meat and meat bone-in foodstuffs as well as organic residues in food processing equipment are also documented because of their close association with food safety regulation, learned from different studies. Hyperspectral imaging gathers and integrates information from across the electromagnetic spectrum, close to other spectral photography. Hyperspectral image's main objective is to obtain spectrum information for each pixel in the picture taken from some random scene. An image is captured using a hyperspectral camera. This camera is built by various modules such as spectrometer, a microprocessor for image processing, and various lenses to attain all details of an image. This helps in detecting, identifying various objects, processes, and materials. This camera can be used in different fields to detect materials, components, gases, chemicals, elements, etc. in space stations and space missions, chemical reactions, laboratories, food detection systems, etc. With the above hypothesis, it can be seen that various hyperspectral imaging techniques, including hyperspectral near-infrared imaging, hyperspectral fluorescence imaging, etc., or their combinations can be used as some useful tools for food inspection and health monitoring. In this article, we will present a hyperspectral imaging technique that will help distinguish by contrasting their wavelengths between a fresh food product and a rotted food product.

Sr. No.	Paper ID.	Title and Authors
125.	134	**Crime Analysis And Hotspot Prediction** *Yash Kaned, Sunny Singh, Richa Sharma, Amit Lund and Bhisham Goplani*

Abstract:
Crime is a major social problem in almost every country, threatening public safety and disrupting the economy. Understanding patterns in criminal activity allows for the prediction of future high-risk crime "hot spots" and enables police to more effectively allocate officers to prevent or respond to incidents. Day by day crime is increasing, as there is an increase in unemployment, population density and other such factors. Crime has always been a problem for civilians as well as the authorities. The authorities are collecting and storing detailed data tracking crime occurrences. This data contains spatial and temporal data, which can be used to precisely predict the regional crime rates, detect and predict Crime Hotspots. Deep Learning and Neural Networks has been widely proven effective for detecting temporal patterns in a time series. We aspire to use the power of Deep Learning to help the authorities battle crime to provide a safer society for the civilians to live in.

Sr. No.	Paper ID.	Title and Authors
126.	135	**Hardware Implementation of Autonomous Surface Vehicle (ASV) Using Arduino Mega** *Richa Sharma, Bhavika Motiramani, Ashish Sukhani, Muskan Shaikh and Harsh Sachanandani*

Abstract:
Our objective is to make an operating model of an autonomous water surface vehicle (ASV) that's multi-modular in nature, i.e. makes use of multiple modules and sensors so as to sense and actuate the specified functions to suit our desired methodology of travel, conjointly keeping in mind a path-saving algorithmic rule, that takes into consideration GPS reference system to reach out heading and course modification angles. The principle of navigation involves two solutions, close range navigation, and broad navigation. An ultrasonic sensor will provide close range navigation, while the GPS module, will help with broad navigation. Both these systems are crucial for the primary function of this vehicle, which is locomotion over a water body. The secondary function is the collection of photographic data of point of interests over the relevant area.

Sr. No.	Paper ID.	Title and Authors
127.	136	**A Smart Mirror System Using Raspberry Pi and Iot Platform** *Rohan Puthran, Archit Patil, Mihir Kadam and Nikita Patil*

Abstract:
On comparing with various other research papers on smart mirror systems, it was inherent to implement advanced functionalities and were developed for specific functions such as monitoring a baby, theft detection, face recognition or implementation of smart mirror as a personal assistant. While some did have the basic functionalities like displaying time, weather, news, calendar; they didn't have some of the advanced but fundamental features to be able to call the mirror "smart" such as connecting with an android device to display notifications or a smart voice assistant integration. Some systems [5] mention a smart assistant however there is no presence of an actual assistant such as google assistant or Alexa. The smart mirror demonstrated here implements all the basic functionalities such as displaying time, live weather updates, calendar, latest news and some advanced functionalities such as displaying phone notifications, voice assistant integration and motion sensor activated on/off. On top of this, the mirror also provides a framework for adding additional features such as strava integration, reddit integration, google calendars, gmail, display what music you're currently listening to, Displays current stock prices of companies, etc. The possibilities for expansion are endless using the framework provided here.

Sr. No.	Paper ID.	Title and Authors
128.	137	**Detecting the severity and the type of Learning Disability with Pattern Extraction using Machine Learning** *Dhwani Patel, Viraj Trivedi, Kajol Shah and Krina Shah*

Abstract:
Learning Disabilities is that an individual does not possess the ability to communicate, read, the accuracy of word decoding, fluent word-recognition, memorize or is unable to concentrate. In this paper, we are going to discuss what learning disability means and some of its types and the technique used to determine the severity of the learning disability and to extract patterns and evaluate them to overcome the challenges faced by them in their daily life.

Sr. No.	Paper ID.	Title and Authors
129.	139	**Multi Label Image Classification on VHR Satellite Images** *Raj Shah, Sagar Patil, Anish Malhotra and Ranjita Asati*

Abstract:
Multi label Image classification using Convolutional Neural Network (CNN) is yet very difficult when it comes to performing. However, Single Label Image Classification can be performed easily and promisingly. As there are many categories of objects in a real world image, it becomes difficult to label them under various categories and also because of the lack of multi-label training image and high complexity. This paper proposes a multi label image classification done on Sequential CNN model taking 4-8 layers. We have trained our model with the UC MERCED Dataset. Our model gives 88% accuracy considering Top-3 accuracy which is significantly good for performing Multi label image classification which itself being complex.

Sr. No.	Paper ID.	Title and Authors
130	140	**FoodDicted: A Restaurant & Food Recommendation System** *Saloni Shedge, Simran Sahetia, Disha Mhatre, Sahil Gangwani and Gresha Bhatia*

Abstract:
To provide an answer for the mundane questions like where to eat? And what to eat? We are developing an Android Application that uses simple Machine Learning Algorithms like Content based filtering and Clustering. The first phase of the output consists of prediction of restaurants based on user input and the second phase includes prediction of dishes based on the tags selected by the user. Now days we are provided with a large number of choices which is overwhelming, here there is a need to filter and efficiently deliver information in order to minimize the problems of information overload. Recommender systems are used to solve this problem by searching through this information and predict an output according to the user's personal preferences. This system explores various characteristics and the potential of different techniques of prediction to analyses the result. The system uses content-based recommendation techniques for producing food recommendations. It is based on similarity of foods. Basically, our system constructs user profiles from the inputs given by the user and food profiles from the ingredients of the food, then it recommends the most appropriate foods according to the preferences of the users.

Sr. No.	Paper ID.	Title and Authors
131	141	**Resource optimization and task scheduling in cloud computing** *Naresh T, Jaya Lakshmi A and Krishna Reddy V*

Abstract:
Cloud computing has captured all the relevant scenarios and changed the traditional barriers of computing. Cloud computing is a need of current and modern technology. Task scheduling and resource optimization are important aspects of cloud computing. Resource scheduling in cloud is a tough task and the planning of right resources to cloud workloads counts on the QoS needs of cloud applications, while in parallel with this task, gain is one of the most important aspect from which the cloud service suppliers' point of view it is mainly determined by the structure of a cloud service platform under given market demand. However, facing the numerous cloud suppliers as well as their heterogeneous pricing strategies, customers may well be confused with which clouds are appropriate for storing their facts and what hosting strategy is cheaper. In particular, several recent studies have focused on bridging the gap between server program data and operations designed to reduce resource wastage. As with all businesses, the benefit of a professional program on a distributed computer is divided into two categories, namely cost and revenue. Like all businesses, the benefit of a specialist system in distributed computing is identified with two sections, which are the cost and the income. The resource optimization and scheduling consist of allocating a single type of resource among the waiting jobs.

Sr. No.	Paper ID.	Title and Authors
132	142	**Entropy Based Approach for Analyzing Log Files for Postmortem Intrusion Detection** *Manasi Pawar, Naresh Thoutam and Dr.Amol Potgantwar*

Abstract:
Security is constantly an essential worry of any association. It is important to actualize an intrusion Detection System (IDS) which will have the option to recognize the malevolent exercises over a system or single framework. After assault it is imperative to break down what gatecrasher has done in the wake of gaining admittance to framework, what are the territories he attempted to enter? To distinguish movement of interloper from colossal log document is troublesome. Here framework is structured, which utilizes fluffy k mean grouping alongside HMM to assemble model for perfect conduct of client. Considering the way that gatecrasher movement design is not quite the same as would be expected client a model for location is manufactured. The information log document is exceptionally huge subsequently sequitur is utilized to decrease the size of record and windowing is utilized to process the information effectively. This framework falls under irregularity-based interruption recognition framework which runs disconnected to point assault succession.

Sr. No.	Paper ID.	Title and Authors
133	143	**Plasma Voting: A Secure e-Voting Platform** *Alisha Punwani, Pallavi Saindane, Prathamesh Pendal and Aditya Sajeev*

Abstract:
Blockchain technology is currently leading research technologies and business communities as it carries likely benefits for industries. This is because of their practical applications in fixing numerous problems currently preventing in turn leading many commercial domains. Firmly registering and splitting transactional data, constructing computerized and organised delivery chain processes, improving transparency around the entire value chain are a few examples of these difficulties. Blockchain provides a potent method to engage these problems by use of shared, distributed, permissioned and secure transactional ledgers. The utilization of blockchain and it's technologies and the feasibility of employing them in different situations triggers many applications such as business applications using improved security and efficiency; more suitable detectability and transparency; and decreased costs. In this paper, special industrial application domain names where using blockchain technology has been introduced are reviewed. This paper examines the opportunities, blessings, and challenges of integrating blockchain in distinctive industrial programs. Moreover, the paper tries to discover the necessities that aid the blockchain implementations for one-of-a-kind industrial programs. The review explores that various possibilities are free for making use of blockchain in diverse business sectors; however, there are still some challenges to be addressed to achieve higher usage of this technology. This paper provides a basic execution of a blockchain built e-Voting system while it also discusses the feasibility, future scope and liabilities of the project understanding the needs of a voting system..

Sr. No.	Paper ID.	Title and Authors
134	144	**A Brief Review of Machine Learning and its Applications** *Siddhartha Chaudhary, Shivam Yadav, Shweta Kushwaha and Surya Ratan Shahi*

Abstract:
Machine learning fit in to be one of the fastest growing technologies in today's world. Machine learning is predominantly an area of Artificial Intelligence which has been a key component of digitalization solutions that has caught major attention in the digital arena. There are ample of research of different kinds that are going on so that we can make the machines more and more intelligent and advanced. Learning is a natural human phenomenon which has been made an essential aspect of the machines as well. There are various techniques developed for the same. The improvement in accuracy of the machine learning algorithms is a concern on which researchers and scientists are regularly working upon. This paper intends to do a brief review about what is machine learning and its various categories along with its some of its applications.

Sr. No.	Paper ID.	Title and Authors
135	145	**E-VOTING SYSTEM USING BLOCK CHAIN** *Parshva Timbadia, Aashay Motiwala, Teerth Upadhyay and Pankaj Kunekar*

Abstract:
In this paper, we have proposed a method where the user's input is considered as a part of a vote. We are using blockchain technology, the most secure technology which enables us to transfer data between two nodes, without manipulation from any untrusted sources. In our project, there are two peers, namely the voter and candidate for whom the voter casts a vote for. By casting votes as transactions, we can create a blockchain that keeps track of the tallies of the votes in the database which has restricted access. In this way, everyone can agree on the final count of the votes. In our project, we have used OpenCv, which uses image processing capturing pictures for facial recognition. There is also an involvement of trusted third parties.

Sr. No.	Paper ID.	Title and Authors
136	146	**SIMULATION OF FINITE ELEMENT through DEEP LEARNING** *Bhavna Arora, Tanvi Kapdi, Nida Parkar and Suvarna Pansambal*

Abstract:
Limited component demonstrating is normally used to reenact delicate tissue biomechanics, yet is excessively computationally oppressive for use progressively applications. Different types of dimensionality decrease have been researched to lessen the computational expense of limited component reenactment, for example, surrogate models, head segment investigation, and model-request reduction, anyway direct dimensionality decrease methods might be inadequate to catch the high level of non-linearity in organic delicate tissue materials. Late advances in profound learning can possibly speak to an exceptionally unpredictable and non-direct model mishappening space in a reduced structure. Right now, utilize a profound autoencoder to rough the enormous mishappenings of a non-straight, muscle incited bar. We found that the autoencoder reliably delivered lower remaking blunder than the comparably estimated head segment investigation model. These outcomes are a fundamental advance towards demonstrating progressively revolting biomechanical delicate tissue models with profound learning draws near.

Sr. No.	Paper ID.	Title and Authors
137	147	**A Secure Payment Gateway Model for E-commerce site.** *Tanvi Kapdi, Nida Parkar, Suvarna Pansambal and Bhavna Arora*

Abstract:
Electronic Business (e-Business) is revolutionizing the way of communication between internal and external stakeholders in an organization. E-business can lead to competitive advantage and at the same time, increase profitability. There are several factors resulting on the success of e-business. One of the most important factors is trust. Acquiring customers' trust depends on many things that an e-business controls. Some relating factors for gaining customers' trust are: appeal of the website, product/service offering, branding, quality of service, and trusted seals. Actually, trust can be viewed from many angles such as transaction, information content, product, technology, and institution. There are huge numbers of impact on the way businesses think about designing, developing, and deploying Web-based applications. Web services may be an evolutionary step in designing distributed applications; however, they are not without problems. Therefore, we have to concern on the issue which is relating to the security in web-services of e-business. This paper discusses the issues relating to problems and prospects rose of the trust and security in e-business and also addressed security concerns in web services. It also discusses on the role of trust from the transaction perspective and analyses the things that what business could do in building customer trust.

Sr. No.	Paper ID.	Title and Authors
138	148	**Coreveillance - Making our World a "SAFER" Place** Akash Narang, Chirag Raghani, Dhiren Chotwani, Priyanka Lalchandani and Lifna C.S

Abstract:
Security in urban civilization, especially today has always been a big concern. Previous societal methodologies have proved to be working to some extent but always had a scope of improvement with the advent of new technologies in the field of security and surveillance. This application broadens the spectrum of security under technological domains by introducing machine learning and computer vision. A society with smart features is a delegated society. Major research findings do not skip in exploiting technology for better causes for the masses. A smart society is a set of combined systems that advertises a solid proved set of merits. In such a society heads of the society and residents make correct data-centric decisions that help in continuously improving results in economic success, social advancement, environmental impreshibility, and good administration control. A smart society will always include a reward or incentive system that causes socially advisable and environmentally artistic behaviours without punishment.
The mixture of civic infrastructure with modern technology can ease the lives of citizens and emancipate the residents of the society. To direct this, we need to interpret revolution in a bigger outlook, putting social merits as well as economic prosperity at the base of a true smart society. Wireless Monitoring for Home Security is one of the cutting-edge research areas in the field of Intelligent Buildings. The intention of the product is to formulate a control command in contemporary society for their daily activities by building a proactive surveillance system that utilizes the existing state-of-art techniques, i.e. the CCTV footage.

Sr. No.	Paper ID.	Title and Authors
139	149	**Music Player with a difference** *Atharva Deshmukh, Barkha Chabaria, Parth Mangtani, Riya Wadhwani and Sharmila Sengupta*

Abstract:
The motivation regarding this paper is to create an environment for music lovers where they wouldn't be dependent on the internet all the time. The basic functionality of the application includes playing songs of multiple music formats, adding songs to a playlist, rating songs, filtering songs, etc. Optional functionalities include getting correct song metadata using APIs and playing songs not included in user libraries using APIs which doesn't require internet to function The convenience of the user is prioritized by providing a music recommendation system. This system analyses user behaviour and music tastes and starts recommending new songs that are not in the user's library. This means the user is suggested multiple songs of users liking. Also, as the app is available on multiple platforms the music library is shared across all user devices using File Transfer Protocol, along with all other user data. It also periodically scans the library for changes and syncs the changed files.

Sr. No.	Paper ID.	Title and Authors
140	150	**A Security Matrix for Cyber Risks in IOT Enabled Supply Chains** Gauri Salunkhe and Akansha Bhargava

Abstract:
With supply chain (SC) industry adopting digitization at all its stages, their ultimate objective is pointing towards features of Industry 4.0. A web of all smart devices that communicate and respond to each other with IOT, allows all SC members to peep into the network to gain live updates seamlessly. This improves the transparency of the business but opens doors for attackers. This paper surveys the cyber threats the IOT supply chain gets exposed to and mitigation techniques used to deal with such breaches. We propose system architecture encompassing IOT-SC with NIST cyber security framework guidelines. We formulate cyber security matrix for supply chains that lays IOT model on NIST cyber security framework.

Sr. No.	Paper ID.	Title and Authors
141	151	**Multi Modal Medical Image Fusion in the Stationary Wavelet Transform domain** Vivek Ramakrishnan and Jyoti Kolap

Abstract:
Medical image fusion is the process of registering and combining multiple images from single or multiple imaging modalities to improve the imaging quality and reduce randomness and redundancy in order to increase the clinical applicability of medical images for diagnosis and assessment of medical problems. Multi-modal medical image fusion algorithms and devices have shown notable achievements in improving clinical accuracy of decisions based on medical images. This article provides a novel method for fusing multi-modal medical images in the stationary wavelet transform domain. In the stationary wavelet transform the translation invariance of the discrete wavelet transform is overcome. The output at each level contains the same number of samples as in the input.

Sr. No.	Paper ID.	Title and Authors
142	152	**Attendance Recognition System using Face Appearance** Mannat Doultani, Yogesh Tekwani, Somesh Tiwari and Sagar Sidhwa

Abstract:
Nowadays Educational institutions are concerned about regularity of student attendance. This is mainly due to students' overall academic performance being affected by his or her attendance in the institute. Mainly there are two conventional methods of marking attendance which are calling out the roll call or by taking a student sign on paper. They both were more time consuming and difficult.
Hence, there is a requirement of a computer-based student attendance management system which will assist the faculty for maintaining attendance records automatically. This algorithm compares the test image and training image and determines students who are present and absent. The attendance record is maintained in an excel sheet which is updated automatically in the system. Here we are trying to develop a system to mark attendance automatically by using image processing technique. An efficient face recognition algorithm has to be developed which can recognise students efficiently. Also, for image processing we need to have an effective platform to test our algorithm.

Sr. No.	Paper ID.	Title and Authors
143	153	**PREDICTING STOCK MOVEMENTS USING NEWS HEADLINES AND NEWS ARTICLES** Deepak Tejwani, Kuldeep Singh Khalsa, Rohit Vinod, Shubham Shinde and Dr.Gresha Bhatia

Abstract:
The main objective of the system is to analyze the future value of a certain stock of a particular company using the sentiment analysis and to predict whether a particular stock will go up that is whether it will increase or it will go down which means it will decrease on the basis of certain news headline or an article or provided heaine image, also detection of fake news and OCR was implemented for providing the user as an option for entering the news headline or a news article, the data we used was DJIA news headlines dataset and five different machine learning algorithms were used – Random Forest classifier, Naïve Bayes, Decision Tree, Logistic Regression and Support Vector Machine(SVM).

Sr. No.	Paper ID.	Title and Authors
144	154	**ForestMap-Think Green, Live Green** *Udit Bhatia, Shubham Adamane, Ashish Gwalani, Sakshi Parab and Lifna C. S*

Abstract:
Forest degradation is the primary reason for global warming and this threatens the entire ecosystem. This is a significant concern as far as climate change and it's grave aftermaths matter. To check this unprecedented deforestation, the Government of India and many governmental/non-governmental organizations have taken various initiatives. These organizations are planting trees to reduce the impact of global warming. They disclose the number of trees planted in each drive. The current system is inadequate in a way to keep a check on the work done by organizations in this field. Thus our system will create transparency by making it easy for the citizens to be aware of the forest restoration activities taking place. This will be done by means of the Geographical Information System(GIS) which will generate a detailed report of the changes in vegetation analysis over a period of time in a given geographical area which will be lucid, easy to understand on a user interface.

Sr. No.	Paper ID.	Title and Authors
145	155	**A survey to study about different Convolutional Neural Network on various image classification** Raj Shah, Sagar Patil, Anish Malhotra and Ranjita Asati

Abstract:
Multi label Image classification using Convolutional Neural Network is yet very difficult when it comes to performing. However, Single Label Image Classification can be performed easily and promisingly. As there are many categories of objects in a real-world image, it becomes difficult to label them under various categories and also because of the lack of multi-label training image and high complexity. This paper surveys different Convolutional Neural Network (CNN) using Single Label Image Classification on which Multi Label Image Classification can be performed with High Accuracy. We have also learnt different trained Convolutional Neural Network architecture using UC MERCED Dataset which is essayed in this paper.

Sr. No.	Paper ID.	Title and Authors
146	156	**Emotion Detection through Speech using Bidirectional LSTM and Attention Mechanism** *Megha Agarwal, Pranav Bhatt, Aditi Gupta and Kavita Bathe*

Abstract:
Artificial Intelligence is growing and developing at an exceptional rate. Artificial machines and robots are incorporated with various ways to handle different scenarios and come up with accurate solutions through artificial intelligence. However, when it comes to taking some decisions based on emotions and including emotional quotient in the decision-making process, artificial machines face some issues. Apart from this, embedding emotions into Artificial intelligence just widens the scope for various further researches. To work on improving the emotional aspect in artificial intelligence systems, first the issue of detecting emotions with least possible errors needs to be handled. In this paper the aim is to find ways to improve upon accuracy in emotion detection through deep learning. Deep learning methods work by processing a vast database gathered from a number of sources. The analysis initiates by vectorizing each word in the input given by the user and deriving the meaning of the words in both, forward and backward direction. Upon understanding the meaning, attention mechanism defines the weights to be assigned to the words based on the importance they carry. This results in a maximum pooling of the highest weight vectors. The vectors then proceed to be classified in one of the six major emotions.

Sr. No.	Paper ID.	Title and Authors
147	157	**Blockchain Technology: An Overview** Aaditya Damle, Monish Bangera, Susmita Tripathi and Mamta Meena

Abstract:
Change is inevitable in the field of technology and it is what has kept us going to for so long. Digitization has made lifestyle faster, easier and much more efficient. Organizations developed technologies with much higher productivity than their traditional methods. Let us consider the data collection, storage and transmission methods. It provided a much consistent and dependable database management system over the traditional file system. And every day the technology keeps on advancing to a better version of itself. Blockchain Technology is such an example of advanced technical innovation that has provided a whole new branch of technical solutions with much higher productivity. It also introduced a new style of business with cryptocurrencies which have high security due to advanced cryptography.

Sr. No.	Paper ID.	Title and Authors
148	158	**Securing Pharmaceutical Data Using Homomorphic Encryption** Dhruv Bhagadia, Mustafa Bhanpurawala, Devansh Dalal and Pratik Kanani

Abstract:
In an age where efficient storage and access of data is pivotal for the functioning of any application whatsoever, cloud computing becomes an important field of study in providing unlimited storage and efficient access of data. But along with its benefits, cloud storage invites various kinds of problems mostly pertaining to the security of user data on the cloud. In the current scenario the user is at the mercy of the third party (the one responsible for providing cloud storage) to take the necessary measures to protect its client's data from unauthorized access and also uphold the trust between the client and itself that no kind of mishandling or misuse of data would be done. Recent research pertaining to cloud computing is majorly focused on designing and implementing cryptographic techniques that enables user to be responsible for the privacy of his/her data that is being stored on the cloud server. Homomorphic Encryption is one of those cryptographic technique that allows manipulation directly on encrypted data without having to decrypt it in any form. Pharmaceutical industries is a domain where there are high chances of security breaches and applying Homomorphic Encryption can help minimize them.

Sr. No.	Paper ID.	Title and Authors
149	159	**Blockchain: A Solution for Improved Traceability with Reduced Counterfeits in Supply Chain of Drugs** Yogita Jethani, Puja Mahtani, Chirag Rohra, Piyush Lund and Pallavi Saindane

Abstract:
The Pharmaceutical supply chain needs a huge attention while developing technology based solutions as there is a great need of surveillance in production and distribution of fake, substandard, counterfeit and grey market medicines which account for hundreds of billions per year across the globe. Counterfeit drugs have captured the global markets over the period and affecting and risking many lives in a large [7], solutions to address these have become inevitable. Studies have uncovered a lot of pharmaceutical products, medical devices and biologics have been subject to counterfeiting the entire drug supply chain which is susceptible to lots of pharmaceutical crime. The international growth of the pharmaceutical market and a rise in global drug sales leading to emergence of various forms of technology and digital health platforms has given rise to many supply chain solutions. In addition to pharmaceutical frauds, improving security and addressing vulnerabilities of the medical commodities is a priority area. This leads to the formation of many technology solutions aimed at making supply chains secure, trustable and removing counterfeit drugs from it by applying various different methods and approaches. Our system proposes to leverage blockchain technology to make the supply chain of drugs transparent to increase trust among actors and provide security, authenticity and traceability with the help of IoT.

Sr. No.	Paper ID.	Title and Authors
150	160	**A Comprehensive Study on Cyberbullying Detection Using Machine Learning Approach** Vaishali Malpe and Shubhangi Vaikole

Abstract:
Cyberbullying is an action where a person or a group of persons uses social networking sites on internet through smartphones, computers, and tablets to trouble, distress, hurt or harm another person. Cyberbullying occurs by sending, posting or sharing offensive or harmful texts, images or videos. It also involves activities such as sharing someone's personal or private information which causes feeling of awkwardness and shame, also humiliation. These actions are unlawful. With the increasing adverse impact of cyberbullying on society, it is necessary to find ways to detect this phenomenon. Automatically identifying bully words, emojis and audio/video features from online social platforms, especially micro-blogging site such as Twitter and video-sharing platform such as YouTube is an important research. This paper presents a collective and structured study to reconnoiter and assimilate research done in the field of detection of cyberbullying, also research gaps are illustrated in a legitimate manner. The study portrays a comprehensive systematic literature review of strategies proposed in the field of text-based and video-based cyberbullying. The survey relates to several machine learning methodologies and online social networking datasets used in previous studies and scope for improvement in detection of cyberbullying. This methodical analysis of the research work acts as an assistant for the researchers to discover the significant and compelling characteristics of cyberbullying detection techniques. Finally, issues and challenges in cyberbullying detection are highlighted and discussed.

Sr. No.	Paper ID.	Title and Authors
151	161	**A Survey of Magnetic Resonance Image Modality used in Multi- Modal Medical Image Fusion** Jyoti Kolap and Vivek Ramakrishnan

Abstract:
Magnetic Resonance Imaging (MRI) plays an important role in non-invasive diagnosis of brain tumors and is one of the most widely used imaging modalities in medical studies in trusted clinical settings. In MR medical imaging, the most common use of segmentation is for extraction of the different types of tissues and to identify abnormal regions such as reflective of tumors. Several tumor segmentation methods are reported that aid to improve the accuracy of tumor identification and automatic detection of tumors from the MR images. The segmentation along with medical image fusion techniques have been widely used in prostate localization. The advantage of MRI is that it is very safe for pregnant women and babies as it does not involve any exposure to radiation. In addition, the soft issue structures in organs such as brain, heart and eyes are imaged with high accuracy. The major disadvantage of the MRI images is its relative sensitivity to movement, making it a difficult technique for assessing organs that involve movement such as with mouth tumors. The use of image fusion can overcome this limitation in a multi-modal imaging environment, enabling reconstruction and prediction of the missing information from MRI. The MR images along with other modalities when used together with modern image fusion techniques have shown to improve the imaging accuracy, and practical clinical applicability.

Sr. No.	Paper ID.	Title and Authors
152	162	**Fake news classification: A machine learning approach** Ruchit Mody, Muskan Chowatia and Snigdha Bangal

Abstract:
The smooth access and the increasing spread of the knowledge available online on various platforms has made it complex to differentiate between faux and original facts. The uncomplicated circulation of facts has contributed to augmented rise of its fabrication. The acceptability of the online platforms is also upright where the distribution of fake facts is frequent. Hence, it becomes significant to validate the facts from the original source. Detecting faux news on online platforms is a task because of challenges faced which in turn proves the usage of approaches from conventional media ineffective. Hence to find the solution Machine Learning approaches are used. False information is written on purpose to delude or deceive the people, which makes it irrelevant to uncover primarily based on the information known. Hence, one requires to encompass the fact which is supplementary such as involvement made by the users to assist make a decision. Therefore, utilizing these additional facts is difficult because users interaction with online platforms makes the facts indeterminate, rumpus and massive. A vital purpose in refining the accuracy of records on online platforms is to recognize the hoaxes effectively and promptly. This paper aims at looking into the techniques, procedures, a breakthrough for discerning the faux news artifact, authors, topics from various online platforms and assessing the related articles. For users feasibility we have created a online portal for them to check the articles and also additionally added a latest news information feature so that the user gets updated about the news.

Sr. No.	Paper ID.	Title and Authors
153	163	**Twitter Sentimental Analysis & Algorithm Comparison for Uber & Ola Using 'R'** Jyotsna Anthal, Anand Upadhyay, Yash Indulkar and Abhijit Patil

Abstract:
Twitter is a micro blogging site on which users can post updates (tweets). It has become an immense dataset where users tweet their reviews.[1] These sentiments are used to understand the sentiments of people from their tweets as reviews. The datasets used in this system for extracting tweets are 'UBER & OLA'. We understand the sentiments of human masses towards different entities and products which enables us to provide better services, analysis of market trends and monetization. In this paper, we propose a sentiment analysis model based on Naïve Bayes and Support Vector Machine (SVM). Its purpose is to analyze sentiments more effectively. This system uses R- statistical programming language to generate outputs. Further, this paper represents the outputs in Word Cloud. The two classifier algorithms are machine learning algorithms in which we compare their overall accuracy, precision and recall values.

Sr. No.	Paper ID.	Title and Authors
154	164	**Vote Block** Rishabh Sah, Pratik Rane, Anuj Yadav, Purav Rathod and Lifna Cs

Abstract:
Fundamental right to vote or voting in elections forms the basis for democracy. Elections is the process for people to choose their representatives and express their preferences for how they are governed. In all earlier elections of India, a voter casts his/her vote using the ballot paper. This is very much prone to errors and time-consuming because of the EVMs, all the condensed materials like the ballot papers, ballot boxes and stamping are completely replaced into a simple box called ballot unit. The objective of our project is to create a Digital Ledger using Blockchain Technology for Elections. The Digital Ledger will help in keeping the list of all the voters and each and every voter will be able to vote. The Digital Ledger will automatically count the vote and complete the transaction. The digital ledger will make the voting process simple, efficient and faster compared to the current EVM system. Current EVM is bulky, less efficient and tampering issues with the existing system. Election Process takes too much time and money which can be saved using our system. Voters need to stand in long queues which wastes time and productivity.

Sr. No.	Paper ID.	Title and Authors
155	165	**Trends of developers for selecting web development platform** Sachin Kambli, Anand Upadhyay and Parth Kantelia

Abstract:
This research work is conducted to create awareness in the students about the web development platform which is mainly used and to shed light on the taste of developers for different languages. From the stage we start thinking about which platform we should learn and which is most running language in the market now a days. We will also shed light on languages which industries prefer to use

Sr. No.	Paper ID.	Title and Authors
156	166	**Path Loss Models for 5G Millimeter Wave in Urban Microcells at 60GHZ** Jyoti Dange, Dr. R.P. Singh and Vikas Gupta

Abstract:
Measurements for future outdoor cellular systems at 60GHz were directed in urban microcellular environments with both line-of-sight and non-line-of-sight situations utilized different combinations of steerable transmit and receive antennas. In support to the measured data, in this paper we present path loss models which generated through the NYUSIM Simulator suitable for the improvement of fifth generation (5G) standards that show the distance reliance of received power. This loss is communicated in simple formulas as the entirety of an inaccessible of path loss factor, floating intercept, and a shadowing factor that minimizes the mean square error fit to the empirical data. Here, we illustrate the two path loss model by demonstrating in two different scenarios and stated comparative changes in Path loss model with two different scenario to test its different parameter like received power, path loss and path loss exponent.

Sr. No.	Paper ID.	Title and Authors
157	167	**Video Synopsis** Sushma Amudalapally, Komal Rana, Priti Vichare, Akshata Sarode and Jyoti Kolap

Abstract:
In the era of technological advancements, the demand for digital access to real-time data has increased tremendously. The growth of human intelligence has also forced individuals to figure out ways of accessing the digitalized data in a smarter way, with high accuracy and reduced time duration. One such ideology accustomed in the Image Processing domain includes the retrieval of video frames by using techniques of Video synopsis goals to produce a compact video representation while retaining the various activities of the first video. We depict dynamic video synopsis, where maximum video frames are condensed by way of simultaneously showing various activities. Previous procedures for video abstraction addressed in large part the temporal redundancy by using deciding on representative key-frames or time intervals. In dynamic video synopsis the method is to shift the activity of interest into a substantially shorter period, at some point of which the interest is a way denser.

Sr. No.	Paper ID.	Title and Authors
158	168	**Health Diagnosis Cross-Platform Application Development** Richa Sharma, Sujoy Mitra, Monaami Pal and Meher Singh

Abstract:
In our society today,people all around the globe are having major health problems like Diabetes and Heart Problems or both and there is a great need for risk prediction these problems people are having. Most of the time we are hacked with hassles of traveling and time from reaching the health practitioner. But our mobile phone can now help us bridge the gap where we can personally diagnose ourselves based on the risk of the above-mentioned problems. Today, mobile devices have changed how we conceive software. There is a great range of development alternatives. In this paper, four different multi-platform development approaches (mobile web applications, hybrid, interpreted, and cross-compiled) are analyzed, and their most vital features through a case study are discussed. The idea of this project is to predict the use of PhoneGap in the development of a cross-platform mobile application and its application in a health diagnosis system using Machine Learning. Supervised machine learning is the construction of algorithms that are ready to produce general patterns and hypotheses by using externally supplied instances to predict the fate of future instances. Supervised machine learning classification algorithms aim at categorizing data from prior information. Classification is administered very frequently in data science problems. This paper will give us a clear understanding of PhoneGap, cross-platform mobile application, Prediction Analysis and also how this health diagnosis mobile application works in this context.

Sr. No.	Paper ID.	Title and Authors
159	169	**InMo: IoT based Industrial Safety and Monitoring System** Indu Dokare, Sahil Talreja, Aditya Deopurkar, Shravan Bhat and Vivek Choudhary

Abstract:
Internet of Things (IoT) is a quickly expanding innovation sector. The Internet of things is an arrangement of interrelated figuring gadgets, mechanical and superior machines which can be supplied with one in all a kind identifiers and the ability to move data over a device without looking forward to human-to-human or human-to-PC cooperation This paper centers around building up a framework which will consequently screen the modern applications and produce cautions/alerts and show reports utilizing information got with the help of IoT. This framework utilizes Raspberry Pi 3 Model B and sensors for different parameters, for example, temperature, mugginess, smoke, and fire. Different alarms would be sounded depending on the type of situation. A beeping alarm will be raised which will have a unique number of beeps for different types of alarms. Also SMS/email alerts will be sent to the concerned people in any crisis circumstance which contains gathered qualities from the sensor. The person monitoring the system will have a complete view and control of all the sensors. The workers of the industry will be shown an evacuation plan to exit the premises safely in case of an emergency.

Sr. No.	Paper ID.	Title and Authors
160	170	**Voice Controlled Smart Home** Indu Dokare, Raghav Potdar, Rahul Sohandani, Soham Phutane and Alish Wadhwani

Abstract:
Over the past few years, the home automation industry has seen huge expansion due to the fact that home automation has become comparatively highly accessible due to ever increasing dependency on smartphones and smart devices. In Spite of this, problems in the interoperability of devices arise because of the absence of uniformly accepted protocol inside the application layer which prompts the user to be able to access and monitor multiple smart applications and appliances. During the course of this study, a voice-controlled smart home automation system was developed and implemented using the OpenHab framework that provides a platform that is focused on mixing various smart devices and technologies at the back-end. Since much of the smart devices possess differing communication protocols, the aim of this project was on the process of development of a sensible home automation solution that is modular and versatile. In addition, this system uses Google Voice Assistant for voice control which is integrated into the system via OpenHab cloud connector. RESTful protocols are used to integrate different devices with different communication protocols and used MQTT protocol to add sensors to NodeMCU that keeps a watch on the ambient conditions of the room.

Sr. No.	Paper ID.	Title and Authors
161	171	**Review on Brain tumor detection and Classification with MRI Images using Deep Learning Techniques**. Rashmi Jolhe and Dr. Sudhir Sawarkar

Abstract:
The bisection of infected tumor area from magnetic resonance (MR) images is difficult and time consuming process. Clinical Experts performs this task manually. The manual segmentation methods may not be always precise for large amount of image data of different types of brain tumors as it is time consuming and may lead to errors. The image data has various attributes which are case specific and the distinction and interdependence of these attributes plays a significant role in classification and detection. Analyzing the data for its better understanding as per the required format finally allows us to better detect and classify the tumor. Manual Segmentation is a challenging task because there is variations in the appearance of tumor tissues among different patients. Researchers are working in this area for many years and they has presented the results which are found to be useful. However, there is a scope for further improvement in the area of classification and detection with respect to various quality parameters associated with the process. In the clinical practice, accuracy of tumor detection is highly dependent on the operator's experience. In the present study, Magnetic Resonance Imaging (MRI) images of different types of brain tumors shall be considered. Automatic segmentation and classification of brain tumor using Deep neural network is proposed in this study. The network shall be trained on publicly available fig-share brain tumor dataset also the MRI images collected from Tata Memorial Hospital, Mumbai.

Sr. No.	Paper ID.	Title and Authors
162	172	**Perspectives for Dyslexia and the existing Learning Technologies: Review** Nisha Vanjari, Viraj Trivedi, Dhwani Patel, Kajol Shah and Krina Shah

Abstract:
Dyslexia is a child's inability to read, spell, write and memorize. Dyslexia is not a disease, Dyslexia challenges the child to understand and cope up with his grade level. The child is not able to decode the words to read and nor encode the words for spelling easily, reads slowly with many mistakes. Hence for kids dealing with Dyslexia faces a lot of challenges in their daily life and it is even more difficult to cope up without having any kind of assistance or technological help. The perspective of Dyslexia is different for everyone, as we have mentioned the mindset of teacher and parents differ too. Just like the perspective Dyslexia is also different for everyone. Some children are not able to cope up at all while some overcome it. A child while suffering from Dyslexia will be able to overcome it and lead a successful life with proper efforts and people supporting him.
In this paper we review the daily problems faced by the children suffering from dyslexia, and also we try to understand the perspective of the people close to them like their Parents, Teachers and Doctors and try to understand their daily life struggle the children face and what actions are taken by the people close to them and how technologies were working hard and playing important role to provide assistance to them.

Sr. No.	Paper ID.	Title and Authors
163	173	**Om Chanting": It just works!** Nisha Vanjari, Shubhada Labde and Bhagyshree Madan

Abstract:
Everyone knows the word "OM". Our body reacts for it. But up to what extent we listened our body reactions on chanting of mantras. As a example, when we visits in temples, we always heard some mantras chanting. In that environment we always feel positive and relax just like a placebo effect. But upto what extent we know the power of word "OM". We have referred related papers and Bhagvat Puran (some extend) to explore the concept of OM. In this paper, we have tried OM chanting and analyse the result. Our motto will definitely gives you the path towards reducing your stress, remain calm and helps to increase inner strength of your body.

Sr. No.	Paper ID.	Title and Authors
164	174	**Hybrid Technology- Solar Energy Based Electric Vehicle** Mahendra Patil, Divya Kumawat, Sarang Kulkarni and Swapna Patil

Abstract:
Nowadays fuel price is increasing because of growing demand for the use of domestic vehicles and the world is facing crisis for petroleum to drive them, thus there is a great need to look for an alternatives to conserve these natural resources. The use of hybrid electric vehicles can reduce CO2 emissions and fuel costs. Therefore, a solar energy operated vehicle is a new kind of an electric vehicle which draws light on the above problem and comes with a solution of replacing the current internal combustion trend by electric drives so to make city commute much convenient. This is a multiple-load vehicle which will be loaded with both solar and mechanical energy. By using the solar energy is to charge the battery, and therefore provide the voltage required to run the engine. Also it is to implement the electric drive technology concept for two-wheeler by proposing a control strategy and the benefits of all electric range and fuel economy improvements. The work also focuses on the investigation to evaluate the energy requirements, its mass and initial cost of the battery pack for daily average travel needs of electric drive two-wheelers in India. It will serve as a turning point since it will minimize the pollution and the running expenses also will reduce Global Warming.

Sr. No.	Paper ID.	Title and Authors
165	175	**A Review: College Attendance System Using Image Tagging** Vishal Patil, . Kaval Kapadia, Atharva Khokrale, Pooja Jain and Yogesh Jadhav

Abstract:
Image tagging is the method of applying labels or keywords to a provided image to the recognized faces or objects. Facial recognition is a category of biometic software which maps a person's facial features mathematically and stores the data as a information related to the face. Facial recognition is the concept, which uses several machine learning algorithms, to compare a given face with the pool of known faces to find the identity of the person. The typical register attendance program requires the participation of teachers as well as students as it takes time to identify and mark every student and it is vulnerable to mistakes because any student attendance may be overlooked by the faculty as well as proxies can also be done. Biometric scanning or manual attendance labelling in log book are the traditional methods to monitor student attendance; however, they are time-consuming , fallible and costly method that does not fully limit the involvement of proxies. In this paper, we introduced the use of face tagging in a real-time attendance system to resolve time wastage in biometric scan and overcoming all the disadvanatges of conventional manual attendance schemes. This system is designed primarily to take a picture of the entire class and identify all students simultaneously. The student's tagged face marks the attendance. Along with the tagging and attendance marking, the system is also able to monitor the total attendance of any student with statistical results. The presence is labelled on the basis of the stored picture, so that a proxy involvement is excluded. The main goal of the project is to make maximum use of lectures time by reducing wastage of time in marking and monitoring of the attendance using traditional schemes, thereby minimizing human interference .

Sr. No.	Paper ID.	Title and Authors
166	176	**Multilevel security(3 levels) using image authentication with multiple click points** Nida Parkar, Suvarna Pansambal, Bhavna Arora and Tanvi Kapdi

Abstract:
Today computers have become a major part of everyone's life. Use of computers is not only restricted for corporate use but also for personal use and inter communication purpose. Since tremendous use of Internet and Web Development, increasing security has always been an issue. Text based passwords are not enough to counter such problems, which is also anachronistic now. Therefore, this demands the need of something more secure as well as user friendly. Knowledge-based authentication and text-based authentication system have some major drawbacks which are renowned. Users mostly choose such passwords which are easy to remember and passwords which are predictable enough for the hackers to guess it. The major threats for such security system are Shoulder-surfing attack, Tempest attack, Brute force attack. Using 3 Level Security framework these threats can be ended easily. These 3 levels involve the Textual Password, One Time Password (OTP) and Image Based Authentication with Multiple Clickspoint.

Sr. No.	Paper ID.	Title and Authors
167	177	**A study on the trends of Virtual Reality Applications Technology for Fitness Equipments** Samidha Kurle, Mamta Meena, Priti Rumao, Nikita Patil and Suvarna Pansambal

Abstract:
In today's digitized world people tend to do physical activities or exercise as there is less physical work at the workplace. People have become more health conscious but at the same time they need motivation for exercise and for that they end up buying many gadgets like wearables and applications but in most of the cases we see that people stop using them in some time for some or other reasons. These gadgets serve the purpose of providing post physical activity analysis and the need is motivation.Many highTech fitness centres have emerged to fulfill the need with fully automated equipment which people would like to try and enjoy.These equipments are designed by taking into consideration of people's need of motivation for physical activities and expectations with trending technology like virtual reality.Virtual reality is a technology which creates a simulated environment for user and places the user inside an experience.This paper provides a detailed analysis of how effective is the use of application of virtual reality technology for fitness equipment, and how it serves the purpose.

Sr. No.	Paper ID.	Title and Authors
168	178	**A Survey - Skin Disease Detection Techniques** Rahul Lamge, Vinay Karmaran, Ganesh Hakke and Suvarna Pansambal

Abstract:
Skin diseases are the most common diseases occurring in people of all ages. Since dermatologists are expensive, there needs to be a computerized system to evaluate the patient's risk of skin disease using images of their skin lesions. Skin disease detection involves image processing techniques and algorithms for the detection of the skin. This paper is focusing on the various techniques that are used to detect skin disease. The different methods used for skin detection are studied and the advantages and the disadvantages of the methods are compared in this paper.

Sr. No.	Paper ID.	Title and Authors
169	179	**A study of Analytics and Business Intelligence Trends** Suvarna Pansambal, Bhavna Arora, Tanvi Kapdi, Nida Parkar and Samidha Kurle

Abstract:
Over the past few years, a revolution in business intelligence takes place. Data size has increased and became big and we all are now having the access to cloud. The spreadsheets are now no longer used for data visualization and for interactive business dashboard. There is increase in self-service analytics even up the data product chain. Business is asking for best business solutions for their specific business. Many tools and strategies are used for business intelligence. This paper gives an overview of the current trends of analytics and business intelligence.

Sr. No.	Paper ID.	Title and Authors
170	180	**Water level Management Framework using IoT** Amit Yadav, Mitali Patil and Princia Koli

Abstract:
Nowadays all communications are done using the internet, this concept is called the Internet of Things (IoT). Things in IoT can be anything or everything that we use in our daily lives. And in this project, the "thing" is a water tank. So why water tank? Basically, water level in the tank gets reduced and it needs to be filled again before the tank gets completely empty. In the process of filling the water again we usually forget to close the valve of the pump, due to which the water can be over flown and get wasted. This the reason we proposed the smart system for water level management. Our concept utilizes an Arduino that can provide monitoring level of the water tank. That Arduino will open and close the pump or valve automatically so that the water is not overflown and wasted. We are using an float sensors which will sense the level of the water

Sr. No.	Paper ID.	Title and Authors
171	181	**Review Paper on Smart Security System** Kartik Bhagat, Nishant Ghanate and Sandeep Gamot

Abstract:
The use of image processing and computer vision techniques can now be realised using computer processing. And with readily available libraries like OpenCV, it has become easier than ever to use such technologies to improve upon the traditional security systems for our benefit. By creation of this project, we aim to make it a very easy process to secure the homes and workplaces at a relatively cheaper cost. Traditional CCTVs, in addition to being expensive, don't offer much in terms of control over devices. Our proposed system consists of developing a smart tool by which a computer or raspberry Pi attached with a camera can be converted into a smart surveillance system. Further modules can be connected like a temperature module, PIR sensor, etc. The aim of this project is to develop a smart and cost-efficient smart system and as a result provide a cheap and manageable option to small business owners and households.

Sr. No.	Paper ID.	Title and Authors
172	182	**A Study Analysis on Internet of Things (IoT)** Bhavna Arora, Tanvi Kapdi, Nida Parkar and Suvarna Pansambal

Abstract:
One of the trendy expressions in the Information Technology is Internet of Things (IoT). What's to come is Internet of Things, which will change this present reality objects into smart virtual items. The IoT expects to bind together everything in our reality under a typical foundation, giving us control of things around us, yet in addition keeping us educated regarding the condition of the things. In Light of this, present examination addresses IoT ideas through deliberate survey of academic research papers, corporate white papers, proficient conversations with specialists and online databases. In addition, this examination article centres around definitions, beginnings, essential necessities, qualities and pseudonyms of Internet of Things. The principle target of this paper is to give a diagram of Internet of Things, models, and fundamental advances and their utilizations in our day-by-day life. Be that as it may, this original copy will give great perception for the new specialists, who need to do inquire about in this field of Internet of Things (Technological GOD) and encourage information aggregation in proficiently

Sr. No.	Paper ID.	Title and Authors
173	183	**A Proposed System for Understanding the Effects of Urbanization on Mangrove Vegetation** Kajal Jewani, Aditya Mane, Vinita Bathija, Ajay More and Sneha Patil

Abstract:
Urbanization brings many benefits for human society, but the flora and fauna pays the toll for it. Over the past few years urbanization has occurred at such a rapid pace that it has altered biodiversity drastically. One of the natural elements that have suffered are mangroves, exposing coastline to dangers. In this paper we propose a methodology to understand the correlation between increasing urbanization and its negative effects on mangrove cover. Normalized Difference Vegetation Index (NDVI) and Normalized Difference Built-up Index (NDBI) calculation on Landsat8 OLI images can give a measure to vegetation cover and Urban Heat Index (UHI) which is a measure of urbanization [1]. These measures combined with other parameters like sewage water outlets in mangrove swamps, air quality and carbon emissions will prove the basis for analysis of the relation between growth in urbanization and decrease in mangrove vegetation.

Sr. No.	Paper ID.	Title and Authors
174	184	**Concept for Mapping Carbon footprint with Change in Vegetation Cover and Population in India.** Stevert Lobo, Ishma Amin, Priya Raghavan Lalitha, Meenakshi Agarwal and Rahul Gurnani

Abstract:
In most of the developing countries, the increasing rate of Carbon emissions is considered as a major cause of concern. India is leading in terms of CO2 emissions as compared to other countries. The vegetation cover comprises only 24.39% of the geographic area of India. Metropolitan cities in India are witnessing rapid urbanization. The primary objective of this proposal is to identify the relationship between the increase in carbon emissions and deforestation in metropolitan cities. An additional objective is to predict the amount of afforestation required for each area to cope up with the carbon emissions over the next 25-years. It can be achieved by using statistical models like VAR and ARIMA, deep learning techniques like LSTM and machine learning techniques such as Random Forest. The proposal provides suggestions on optimal places and techniques for sustainable afforestation to the concerned authorities using artificial intelligence.

Sr. No.	Paper ID.	Title and Authors
175	185	**EMOTSUAD: Emotion Detection and Attendance Management System** Vidya Zope, Gauri Beloshe, Prajakta Madekar, Shweta Mungase and Purvi Sawant

Abstract:
The most expressive way humans display emotions is through their facial expressions. It becomes difficult for a professor to look after each student completely. Our system focuses on improvising and making existing systems convenient through an application. To analyze and monitor the behavior of students present in the classroom, the system performs face recognition and analysis is done on the data generated. In this paper we propose an automated emotion detection and attendance management system. The system is based on face detection and recognition techniques and algorithms. It detects the student through the camera and marks the student as a present. The student is monitored throughout the lecture and emotions are captured continuously which helps us to analyze the behavior of students and the whole class behavior during each lecture. The working of the system and algorithms are described in this paper.

Sr. No.	Paper ID.	Title and Authors
176	186	**Automatic Number Plate Detection System and automating the fine generation using YOLO-v3.** Nilesh Talreja, Gaurav Marwal, Simran Pandita, Sivanta Beera and Rupali Hande

Abstract:
Vehicles violating traffic rules must be charged with fines. Recognizing the vehicle number in the complex traffic conditions is difficult. An Android phone platform based automated number plate recognition system is proposed. The captured image is processed to get the optical characters. The built-in GPS module can be used to geo-tag images. The system that we are developing sends a trigger to the nearby traffic policeman as soon as the person breaks the signal. This is real time and the driver will be able to view where and when a person broke the rule. Previous methods like R-CNN were slower than the YOLOv3 algorithm. On top of that YOLOv3's tiny weights file is faster than its counterparts too. This system is designed using YOLO-v3 and Django framework, and the application is developed using React-Native framework.